

LA PERFORMANCE DU SYSTÈME DE SANTÉ BELGE RAPPORT 2012





Le Centre Fédéral d'Expertise des Soins de Santé

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Layout :	Ine Verhulst, Sophie Vaes
Disclaimer :	• Les experts externes ont été consultés sur une version (préliminaire) du rapport scientifique. Leurs remarques ont été discutées au cours des réunions. Ils ne sont pas co-auteurs du rapport scientifique et n'étaient pas nécessairement d'accord avec son contenu. • Une version (finale) a ensuite été soumise aux validateurs. La validation du rapport résulte d'un consensus ou d'un vote majoritaire entre les validateurs. Les validateurs ne sont pas co-auteurs du rapport scientifique et ils n'étaient pas nécessairement tous les trois d'accord avec son contenu. • Finalement, ce rapport a été approuvé à l'unanimité par le Conseil d'administration. • Le KCE reste seul responsable des erreurs ou omissions qui pourraient subsister de même que des recommandations faites aux autorités publiques.
Date de publication :	25 janvier 2013
Domaine :	Health Services Research (HSR)
MeSH :	Delivery of Health Care, Health Promotion; Health Services Accessibility, Quality of Health Care, Efficiency, Organizational, Healthcare Disparities, Social Justice; Benchmarking, Belgium
Classification NLM :	W84
Langue :	français, anglais
Format :	Adobe® PDF™ (A4)
Dépôt légal :	D/2012/10.273/111
Copyright :	Les rapports KCE sont publiés sous Licence Creative Commons « by/nc/nd » http://kce.fgov.be/fr/content/a-propos-du-copyright-des-rapports-kce





Comment citer ce rapport ?

Vrijens F, Renard F, Jonckheer P, Van den Heede K, Desomer A, Van de Voorde C, Walckiers D, Dubois C, Camberlin C, Vlayen J, Van Oyen H, Léonard C, Meeus P. La performance du système de santé Belge Rapport 2012. Health Services Research (HSR). Bruxelles: Centre Fédéral d'Expertise des Soins de Santé (KCE). 2012. KCE Report 196B. D/2012/10.273/111.

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■ PRÉFACE

Notre époque est souvent associée de manière péjorative au culte de la performance, toutefois, dans le domaine de la santé et des soins de santé, la recherche de la performance revêt un caractère quasiment indiscutable et même rassurant. Qui pourrait en effet se plaindre d'un système de soins de qualité, efficace, efficient, accessible et équitable ? Que pourrait-on reprocher à un système de promotion de la santé qui réduirait efficacement les inégalités de santé et permettrait aussi que ce niveau de santé s'améliore constamment ?

Le présent rapport vous propose une photographie de cette performance au travers de 74 indicateurs établis de manière rigoureuse par les chercheurs du KCE, de l'Institut Scientifique de Santé Publique et de l'INAMI. Leur travail a été facilité et enrichi par l'implication de dizaines d'experts du monde académique et de la société civile. Les membres de l'administration et du monde politique ont suivi activement toutes les étapes de l'élaboration de ce rapport. Nous remercions vivement chacune et chacun pour cette participation qui renforce la crédibilité du résultat et va en améliorer l'appropriation par toutes les parties concernées.

Nous vous laissons découvrir le détail des points forts de notre système, tels que l'état de santé perçu par nos concitoyens ou la couverture vaccinale des enfants, qui sont autant de raisons d'être satisfaits d'efforts qui ne peuvent toutefois être relâchés. Il faut aussi être conscient que des domaines tels que le dépistage insuffisant de certains cancers ou le report de soins pour raisons financières exigent une attention soutenue et accrue. Il nous faudra également veiller aux multiples manifestations des inégalités entre catégories socioéconomiques ou régionales.

Toutefois, malgré tout le soin et la rigueur dont chaque indicateur a fait l'objet, ce rapport doit être interprété avec une certaine prudence. En effet, les dernières données disponibles remontent parfois à quelques années, notamment celles fournies par les enquêtes. Il faut également tenir compte du temps nécessaire pour que les effets d'interventions de santé publique se traduisent dans les chiffres. En effet, l'administration et le monde politique ont pris des mesures susceptibles d'améliorer la situation dans les domaines de l'offre médicale, de l'adéquation des soins ou de l'équité. Il faudra donc remettre régulièrement l'ouvrage sur le métier afin d'évaluer si le rythme auquel nous progressons sur le chemin de la performance est suffisant. Très probablement, de nouvelles données devront être enregistrées, certains indicateurs devront être modifiés ou remplacés. En matière de santé et de soins de santé, comme dans d'autres domaines de l'activité humaine, il existe très peu d'acquis, l'efficience et l'équité seront toujours en devenir.

Raf MERTENS
Directeur Général



■ RÉSUMÉ

INTRODUCTION

L'évaluation de la performance du système de santé (Health System Performance Assessment - HSPA) est un processus qui permet d'offrir un bilan global, une évaluation holistique du système de santé. En se basant sur des indicateurs mesurables, cet outil établit un lien entre les résultats relatifs à la santé et les stratégies et fonctions du système de santé. L'HSPA est explicitement mentionnée dans la Charte de Tallinn, signée par tous les pays européens de l'Organisation Mondiale de la Santé (OMS) mais chaque HSPA est développée selon un cadre stratégique spécifique au pays. Une première évaluation de la performance du système belge de la santé a été publiée en juin 2010. Deux ans plus tard, le rapport HSPA 2012 vise à examiner l'accessibilité, la qualité, l'efficacité, la durabilité et l'équité du système de santé belge. Il a également pour objectif d'être une source d'informations pour les décideurs compétents en matière de santé en Belgique.



OBJECTIFS

Objectifs stratégiques du processus d'évaluation de la performance

1. Donner une vue d'ensemble de la performance du système de santé afin de faciliter la planification des politiques de santé ;
2. Rendre compte de la performance du système de santé belge, conformément à l'engagement de transparence pris dans la Charte de Tallinn ;
3. À long terme, suivre les progrès de la performance du système de santé au fil du temps.

Objectif général du rapport 2012

Proposer et mesurer un ensemble d'indicateurs couvrant tous les domaines et certaines dimensions choisies du système de santé belge, tout en conservant un nombre d'indicateurs qui soit gérable (74 dans ce rapport).

Objectifs opérationnels du rapport 2012

1. Revoir et éventuellement adapter les 55 indicateurs du rapport précédent, en se focalisant sur les 11 indicateurs qui n'avaient pas pu être mesurés en 2010 ;
2. Enrichir l'outil avec de nouveaux indicateurs relatifs aux domaines suivants : médecine générale, santé mentale, soins de longue durée, soins aux personnes en fin de vie, promotion de la santé ; ajouter des indicateurs relatifs à la continuité des soins et à l'approche centrée sur le patient (deux sous-dimensions de la qualité) ; enfin, proposer des indicateurs relatifs à l'équité dans le système de santé ;
3. Mesurer les indicateurs sélectionnés lorsque c'est possible, ou identifier les lacunes dans la disponibilité des données ;
4. Interpréter les résultats afin de fournir une évaluation globale de la performance du système belge de santé, au moyen de plusieurs critères, y compris une comparaison au niveau international.

MÉTHODES

Un examen approfondi de la littérature indexée et de la littérature grise a été effectué pour trouver de nouveaux indicateurs dans les domaines et dimensions susmentionnés. Les indicateurs les plus pertinents ont été sélectionnés, en collaboration avec des experts externes dans chaque domaine.

Au total, 74 indicateurs ont été sélectionnés et mesurés. Pour chaque indicateur, des analyses ont été menées au niveau national et régional (quand les données étaient disponibles à ce niveau), par statut sociodémographique (si possible). Les résultats ont aussi été comparés à ceux des 15 pays de l'Union Européenne (UE). Enfin, une évaluation globale a été effectuée.

Source des données

L'étude a exploité au maximum les données disponibles en routine (p.ex. bases de données administratives, registres nationaux ou enquêtes récurrentes) : les données administratives de sortie des hôpitaux (RHM), l'échantillon permanent, les bases de données de l'INAMI (doc N, Pharmanet), le Registre Belge du Cancer, les données de surveillance des infections nosocomiales, l'enquête de santé par interview, les études de vaccination et la base de données de la "Direction générale Statistique et Information économique" (DGSIE).



RÉSULTATS

Etat de santé (4 indicateurs)

Les quatre indicateurs relatifs à **l'état de santé** évoluent positivement au cours du temps. L'espérance de vie est légèrement inférieure à la moyenne des pays de l'UE-15, tandis que l'espérance de vie en bonne santé (c'est-à-dire le nombre d'années restant à vivre sans limitation des activités) et la mortalité infantile occupent des positions moyennes dans le classement. Le taux de personnes percevant leur santé comme (au moins) bonne est supérieur à la moyenne des pays de l'UE-15.

Accessibilité des soins (13 indicateurs)

En ce qui concerne **l'accessibilité financière**, malgré la couverture universelle par l'assurance-maladie et l'existence de filets de sécurité sociaux (MAF, OMNIO, Fonds spécial de solidarité), certaines observations sont préoccupantes telles qu'un niveau élevé de dépenses à charge du patient, et un certain niveau de report des contacts avec les services des soins de santé pour des raisons financières.

L'accessibilité des mesures de prévention montre des résultats divergents, avec un taux assez moyen de dépistage du cancer (avec des disparités sociales et parfois régionales), un taux de vaccination moyen contre la grippe chez les personnes âgées, mais un bon taux de vaccination chez les enfants.

Un autre aspect de l'accessibilité concerne l'adéquation entre les forces de travail en soins de santé (médecins, infirmières) et les besoins de la population. Même si d'importants efforts ont été entrepris pour rendre disponibles les données relatives aux forces de travail, nous manquons toujours d'informations sur le nombre de professionnels de la santé nécessaires pour répondre aux besoins.

Qualité des soins : efficacité (7 indicateurs), adéquation (8), sécurité (6), continuité (7), approche centrée sur le patient (3)

La qualité a été subdivisée en 5 sous-dimensions. Concernant **l'efficacité**, les résultats sont mitigés. Ils sont très bons quant au taux de survie après cancer, mais préoccupants dans le domaine de la santé mentale ; la Belgique présente en effet le second taux de suicide le plus élevé d'Europe (avec de très fortes disparités régionales) ainsi qu'un nombre de colocutions en hôpital psychiatrique en augmentation. Pour décrire l'efficacité des soins dans le domaine de la santé mentale davantage d'indicateurs et de données sont nécessaires.

L'adéquation des soins est assez décevante, avec des taux élevés et en augmentation de dépistage du cancer du sein en dehors des groupes cibles, un suivi modéré des recommandations (antibiotiques, patients diabétiques) et une augmentation des taux de césarienne, avec une grande variabilité entre les hôpitaux.

La sécurité des soins présente des résultats encourageants, avec une tendance à la baisse concernant l'exposition aux rayons ionisants médicaux, les infections nosocomiales et la mortalité hospitalière après une fracture de la hanche. Par ailleurs, l'incidence de la septicémie post-opératoire et la prescription d'antidépresseurs anticholinergiques aux personnes âgées présentent des niveaux stables. Cependant, l'incidence d'escarres est en hausse.

La continuité et la coordination des soins présentent des résultats mitigés, avec une bonne continuité relationnelle avec le même praticien, un taux moyen et en augmentation de consultation multidisciplinaire pour les cas de cancer, mais un faible taux de couverture du dossier médical global et un taux élevé de réadmission dans les hôpitaux psychiatriques.

L'approche centrée sur le patient n'a pu être évaluée que très partiellement. Le taux de satisfaction envers les services de santé est élevé, et on observe aussi une tendance à la hausse des décès au domicile. Mais il faut collecter davantage de données dans ce domaine.



Efficiences du système de santé (3 indicateurs)

L'**efficience** du système de santé présente des résultats moyens à bons, avec une augmentation de la prescription de médicaments « bon marché », de l'usage de la chirurgie de jour et une diminution de la durée du séjour pour un accouchement normal. Toutefois, ce message positif doit être tempéré par l'inadéquation, et donc le gaspillage de ressources, que montrent certains indicateurs, comme les mammographies en dehors du groupe cible évoquées ci-dessus.

Durabilité du système de santé (6 indicateurs)

La **durabilité** du système de santé présente certains résultats interpellants concernant le manque de remplacement de la cohorte actuelle de médecins généralistes. Il faudrait aussi des données sur le besoin en personnel infirmier associées à des données sur l'évolution du nombre d'infirmiers.

Équité (analyses de tous les indicateurs en fonction du statut socioéconomique et de 2 indicateurs contextuels)

La dimension de l'**équité** a été abordée de deux manières complémentaires. Tout d'abord, les inégalités ont été analysées en fonction du statut socioéconomique pour l'état de santé, les modes de vie et l'utilisation des soins de santé. De grandes inégalités ont été observées dans les indicateurs relatifs à la santé et au mode de vie. Des inégalités ont aussi été observées concernant le dépistage du cancer et le suivi des patients atteints de maladies chroniques. Toutefois, comme la plupart des indicateurs basés sur les hôpitaux n'ont pas pu être étudiés en fonction du statut social dans le cadre de ce projet, les conclusions concernant les inégalités en qualité des soins sont encore largement incomplètes.

L'équité a également été abordée par le biais de deux indicateurs mettant en évidence ce problème au niveau macro. Le premier est la progressivité du financement des soins de santé. Il est en diminution, ce qui constitue une évolution vers moins d'équité. Le second est l'index Gini qui correspond au niveau d'inégalité dans la répartition globale des revenus, et qui est lié à un état de santé général moins bon. Cet indice est relativement peu élevé en Belgique, mais il augmente au fil du temps, ce qui indique une répartition moins égale des revenus dans notre pays.

Promotion de la santé (15 indicateurs)

Enfin, la **promotion de la santé** a été principalement abordée au moyen d'indicateurs classiques sur la santé et le mode de vie, complétés par des indicateurs relatifs aux politiques de santé, aux milieux sains et aux aptitudes individuelles. En raison de la disponibilité très limitée d'indicateurs adéquats et de données en dehors des indicateurs classiques de la santé et du mode de vie, seul un aperçu fragmentaire a pu être fourni.

La plupart des indicateurs de la santé et du mode de vie présentent un taux national intermédiaire par rapport aux 15 pays de l'UE, mais d'importantes disparités régionales et sociales ont été observées. Nous mettons en évidence le problème de l'obésité et du surpoids qui présente un niveau élevé et une tendance à la hausse, avec d'importantes disparités. La consommation de tabac diminue, mais avec de fortes disparités sociales et régionales. La consommation de fruits et de légumes est largement inférieure aux besoins quotidiens, mais est en hausse. Le manque de support social présente aussi d'importantes disparités sociales et régionales et est particulièrement préoccupant chez les personnes âgées.

La Belgique se classe à un rang intermédiaire dans le classement international du Tobacco Control Scale. En outre, certains indices complexes visent à mesurer l'importance des politiques locales de promotion de la santé dans divers environnements (écoles, communes, entreprises) mais ne sont disponibles qu'en Flandre et sont difficiles à interpréter sans une analyse en profondeur.



CONCLUSION ET DISCUSSION

Au moyen de 74 indicateurs, ce rapport fournit une vue d'ensemble de la performance du système de santé belge, donne des signaux aux autorités de santé et pose des questions en vue du suivi ou de recherches ultérieures.

Par rapport à la première évaluation du système de santé en Belgique, qui constituait principalement une étude de faisabilité, le rapport 2012 apporte une amélioration substantielle : il est plus complet et met à jour l'outil précédent des 55 indicateurs en intégrant des indicateurs plus pertinents. Il permet aussi de mesurer l'évolution de certains indicateurs. Certaines lacunes dans les données de routine ont été comblées, comme les taux de mortalité infantile, ou le taux de survie après cancer. Cependant, il ne couvre pas de la même manière tous les domaines des soins de santé ni tous les groupes de patients.

Les indicateurs donnent des avertissements concernant l'état du système de santé en termes d'accessibilité, de qualité, d'efficience, de durabilité et d'équité. Dans certains cas, les décideurs politiques connaissent déjà les problèmes et ont déjà commandé des analyses supplémentaires pour savoir quelle action entreprendre. Dans d'autres cas, il s'agit de nouveaux signaux adressés aux décideurs politiques, ce qui nécessitera donc une analyse approfondie. La présentation des indicateurs de manière complète et structurée vise à faciliter la priorisation des actions nécessaires et/ou des études à mener.

La Belgique n'est pas le premier pays à relever ce défi. Avec la signature en 2008 de la Charte de Tallinn, les États membres se sont officiellement engagés à suivre et à évaluer la performance de leur système de santé. Plusieurs pays voisins ayant des années d'expérience dans la mesure de la performance de leur système de santé ont servi d'exemple pour élaborer ce rapport, notamment les Pays-Bas. La faible disponibilité de données récentes est une des faiblesses entravant la mesure de la performance (comme l'indiquent aussi les rapports précédents sur la performance aux Pays-Bas). La mise à jour régulière des données administratives et la publication dynamique des résultats sur un site Internet seraient l'une des modalités à investiguer.

Avec la Directive européenne sur l'application des droits des patients dans les soins de santé transfrontaliers, cet engagement devient une question intéressant tous les États membres.^a Dès la transposition de la Directive dans la législation nationale en octobre 2013, les États membres devront faire en sorte que les patients issus d'un autre État membre puissent obtenir des informations pertinentes sur les normes de sécurité et de qualité, afin de choisir en connaissance de cause leurs soins de santé transfrontaliers. Dans ce contexte, le présent rapport établit non seulement la base d'une future évaluation systématique de la performance, mais il peut aussi être considéré comme une première étape dans l'engagement de la Belgique à assurer des soins de santé sûrs, de haute qualité, accessibles et efficaces, tant pour les patients belges que pour les patients étrangers.

^a Directive 2011/24/UE du Parlement européen et du conseil du 9 mars 2011 relative à l'application des droits des patients en matière de soins de santé transfrontaliers, JO L 88/45, 4 avril 2011



■ RECOMMANDATIONS^b

Recommandation d'ordre général aux responsables politiques

Le concept de performance est implicitement lié à l'atteinte d'objectifs. Si le rapport actuel pose un «constat de la situation», sa principale utilité devrait s'orienter vers une fonction «d'amélioration de la situation». Dans ce but, il est recommandé que les décideurs politiques explicitent des objectifs mesurables et fixent des délais pour les réaliser en tenant compte des recommandations qui suivent.

Constats positifs (situation à maintenir) et constats négatifs (signaux d'attention)

De manière générale, il est recommandé que les institutions et instances concernées s'appuient sur les constats qui suivent afin, soit de maintenir le cap dans les domaines pour lesquels des constats positifs ont pu être établis, soit d'améliorer la situation dans les domaines où des points d'attention sont signalés

Maintenir les constats positifs :

- **Etat de santé :** l'état de santé 'rapporté' ou 'perçu' mesuré par les enquêtes santé (Institut Scientifique de Santé publique) est meilleur que le niveau moyen européen.
- **Couverture de mesures préventives :** le taux de vaccination des enfants est meilleur que le niveau moyen européen.
- **Qualité des soins :**
 - **Efficacité des soins curatifs :** très bon résultats pour la survie à 5 ans après cancer du sein ou après cancer colorectal en comparaison des autres pays européens.
 - **Bonne continuité relationnelle avec le médecin généraliste et très grande satisfaction** (au-dessus de 90%) des Belges lors de leurs contacts avec le système de santé.
- **Efficience :** l'augmentation des taux d'hospitalisation de jour et du taux d'utilisation des médicaments moins chers témoignent d'une amélioration de l'efficience.

Considérer les points d'attention pour orienter les futures politiques de santé :

- **État de santé :**
 - Les très hauts taux de suicide par rapport à la moyenne européenne sont interpellants.

^b Le KCE reste seul responsable des recommandations adressées aux autorités publiques.



- On observe une proportion croissante de personnes en surpoids ou obèses et par ailleurs un taux d'activité physique relativement bas, toujours par rapport à la moyenne européenne.
- Couverture de mesures préventives :

Les taux de couverture de dépistage du cancer du sein et du col de l'utérus sont bas dans les groupes cibles en comparaison du niveau moyen européen. La couverture du dépistage organisé du cancer du sein est insuffisante pour être efficiente. Autre point d'attention, le dépistage en dehors des groupes cibles du dépistage organisé pour le cancer du sein est important et en augmentation pour les 40-49 et pour les 70-79 ans, ce qui est contreproductif en termes de santé publique et d'utilisation des ressources collectives.
- Équité/inégalités sociales :

Les personnes avec un statut socioéconomique plus bas (mesuré par le niveau d'instruction ou par l'accès au remboursement préférentiel des soins de santé) présentent par rapport à la classe la plus élevée : un plus mauvais état de santé (espérance de vie, espérance de vie en bonne santé, mortalité infantile, obésité), des habitudes de vie moins saines (nutrition, tabac, activité physique), une moins bonne couverture de dépistage du cancer, un suivi moins bon pour les patients diabétiques, un support social moins présent et décèdent plus souvent à l'hôpital qu'à leur lieu de résidence habituel.
- Qualité des soins :
 - Soins (in)appropriés : plusieurs indicateurs montrent que la pratique médicale n'est pas toujours appropriée. Ainsi :
 - Le choix des antibiotiques prescrits en première intention ne correspond pas suffisamment aux recommandations et ne montre pas d'amélioration à travers le temps (sauf chez les enfants).
 - Le pourcentage de patients diabétiques correctement suivis selon les recommandations est insuffisant.
 - Bien que le niveau soit un peu inférieur à la moyenne des autres pays européens, le taux de césarienne est élevé (20%) et on constate une grande variabilité des taux de césarienne entre hôpitaux pour des grossesses non compliquées.
 - Sécurité des soins : le niveau d'irradiation d'origine médicale, bien qu'en légère diminution en 2011, reste très élevé par rapport à la moyenne européenne.



- Continuité des soins : certains indicateurs montrent une faiblesse dans ce domaine. Ainsi :
 - Malgré une augmentation constante, le pourcentage de patients disposant d'un dossier médical global (DMG) reste encore trop faible.
 - Les taux de réadmission dans les hôpitaux psychiatriques sont relativement élevés par rapport à la moyenne européenne.
- Pérennité du système : Le système de santé s'appuie sur une première ligne de soins dont la médecine générale est un élément important. Or l'âge moyen des généralistes ne cesse d'augmenter, tandis que les quotas prévus par la commission de planification ne sont pas remplis depuis quelques années. A pratique constante, ceci pourrait poser des problèmes rapidement quant au fonctionnement de la première ligne de soins.

Recommandation d'amélioration des systèmes d'information de santé

La qualité des données et la rapidité avec laquelle elles sont rendues disponibles sont des critères essentiels afin que les indicateurs qui en dépendent soient pertinents.

- Délais de mise à disposition des données :
 - Poursuivre les efforts afin de transmettre des mises à jour récentes aux organisations internationales (OECD, Eurostat, OMS) ;
 - Accélérer la mise à disposition des bases de données administratives (Résumé Hospitalier Minimum).
- Données par domaine de soins :
 - Soins de santé mentale : réformer le Résumé Psychiatrique Minimum afin de l'adapter aux standards internationaux (identifiant patient unique) et aux évolutions dans le secteur. Ceci demande une révision qui permette de suivre l'ensemble du trajet des soins des patients, y compris en dehors de l'hôpital.
 - Soins de longue durée : s'assurer que les données collectées dans le cadre du projet BelRai seront bien disponibles à un niveau national pour permettre la mesure des différents indicateurs sélectionnés.
 - Santé bucco-dentaire : sur-échantillonner le groupe des enfants de 12 ans dans l'enquête sur la santé bucco-dentaire afin de pouvoir calculer correctement les indicateurs internationaux.
 - Soins aux personnes en fin de vie : améliorer l'exploitation des données existantes (Registre du Cancer et réseau des Médecins Vigies).



- Santé publique : compléter la banque de données de consommation des médicaments afin de disposer de données concernant l'ensemble des médicaments consommés, y compris ceux qui ne sont pas remboursés mais qui sont essentiels à étudier pour la santé publique ou la sécurité du patient (benzodiazépines, certains anti-inflammatoires)

Recommandations sur la récolte de nouvelles données ou de nouvelles recherches

Certaines données nécessaires à l'établissement des indicateurs sélectionnés doivent encore faire l'objet de récolte.

- Inégalités socio-économiques : les bases de données administratives ne peuvent fournir qu'une réponse partielle. Certaines données manquent complètement (par exemple, le statut socio-économique dans les données des Résumés hospitaliers ou l'origine ethnique), d'autres sont peu précises ou peu discriminantes (par exemple le statut BIM).
- Accessibilité financière : améliorer l'enquête sur le budget des ménages afin d'enregistrer toutes les charges financières des patients liées à leurs soins de santé et afin de permettre une analyse par niveau socio-économique.
- Expérience du patient : des données seront disponibles grâce à la prochaine enquête santé de l'ISP (elles concerneront les médecins généralistes et l'ensemble des spécialistes sans distinction). Il faudrait toutefois collecter des données par type de spécialité).
- Promotion de la santé :
 - Il n'y a pas de données sur la « littéracie de santé » (*health literacy*) en Belgique. En particulier, il est recommandé que la Belgique participe aux recherches européennes sur le développement d'outils pour mesurer la littéracie de santé et pour qu'elle s'inscrive dans une perspective de collecte de ces données.
 - Promotion de la santé dans les milieux de vie : il existe des initiatives dans les différentes régions du pays, toutefois, toutes ces initiatives ne font pas l'objet d'un relevé statistique. En Flandre les données relatives à la promotion de la santé dans certains milieux de vie (écoles, communes, entreprises) sont collectées au moyen des enquêtes VIGeZ. Il est donc recommandé que les autres régions collectent plus systématiquement les données sur la promotion de la santé dans les milieux de vie en fonction de leurs besoins en information pour documenter et soutenir leurs politiques.
 - Finalement, il est recommandé de vérifier la possibilité d'inclure des indicateurs de promotion de la santé spécifiquement dans le domaine des soins de santé dans le prochain rapport.

**Recommandations pour le prochain rapport performance (prévu pour décembre 2015)**

- A l'attention du SPF Santé Publique, de l'INAMI et de l'ISP
 - Calculer les indicateurs pour lesquels les données ne sont pas encore disponibles, mais qui le seront d'ici le prochain rapport (projet sur les trajets de soins en ambulatoire, projet BelRAI, expérience des patients dans l'enquête santé, prévalence des infections nosocomiales, délai d'enregistrement des médicaments).
 - A l'avenir à des fins de monitoring, il est souhaitable d'inclure les résultats les plus récents. Ces indicateurs devront de préférence être mesurés en routine par les institutions/ administrations, gestionnaires respectifs des banques de données administratives. Les résultats seront transmis aux équipes chargées de l'actualisation du rapport, selon un échéancier et un canevas à préciser.
 - Suivre les évolutions internationales (OECD, OMS, Eurostat) afin d'adapter le set d'indicateurs en Belgique si nécessaire.
- A l'attention des équipes de recherche
 - Identifier de nouveaux indicateurs pour les thématiques peu documentées (question des forces de travail en soins infirmiers, par exemple).
 - Actualiser l'évaluation de la performance sur base des données les plus récentes.
 - Analyser la cohérence globale (en particulier pour renforcer les dimensions relatives à l'efficience et à la pérennité) et actualiser le set d'indicateurs, à la lumière de nouvelles preuves ou de nouvelles thématiques prioritaires.



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LIST OF ABBREVIATIONS

ABBREVIATION	DEFINITION
ADL	Activities of Daily Living
ADQ	Average Daily Quantity
AIDS	Acquired Immunodeficiency Syndrome
BIM – RVV	Bénéficiaire de l'Intervention Majorée – Rechthebbenden op de Verhoogde (verzekerings)tegemoetkoming
BMI	Body Mass Index
CAP	Community Acquired Pneumonia
CII	Concentration Index of Inequalities
CM – MC	Christelijke Mutualiteiten – Mutualités Chrétiennes – Christian Sickness Funds
DDD	Defined Daily Dose
DGSIE – ADSEI	Direction générale Statistique et Information économique – Algemene Directie Statistiek en Economische informatie
DMFT	Decayed, Missing, Filled Teeth
DTP	Diphtheria - Tetanos - Pertussis
EARSS	European Antimicrobial Resistance Surveillance System
ECDC	European Centre for Disease Control and Prevention
ECHIM	European Community Health Indicators Monitoring
EMA	European Medical Agency
EPS	Echantillon Permanent – Permanente Steekproef
ER	Emergency Room
EU	European Union
EU – SILC	European Union Statistics on Income and Living Conditions
FOBT	Faecal Occult Blood Test
FPS	Federal Public Service
FTE	Full Time Equivalent
GDP	Gross Domestic Product
GMD – DMG	Globaal Medisch Dossier – Dossier Médical Global
GMR	Global Medical Record



GP	General Practitioner
HAI	Healthcare Acquired Infections
HBSC	Health Behaviour in School-aged Children
HCQI	HealthCare Quality Indicator
Hib	Haemophilus Influenzae B
HIS	Health Interview Survey
HIV	Human Immunodeficiency Virus
HLY	Healthy Life Years
HSPA	Health System Performance Assessment
IMA – AIM	Intermutualistic Agency - InterMutualistisch Agentschap – Agence InterMutualiste
IMR	Infant Mortality Rate
ISCED	International Standard Classification of Education
LE	Life Expectancy
LOS	Length of Stay
MAB	Maximum Billing System
MMR	Measles - Mumps - Rubella
MOC – COM	Multidisciplinair Oncologisch Consult – Consultation Multidisciplinaire d'Oncologie
MRPA – ROB	Maisons de Repos pour Personnes Agées - Rustoorden voor Bejaarden
MRS – RVT	Maison de Repos et de Soins – Rust- en Verzorgingstehuis
MRSA	Methicillin-Resistant Staphylococcus Aureus
NSIH	National Surveillance of Infections in Hospitals
OECD	Organisation for Economic Co-operation and Development (OESO – OCDE)
ONE – KG	Office National de l'Enfance – Kind en Gezin
OOP	Out-of-Pocket
OR	Odds Ratio
PA	Physical Activity
PAF	Population Attributable Fraction
PPP	Purchasing Power Parities



PSI	Patient Safety Indicator
PYLL	Potential Years of Life Lost
RAI	Resident Assessment Instrument
RHM – MZG	Résumé Hospitalier Minimal - Minimale Ziekenhuisgegevens
RIZIV – INAMI	Rijksinstituut voor ziekte- en invaliditeitsverzekering – Institut national d’assurance maladie-invalidité- National Institute for Health and Disability Insurance
RR	Relative Risk
SE	Socio-economic
SHA	System of Health Accounts
SP	Specialist Physician
SPMA	Standardized Procedures for Mortality Analysis
SSF	Special Solidarity Fund
THE	Total Health Expenditures
UK	United Kingdom
UPC	Usual Provider Index
VIGeZ	Vlaams Instituut voor Gezondheidspromotie en Ziektepreventie
WHO	World Health Organisation
WIV – ISP	Wetenschappelijk Instituut Volksgezondheid – Institut de Santé Publique- Institute of Public Health



■ SYNTHÈSE

1 CONTEXTE, CADRE CONCEPTUEL ET OBJECTIFS

1.1 Contexte

La première « Évaluation de la Performance des Soins de Santé » (Health System Performance Assessment - HSPA) en Belgique a été publiée en juin 2010.¹ Ce premier rapport comportait deux sections principales. La première définissait un cadre conceptuel pour le HSPA belge sur base d'approches adoptées par d'autres pays, adaptées au contexte belge. Dans la seconde section, 55 indicateurs avaient été sélectionnés, dont 40 se sont révélés être mesurables. Les forces, faiblesses, évolutions au cours du temps et points d'action envisagés ont été discutés.

Qu'est-ce qu'une Évaluation de la Performance du Système de Santé (HSPA) ?

L'HSPA est un processus, spécifique à chaque pays, qui permet d'offrir un bilan global, une évaluation holistique du système de santé. En se basant sur des indicateurs chiffrés qui envoient des « signaux », cet outil vise à contribuer à la planification stratégique du système de santé. Chaque HSPA est élaboré en fonction d'un cadre stratégique spécifique au pays en question.²

À l'issue de la publication de ce premier rapport, les commanditaires de l'HSPA belge ont souhaité la poursuite du projet, dans le but de procéder à une évaluation systématique du système de santé belge. Ils ont également demandé d'étoffer ce jeu d'indicateurs en y intégrant des indicateurs portant sur les domaines suivants : la promotion de la santé, la médecine générale, la santé mentale, les soins de longue durée, les soins aux personnes en fin de vie ; ajouter des indicateurs portant sur la centralité du patient et sur la continuité des soins (deux sous-dimensions de la qualité) ; proposer des indicateurs permettant de mesurer l'équité du système de santé.

Le présent Rapport sur la Performance du Système de Santé 2012 présente le fruit de ce travail.

**La Charte de Tallinn (2008), un engagement international visant à mesurer la performance des systèmes de santé en Europe**

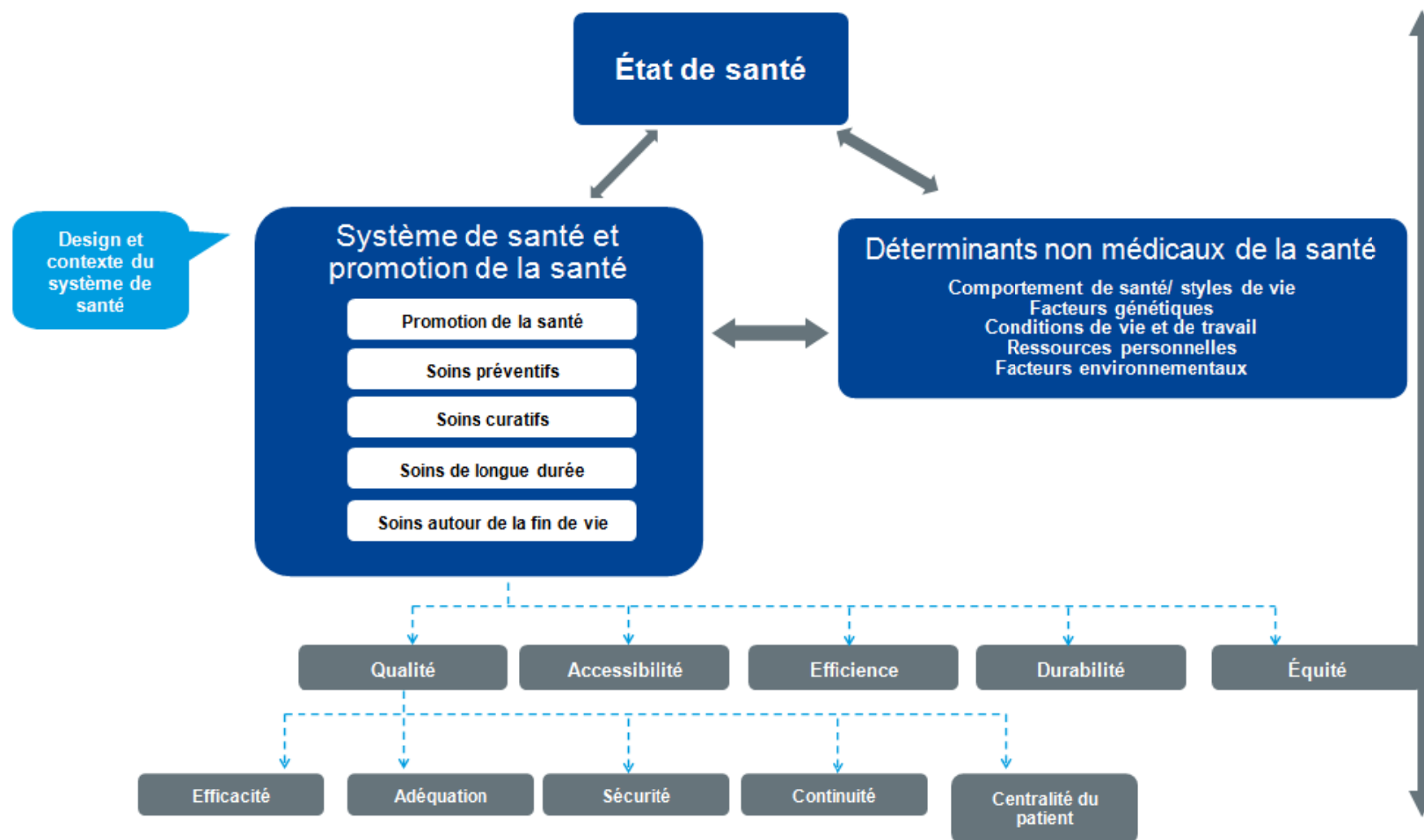
En juin 2008, les Ministres de la Santé des 53 pays composant la région 'Europe' de l'Organisation Mondiale de la Santé (OMS) ont signé la « 'Charte de Tallinn sur les systèmes de santé pour la santé et la prospérité ». Cette Charte contient sept engagements. Le troisième engagement porte sur la performance des systèmes de santé : « les États signataires s'engagent à promouvoir la transparence et à rendre des comptes au sujet de la performance des systèmes de santé grâce la publication de résultats mesurables ».³

1.2 Cadre conceptuel d'évaluation de la performance du système de santé belge

Le cadre conceptuel est présenté en Figure 1.



Figure 1 – Cadre conceptuel d'évaluation de la performance du système de santé belge



Remarque : Ce rapport ne contient aucun chapitre spécifiquement consacré aux indicateurs sur les déterminants non médicaux de la santé. Les indicateurs relatifs au mode de vie sont présentés dans le chapitre consacré à la promotion de la santé.



1.3 Les objectifs de ce rapport

L'évaluation systématique de la performance des systèmes de santé est un processus évolutif, jalonné par la publication des rapports HSPA. Les objectifs stratégiques peuvent être définis comme les objectifs à long terme de ce processus évolutif. Ces derniers doivent être différenciés des objectifs spécifiques et des sous-objectifs opérationnels de ce deuxième rapport.

1.3.1 Les objectifs stratégiques du processus d'évaluation de la performance du système de santé

Le processus HSPA poursuit trois objectifs stratégiques :

1. Informer les autorités de la santé quant à la performance du système, pour les aider à planifier les politiques de santé.
2. Rendre comptes, de manière transparente, de la performance du système de santé belge, conformément à l'engagement pris en signant la Charte de Tallinn.
3. Suivre les progrès de la performance du système de santé au fil du temps.

1.3.2 Les objectifs généraux et opérationnels du rapport 2012

Proposer et mesurer un jeu d'indicateurs couvrant tous les domaines et des dimensions choisies du système de santé en Belgique, en veillant à ce que le nombre d'indicateurs reste gérable (74 indicateurs dans ce rapport).

Quatre objectifs opérationnels ont été fixés :

1. Revoir les 55 indicateurs du rapport précédent, en portant une attention particulière aux 11 indicateurs pour lesquels aucune donnée n'était disponible en 2010^a.

^a Le nombre d'infirmières en exercice; les coûts supplémentaires liées à la maladie chez les patients chroniques; les prescriptions conformes aux guides de bonne pratique clinique; le dépistage du cancer colorectal; les dents cariées, manquantes ou obturées à l'âge de 12 ans; le dépistage cardiovasculaire chez les personnes âgées de 45 à 75 ans; le taux de survie à 5 ans après un diagnostic de cancer (du sein, du côlon, du col de l'utérus); la mortalité prématurée; l'incidence des escarres dans les

2. Étoffer ce jeu d'indicateurs en y intégrant des indicateurs portant sur les domaines suivants : la promotion de la santé, la médecine générale, la santé mentale, les soins de longue durée, les soins aux personnes en fin de vie ; ajouter des indicateurs portant sur la centralité du patient et sur la continuité des soins (deux sous-dimensions de la qualité) ; proposer des indicateurs permettant de mesurer l'équité du système de santé.
3. Mesurer les indicateurs choisis, ou quand ce n'est pas possible, identifier les lacunes en terme de disponibilité des données.
4. Interpréter les résultats dans le but de fournir une évaluation globale de la performance du système de santé belge au moyen de différents critères, notamment une comparaison internationale.

Le rapport sur la performance du système de santé belge est un rapport de monitoring national. La Belgique y est notamment comparée à d'autres pays. A travers 74 indicateurs, le rapport sur la performance du système de santé belge s'efforce de mesurer l'accessibilité, la qualité, l'efficacité, la pérennité/durabilité et l'équité du système de santé belge. Il se veut une source d'informations globale pour les différents décideurs politiques compétents en matière de santé et de promotion de la santé.

établissements de soins de longue durée et au sein de la population à risque.



2 FORCES ET FAIBLESSES DU SYSTÈME DE SANTÉ EN BELGIQUE

2.1 Comment interpréter les tableaux synoptiques présentant les résultats ?

Les résultats des 74 indicateurs sont présentés dans les tableaux synoptiques ci-dessous, par domaine et/ou dimension. Un chapitre distinct est consacré à la promotion de la santé.

Ces tableaux synoptiques contiennent les informations suivantes :

- Un pictogramme illustre l'évaluation globale des résultats de chaque indicateur. Cette évaluation résume divers critères : la valeur au niveau national, par rapport à d'éventuels objectifs nationaux ou internationaux ; l'évolution dans le temps ; les disparités régionales ou socio-économiques. Notons que cette évaluation globale n'est possible que pour certains indicateurs.
- Dans la colonne « Belgique », la valeur de l'indicateur pour la Belgique est comparée aux résultats des pays de l'EU15^b (benchmarking international) et représentée au moyen d'un code de couleur.
- La colonne suivante contient l'année la plus récente pour laquelle les résultats sont disponibles. Cette information est importante pour les décideurs politiques, notamment pour éviter de prendre des décisions sur la base de données obsolètes, ainsi que pour favoriser le cas échéant la collecte d'informations plus récentes.
- L'évolution générale au cours des 5 dernières années disponibles est présentée ensuite (augmentation, diminution ou stabilité). Toutefois, l'importance des changements n'est pas illustrée.
- Les dernières colonnes présentent, quand c'est possible, des résultats par sous-groupes : sexe, statut socio-économique (faible ou

élevé)^c et région (Wallonie, Flandre et Bruxelles). Dans ces analyses par sous-groupes, des couleurs aident le lecteur à mieux appréhender l'ampleur des différences. Pour ce qui concerne la comparaison régionale, il convient de tenir compte du contexte spécifique de la Région de Bruxelles-Capitale. Cette région se compose exclusivement d'une grande agglomération urbaine, tandis que les deux autres régions du pays se composent d'environnements urbains, suburbains et ruraux.

- Enfin, les domaines dans lesquels des études complémentaires doivent être menées sont indiqués au moyen du symbole .

Source des données

Ce rapport utilise autant que possible les données disponibles en routine (telles que les bases de données administratives, les registres nationaux ou les enquêtes récurrentes) : le Résumé hospitalier minimal (RHM), l'Échantillon permanent (EPS), les bases de données de l'INAMI (doc N, Pharmanet), le Registre belge du Cancer, les données de surveillance des infections nosocomiales, l'enquête de santé par interview (Health Interview Survey - HIS), les études de vaccination et la base de données de la "Direction générale Statistique et Information économique" (DGSIE).

^b **EU-15** fait référence aux 15 États membres de l'Union européenne au 31 décembre 2003, à savoir: Allemagne, Autriche, Belgique, Danemark, Espagne, Finlande, France, Grèce, Irlande, Italie, Luxembourg, Pays-Bas, Portugal, Royaume-Uni et Suède.

^c Selon la source des données, le statut socio-économique est mesuré soit par le niveau d'études, soit par le droit au remboursement majoré des dépenses de santé.



Légende des tableaux synoptiques

Évaluation globale		Comparaison internationale (EU-15) La Belgique se situe [§] parmi les pays obtenant :	Risques relatifs en fonction du genre, du statut socio-économique et de la région
	Résultats très mauvais	Les moins bons résultats	Très grandes différences entre les groupes : les résultats sont au moins deux fois plus mauvais ou moitié moins bons dans le groupe comparé que dans le groupe de référence [£]
	Résultats mauvais	Des résultats inférieurs à la moyenne	Grandes différences entre les groupes : les résultats sont au moins 50% meilleurs ou moins bons
	Résultats moyens	Des résultats moyens	Différences moyennes entre les groupes : les résultats sont de 20% à 50% meilleurs ou moins bons
	Bons résultats	Des résultats supérieurs à la moyenne	Différences ténues ou nulles entre les groupes : les résultats sont meilleurs ou moins bons de 20% au maximum
	Très bons résultats (tous les critères sont rencontrés)	Les meilleurs résultats	Paramètre non pertinent pour cet indicateur
	Des données/études complémentaires sont nécessaires		Données non disponibles

§ Les quintiles sont calculés sur la base des résultats de tous les pays.

£ Groupe de référence : le statut socio-économique le plus élevé, le genre (femmes/hommes) affichant les meilleurs résultats, la région (Wallonie, Flandre, Bruxelles) ayant obtenu les meilleurs résultats. Exemples fictifs : Deux fois plus mauvais : 20% de fumeurs dans le groupe socio-économique faible par rapport à 10% de fumeurs dans le groupe socio-économique élevé OU moitié moins bons : 13% d'alimentation équilibrée dans le groupe socio-économique faible par rapport à 26% d'alimentation équilibrée dans le groupe socio-économique élevé.



2.2 État de santé

Quatre indicateurs généraux de l'état de santé ont été choisis comme des résultats globaux et très distaux de l'efficacité du système de santé et de la promotion de la santé, à côté de tous les autres déterminants de la santé.

Pour ces quatre indicateurs, on observe une évolution positive dans le temps (Tableau 1). L'espérance de vie est légèrement inférieure à la moyenne EU-15 (de 0,7 années). La mortalité infantile et l'espérance de santé (définie comme le nombre d'années de vie sans limitation fonctionnelle à partir d'un âge donné) se situent dans la moyenne des

résultats de l'EU-15. Le pourcentage de personnes qui considèrent leur santé comme assez bonne (ou très bonne) est supérieur à la moyenne EU-15.

On observe de grandes différences entre les femmes et les hommes pour l'espérance de vie, mais pas pour l'espérance de santé : Les femmes vivent plus longtemps que les hommes, mais vivent davantage d'années avec des limitations fonctionnelles, et elles considèrent leur santé comme moins bonne. Tous les paramètres sont moins bons pour les groupes socio-économiques plus faibles. En termes de régions, les résultats sont meilleurs en Flandre, hormis pour la mortalité infantile.

Tableau 1 – Indicateurs généraux de l'état de santé

Indicateur	Global	Belgique	Dernière année disponible	Évolution	M	F	Socio faible	Socio élevé	Flandre	Wallonie	Bruxelles
Espérance de vie (en années)	☹️	80.0	2010	augmentation	77.4	82.6	M: 47.6 ⁱ F: 54.0	M: 55.0 F: 59.9	80.9	78.5	80.0
Espérance de santé (à 25 ans, en années)	☹️	41.0 ⁱⁱ	2008	augmentation	41.3	41.2	M: 27.7 F: 28.9	M: 46.3 F: 47.1	M: 43.7 F: 42.3	M:37.4 F:39.1	M:38.5 F:40.6
Etat de santé perçu (% en bonne ou très bonne santé)	😊	76.8	2008	augmentation	79.5	74.3	57.4	85.7	78.6	73.7	74.3
Taux de mortalité infantile (nombre de décès/1000 enfants nés vivants)	☹️	3.5	2010	diminution	4.2	3.4			4.0	3.1	4.6

ⁱ L'espérance de vie par statut socio-économique est présentée ici à l'âge 25 ans.

ⁱⁱ La comparaison internationale est basée sur l'espérance de santé à la naissance.

ⁱⁱⁱ Le code couleur utilisé pour les différences sociodémographiques en termes d'espérance de vie et d'espérance de santé n'est pas basé sur le risque relatif (comme pour les autres indicateurs), mais sur l'ampleur des différences absolues : jaune = 1 à 2 ans de différence, orange = 2 à 6 ans de différence, rouge = plus de 6 ans de différence.



2.3 Accessibilité

L'accessibilité est définie comme la facilité avec laquelle les patients peuvent avoir recours aux prestations de santé, en termes d'accès physique (répartition géographique), de coût, de temps d'accès et de disponibilité de personnel qualifié.⁴ L'accessibilité est une condition préalable à la qualité et à l'efficacité d'un système de santé.

Treize des septante-quatre indicateurs évaluent l'accessibilité du système de santé. Ils sont regroupés par thèmes : disponibilité des soignants, accessibilité financière, couverture des mesures préventives, accessibilité aux soins de longue durée et moment de début des soins palliatifs en fin de vie.

Disponibilité des soignants : médecins et infirmières en activité

Des efforts considérables ont été consentis pour quantifier les effectifs du personnel soignant en Belgique (médecins et infirmières en activité). Pour preuve l'ajout de ces deux indicateurs, pour lesquels nous ne disposions pas de résultats complets dans le précédent rapport. Cependant, ces indicateurs ne suffisent pas à déterminer si l'effectif soignant disponible est suffisant pour répondre aux besoins de la population.

Accessibilité financière

Malgré la couverture par l'assurance santé universelle et l'existence de multiples filets de sécurité sociaux (maximum à facturer, Omnio, Fonds Spécial de Solidarité), 14% des ménages déclarent avoir été contraints de différer certains soins de santé (soins médicaux, intervention chirurgicale, médicaments, lunettes/lentilles, soins de santé mentale) pour des raisons financières. Ce pourcentage est en augmentation depuis la fin des années 90. Par ailleurs, la contribution des patients à l'ensemble des dépenses de santé en Belgique se monte à 19%, soit sensiblement plus que la moyenne EU-15, qui est de 15%.

Couverture des mesures préventives

La Belgique peut certainement faire mieux en terme de couverture des mesures préventives.

La couverture du dépistage du cancer du sein (60%) est nettement en deçà de la moyenne EU-15 (68.3%). Ce pourcentage reste stable depuis 5 ans, malgré l'existence d'un programme organisé de dépistage du cancer du sein. D'autre part, les différences entre les régions sont marquantes, ce qui peut susciter des questions quant à l'efficacité du programme de dépistage. La couverture du dépistage du cancer du col de l'utérus (62%) présente peu de disparités régionales. Les résultats sont proches de la moyenne EU-15, mais restent médiocres par rapport à l'objectif de 80%, communément accepté en Europe. On n'observe pas non plus d'évolution notable de cette couverture.

La couverture du dépistage du cancer du côlon ne peut encore être présentée, car le programme de la Communauté française n'a été lancé que très récemment.

En termes de vaccination contre la grippe des personnes âgées, l'objectif de l'OMS (75%) n'est pas atteint et cette couverture ne progresse que très lentement.

La Belgique obtient en revanche de bons résultats pour la vaccination des enfants.



Accessibilité des soins de longue durée

Le nombre de lits dans les établissements de soins résidentiels n'a pas évolué au cours de la dernière décennie, avec 70 lits par 1.000 personnes âgées de 65 ans ou plus. Dans l'ensemble, ce nombre est nettement plus élevé en Wallonie et à Bruxelles qu'en Flandre.

Les soignants informels, qui sont définis comme 'les personnes assistant les personnes âgées dans leurs activités courantes de la vie quotidienne (ACVQ) pendant au moins une heure par semaine', représentent un maillon important des soins de longue durée.⁵ Le pourcentage de la population âgée de 50 ans et plus et faisant partie de ces soignants informels varie de 8% en Suède à 16,2% en Italie. Le chiffre belge de 12,1% est légèrement supérieur à la moyenne des pays de l'OCDE (11,7%). Ce résultat doit toutefois être contextualisé, car il dépend du mode de vie, des valeurs sociétales et de l'existence de mesures spécifiques d'encouragement à rester à la maison.

Aucune donnée relative aux besoins des patients n'étant actuellement disponible, ces deux indicateurs restent insuffisants pour évaluer l'accessibilité des soins à long terme.

Moment de début des soins palliatifs

Le début des soins palliatifs est parfois différé jusqu'à ce que le patient se retrouve en phase terminale. Ce délai peut être la conséquence soit de problèmes de disponibilité des soins palliatifs, soit d'une décision trop tardive d'y avoir recours. Dans 20% des cas, les patients sont décédés dans la semaine de la demande du forfait pour soins palliatifs auprès de leur mutuelle, ce qui semble indiquer une décision trop tardive. Il serait utile d'obtenir plus de données sur cet indicateur (évolution au cours du temps, différences régionales).



Tableau 2 – Indicateurs évaluant l'accessibilité aux soins de santé

	Indicateur	Global	Bel- gique	Dernière année disponib le	Évolutio n	M	F	Socio faible	Socio élevé	Flandre	Wallonie	Bruxelles
Force de travail	Densité (par 1.000 habitants) de :	▲ _R	2.9	2010	stable							
	- médecins en activité											
	- infirmières en activité		9.9 ⁱ	2009								
Accessibilité financière	Couverture de la population par l'assurance santé (%)	😊	99.0	2010	stable							
	Tickets modérateurs et contribution des patients (% des dépenses totales de santé)		19.4	2010	stable							
	Report de contacts avec les services de santé pour raisons financières (%)		14	2008	augmen- tation			27.0	4.0	11.0	14.0	26.0
Couverture des mesures préventives	Dépistage du cancer	☹										
	- Sein (% des femmes âgées de 50 à 69 ans)		60.1	2010	stable			48.6	62.9	64.9	55.3	51.9
	- Col de l'utérus (% des femmes âgées de 25 à 64 ans)		61.8	2010	stable			48.9	64.2	61.0	64.6	63.6
	Couverture vaccinale infantile	😊										
	- % DTP-Hib (3)		97.9	2009	augmen- tation					98.3	96.9	98.6
	- % ROR (1)		94.5	2009	augmen- tation					96.8	92.4	91.1
	Couverture vaccinale contre la grippe (% des 65 ans et plus)	😊	65.0 ⁱⁱ	2009	augmen- tation			63.5	46.3	65.8	60.9	59.2
Soins de longue durée	Densité de lits en maisons de repos et de soins (par 1.000 personnes âgées de plus de 65 ans)	▲ _R	70.3 ⁱⁱⁱ	2011	stable					58	83	101
	Soignants informels (% de la population âgée de plus de 50 ans)		12.1	2007								
	Timing des soins palliatifs : décès durant la première semaine de soins palliatifs (%)	▲ _R	(20.0) ^{iv}	2006								



ⁱ Les données de l'OCDE relatives aux effectifs des infirmières ne sont pas comparables entre pays.

ⁱⁱ Valeurs nationales basées sur la HIS, disparités socio-économiques basées sur l'EPS.

ⁱⁱⁱ Valeurs et comparaison internationale basées sur des données de 2010.

^{iv} Données nationales indisponibles. Valeur basée sur une seule étude des Mutualités Chrétiennes.

DTP-Hib (3) Diphtérie-Tétanos-Coqueluche-Haemophilus Influenzae B (taux de couverture pour la troisième dose) ;

ROR (1) Rougeole-Oreillons-Rubéole (première dose).

2.4 Qualité des soins

La qualité est définie comme 'la capacité des services de santé destinés aux individus et aux populations d'augmenter la probabilité d'obtenir les effets souhaités sur la santé, conformément à l'état actuel des connaissances'.⁶ La qualité des soins est subdivisée en cinq sous-dimensions : l'efficacité, l'adéquation, la sécurité, la continuité des soins et la centralité du patient.

2.4.1 Efficacité

L'efficacité est définie comme 'la mesure selon laquelle les résultats souhaités sont atteints, pour toutes les personnes qui pourraient en profiter mais à l'exclusion de celles qui n'en tireraient aucun avantage'. Les indicateurs d'efficacité sont donc des indicateurs de résultats.

Sept indicateurs ont été choisis pour évaluer l'efficacité des soins de santé : le taux de survie après cancer du sein, du col de l'utérus ou colorectal, le taux d'hospitalisation pour asthme, ainsi que trois nouveaux indicateurs de santé mentale : le nombre de suicides par 100.000 habitants (ce qui est également un indicateur de l'état de santé de la population), le taux d'emploi de personnes souffrant d'un trouble de santé mentale par rapport au taux d'emploi de personnes souffrant d'autres handicaps (tels que musculo-squelettiques), ainsi que le pourcentage d'hospitalisations psychiatriques non volontaires (colocations) par rapport à l'ensemble des hospitalisations psychiatriques.

La survie après un cancer du sein et du colon est bonne, en comparaison aux autres pays européens. L'évolution des taux de survie n'est pas encore disponible à ce jour.

Les taux hospitalisations pour cause d'asthme – reflétant un échec des prestations ambulatoires – sont légèrement plus élevés (donc moins bons en terme d'efficacité) que la moyenne EU-15.

Pour les indicateurs d'efficacité en soins de santé mentale, on observe un taux de suicide extrêmement élevé par rapport aux autres pays européens. Toutefois, le taux de suicide dépend également de facteurs personnels et sociétaux, et n'est donc qu'un qu'un indicateur indirect de l'efficacité des soins de santé mentale. Quoi qu'il en soit, les résultats indiquent qu'une action concertée est requise pour réduire le taux de suicide en Belgique. Le deuxième indicateur, le taux d'emploi des personnes souffrant de troubles mentaux comparé aux taux d'emploi de personnes atteintes d'autres handicaps, est difficile à interpréter et montre la nécessité de récolter d'autres données. Le dernier indicateur montre qu'au cours des dernières années, le pourcentage d'hospitalisations psychiatriques non volontaires (colocations) a augmenté. Le % plus important constaté à Bruxelles doit s'interpréter avec prudence (en effet, ces disparités pourraient être liées à un phénomène urbain et non régional).


Tableau 3 – Indicateurs évaluant l'efficacité des soins

Indicateur	Global	Belgique	Dernière année disponible	Évolution	M	F	Socio faible	Socio élevé	Flandre	Wallonie	Bruxelles
Soins curatifs	Taux de survie relative à 5 ans - Cancer du sein	 88.0	2008 ⁱⁱ						87.6	88.8	88.0
	- Cancer du col de l'utérus	69.8	2008 ⁱⁱ						70.6	69.1	67.7
	- Cancer du côlon	M: 62.3 ⁱ F: 64.6	2008 ⁱⁱ		62.3	64.6			M: 62.5 F: 64.5	M: 62.5 F: 64.9	M: 59.9 F: 64.3
	Hospitalisations pour asthme (/100 000 sujets 15+)	 48.4 ⁱⁱⁱ	2009 ⁱⁱ	stable	28	52					
Santé mentale	Taux de suicide (nombre/100 000 personnes)	 18.6	2008 ^{iv}	stable	28	10			17	24	14
	Taux d'emploi des patients souffrant de troubles mentaux ^v	0.7	2002 ^{vi}								
	Hospitalisations forcées (colocations) (en % de toutes les hospitalisations psychiatriques)	8	2009	Augmentation					8	7	14

ⁱ Résultats pour le cancer colorectal dans les Données de Santé de l'OCDE pour la Belgique ;

ⁱⁱ Dernières données disponibles pour la Belgique dans les Données de Santé de l'OCDE: 2004 (cette année a servi de base à la comparaison internationale) ;

ⁱⁱⁱ Le résultat tiré des Données de Santé de l'OCDE, avec ajustement en fonction de l'âge. Le taux belge non ajusté est de 40/100 000 ;

^{iv} Dernières données disponibles pour la Belgique dans les Données de Santé de l'OCDE : 2005 (cette année a servi de base à la comparaison internationale) ;

^v Rapport entre le taux d'emploi des personnes souffrant de troubles mentaux et celui de personnes atteintes d'autres handicaps.

^{vi} Résultats tirés de la dernière édition de l'Enquête sur les Forces de Travail de l'Union Européenne.



2.4.2 Adéquation

L'adéquation peut être définie comme étant 'la mesure selon laquelle les soins de santé dispensés sont adaptés aux besoins cliniques, compte tenu des meilleures preuves disponibles'.

La relation entre l'efficacité et l'adéquation est le reflet de la relation entre les résultats et les processus de soins.

Huit indicateurs ont été choisis pour mesurer l'adéquation des soins. En général, leurs résultats sont plutôt mauvais, plus particulièrement pour ce qui concerne le dépistage non approprié du cancer du sein (hors de la population cible) ou le respect des guides de bonne pratique clinique (pour les antibiotiques ou le suivi des patients diabétiques).

La proportion de naissances par césarienne est en progression et se caractérise par une grande variabilité entre hôpitaux.

Deux indicateurs portent sur la consommation d'antidépresseurs et d'antipsychotiques par l'ensemble de la population. Tous deux révèlent que cette consommation, déjà supérieure à la moyenne EU-15, est en augmentation.

Enfin, un indicateur de l'agressivité des soins aux personnes en fin de vie a été utilisé (l'utilisation des chimiothérapies en fin de vie des patients cancéreux), mais ses résultats sont difficiles à interpréter sans norme de référence, comparaison à d'autres pays, ou évolution au cours du temps.


Tableau 4 – Indicateurs de l'adéquation des soins

Indicateur	Global	Belgique	Dernière année disponible	Évolution	M	F	Socio faible	Socio élevé	Flandre	Wallonie	Bruxelles
Mammographies en dehors du groupe cible (%)	☹	35.5	2010	stable			28.6	36.6	28.6	46.4	47.7
- Femmes âgées de 40-49 ans											
- Femmes âgées de 71-79 ans		20.8	2010	augmentation			16.2	23.2	16.4	27.7	31.2
Antibiotiques (% amoxicilline comparée à l'amoxicilline seule ou associées à l'acide clavulanique.)	☹	44.9	2008	stable	46.4	51.1	44.4	49.4	46.0	42.8	47.1
Suivi correct des patients diabétiques (%)*	☹	54	2008	stable	54	55	48	58	57	52	48
Césariennes (par millier de naissances vivantes)	☹	193	2009	augmentation							
Prescription de (quantité journalière moyenne/1 000 personnes)	⚠	68.4	2010	augmentation	43.1	92.8			60.6	85.8	57.1
- Antidépresseurs											
- Antipsychotiques		10.5	2010	augmentation	10.8	10.3			9.6	11.9	11.7
Patients souffrant du cancer bénéficiant de chimiothérapie durant les 14 derniers jours de leur vie (%)	⚠	(12%/23%) ⁱ	2005								

ⁱ Des patients décédés à leur domicile/à l'hôpital. Absence de données nationales. Valeurs tirées d'une seule étude des Mutualités Chrétiennes.

*Patients diabétiques adultes se soumettant régulièrement à des examens rétinien et sanguins (%)



2.4.3 Sécurité

La sécurité des soins est définie comme « la mesure selon laquelle le système ne porte pas préjudice au patient ».

Six indicateurs évaluent la sécurité des soins. Leurs résultats sont moyens : l'exposition aux radiations médicales reste trop élevée (mais avec un début de diminution en 2011), régression importantes des

infections nosocomiales au MRSA (*Staphylococcus aureus* résistant à la pénicilline) ; diminution de la mortalité intra-hospitalière après une fracture de la hanche ; et incidence stable de la septicémie postopératoire et de la prescription d'antidépresseurs anticholinergiques aux patients plus âgés. Seule l'incidence des escarres chez les patients hospitalisés est en augmentation.

Tableau 5 – Indicateurs évaluant la sécurité des soins

Indicateur	Global	Belgique	Dernière année disponible	Évolution	M	F	Socio faible	Socio élevé	Flandre	Wallonie	Bruxelles
Exposition de la population belge aux radiations d'origine médicale (MSv/capita)	☹️	2.2	2011	modeste diminution en 2011							
Incidence du MRSA nosocomial (par millier d'admissions)	😐	1.5	2010	diminution					1.2	2.2	1
Incidence de la septicémie postopératoire (/100 000 sorties)	😐	1224	2007	stable							
Incidence des escarres chez les patients hospitalisés (%)	😐 ⚠️	16.8	2007	augmentation							
Mortalité intra-hospitalière après une fracture de la hanche (%)	😐	6.3	2007	diminution	1.84 ⁱ						
Prescription d'antidépresseurs anticholinergiques (% des patients 65+ prenant des antidépresseurs)	😐	14	2010	stable	13	14			17	11	10

ⁱ OR Odds Ratio



2.4.5 Continuité des soins

Le concept de continuité des soins recouvre différentes dimensions, telles que la continuité de l'information entre les soignants, la planification des contacts, l'aspect relationnel des contacts patient/généraliste, ainsi que la coordination entre les soignants et les organisations. Le set actuel de 7 indicateurs permet de tirer des conclusions pour chacune de ces dimensions, ce qui représente une avancée significative par rapport au rapport précédent sur la performance.

Contrairement aux indicateurs communément utilisés sur l'état de santé ou sur l'efficacité des soins, on peut difficilement comparer la Belgique à d'autres pays en matière de coordination des soins. En effet, certains indicateurs sont spécifiques à notre système de soins de santé, tels que le dossier médical global ou la consultation multidisciplinaire en oncologie (COM). D'autres indicateurs sont bien décrits dans la littérature scientifique, tels que l'indice UPC (prestataire de soins habituel-Usual Provider of Care)^d, mais rares sont les pays disposant des données pour le mesurer.

Un seul résultat, l'indice UPC, peut être considéré comme positif, et laisse supposer d'une bonne qualité relationnelle avec son médecin traitant habituel. Des résultats moyens sont enregistrés dans les indicateurs « contact avec le médecin généraliste endéans les 7 jours après hospitalisation » et « tenue d'une COM ». Des résultats négatifs sont observés en termes d'utilisation du dossier médical global et de réadmissions en hôpital psychiatrique. Ce dernier indicateur est le seul à faire l'objet d'une collecte de données par l'OCDE ; il concerne spécifiquement la santé mentale.

^d L'indice UPC (prestataire de soins habituel – Usual Provider of Care) est la proportion des contacts d'un patient qui a lieu avec son médecin généraliste habituel. Lorsque l'indice est de '1', le patient a toujours consulté le même médecin généraliste. L'indicateur exprime le pourcentage de patients dont l'indice UPC est égal ou supérieur à 0,75, c'est-à-dire dont au moins les trois quarts des contacts se sont faits avec leur médecin généraliste habituel.



Table 6 – Indicateurs évaluant la continuité et de la coordination des soins

Indicateur	Global	Belgique	Dernière année disponible	Évolution	M	F	Socio faible	Socio élevé	Flandre	Wallonie	Bruxelles
Patients disposant d'un dossier médical global (%)	☹️	47	2010	augmentation	42	50	54	44	58	32	29
Patients diagnostiqués avec un cancer et bénéficiant d'une consultation oncologique multidisciplinaire (COM) (%)	😐	68.8	2008	augmentation					73.8	62.7	55.7
Contact avec le médecin généraliste dans la semaine de la sortie de l'hôpital (% des sujets 65+)	😐	58.4	2009	stable	55.4	60.8	64.2	54.6	60.6	57.8	42.5
Proportion de contacts avec le médecin généraliste habituel (%) (Indice UPC ⁱⁱⁱ)	😊	71.4	2010	stable	72.1	71.2	76.7	70.5	70.8	74.4	65.9
Réadmission dans le même hôpital psychiatrique, dans les 30 jours de la sortie (%)	☹️	20.2	2009 ⁱ	augmentation					25.2	17.2	10.2
- diagnostic de schizophrénie											
- diagnostic de trouble bipolaire		15.6	2009 ⁱ	stable					19.7	13.4	7.1
Patients ayant eu au moins un contact avec leur médecin généraliste durant leur dernière semaine de vie (%)	⚠️	(72%) ⁱⁱ	2005								

ⁱ: Données belges les plus récentes. Les données de l'OCDE les plus récentes pour la Belgique datent de 2007 ;

ⁱⁱ 72% des personnes décédées à leur domicile ont eu un contact avec leur médecin généraliste durant leur dernière semaine de vie (données nationales indisponibles, chiffres tirés d'une seule étude des Mutualités Chrétiennes) ;

ⁱⁱⁱ L'indice UPC (Usual Provider of Care) est la proportion des contacts avec le médecin généraliste habituel d'un patient. L'indice '1' indique que le patient a toujours été en contact avec le même médecin généraliste. L'indicateur utilisé présente le pourcentage de patients dont l'indice UPC est au moins de 0,75 (ce qui signifie qu'ils ont eu au moins 3 contacts sur 4 avec leur médecin généraliste habituel).



2.4.6 Centralité du patient

La centralité du patient est définie comme « la mesure selon laquelle la prestation de soins respecte les besoins, valeurs et préférences individuels du patient ». Le rapport précédent ne contenait aucun indicateur de la centralité du patient. Une recherche approfondie de données et indicateurs a été entreprise, à l'issue de laquelle trois indicateurs peuvent être présentés. Ce faible nombre d'indicateurs reflète une réelle carence en données. En outre, les rares indicateurs mesurables ne fournissent que des informations parcellaires sur un sujet complexe.

Les résultats attestent d'une satisfaction générale des patients quant aux différents services de soins de santé.

Une seule étude a été en mesure de fournir des informations sur la question centrale qu'est la maîtrise de la douleur, étude dans laquelle les performances de la Belgique sont relativement faibles par rapport à d'autres pays.

L'indicateur relatif à l'endroit du décès révèle une évolution positive (le nombre de patients qui décèdent à l'hôpital est en diminution), qui s'assortit toutefois de différences considérables en fonction du statut socio-économique.

Tableau 7 – Indicateurs évaluant de la centralité du patient dans le système de santé

Indicateur	Global	Belgique	Dernière année disponible	Évolution	M	F	Socio faible	Socio High	Flandre	Wallonie	Bruxelles
Satisfaction quant aux services de soins de santé (% de patients 'satisfaits' ou 'très satisfaits')		>90% ⁱⁱ	2008		Aucune différence	Aucune différence			Plus élevée	Plus faible	La plus faible
Douleur toujours maîtrisée durant l'hospitalisation (% de patients)		(41.0) ⁱⁱⁱ	2009								
Personnes décédant à leur domicile habituel (% de personnes décédées)		(45.1) ⁱ	2007	augmentation			^{iv}		45.1 ⁱ		45.1 ⁱ

ⁱ Données nationales pas encore disponibles. Les résultats pour la Flandre et Bruxelles sont groupés ;

ⁱⁱ Le degré de satisfaction est supérieur à 90% pour les contacts avec les médecins généralistes, les dentistes, les spécialistes et les services de soins à domicile. Le degré de satisfaction n'est légèrement inférieur (87%) que pour les hôpitaux,

ⁱⁱⁱ Résultats tirés d'une seule étude, dans le cadre du projet RN4cast ;

^{iv} Fondé sur une étude des Mutualités Chrétiennes et sur d'autres publications.



2.5 Efficience du système de santé

L'efficience est définie comme étant 'la mesure selon laquelle la quantité correcte de ressources (budgets, temps et personnel, notamment, l'« input ») est investie dans le système (au niveau macro), en s'assurant que ces ressources sont utilisées de manière à en tirer le plus grand bénéfice ou les meilleurs résultats possibles (l'« output»).'4, 7

Trois indicateurs ont été retenus pour évaluer l'efficience du système de santé. À l'instar des autres pays européens, la tendance en Belgique est à une utilisation plus efficiente des services de soins. Cette tendance est confirmée par l'évolution des trois indicateurs : une augmentation de la prescription de médicaments « bon marché », une augmentation des interventions chirurgicales de jour, ainsi que la réduction de la durée du séjour en hôpital après un accouchement normal (qui est un indicateur

plus comparable entre pays que la durée d'hospitalisation totale). Cette dernière reste toutefois supérieure à la moyenne EU-15.

D'autres indicateurs analysés dans ce rapport fournissent également des indications quant à l'efficience du système. Ainsi, l'augmentation du nombre de patients disposant d'un dossier médical global peut être de nature à réduire le nombre d'examen redondants. D'autres indicateurs révèlent toutefois des tendances moins positives. Le fait par exemple que la moitié des dépistages du cancer du sein s'effectue en dehors du programme national suscite des questions quant à son efficience. Une variabilité inexpliquée des prestations de soins peut également être un signe de manque d'adéquation, une dimension directement liée à l'efficience. C'est le cas par exemple pour la grande variabilité du taux de césariennes.

Tableau 8 – Indicateurs de l'efficience des soins

Indicateur	Global	Belgique	Dernière année disponible	Évolution	M	F	Socio faible	Socio élevé	Flandre	Wallonie	Bruxelles
Proportion de chirurgie de jour (%)		46.2	2008	augmentation							
Durée d'hospitalisation moyenne après un accouchement normal (en jours)		4.3	2008	diminution							
Prescription de médicaments « bon marché » (% de DDD par rapport au total, en ambulatoire)		46.0	2010	augmentation					46.2	45.9	45.3
Autres indicateurs analysés dans la section « Adéquation des soins »											

DDD = dose quotidienne déterminée (Defined Daily Dose)



2.6 Pérennité

La pérennité (ou durabilité) est définie comme étant la capacité du système à:

- Offrir et maintenir des infrastructures comme du personnel (par exemple par la formation et l'enseignement), des structures et de l'équipement ;
- Être innovant ;
- Répondre aux besoins émergents ;
- Rester financé durablement par des recettes collectives.

Des indicateurs spécifiques ont été choisis pour chacun des quatre éléments de la définition. Le dernier indicateur (% du PNB alloué aux dépenses totales de santé) est un indicateur générique de la pérennité financière.

Les résultats sont parfois négatifs (faible capacité du système à remplacer la cohorte de médecins généralistes qui vieillit et qui arrive bientôt à l'âge de la retraite) et parfois moyens (nombre de journées d'hospitalisation en hôpitaux aigus par habitant ; utilisation encore insuffisante du dossier médical électronique par les médecins généralistes). Les autres indicateurs ne peuvent pas être interprétés sans disposer de données relatives aux besoins (infirmières diplômées).

En termes de pourcentage du PIB, les dépenses totales en soins de santé représentaient 10.5% en 2010. En termes absolus, ce montant était de € 27,6 milliards en 2003 et € 37.3 milliards en 2010.

Tableau 9 – Indicateurs de la pérennité du système de santé

Indicateur	Global	Belgique	Dernière année disponible	Évolution	Néerlandophones ⁱ	Francophones ⁱ
% de diplômés en médecine devenant généralistes		30.1	2009	diminution	29.2	31.0
Âge moyen des médecins généralistes		51.4	2009	augmentation	51	52
Infirmières diplômées (par 1 000 habitants) ⁱⁱ		41.7	2010	stable		
% des médecins généralistes utilisant un dossier médical électronique		74.0	2010	augmentation	83.7	62.5
Nombre de journées d'hospitalisation en hôpitaux aigus (par habitant) ⁱⁱⁱ		1.2	2009	stable		
Proportion des dépenses de santé dans le produit intérieur brut (% du PIB)		10.5	2010	augmentation		

ⁱ Pour cette série d'indicateurs, les données ne sont pas disponibles par région, mais par langue (francophones ou néerlandophones) ;

ⁱⁱ Cet indicateur doit être interprété conjointement avec l'indicateur de la densité en infirmières diplômées (dans le chapitre consacré à l'accessibilité) ;

ⁱⁱⁱ Cet indicateur doit être interprété conjointement avec l'indicateur relatif au pourcentage de chirurgies de jour (dans le chapitre consacré à l'efficience).

PIB : produit intérieur brut



2.7 Promotion de la santé

Pour différentes raisons, il n'a pas été possible de présenter dans le cadre du présent rapport un aperçu complet de la performance en termes de promotion de la santé :

1. La promotion de la santé, définie comme 'le processus qui consiste à conférer aux patients davantage de maîtrise sur leur santé afin d'améliorer leur santé', est un concept très large. Ses axes stratégiques (définis dans la Charte d'Ottawa) portent sur des responsabilités situées essentiellement en dehors du système des soins de santé, et même au-delà du système de santé. Un grand nombre d'indicateurs structurés au sein d'un cadre conceptuel spécifique seraient nécessaires.
2. La plupart des indicateurs qui seraient nécessaires pour évaluer la promotion de la santé ne sont pas opérationnels. Certains requièrent un travail de développement complémentaire, d'autres doivent être adaptés au contexte belge/régional.
3. Les données disponibles sont rares.
4. Les indicateurs conventionnels de résultats liés à la santé ou aux comportements de santé, aisés à mesurer mais représentent une vision réductrice de la promotion de la santé. Ce sont des résultats distaux, qui sont influencés tant par la promotion de la santé que par d'autres facteurs. De nombreux autres indicateurs, assortis de leurs valeurs et d'un certain benchmarking, sont requis pour piloter les politiques de santé.

^e Les cinq axes de la Charte d'Ottawa sont les suivants:

- élaborer de politiques publiques saines (il appartient aux autorités de la santé d'intégrer la santé dans toutes les politiques)
- créer des environnements propices (cadres de vie)
- développer les aptitudes individuelles
- renforcer l'action communautaire
- réorienter les services de santé

Les valeurs et dimensions principales de la promotion de la santé sont les suivantes: participation, autonomisation, équité, pérennité, multistratégie et multisectorialité.

En conséquence, la performance en termes de promotion de la santé présentée dans le présent rapport au moyen de 15 indicateurs n'est que fragmentaire, comme illustré dans le Tableau 10.

Pour la plupart des indicateurs classiques de statut de santé et de style de vie, les chiffres nationaux ont des valeurs intermédiaires. Des disparités régionales et sociales sont observées, sous la forme de modes de vie plus propices à la santé en Flandre (à l'exception de la consommation d'alcool) et au sein des catégories socio-économiques plus élevées.

Rares sont les indicateurs à avoir fait l'objet d'une comparaison internationale. On soulignera la problématique de l'obésité, qui est très présente, en progression et caractérisée par d'importantes disparités. Le tabagisme reste trop élevé (20% de fumeurs au quotidien) mais est néanmoins en régression. Il se caractérise également par de substantielles disparités sociales et régionales. La consommation de fruits et de légumes est largement inférieure aux besoins quotidiens, mais elle s'améliore. La consommation hebdomadaire d'alcool n'est pas très élevée, mais elle semble être en augmentation. Le degré de consommation d'alcool doit toutefois être interprété avec prudence, car il est particulièrement sensible au biais de désirabilité sociale. On observe peu de disparité sociale ou régionale pour l'indicateur, à l'exception d'un taux plus élevé de « consommation problématique » (tendance à l'assuétude) à Bruxelles, et plus de « binge drinking » chez les jeunes en Flandre.

Le taux de diagnostic de l'infection HIV en Belgique est en lente augmentation depuis quelques années. Ce pourcentage est de plus en plus nettement augmenté parmi la population homosexuelle masculine. Nous ne présentons pas de comparaison internationale pour cet indicateur, dans la mesure où les résultats obtenus pour la population non belge peuvent inclure une proportion importante de cas 'importés', ce qui n'est pas pertinent pour l'évaluation des politiques de promotion de la santé en Belgique.



On observe aussi que le manque de support social montre d'importantes disparités sociales et régionales. Ce niveau est en outre nettement plus élevé parmi la population âgée.

La Belgique se positionne dans la moyenne dans la Tobacco Control Scale (échelle des Politiques de Lutte contre le Tabagisme), qui compare les politiques publiques de différents pays visant à réduire la consommation de tabac.

Les autres indicateurs sont des indices visant à mesurer l'impact des politiques locales de promotion de la santé menées dans différents milieux de vie. Ils ne sont disponibles que pour la Flandre (via les études VIGeZ). Ces données sont difficiles à interpréter sans analyse approfondie. Les tendances observées au gré d'études successives semblent indiquer une amélioration de la culture de promotion de la santé dans les établissements scolaires (la culture de participation est relativement bonne), et l'offre d'activités physiques est en augmentation. Par contre, des politiques de promotion de la santé ne sont pas idéalement mises en œuvre dans de nombreuses communes.



Tableau 10 – Indicateurs de la promotion de la santé

Indicateur	Global	Belgique	Dernière année disponible	Évolution	M	F	Socio faible	Socio élevé	Flandre	Wallonie	Bruxelles
Adultes en surpoids ou obèses (%)	☹️	46.9	2008	augmentation	53.7	40.4	57.8	40	47.1	48.9	39.8
Adultes obèses (%)		13.8	2008	augmentation	13.1	14.4	19.1	9.1	13.6	14.6	11.9
Dents cariées, manquantes, obturées à l'âge de 12-14 ans (moyenne)	☹️ ⚠️	1.3 ^{iv}	2010								
Taux de diagnostic du VIH dans la population belge (/100 000 hab)	☹️	3.9	2010	augmentation	6.9	0.7			3.8	2.40	8.9
Fumeurs quotidiens (% 15+)	☹️	20.5	2008	diminution	23.6	17.7	22.1	13.1	18.6	24	22.3
Consommation d'alcool (% 15+)	☹️										
- Problématique ⁱ		10.2	2008	augmentation	13.1	7.3	11.5	11	9.5	10.7	14.4
- Surconsommation ⁱⁱ		7.9	2008	stable	10.1	5.9	5.9	8.4	7.9	8.4	6.7
- Consommation ponctuelle immodérée ⁱⁱⁱ		8.1	2008		12.8	3.7	8.3	7.6	8.9	7	6.2
Consommation quotidienne minimale de 200 g. de légumes et 2 fruits (%)	☹️	26.0	2008	augmentation	23.4	28.5	21.7	29.4	30.0	19.2	25.3
Au moins 30 minutes d'activité physique par jour (%)	☹️	38.1	2008	stable	48.7	28.3	24.0	42.8	45.1	28.4	24.7
Support social insuffisant (%)	☹️	15.5	2008		15.1	16	24.4	10.1	12.4	20.0	22.9
Échelle d'évaluation de l'efficacité des mesures anti-tabac (Tobacco Control Scale)	☹️	50/100	2010								
Volume d'activité physique à l'école	⚠️		2009	augmenta-					5.5/10		



			tion				
Politiques de promotion de la santé dans les communes ^{vii}	▲ R		2009			37/36/50 ^{vi}	
% des établissements scolaires dotés d'une 'équipe santé' ^{vii}	▲ R		2009	augmenta- tion		42/64/54 ^{vi}	40% ^v 40% ^v

ⁱ: Calculé sur la base de la population des personnes consommant de l'alcool (non abstinents) et du cut-off CAGE, 2+ ;

ⁱⁱ Femmes 15+ ; Hommes 22+ ;

ⁱⁱⁱ Consommation ponctuelle de nombreuses boissons alcoolisées (≥6 boissons) au moins une fois par semaine ;

^{iv} Certaines données sont disponibles, mais pour un nombre trop restreint de pays ;

^v Pour la Wallonie et Bruxelles ;

^{vi} Indicateurs tirés de VIGeZ, respectivement pour la prévention du tabagisme, l'alimentation équilibrée et l'activité physique (scores importés de VIGeZ) ;



2.8 Équité et égalité

L'équité est un paramètre clé dans l'évaluation de la performance d'un système de santé.¹ C'est aussi une question controversée, liée à un jugement normatif et à une prise de position politique. Un large éventail d'approches et de définitions de l'équité ont été formulées dans la littérature. Elles sont présentées dans l'Annexe S2 au présent rapport, intitulée « L'équité dans l'évaluation de la performance des systèmes de santé » (disponible sur notre site Internet).

En tenant compte de ce contexte, nous avons approché la dimension de l'équité de deux manières complémentaires. D'abord, nous avons documenté les inégalités en termes de santé, de déterminants de la santé et de recours aux soins de santé en Belgique en fonction de la situation socio-économique (les résultats sont contenus dans le Tableau 11). Ensuite, nous avons proposé des indicateurs globaux d'équité afin de donner un éclairage contextuel aux questions d'équité dans les soins de santé (les résultats sont contenus dans le Tableau 12 et la Figure 2).

L'équité en matière de santé est parfois définie comme « l'absence d'inégalités systématiques dans la santé/les déterminants de la santé entre groupes sociaux qui occupent des positions différentes dans la hiérarchie sociale ». En conséquence, le présent chapitre se concentre exclusivement sur les inégalités socio-économiques. Les autres inégalités (par exemple en fonction du sexe ou de la région) figurent dans les tableaux synoptiques de chaque dimension, et sont évoquées dans la fiche détaillée de chaque indicateur (voir Annexe S1). Nous avons en outre restreint la situation socio-économique à une seule caractéristique : le niveau d'études (pour les indicateurs provenant de la HIS) ou le remboursement majoré (bénéficiaires de l'intervention majorée) pour les bases de données administratives. D'autres dimensions de l'inégalité sociale, telles que le statut professionnel, les revenus ou l'origine ethnique, n'ont pas été étudiées dans ce rapport.

2.8.1 Inégalités socio-économiques

D'importantes inégalités socio-économiques s'observent dans les indicateurs de santé globaux (espérance de vie et espérance de santé, état de santé perçu). Ces résultats révèlent l'existence d'inégalités dans la chaîne des déterminants de la santé. Des inégalités ont également été observées dans de nombreux indicateurs du chapitre « Promotion de la santé » (tabagisme, surpoids, alimentation peu équilibrée, activité physique et support social). Des inégalités ont aussi été observées dans la dimension « accessibilité ». Malheureusement, pour la plupart des indicateurs des autres dimensions, les données socio-économiques n'étaient pas disponibles, de sorte que les inégalités n'ont pu être mesurées.



Tableau 11 – Synthèse des inégalités socio-économiques

	Valeur globale (f)	Valeur dans le groupe social le plus bas (f)	Valeur dans le groupe social le plus élevé (f)	Différence absolue (le plus bas vs le plus élevé)	Risque relatif (le plus bas vs le plus élevé)	Mesure de synthèse (CII ou PAF)
État de santé général						
Espérance de vie à 25 ans, hommes, 2001 ^{i; ii}	51.38	47.56	55.03	-7.47	n.a.	3.73%
Espérance de vie à 25 ans, femmes, 2001 ^{i; ii}	57.09	53.98	59.9	-5.92	n.a.	1.43%
Espérance en santé à 25 ans, hommes, 2001 ^{i; ii}	40.47	27.75	46.33	-18.58	n.a.	15.30%
Espérance en santé à 25 ans, femmes, 2001 ^{i; ii}	40.42	28.92	47.1	-18.18	n.a.	16.56%
% de la population 15+ qui qualifie sa santé de 'bonne' ou 'très bonne' ⁱⁱⁱ	76.8%	57.4%	85.7%	-28.3%	0.67	11.6%
Accessibilité des soins						
Report du contact avec les services de santé pour des raisons financières (% des ménages) ^{iv}	14.0%	27.0%	4.0%	23.0%	6.75	-71.4%
Dépistage du cancer du sein (% des femmes 50-69 ans) ^v	60.1%	48.6%	62.9%	-14.3%	0.77	4.7%
Dépistage du cancer du col de l'utérus (% des femmes 25-64 ans) ^v	61.8%	48.9%	64.2%	-15.3%	0.76	3.9%
Adéquation						
% des patients diabétiques adultes bénéficiant de soins appropriés (examens de la rétine et analyses de sang réguliers) ^v	54.0%	48.0%	58.0%	-10.0%	0.83	7.4%
Promotion de la santé						
% de la population 15+ qui déclare fumer tous les jours ⁱⁱⁱ	20.5%	22.0%	13.1%	8.9%	1.68	-36.1%
% de la population 15+ qui fait état d'un support social insuffisant ⁱⁱⁱ	15.5%	24.4%	10.1%	14.3%	2.42	-34.8%
% de la population adulte considérée comme obèse (IMC ≥ 30)	13.8%	19.2%	9.1%	10.1%	2.11	-34.1%



30) ⁱⁱⁱ						
% de la population adulte considérée comme en surpoids ou obèse (IMC ≥ 25) ⁱⁱⁱ	46.9%	57.8%	40.0%	17.8%	1.45	-14.7%
% de la population affirmant consommer au moins 2 fruits et 200 grammes de légumes par jour ⁱⁱⁱ	26.0%	21.7%	29.4%	-7.7%	0.74	13.1%
% de la population affirmant pratiquer une activité physique pendant au moins 30 minutes par jour ⁱⁱⁱ	38.1%	24.0%	42.8%	-18.8%	0.56	12.3%

ⁱ en années ; ⁱⁱ 5 niveaux d'études ; ⁱⁱⁱ 4 niveaux d'études ; ^{iv} 5 catégories de revenus ; ^v 2 catégories de remboursement ; les taux ne sont pas ajustés en fonction de l'âge ; mesures de synthèse = ICI (Indice de Concentration des Inégalités) portant sur l'espérance de vie et de bonne santé, FAP (Fraction attribuable à la Population) pour tous les autres indicateurs.

Source : Health Interview Survey et EPS (calculs du KCE et de l'ISP (institut de santé publique)
Indicateurs contextuels de l'équité

Nous avons retenu deux indicateurs contextuels de l'équité: un indicateur de la progressivité du financement public des soins de santé et un indicateur de la répartition du revenu national. Première observation, les ratios calculés dans le Tableau 12 indiquent que la part des sources de financement régressif (taxes indirectes) a augmenté. En règle générale, les taxes indirectes sont régressives parce que toutes les catégories de citoyens acquittent le même taux d'imposition sur les biens de consommation et services, de sorte que les nantis conservent une proportion plus élevée de leurs revenus. En conséquence, le taux moyen des taxes indirectes (le montant des taxes divisé par les revenus) diminue à mesure que le revenu augmente. Il convient toutefois d'être prudent dans l'interprétation de la des données 2010-2011, car il s'agit de budgets prévisionnels et pas de comptes définitifs.

Ensuite, comme l'état de santé peut être influencé par le niveau d'inégalité des revenus au sein d'un pays, nous présentons l'évolution du coefficient de Gini depuis 1988 en Belgique. L'augmentation du coefficient de Gini traduit un surcroît d'inégalité des revenus, on observe une inégalité croissante en Belgique, ainsi qu'un degré d'inégalité plus élevé à Bruxelles que dans les autres régions.

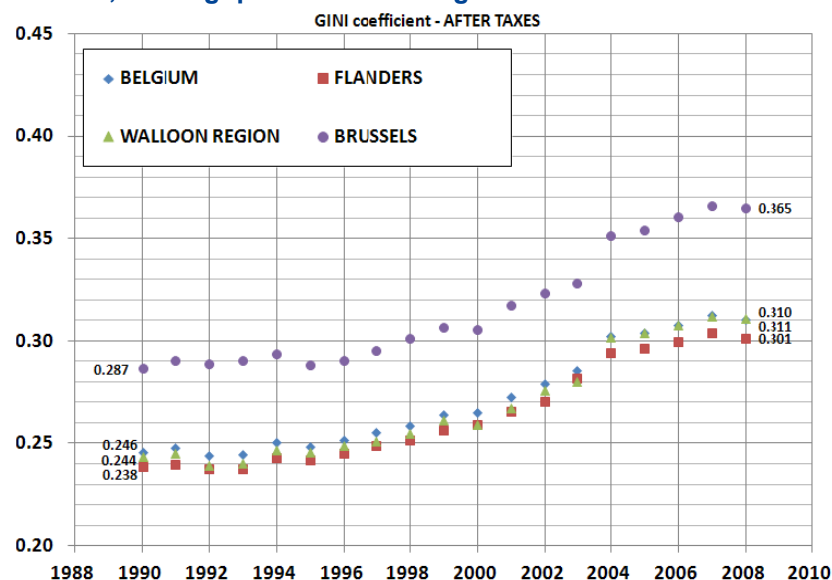

Tableau 12 – Indicateur de l'équité: progressivité du financement public du système de soins de santé

Indicateurs de progressivité			2005 (comptes définitifs)	2006 (comptes définitifs)	2007 (comptes définitifs)	2008 (comptes provisoires)	2009 (comptes provisoires)	2010 (budget)	2011 (budget)
Ratio	entrées	proportionnelles/entrées	71.1%	71.0%	72.0%	70.6%	69.4%	64.8%	61.4%
Ratio	entrées	progressives/entrées	18.9%	19.0%	18.0%	17.3%	17.2%	19.4%	18.4%
Ratio	entrées	régressives/entrées	10.0%	10.0%	10.0%	12.1%	13.4%	15.8%	20.2%
Total			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source : Vade mecum de la sécurité sociale, INAMI, calculs du KCE



Figure 2 – Indicateur de l'équité: coefficient de Gini après taxation et transferts, en Belgique et dans les régions



Source : DGSIE (Belgique)

Note : le coefficient de Gini exprime l'inégalité entre les revenus au sein d'une population. Lorsque l'égalité est parfaite (toutes les personnes ont les mêmes revenus), le coefficient est '0'. Lorsque l'inégalité est totale (une seule personne possède tous les revenus), le coefficient est '1'. Plus le coefficient de Gini est faible, plus la distribution des revenus au sein de la population en question est égale.

2.9 Conclusions sur les forces et faiblesses

État de santé

Les quatre indicateurs relatifs à l'état de santé évoluent positivement au cours du temps. L'espérance de vie est légèrement inférieure à la moyenne des pays de l'UE-15, tandis que l'espérance de vie en bonne santé (c'est-à-dire le nombre d'années restant à vivre sans limitation des activités) et la mortalité infantile occupent des positions moyennes dans le classement. Le taux de personnes percevant leur santé comme (au moins) bonne est supérieur à la moyenne des pays de l'UE-15.

Accessibilité des soins

En ce qui concerne l'accessibilité financière, malgré la couverture universelle par l'assurance-maladie et l'existence de filets de sécurité sociaux (MAF, Omnio, Fonds Spécial de Solidarité), certaines observations sont préoccupantes telles qu'un niveau élevé de dépenses à charge du patient, et un certain niveau de report des contacts avec les services des soins de santé pour des raisons financières.

L'accessibilité des mesures de prévention montre des résultats divergents, avec un taux relativement bas de dépistage du cancer (avec des disparités sociales et parfois régionales), un taux de vaccination moyen contre la grippe chez les personnes âgées, mais un bon taux de vaccination chez les enfants.

Un autre aspect de l'accessibilité concerne l'adéquation entre les forces de travail en soins de santé (médecins, infirmières) et les besoins de la population. Même si d'importants efforts ont été entrepris pour rendre disponibles les données relatives aux forces de travail, nous manquons toujours d'informations sur le nombre de professionnels de la santé nécessaires pour répondre aux besoins.

Qualité des soins : efficacité, adéquation, sécurité, continuité, approche centrée sur le patient

La qualité a été subdivisée en 5 sous-dimensions. Concernant l'efficacité, les résultats sont mitigés. Ils sont très bons quant au taux de survie après cancer, mais préoccupants dans le domaine de la santé mentale ; la Belgique présente en effet le second taux de suicide le plus élevé d'Europe (avec de très fortes disparités régionales) ainsi qu'un nombre de colocations en hôpital psychiatrique en augmentation. Pour décrire



l'efficacité des soins dans le domaine de la santé mentale davantage d'indicateurs et de données sont nécessaires.

L'adéquation des soins est assez décevante, avec des taux élevés et en augmentation du dépistage du cancer du sein en dehors des groupes cibles, un suivi modéré des recommandations (antibiotiques, patients diabétiques) et une augmentation des taux de césarienne, avec une grande variabilité entre les hôpitaux.

La sécurité des soins présente des résultats encourageants, avec une tendance à la baisse concernant l'exposition aux rayons ionisants médicaux, les infections nosocomiales et la mortalité hospitalière après une fracture de la hanche. Par ailleurs, l'incidence de la septicémie post-opératoire et la prescription d'antidépresseurs anticholinergiques aux personnes âgées présentent des niveaux stables. Cependant, l'incidence d'escarres est en hausse.

La continuité et la coordination des soins présentent des résultats mitigés, avec une bonne continuité relationnelle avec le même praticien, un taux moyen et en augmentation de consultation multidisciplinaire pour les cas de cancer, mais un faible taux de couverture du dossier médical global et un taux élevé de réadmission dans les hôpitaux psychiatriques.

L'approche centrée sur le patient n'a pu être évaluée que très partiellement. Le taux de satisfaction envers les services de santé est élevé, et on observe aussi une tendance à la hausse des décès au domicile. Mais il faut collecter davantage de données dans ce domaine.

Efficience du système de santé

L'efficience du système de santé présente des résultats moyens à bons, avec une augmentation de la prescription de médicaments « bon marché », de l'usage de la chirurgie de jour et une diminution de la durée du séjour pour un accouchement normal. Toutefois, ce message positif doit être tempéré par l'inadéquation, et donc le gaspillage de ressources, que montrent certains indicateurs, comme les mammographies en dehors du groupe cible évoquées ci-dessus.

Pérennité du système de santé

La pérennité du système de santé présente certains résultats interpellants concernant le renouvellement insuffisant de la cohorte actuelle de médecins généralistes. Il faudrait aussi des données sur les besoins en personnel infirmier associées à des données sur l'évolution du nombre d'infirmiers.

Équité (analyses de tous les indicateurs en fonction du statut socioéconomique et 2 indicateurs contextuels)

La dimension de l'équité a été abordée de deux manières complémentaires. Tout d'abord, les inégalités ont été analysées en décrivant l'état de santé, les modes de vie et l'utilisation des soins de santé en fonction du statut socioéconomique. De grandes inégalités ont été observées dans les indicateurs relatifs à la santé et au mode de vie. Des inégalités ont aussi été observées concernant le dépistage du cancer et le suivi des patients atteints de maladies chroniques. Toutefois, comme la plupart des indicateurs basés sur les hôpitaux n'ont pas pu être étudiés en fonction du statut social dans le cadre de ce projet, les conclusions concernant les inégalités en qualité des soins sont encore largement incomplètes.

L'équité a également été abordée par le biais de deux indicateurs mettant en évidence ce problème au niveau macro. Le premier est la progressivité du financement des soins de santé. Il est en diminution, ce qui constitue une évolution vers moins d'équité. Le second est l'index Gini qui correspond au niveau d'inégalité dans la répartition globale des revenus, et qui est lié à un état de santé général moins bon. Cet indice est relativement peu élevé en Belgique, mais il augmente au fil du temps, ce qui indique une répartition plus inégale des revenus dans notre pays.



Promotion de la santé

Enfin, la promotion de la santé a été principalement abordée au moyen d'indicateurs classiques sur la santé et le mode de vie, complétés par des indicateurs relatifs aux politiques de santé, aux milieux sains et aux aptitudes individuelles. En raison de la disponibilité très limitée d'indicateurs adéquats et de données en dehors des indicateurs classiques de la santé et du mode de vie, seul un aperçu fragmentaire a pu être fourni.

La plupart des indicateurs de la santé et du mode de vie présentent un taux national intermédiaire par rapport aux 15 pays de l'UE, mais d'importantes disparités régionales et sociales ont été observées. Nous mettons en évidence le problème de l'obésité et du surpoids qui présente un niveau élevé et une tendance à la hausse, avec d'importantes disparités. La consommation de tabac diminue, mais avec de fortes disparités sociales et régionales. La consommation de fruits et de légumes est largement inférieure aux besoins quotidiens, mais est en hausse. Le manque de support social présente aussi d'importantes disparités sociales et régionales et est particulièrement préoccupant chez les personnes âgées.

La Belgique se classe à un rang intermédiaire dans le classement international du Tobacco Control Scale. En outre, certains indices complexes visent à mesurer l'importance des politiques locales de promotion de la santé dans divers environnements (écoles, communes, entreprises) mais ne sont disponibles qu'en Flandre et sont difficiles à interpréter sans une analyse en profondeur.

De plus amples informations sont disponibles sur notre site Internet!

Pour chacun des indicateurs décrits ci-dessus, une fiche de documentation peut être consultée sur le site Internet du KCE, dans le document intitulé Supplement S1. Cette fiche motive le choix de l'indicateur et contient des informations techniques sur les sources de données et les modes de calcul, présente les résultats chiffrés, y compris les comparaisons internationales et analyses par sous-groupes, les limites des interprétations, ainsi que les références bibliographiques.

3 LE RAPPORT 2012 SUR LA PERFORMANCE : UTILITÉ, VALEUR AJOUTÉE ET LIMITATIONS

3.1 Quelle est l'utilité d'un rapport sur la performance du système de santé ?

La finalité du système de santé belge est d'être aussi performant que possible, afin de contribuer au mieux au maintien et à l'amélioration de la santé des personnes vivant en Belgique. En conséquence, les informations présentées dans ce rapport devraient servir à optimiser, le cas échéant, la performance du système de santé. Elles devraient également aider les décideurs politiques à formuler des objectifs chiffrés de santé publique aux niveaux fédéral et régionaux. La formulation d'objectifs est un maillon important dans l'évaluation de la performance : en effet, les futures évaluations pourront ainsi s'appuyer sur une comparaison entre résultats observés et objectifs à atteindre.

Ce rapport esquisse un tour d'horizon de la performance du système belge de santé à travers le prisme de 74 indicateurs. Ces indicateurs font office de signaux d'avertissement quant à l'accessibilité, la qualité, l'efficience, la pérennité et l'équité du système de santé. Dans certains cas, les décideurs politiques étaient déjà conscients des problèmes et ont déjà commandité des analyses complémentaires visant à identifier les mesures à prendre. Dans d'autres cas, ces signaux sont nouveaux pour les décideurs politiques et requièrent dès lors une analyse plus approfondie. Quoiqu'il en soit, la présentation exhaustive et structurée des indicateurs a pour ambition d'orienter le choix des priorités d'actions et de recherches



3.2 Quelle est la valeur ajoutée de ce rapport comparée au précédent?

Le rapport précédent, intitulé 'Un premier Pas vers la Mesure de la Performance', était avant tout une étude pilote. Sa principale conclusion était que, en Belgique, il est possible de procéder à une telle évaluation, grâce notamment à la bonne collaboration entre les administrations. Ce second rapport présente la première évaluation complète de la performance du système belge de santé. Ses atouts sont les suivants :

Meilleure disponibilité des données

La disponibilité des données a été améliorée de manière significative : des données sont désormais disponibles pour la survie au cancer et la mortalité infantile. D'autre part, le délai de disponibilité des données nationales de mortalité a été notablement réduit.

Un éventail d'indicateurs plus complet, pour une vision plus panoramique du système

Comme indiqué dans les objectifs opérationnels, le jeu d'indicateurs a été étoffé pour couvrir les domaines et dimensions qui n'étaient pas (suffisamment) pris en compte dans le rapport précédent. De nouveaux indicateurs ont été ajoutés à l'éventail dans le domaine de la santé mentale, des soins aux personnes âgées, de la continuité des soins et, dans une moindre mesure, dans les soins aux personnes en fin de vie, les soins de longue durée, la centralité du patient et la promotion de la santé. Deux indicateurs contextuels de l'équité ont été ajoutés, tandis que tous les indicateurs ont fait l'objet d'une analyse systématique en fonction du statut socioéconomique (lorsque les données permettant cette analyse sont disponibles).

Simplification de la structure de l'éventail d'indicateurs, pour une meilleure lisibilité de l'analyse

La structure du jeu d'indicateurs a été simplifiée à de multiples égards : Seuls les indicateurs mesurés ont été gardés dans le jeu actuel. Les indicateurs pour lesquels nous n'avons pas pu rassembler de données sont évoqués dans la section 'Données disponibles prochainement' ou 'Indicateurs en cours de développement' (voir supplément S1). Cette approche favorise la compréhension du jeu d'indicateurs, souligne les changements en termes de disponibilité des données ainsi que les lacunes en matière de données. L'ancienne distinction entre indicateurs 'principaux' et 'secondaires' a aussi été supprimée, car il s'est avéré qu'elle ne jouait aucun rôle dans leur interprétation.

Systématisation de l'analyse des données

L'analyse des données a été systématisée et les indicateurs sont toujours présentés selon la même structure : évolution dans le temps, évolution dans le temps par région, analyse par sous-groupes socio-économiques et comparaison internationale.

Recours aux informations déjà disponibles

Une utilisation maximale a été faite des données déjà disponibles, telles que celles qui sont contenues dans les bases de données administratives, les registres et les enquêtes récurrentes : l'enquête de santé par interview (HIS), Résumé hospitalier minimal (RHM), EPS (échantillon permanent - permanente steekproef), bases de données de l'INAMI (doc N, Pharmanet), les données de surveillance des infections nosocomiales, les enquêtes de vaccination, Registre belge du cancer. Le recours à des données disponibles de manière routinière, qui n'induisent aucun coût de collecte additionnel, facilite l'analyse de l'évolution de l'indicateur dans le temps.

Amélioration de la communication des résultats

Enfin, des tableaux synoptiques agrémentés de codes couleurs ont été élaborés pour permettre une présentation claire et lisible des résultats et de leur interprétation. Ces tableaux favorisent également la comparaison des indicateurs.



3.3 Quelles sont les limitations de ce rapport ?

3.3.1 *La performance, mais en fonction de quel objectif ?*

Malheureusement, très peu d'objectifs spécifiques et mesurables relatifs au système de santé ont été définis en Belgique. Lorsque de tels objectifs existent, la valeur de l'indicateur a été évaluée par rapport à la valeur de l'objectif. Dans les autres cas, l'appréciation s'est fondée sur des objectifs externes (tels que les objectifs fixés par l'OMS) ou sur une comparaison avec des résultats d'autres pays. Quand c'était possible, les indicateurs ont été comparés à la moyenne des pays EU-15. Cette approche a permis de positionner la Belgique par rapport à ses voisins, mais elle ne répond pas pour autant à la question « Nos résultats sont-ils bons ou mauvais ? » Certains résultats peuvent en effet être meilleurs que ceux d'autres pays, tout en étant mauvais par rapport aux objectifs définis. Par ailleurs, l'interprétation des comparaisons de performance entre pays fait toujours débat⁸, en raison des multiples limitations liées à cette démarche, telles que les variations méthodologiques et contextuelles, qui nuisent à la validité des comparaisons.

Plusieurs organisations internationales comparent déjà la Belgique à d'autres pays d'Europe en matière de santé et de soins de santé. Citons l'OMS dans son Rapport 2000 sur la Santé dans le Monde⁹, le rapport bisannuel 'Panorama de la Santé en Europe'^{10,11} qui est le fruit de la collaboration entre l'OCDE et l'Union Européenne, le site Internet des indicateurs ECHI supporté par l'Union Européenne¹², et l'Euro Health Consumer Index¹³ publié par l'organisation privée suédoise Health Consumer Powerhouse.

3.3.2 *Prendre des décisions sur base de données obsolètes ?*

Certaines données sont manifestement obsolètes et les plus récentes datent de 2010. Ce délai est inhérent au recours à des données administratives et à des registres. Pour procéder à des comparaisons internationales, nous avons parfois dû nous baser sur des données de 2005! Dans de nombreux cas, il serait difficile, pour les décideurs politiques, de baser leurs décisions sur de telles informations. Pour ce qui

concerne les indicateurs dérivés de la HIS, des données parfaitement actuelles devraient être contenues dans le prochain rapport de performance, dans la mesure où un nouveau HIS sera mené en 2013.

3.3.3 *Une vision plus globale, mais certaines lacunes subsistent*

Les lacunes ont généralement trait à l'absence d'indicateurs pertinents, à l'absence de données (actuelles), et à la nécessité de trouver un meilleur indicateur ou des informations plus détaillées.

1. **Statut santé général : étudier la part de mortalité « évitable » dans la mortalité prématurée**

Dans le rapport précédent, la mortalité prématurée (exprimée en 'années potentielles de vie perdues' jusqu'à l'âge de 70 ans) était utilisée comme indicateur du statut santé. L'étude de la mortalité prématurée par groupe de cause, et éventuellement aussi de la mortalité évitable, pourrait ajouter un éclairage intéressant sur les services de santé.

2. **Accessibilité financière : une vision plus globale est nécessaire.**

Pour optimiser les politiques d'accessibilité financière, il est indispensable d'avoir une vision plus globale des suppléments ambulatoires ainsi que des assurances hospitalisation privées (à savoir le pourcentage de personnes couvertes par une telle assurance, à quel coût, pour quelles couvertures précisément).

3. **Accessibilité financière et équité : une manière plus exhaustive de mesurer l'équité du système est de prendre en compte la distribution des dépenses privées (contribution individuelle officielle, suppléments, remboursements nets par les compagnies d'assurances privées et intervention du maximum à facturer) en fonction du statut socio-économique. Pour calculer cette distribution, il est nécessaire de disposer de toutes les données de revenus et de dépenses des patients.**



4. **Force de travail** : de meilleures données relatives à l'offre sont disponibles, mais il manque encore des informations relatives à la demande. Une planification efficace de l'effectif soignant devrait être envisagée dans le cadre d'une politique globale tenant compte de l'offre et des besoins des patients. Les données relatives à l'offre se sont incontestablement améliorées depuis quelques années. Toutefois, ce rapport ne contient aucun indicateur portant sur les besoins. D'autre part, l'effectif soignant nécessaire dépend non seulement des besoins médicaux, mais aussi des modalités d'organisation du système des soins de santé, et notamment des soins primaires et des soins hospitaliers.
5. **Santé mentale** : les indicateurs actuels ne reflètent pas les changements intervenus récemment dans ce secteur. La réforme la plus récente a pour but d'instaurer un modèle de soins intégré et équilibré axé sur les 'réseaux de soins' (intitulé 'projet Article 107'). L'objectif principal de cette réforme est de mettre l'accent sur la prise en charge de proximité à chaque fois que la chose est possible, en ne recourant plus aux services hospitaliers que lorsque les soins ambulatoires ne répondent plus aux besoins du patient. Plusieurs nouveaux indicateurs ont été proposés pour superviser ces évolutions (tels que le pourcentage de patients bénéficiant d'une gestion de dossier, ou encore le rapport entre les dépenses en soins de proximité et le budget total des soins de santé mentale). Ces indicateurs n'ont pas encore pu être mesurés en raison des limites des données disponibles.
6. **Continuité et coordination des soins** : de nouvelles données relatives aux nouveaux trajets de soins ambulatoires seront bientôt disponibles, mais des lacunes subsistent. Les résultats de ces nouveaux trajets pour le diabète de type 2 ou l'insuffisance rénale chronique sont en cours d'évaluation. Ces éléments seront intégrés dans la prochaine édition du rapport performance. Toutefois, il manque encore des données relatives aux autres indicateurs pertinents, tels que les retours d'expérience des patients sur la coordination des soins ou la disponibilité permanente des informations 'santé' du patient.
7. **Centralité du patient** : de nombreuses initiatives ont été prises, mais les données sont rares. La centralité du patient est un paramètre intrinsèquement difficile à mesurer sur base de données quantitatives, car elle exprime la capacité du système à répondre efficacement aux attentes spécifiques du patient ou à favoriser l'implication du patient. Pour nous permettre de mieux appréhender cette dimension, la prochaine vague de la HIS contiendra une série de questions sur l'expérience du patient en matière de soins de santé ambulatoires (généralistes ou spécialistes). Pour permettre une comparaison internationale, ces questions seront fondées sur le questionnaire de l'OCDE.¹⁴ Les expériences des patients en matière de soins ambulatoires seront donc intégrées dans la prochaine édition de ce rapport.
8. **Soins de longue durée** : Plusieurs indicateurs ont été choisis pour évaluer la qualité des soins de longue durée dispensés aux patients âgés : la prévalence de la malnutrition, le pourcentage de patients âgés soumis à une contention physique, la prévalence des chutes, l'incidence des escarres et la problématique de la polymédication. Ces indicateurs n'ont pas encore pu être mesurés, ce qui atteste du manque de données dans ce domaine. L'outil BelRAI fournira prochainement des données pour certains indicateurs retenus. Cet instrument a été mis au point pour évaluer les besoins des personnes âgées bénéficiant de soins à domicile ou en institution.
9. **Soins aux personnes en fin de vie** : de nombreuses études locales sont disponibles en Belgique, mais très peu de données nationales. Les quelques indicateurs relatifs à ce paramètre présents dans ce rapport portent sur la population de patients décédés d'un cancer ou sur la population de patients bénéficiant de soins palliatifs à domicile. Ces deux groupes ne couvrent pourtant pas l'ensemble de la population éligible aux soins palliatifs, ce qui atteste d'une réelle carence en données. Jusqu'à présent, aucune donnée de portée nationale n'a été publiée sur l'accessibilité ou sur la qualité des soins en fin de vie. En comparaison avec les autres domaines de soins, la fin de vie n'est pas ou peu représentée dans les bases de données des organisations internationales.



10. **Promotion de la santé** : nous ne disposons pas, en Belgique, de données sur la littéracie en santé (*health literacy*), alors que de telles informations sont disponibles dans d'autres pays d'Europe. La littéracie en santé est un concept relativement nouveau, considéré comme un paramètre clé dans la gestion de la santé. Il peut être défini comme les aptitudes individuelles requises pour comprendre et gérer les facteurs qui déterminent sa propre santé. Ces aptitudes permettent aux individus de faire de meilleurs choix en matière de santé. La promotion de cette littéracie a été définie comme action prioritaire 2008-2013 de la stratégie de l'Union Européenne. Les résultats de l'étude européenne sur la Health Literacy sont disponibles depuis peu pour certains pays.
11. **Une plus grande attention devrait être portée à l'efficacité dans le prochain rapport.** Manifestement, l'efficacité des soins de santé ne peut être valablement évaluée sur la base des quelques indicateurs contenus dans ce rapport. La littérature internationale propose diverses mesures de l'efficacité fondées explicitement sur les inputs et les outputs.^{7,15} Ce point recèle incontestablement un intéressant potentiel d'étude.
12. **Inégalités** : les inégalités n'ont pas pu être étudiées pour tous les indicateurs car, dans certaines sources de données (RHM), aucune donnée socio-économique n'est disponible. Dans les données des mutuelles, les informations sur le statut socio-économique sont assez brutes et approximatives.

4 CONCLUSION GÉNÉRALE

Ce rapport contient les résultats d'une première évaluation globale de la performance du système belge de santé, faisant suite à 'une étude de faisabilité préalable. En présentant 74 indicateurs assortis de valeurs chiffrées, ce rapport a pour ambition de brosser un tour d'horizon complet de la performance du système de santé, d'attirer l'attention des décideurs politiques sur certains points et de suggérer des pistes d'actions ou de recherches complémentaires.

Ce rapport marque une avancée substantielle en comparaison au rapport précédent, grâce à un éventail d'indicateurs plus complets et plus pertinents. Dans certains cas, il permet de mesurer des évolutions dans le temps. Des lacunes importantes dans les données de base ont en outre été comblées depuis la dernière édition, telles que le taux de mortalité par cause ou le taux de survie au cancer.

La Belgique n'est pas le premier pays à avoir relevé ce défi. En paraphant en 2008 la Charte de Tallinn sur les systèmes de santé, les États membres se sont formellement engagés à superviser et à évaluer la performance de leur système de santé. Plusieurs pays voisins, qui possèdent plusieurs années d'expérience dans la mesure de la performance des systèmes de santé, ont servi d'exemples lors de l'élaboration de ce rapport, par exemple les Pays-Bas. Une des conditions clés d'une évaluation efficace de la performance du système de santé (également soulignée dans les rapports néerlandais) est la disponibilité de données récentes. La mise à jour régulière des données administratives et la publication dynamique des résultats sur un site Internet seraient l'une des modalités à investiguer.



Avec la directive européenne sur les droits des patients dans le cadre des soins transfrontaliers, l'engagement pris à Tallinn devient une préoccupation partagée par tous les États membres.^f Lorsque cette directive aura été transposée dans les législations nationales, en octobre 2013, les États membres devront s'assurer que les patients provenant d'un autre État membre sont en mesure de recevoir des informations pertinentes sur les normes de sécurité et de qualité des soins, pour leur permettre de prendre une décision informée. Dans cette optique, ce rapport jette non seulement les fondements d'une future évaluation systématique de la performance, mais il peut également être considéré comme une première étape permettant à la Belgique d'assumer ses responsabilités et de dispenser tant aux patients belges qu'étrangers des soins sûrs, de haute qualité, accessibles et efficaces.

^f Directive 2011/24/UE du Parlement européen et du conseil du 9 mars 2011 relative à l'application des droits des patients en matière de soins de santé transfrontaliers, JO L 88/45, 4 avril 2011



■ SCIENTIFIC REPORT

1 BACKGROUND AND APPROACH

1.1 Context

1.1.1 *International context*

The Tallinn Charter in 2008

In June 2008, the 53 Ministers of Health from the countries belonging to the European region of the World Health Organisation (WHO) signed “The Tallinn Charter on Health Systems for Health and Wealth”. The primary objective of the Tallinn Charter is to commit member states to improve people’s health by strengthening their respective health systems. Of the seven commitments signed, the third is related to health system performance: “(the member states commit) to promote transparency and be accountable for health systems performance to achieve measurable results”. The rationale of that commitment is given earlier in the text: “well functioning health systems are essential to improving health, and therefore health systems need to demonstrate good performance”. The Charter also acknowledged that health systems are more than healthcare and include disease prevention, health promotion and efforts to influence other sectors to address health concerns in their policies, an approach that was already extensively developed by the WHO in its “Health in All Policies”.¹⁷ Other commitments in the Tallinn Charter include promoting shared values of solidarity, equity and participating, investing in health systems and fostering investment across sectors that influence health, making health systems more responsive to people’s needs, preferences and expectations and ensure that health systems are prepared and able to respond to crisis. The last commitment proved afterwards to be visionary, as no long after the Tallinn Conference the world was struck by a global economic and financial crisis.

From values to actions, from Tallinn to Health 2020

By signing the Tallinn Charter, all member states of the WHO in the European region reinforced that they share the common value of the highest attainable standard of health as a fundamental human right. From this common value a set of goals were listed: improve health on an equitable basis, contribute to social well-being and cohesiveness by



distributing the burden of funding fairly according to people's ability to pay and aim at efficiency by making the best use of available resources.³ An interim report on the implementation of the Tallinn Charter details how member states have made operational these various commitments.¹⁸ In parallel, the WHO European region has launched in 2010 a new health policy, Health 2020.¹⁹ It aims to provide a coherent evidence-based health policy framework in light of the trends that have become salient over the past decades in Europe: changes in demography (increasing ageing, decreasing fertility), globalisation and migration (including health workers), accelerating technological innovation (including genetics), rapidly increasing access to information for patients and the general public. The four policy priorities focus on:

- (1) Investing in health through a life-course approach and empowering people, demonstrating the importance for the WHO of the expected benefits of health promotion,
- (2) Tackling Europe's major health challenges (among which recognising the burden of non-communicable diseases, tobacco, diet and physical activity, HIV/AIDS, antibiotic resistance),
- (3) Strengthening people-centred health systems, public health capacity and preparedness for emergencies and
- (4) Creating a healthy and supportive environment.¹⁹

1.1.2 National context

2010, publication of the report on Belgian Health System Performance Assessment

Two years after the signature of the Tallinn Charter, the first Belgian report on Health System Performance Assessment (HSPA) was published in June 2010.¹ The title of this report "A first step towards measuring of the performance of the Belgian healthcare system" is illustrative of the prudence of the authors: healthcare system is mentioned instead of health system (a much broader scope), and it is the first step only... The reasons of this prudence lie in the amount of work needed for this first evaluation:

new collaborations between administrations of the federal and regional levels had to be initiated, and stakeholders were consulted extensively. The report was articulated around two main sections. First, the Belgian HSPA framework was constructed based upon international experiences tailored to the Belgian context. Second, a core set of 55 indicators was selected, and 40 of them could be measured. Based on these indicators, results, strengths, weaknesses, evolution over time and proposed actions were discussed.

After the publication of the first report, the commissioners of the Belgian HSPA requested the project to be continued, aiming at a systematic evaluation of the Belgian Health System. The commissioners also requested to enrich the set of indicators with indicators in specific domains such as mental healthcare, long-term care and end-of-life care, as those were insufficiently covered in this first report. In addition, the regions and communities requested new indicators to assess the performance of health promotion by enlarging the set from the evaluation of the healthcare system to a full evaluation of the health system. Lastly, three dimensions (i.e. continuity of care, patient centeredness and equity) were considered to be insufficiently represented, and new indicators had to be proposed to assess these dimensions.

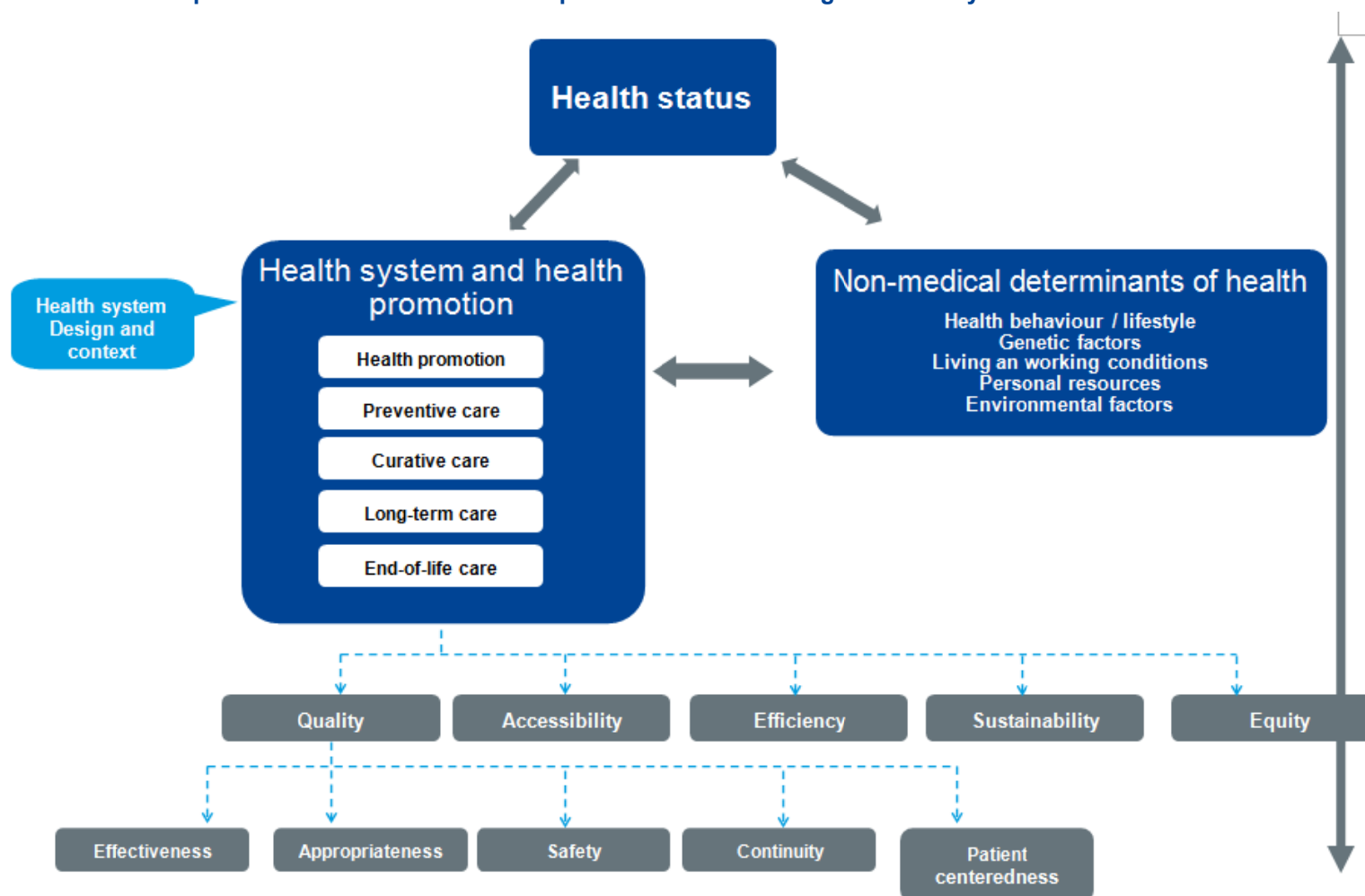
1.2 The Belgian performance framework and definitions

The Belgian performance report makes use of a conceptual framework (see Figure 3) inspired by the Dutch and Canadian frameworks,^{20, 21} tailored to the Belgian health system.

The conceptual framework is composed of three interconnected tiers, which do not represent a hierarchy. The three tiers include health status, non-medical determinants of health and the health system itself, consisting of 5 domains: health promotion, preventive care, curative care, long-term care and end-of-life care. Each of these domains can be evaluated on different dimensions: their quality, accessibility, efficiency or sustainability. Equity has been defined as an overarching dimension.



Figure 3 – The conceptual framework to evaluate the performance of the Belgian health system





Definitions used in the conceptual framework

These definitions are based on the following sources: WHO (2008)³, Arah (2006)⁴, Vlayen (2006)⁶, Australian National Health Performance Committee (2001)²² and the Ottawa Charter²³.

Health status

This tier addresses the question “How healthy is the population residing in Belgium?”, covering several dimensions, such as health (prevalence of disease, disorder, injury, trauma or other health-related states), human functions (alterations to body, structure or function [impairment]), activities [activity limitation] and participation [restrictions in participation]), well-being (physical, mental, and social well-being), and death.

Non-medical determinants of health

This tier encompasses the determinants that have an effect on health and on if, when and how we use care. These determinants include health behaviour/lifestyle (e.g. smoking, physical activity), genetic factors, living and working conditions, personal resources, and environmental factors (e.g. air, water, food and soil quality resulting from chemical pollution and waste disposal).

Health system

Within the political and institutional framework of each country, a health system is the ensemble of all public and private organizations, institutions and resources mandated to improve, maintain or restore health. Health system encompasses both personal and population services as well as activities to influence the policies and actions of other sectors to address the social, environmental and economic determinants of health.

Domains of the health system and health promotion

The health system has been grouped into 4 domains: preventive care, curative care, long-term care and end-of-life care. The health promotion goes far beyond the boundaries of the health system.

- Preventive care: healthcare aiming to prevent the occurrence of a disease (primary prevention, i.e. vaccination; secondary prevention, i.e. taking medication to prevent myocardial infarction after a first

episode) or to detect health problems before they occur (regular testing, screening for diseases, and other services that detect health problems early before they manifest symptoms).

- Curative care: healthcare that tends to overcome disease, and promote recovery.
- Long-term care: The term “long-term care services” refers to the organisation and delivery of services and assistance to people who are limited in their ability to function independently on a daily basis over an extended period of time. There are two complementary components of this definition: first, the care continues over a long time period, and second, the care is usually provided as an integrated program across service components.²⁴ This report focuses on two main populations: first, long-term care for older persons, and second, long-term care for persons with mental disorder. Long-term care for older persons include the following major services: home nursing care, homes for the elderly and nursing homes.⁹
- End-of-life care: the care of a person from the moment it has become clear that the person is in a progressive state of decline. End-of-life care includes palliative care but also broader social, legal and spiritual elements of care relevant to the end of the life.

⁹ **Home nursing care** is available for persons with low to severe activities of daily living (ADL) and/or cognitive limitations, irrespective of their age. Care provided by home nurses includes technical nursing interventions (for example wound dressing and administering medication) and basic nursing care (mainly hygienic care in patients with ADL dysfunction).

In the **residential sector**, **homes for the elderly** (“maison de repos pour personnes âgées”, MRPA / “woonzorgcentra”, previously called “rustoorden voor bejaarden” ROB) provide nursing and personal care as well as living facilities to older persons with mainly low to moderate limitations. Older persons who are strongly dependent on care but who do not need permanent hospital treatment are admitted to **nursing homes** (“maison de repos et de soins” MRS / “rust- en verzorgingstehuis” RVT). While medical costs and costs of care in residential care facilities are covered by public health insurance, board and lodging costs are to be paid by the resident.



- Health promotion has been defined by the WHO as “the process of enabling people to increase control over their health and its determinants, and thereby improve their health”. The health promotion goes far beyond the boundaries of the health sector: indeed one of the means of health promotion occur through developing healthy public policy that addresses the prerequisites of health such as income, housing, food security, employment, and quality working conditions. The other axes defined in the Ottawa Charter are: create healthy settings, increase the role of the community, increase the skills of the individuals, reorientation of the health services.²³

Health system performance

This is a much broader conceptual approach to measuring performance than healthcare system performance by explicitly using non-medical determinants, healthcare and contextual information to give a clearer picture of population health.

Dimensions of Health System Performance

Health system performance, which is presented and analysed for each health system domain, is grouped into four main dimensions: accessibility, quality, efficiency and sustainability, and the overarching dimension of equity.

Accessibility is defined as “the ease with which health services are reached”. It recovers physical (geographical distribution), organizational, financial, cultural, psychological dimensions of access. Access requires that health services are a priori available.

Quality is defined as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge”. It is further subdivided into five sub-dimensions, including effectiveness, appropriateness, safety, patient-centeredness and continuity.

- Effectiveness is defined as “the degree of achieving desirable outcomes, given the correct provision of evidence-based healthcare services to all who could benefit but not those who would not benefit”.
- It is therefore closely related to appropriateness, which can be defined as “the degree to which provided healthcare is relevant to the clinical

needs, given the current best evidence and the provider’s experience”. The link between effectiveness and appropriateness reflects the link between outcomes and processes.

- Safety can be defined as “the degree to which the system has the right structures, renders services, and attains results in ways that prevent harm to the user, provider, or environment”. Including the provider and environment in this definition extends the dimension beyond quality.
- Patient-centeredness is defined as “providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions”.
- Finally, continuity addresses “the extent to which healthcare for specified users, over time, is smoothly organised within and across providers, institutions and regions”, and to which the entire disease trajectory is covered. This also means that ‘coordination’ (i.e. smooth organisation across providers, institutions and regions) is considered to be part of continuity.

Efficiency is defined as “the degree to which the right level of resources (i.e. money, time and personnel) is found for the system (macro-level) and ensuring that these resources are used to yield maximum benefits or results (i.e. allocative efficiency)”.

Sustainability is the system’s capacity to provide and maintain infrastructure such as workforce (e.g. through education and training), facilities and equipment, and be innovative and responsive to emerging needs. Important factors for the maintenance of the workforce also include the health personnel’s satisfaction and working conditions.

Equity is a *transversal dimension*, being considered and presented across all three tiers of the framework. Equity is concerned with the fairness of the distribution of healthcare across populations and with the fairness of payment for healthcare. Above this, “equity” can be estimated for non-medical determinants of health and for health status. There are many overlaps with the dimension of accessibility.



Assessment of the Health promotion

Only a partial assessment of the health promotion performance could be made into the scope of this work. More details are given in Chapter 7 Performance of health promotion.

- Outcomes of the health promotion can be categorized (see further, Nutbeam's framework in Chapter 7 Performance of health promotion) into outcomes very distal to action (like health outcomes), intermediate health outcomes (like adopting healthy lifestyle), and more direct outcomes, called "health promotion outcomes" (like health literacy).
- The main values and principles of the health promotion are: participation, empowerment, equity, multistrategic/multisectorial interventions, sustainability.

Health system design and context

This includes the important design and contextual information that may be specific to the Belgian health system, and which are necessary for interpreting the health system performance. Context should be interpreted in a broad way, encompassing both the local (national) factors that influence the health system (e.g. federal vs. regional context, legal framework, financing) and the international context factors (e.g. Europe). This also means that the articulation between the different authorities (federal, regional, local) is considered to be a characteristic of the health system influencing its performance, rather than a dimension of performance itself. An additional contextual factor is the local culture, which has an important influence on ethical questions.

Health in all policies

This is a dimension linking non-medical determinants of health to the health system. It can be defined as a horizontal, complementary policy-related strategy contributing to improved population health (<http://www.euro.who.int/document/E89260.pdf>). The core of "health in all policies" is to examine determinants of health that can be altered to improve health, but which are mainly controlled by the policies of sectors other than health.

1.3 Objectives of the performance project

Systematic evaluation of health system performance is an on-going process, with publication of HSPA reports as important milestones. Strategic objectives, defined as the objective of the on-going process, have to be differentiated from the specific objective of the present report, and its operational sub-objectives.

1.3.1 Strategic objectives of the HSPA process

The HSPA process pursues three strategic objectives:

1. To inform the health authorities of the performance of the health system and to be a support for policy planning;
2. To provide a transparent and accountable view of the Belgian health system performance, in accordance with the commitment made in the Tallinn Charter;
3. On the long-term, to monitor the health system performance over time.

1.3.2 Overall and operational objectives of the 2012 report

Overall objective:

To propose and measure a set of indicators covering all domains and chosen dimensions of our health system, while keeping a reasonable number of indicators. With a too small set, important dimensions or domains would be missed. But a too large set is difficult to manage and the profusion of results would dilute main messages. For the 2012 report, we aimed at a set of about 80 indicators.

Four operational objectives have been defined:

1. To review the core set of 55 indicators of the previous report, with a special focus on the 11 indicators for which there were no data in 2010;
2. To enrich the core set with indicators from the following domains: health promotion, general medicine, mental health, long-term care, end-of-life care; to add indicators on patient centeredness and continuity of care (two sub-dimensions of quality); and finally to propose indicators on equity in the health system;
3. To measure the selected indicators, when possible, or to identify gaps in the availability of data;



4. To interpret the results in order to provide a global evaluation of the performance of the Belgian health system by mean of several criteria, including an international benchmarking when appropriate.

1.4 Methods to reach operational objectives

Operational objective 1: To review the core set of 55 indicators, with a special focus on the 11 indicators for which there were no data in 2010.

The update of the former 55 indicators was made in a consensus meeting between the research team and a specialist in health indicators of the Federal Public Service (FPS) Public Health.

Operational objective 2: To enrich the core set with indicators illustrating the following domains: health promotion, general medicine, mental health, long-term care, end-of-life care; to add indicators on patient centeredness and continuity of care (two sub-dimensions of the quality); and finally to introduce indicators on equity-inequality in health/health system.

The strategy for the selection of new indicators in a variety of domains and dimensions consisted of the following:

The indexed literature was searched using usual standards of literature search for Health Services Studies.²⁵ Many indicators were also found in the grey literature, mainly reports of national (e.g. Dutch performance report) or international organizations (e.g. OECD Health Data, WHO Health for All Database, Eurostat, and reports specific to the domain or dimension studied). This resulted in long lists of indicators. The selection process occurred on an iterative way, involving both the research team and panels of expert specific for each topics. In some cases, a two step scoring allowed to select the more appropriate indicators, with regards to many criteria (relevance, content validity, reliability, interpretability and potential for action). In the other cases, the selection was based on a consensus among experts.

Indicators on the performance of general medicine were selected from a recent RIZIV – INAMI project using the same methodology.²⁶

Indicators on the equity of the system were derived from international literature. A specific working paper “The place of equity in assessments of the performance of health systems can be found in Supplement S2 of this report.

The whole set of indicators was then reviewed by the research team to avoid redundancies in indicators and enhance the consistency of the set.

Operational objective 3: To measure the indicators selected in operational objective 2, and to identify gaps in the available data.

After the setting up of an updated set of indicators, the research team gathered the data to measure them. Indicators without (yet) available data were classified into two categories: those for which data will be available within the next two years, and those for which it is not clear how and by whom these indicators should be collected. Nevertheless, in spite of the lack of relevant data, these indicators were selected by the experts as being relevant, and were kept under a section “indicators under development”.

For each measurable indicator, a complete documentation sheet was written with detailed results, including international comparisons.

Operational objective 4: To interpret the results in order to provide a global evaluation of the performance of the Belgian health system.

When the data were available, the following analyses were performed: analysis at national and regional level (with trends over time), analysis by demographic and socioeconomic factors, and finally benchmarking of most recent results compared to European Union (EU)-15 countries. These results were discussed with the expert groups to facilitate interpretation and identify shortcoming and areas for further development.

The documentation sheets and the detailed results of the indicators are gathered in Supplement 1. A synoptic table summarises the main results for all indicators using colour-coded cells.



1.5 The 2012 set of performance indicators and structure of this report

The selected 74 indicators which could be measured are classified by domain and by performance dimension in Appendix A of this report. The results (values) of the indicators are summarized and discussed in the following chapters of this report.

Chapters 2 to 6 have the same structure. Each chapter discusses the indicators illustrating one dimension (e.g. quality, sustainability) and consists of three parts:

1. First, we explain how the dimension was evaluated which boils down to a motivation of the selection of the indicators.
2. The “facts and figures” section is the core of each chapter. For each indicator we present the main results of the data analysis for Belgium, for the three regions (where possible) and put these results in perspective with international results and trends. Detailed results are also available in each documentation sheet in the Supplement S1 (available on the website).
3. At the end of each section, we summarize the results of the data analysis in key findings – mostly one key finding per indicator.

The following chapters illustrate some specific issues: health promotion is discussed in Chapter 7 and Chapter 8 discusses the aspects of health inequalities and equity. The conclusion and discussion are in the synthesis at the beginning of this document.

Indicators for which there are currently no data have been discussed to identify gaps in availability of data in Belgium, and to provide recommendations to policy makers in Chapter 9.

The result of reviewing the 2010 set of indicators (operational objective 1) can be found in Appendix 2. From the 11 indicators with data missing in 2010, 5 indicators could be measured in this report. The others have been either removed from the set, either moved to the indicators to be measured soon. Another 12 indicators have been removed from the 2010 set, because they were deemed as not being relevant anymore, or because data were outdated.

In addition to these 74 indicators, 11 indicators for which data are expected within a two-year timeframe have been selected. Probably, they will be included in the next edition of the performance report. These indicators are listed in Appendix 3.

More documents are available on the KCE website:

- In Supplement S1: one documentation sheet per indicator has been presented, summarising the rationale for choosing the indicator, technical information on data sources and computation, limitations in interpretation, and the bibliographical references.
A list of indicators that were deemed pertinent by the expert groups, but for which no initiatives are currently taken to collect data, is also presented in this Supplement S1. These indicators have been discussed to identify gaps in availability of data in Belgium, and to provide recommendations to policy makers which are discussed in details in Chapter 9.
- In Supplement S2: “The place of equity in assessments of the performance of health systems” (author: Christian Léonard): a specific paper on equity, indicators for equity and review of available work performed in Belgium.
- In Supplement S3: All technical details of literature searches and selection of indicators (MESH terms, databases searched, list of indicators initially selected, scoring of experts) for the following domains: Health promotion / Mental health / Continuity of care / Patient centeredness / Long-term care and care of the elderly / End-of-life care.



2 OVERALL HEALTH STATUS OF THE POPULATION

2.1 How did we describe the overall health status of the population?

The objective of this performance report was not to perform an assessment of the health status of the Belgian population. We describe anyway 4 global health status indicators. Those can be seen as very distal general outcomes of the health system/health promotion interventions, as well as a reflection of the global developmental level of a society. Those 4 indicators are:

1. Life expectancy
2. Health expectancy
3. Percentage of population perceiving their health as good or very good
4. Infant mortality rate

Four other health status indicators were described in other sections. As a matter of fact, while those four particular indicators can be influenced by individuals and societal actors, they make part of the evaluation of some specific domain or dimensions. Those four indicators are:

- Suicide rate (described in section 4.1.1, effectiveness of mental health care)
- Overweight and obesity rates (described in section 7.2.1, health and social outcomes)
- Rate of new HIV diagnosis (described in section 7.2.1, health and social outcomes)
- Mean number of decayed, missing, filled teethes in children (described in the section 7.2.1, health and social outcomes)

2.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

Life expectancy and Health expectancy

Life expectancy (LE) at birth in Belgium was 80 years as of 2010.²⁷ Life expectancy has remarkably increased since decades, reflecting sharp reductions in mortality rates at all ages. These gains in longevity can be attributed to a number of factors, including rising living standards, improved lifestyle, better education and greater access to quality health services.⁵

LE was 5.3 years higher in women (82.6 years) than in men (77.4 years) in 2010 and is higher in Flanders than in Wallonia (difference of 3 years in men and 1.8 years in women) (Table 13). Life expectancy in Belgium is slightly lower than the average of the EU-15, 80.7 years in 2010 (Figure 4).

Health expectancy represents the remaining years lived from a particular age without long-term activity limitation. This is the structural European indicator named 'Healthy Life Years' (HLY).²⁸ It extends the concept of life expectancy to morbidity and disability in order to assess the quality of years lived. HLY can be computed for several ages. In order to be consistent with previous published work, we present the HLY at 25 years, but data for many other reference ages can be found.

HLY at 25 in Belgium was 41 years in men and women in 2008^h. Women live thus about 5 years longer than men, but those additional years are lived in activity limitation. HLY increases slowly in men but remains stable in women. The HLY at 25 is higher in Flanders than in the other regions, for both sexes (Table 13).

^h SPMA: https://stats.wiv-isp.be/SASStoredProcess/quest?_program=%2FEhleis%2FStored+Process%2FHealth+Expectancy+Statistics&_action=properties



For international comparisons, Eurostat computes the HLY at birth.²⁹ Belgium is situated close to the average of EU-15 countries: for women 62.6 years versus 63.0 years in EU-15, and for men 64.0 versus 63.1 in EU-15.

Table 13 – Life expectancy at birth (2010), and Healthy Life Years at age 25 (2008), by sex and region

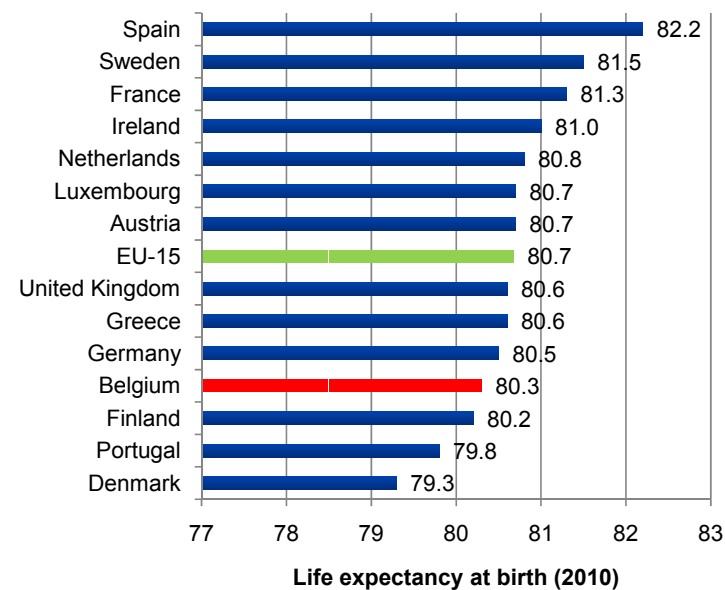
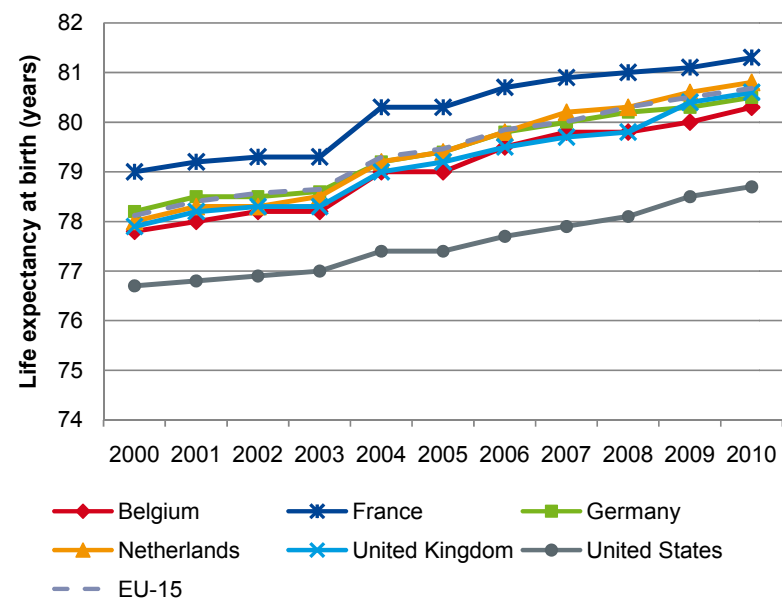
	Belgium	Brussels	Flanders	Wallonia
Male				
Life Expectancy at birth*	77.4	76.9	78.5	75.5
Healthy life years at 25**	41.3	38.5	43.7	37.4
Female				
Life Expectancy at birth*	82.6	82.8	83.3	81.5
Healthy life years at 25**	41.2	40.6	42.3	39.1

Source: * DGSIE, data 2010; ** SPMAⁱ, data 2008

ⁱ https://stats.wiv-isp.be/SASStoredProcess/guest?_program=%2FEhleis%2FStored+Process%2FHealth+Expectancy+Statistics&_action=properties



Figure 4 – Life expectancy at birth: international comparison (2000-2010)



Source: OECD Health Data 2012



Self-perceived health

Self-perceived health has been proven as a reliable reflection of morbidity, and as highly predictive of mortality.

In 2008, 77% of the people aged 15 years or older rated their health as good or very good. This rate has slightly increased over time. The subjective appraisal of health status was slightly less favourable in women, even after adjusting for age. It was higher in Flanders than in the other regions.

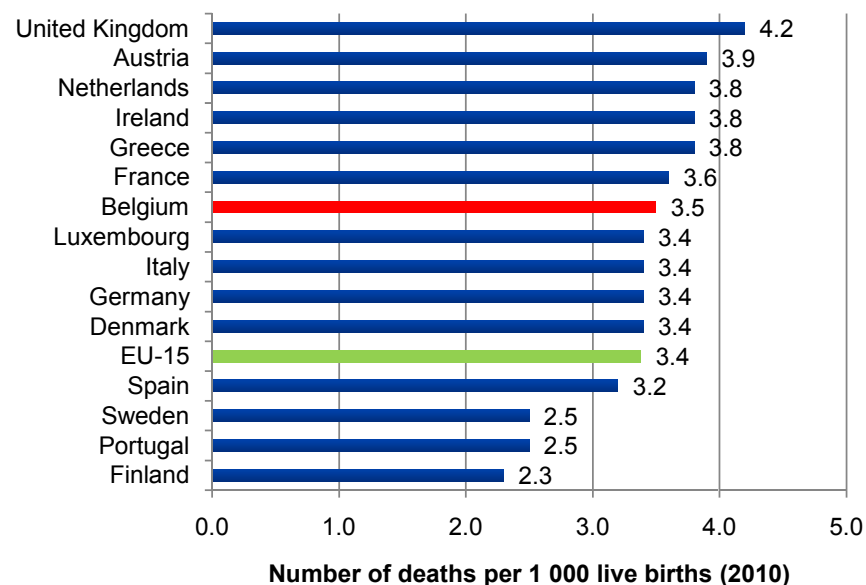
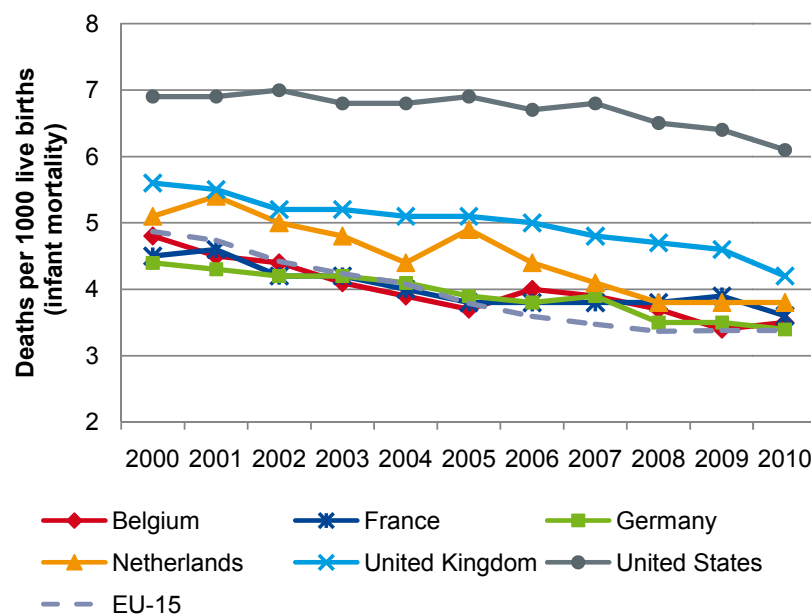
Two databases provide information for the international comparison: the OECD Health Data (in which data from Belgium come from the HIS) and the European Union Statistics on Income and Living Conditions (EU-SILC) survey. The former database was chosen for its comparability with results

above. Belgium compares very well with other EU-15 countries (average of 71.7%).

Infant mortality rate

The infant mortality rate (IMR) is a basic indicator for population health and quality of health care services, and is highly correlated to a country's level of development. The IMR has regularly decreased over the last decades in EU countries, such as in Belgium (around 5 deaths/1000 live births in 2000 to 3.5/1000 live births in 2010, which is within the EU-15 average of 3.4/1000 live births (Figure 5). Data per region (from 2008) show similar rates in the three regions. Rates are also higher for male infants (4.2/1000) than for female infants (3.4/1000).

Figure 5 – Infant mortality rate: international comparison



Source: OECD Health Data 2012



2.3 Key findings

- Life expectancy at birth in Belgium was 80 years as of 2010. It is increasing over time, and is higher for women. It is higher in Flanders. Life expectancy in Belgium is slightly lower than the average of the EU-15 (80.7 years in 2010).
- Although women live longer than men, they do not live much longer in good health since the number of years with (self-reported) activity limitation is higher in women. Belgium is ranking within the average as compared with the EU-15.
- 77% of the population reported their health to be good to very good in 2008. This proportion is higher for men as compared to women, and drops with age. Belgium compares very good with other EU-15 countries (average of 71.7%).
- Infant mortality has decreased regularly over the last decades. The figures are similar in the three regions and are close to 4 for 1000 live births in 2010. Infant mortality rates in Belgium are close to the average EU-15 rates, and better than in the neighbouring countries.

3 ACCESSIBILITY OF CARE

3.1 How did we evaluate the accessibility of healthcare?

Accessibility is defined as the ease with which health services are reached in terms of physical access (geographical distribution), costs, time, and availability of qualified personnel.⁴ Accessibility of a health system is a prerequisite of a qualitative and efficient health system.

In this report, we have defined twelve indicators to evaluate the accessibility of the healthcare system. Some indicators are related to the workforce, addressing the availability of healthcare personnel, others are used to determine financial access, focusing on insurance status, out-of-pocket payments and delaying contacts with healthcare due to financial reasons. Another group of indicators measures the coverage rates for preventive policies such as cancer screenings and vaccinations. Finally, one indicator relates to the timing (or timeliness) of access to palliative services.

Workforce

1. Number of practising physicians per 100 000 population
2. Number of practising nurses per 100 000 population

Financial accessibility

3. Coverage of the population in terms of health insurance
4. Amount of co-payments and out-of-pocket payments
5. Percentage of consumers who delay contact with health services because of financial reasons

Coverage of preventive measures

6. Breast cancer screening (women aged 50-69 years)
7. Cervix cancer screening (women aged 25-64 years)
8. Coverage of vaccination for young children
9. Coverage of influenza vaccination for the elderly (65 years and older)

Accessibility of long-term care (residential care for elderly and informal carers)

10. Number of beds in residential care facilities per population 65 years and older



11. Percentage of population over 50 years old reporting to be an informal carer

Accessibility of end-of life-care: timeliness of start of palliative care

12. Start of palliative care very close to death

3.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

Workforce

The number of care providers gives information on the medical workforce currently active in the healthcare sector, and thus indirectly on the accessibility of the healthcare system.

The number of practising physicians^j increased from 28 999 in 2000 to 31 815 in 2010, corresponding to a density of 2.91/1000 population. Of these, 38.4% were GPs and 6.07% psychiatrists and 56% were non-psychiatrist specialists. Expressed in full-time equivalents (as calculated by the RIZIV – INAMI since 2009), this density reduces to 1.99/1000 population (Table 14).

Few EU-15 European countries report the number of practising physicians to the OECD. Before 2009, Belgian data on practising physicians included all registered physicians at the RIZIV – INAMI (potentially practising). This way of counting resulted in a physician density of 4.03/1000 population which was one of the highest in Europe.¹ Since 2009 (and retrospectively on data older than 2009) the density is based on the number of practising physicians, giving a better picture of the 'useful' medical density in Belgium. Compared to other OECD countries which also report the density of practising physicians, the density in Belgium is lower than in Germany, but is slightly higher than in the UK (in 2009) (Figure 6).

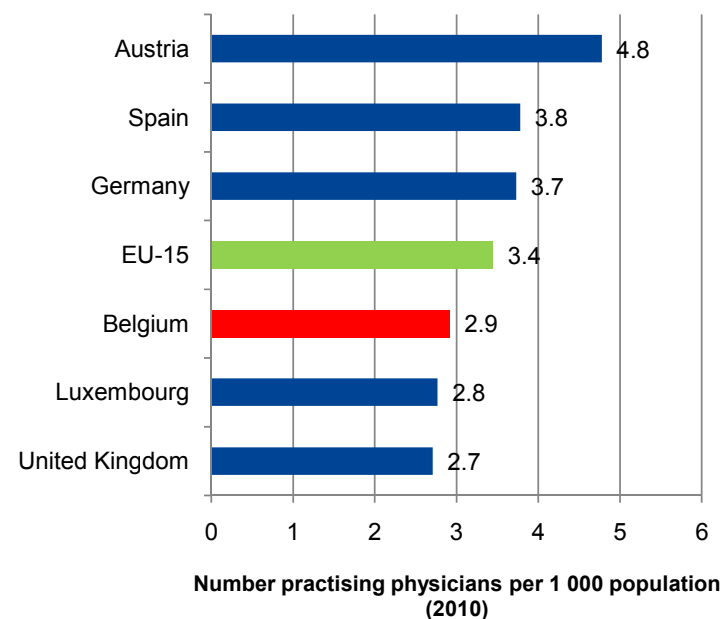
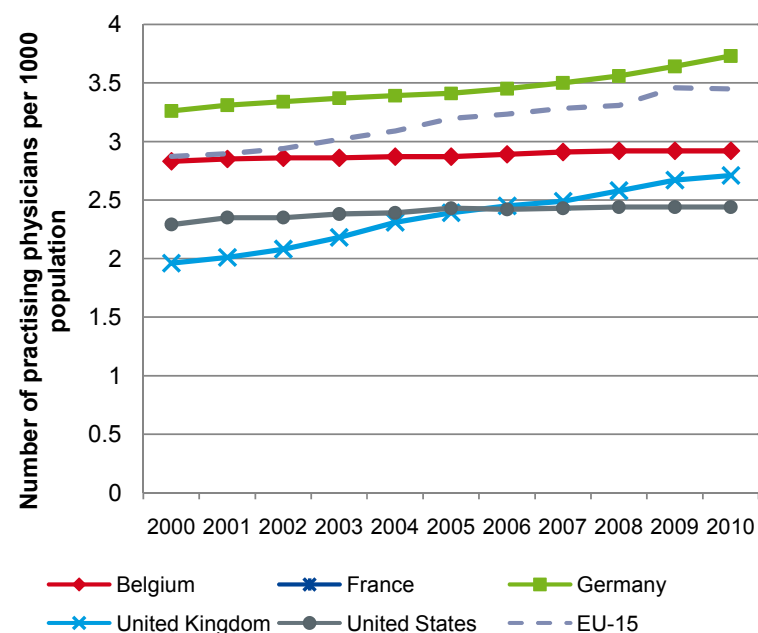
^j For international comparisons, the practising physicians are defined by RIZIV – INAMI as those who provided more than one reimbursed clinical service during a year.

Table 14 – Number of practising physicians, estimation of Full Time Equivalent, and density (/1000 population) (2010)

Profession	Total practising	Density	Total FTE	Density
Medical doctors	31 815	2.92	21 691	1.99
GPs	12 228	1.12	8 646	0.79
Psychiatrists	1 932	0.18	1 260	0.12

Source: RIZIV – INAMI

Note: Practising physicians are defined as those who provided more than one reimbursed clinical service during a year.

**Figure 6 – Number of practising physicians (per 1000 population): international comparison**

Source: OECD Health Data 2012

Nurses are generally the most numerous health professionals, greatly outnumbering physicians in almost all OECD countries.⁵ Estimating the number of practising nurses is even more challenging than evaluating the number of practising medical doctors; indeed, many nurses are on the payroll of hospitals or nursing homes, and there is no centralized counting of them. Only nurses outside the hospitals are registered in the RIZIV – INAMI databases. For that reason, the FPS Public Health organized a large survey to measure the number of practising nurses in 2009. Results showed that on the 152 376 nurses included in the study, 70% were active in the healthcare sector (39% in hospitals, and the rest in residential care for older persons or in nursing home care). This corresponds to a density

of practising nurses of 9.9/1000 population.³⁰ However, we still do not know the number of corresponding FTE.

International comparison based on OECD Health Data is currently meaningless, as Belgian data still represent all nurses (on the basis of their diploma, and not on their working status in healthcare).



Financial accessibility

A prerequisite for financial accessibility is coverage with health insurance. A compulsory health insurance, in principle, covers the whole population of citizens living in Belgium. In practice, some categories of citizens (e.g. asylum seekers) may not fulfil administrative and/or financial requirements, and hence are not affiliated to a sickness fund. This does not mean that they have no right to necessary medical care, but their healthcare expenses are covered by the public municipal welfare centres (OCMW – CPAS), and not by the sickness funds. The data for Belgium in OECD Health Data report a constant percentage of 99% insured persons, up to 99.5% in 2009. Other European countries report similarly high coverage (with many countries reporting 100%). Nevertheless, total health insurance coverage, both public and private, is an imperfect indicator to compare the level of accessibility across the countries, since the range of services covered and the degree of cost-sharing applied to those services can vary across countries. Another indicator of financial accessibility is the coverage of complementary health insurance (usually private), but no data are currently available in Belgium.

Low out-of-pocket (OOP) payments are another condition for good accessibility to the healthcare system. Out-of-pocket payments are expenditures borne directly by a patient where health insurance does not cover the (full) cost of the health good or service. They include co-payments (ticket modérateur / remgeld), costs of over-the-counter medications and other expenditures paid directly by private households. Between 2003 and 2010, the OOP expenditures rose from €5.33 to €7.25 billion, but compared to the total health expenditures, their share remained constant during the same time period (20.0% in 2003, 19.4% in 2010). Co-payments represented 26.7% of all out-of-pocket expenditures in 2010. Expressed per inhabitant, out-of-pocket payments represent a total of €665 in 2010.

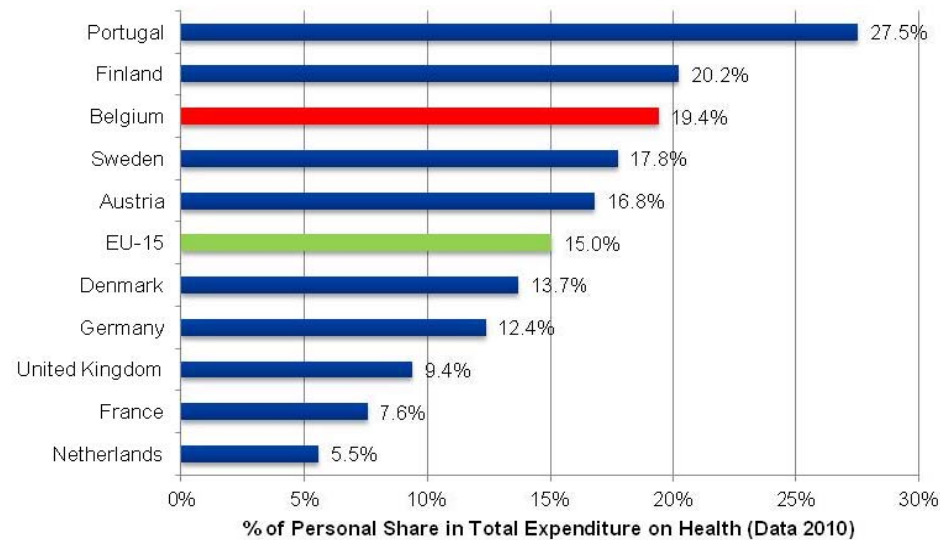
Comparison of health expenditures across European countries are based on the System of Health Accounts (SHA). The SHA, developed jointly by Eurostat, WHO and OECD, is a common way to report and classify health expenditures at a national level. The comparison shows that OOP expenditures in Belgium (expressed as a % of total health expenditures) are at the higher end, with countries such as France, the Netherlands and UK lying below 10% (Figure 7). Again, this statement should require a very detailed scrutiny of all expenses included or not by countries in the calculation of their System of Health Accounts.

**Table 15 – Out-of-pocket expenditures (2003-2010)**

Year	2003	2004	2005	2006	2007	2008	2009	2010
All out-of-pocket expenditures								
Billion €	5.53374	5.53049	5.68334	6.27044	6.73778	7.02868	6.85982	7.25518
% expenditure on health	20.0	18.8	18.6	20.5	20.9	20.3	18.9	19.4
€/capita	533.31	530.70	542.37	594.47	634.10	656.27	635.38	665.88
Co-payments only								
Billion €						1.85261	1.96620	1.93881
% of all out-of-pocket expenditures						26.4	28.7	26.7

Source:

- Out-of-pocket expenditures: System of Health Accounts (SHA), OECD Health Data 2012
- Co-payments (tickets modérateurs/remgeld): RIZIV – INAMI

Figure 7 – Out-of-pocket expenditures (as a percentage of total health expenditures): international comparison

Source: OECD Health Data 2012



To guarantee financial accessibility of healthcare in Belgium, legislators have introduced several “social care nets”, which aim is to protect households with low financial means or with very high healthcare expenses against catastrophic healthcare expenses^k. However, despite these social care nets, 14% of the households declared that they had to postpone healthcare (medical care, surgery, drugs, glasses or lenses, mental healthcare) for financial reasons. In Brussels, this percentage reaches 26% of the households (14% in Wallonia and 11% in Flanders). In 1997, this percentage was below 10%.

It is difficult to benchmark these data: indeed, data on global unmet clinical needs are available in OECD Health Data, but those also include problems due to waiting times or distances.

The five following indicators measure in which way specific preventive measures are effectively accessible and used by the population.

Coverage of screening for breast and cervical cancer

These two interventions currently run with different organizational modalities: organized national program for the breast cancer and opportunistic screening for the cervix cancer. It is still too early to evaluate the colorectal cancer screening program.^l

^k Only to cite some of them: the entitlement to increased reimbursement of co-payments (introduced in 1963), the Maximum Billing System (MAB, implemented in 2002) and the OMNIO status (introduced in 2007).

^l For colorectal cancer, there is no national program in place, but different regional approaches co-exist: in the French Community (Wallonia and Brussels), a screening programme was started in March 2009. Every two years, persons aged 50-74 years old are invited to perform a FOBT (fecal occult blood test), or directly a colonoscopy for individuals at high or very high risk.³¹ There has been a preliminary evaluation of the start of the program, but it is still too early to evaluate the global coverage.³² In Flanders, pilot projects were also started.³³

- For breast cancer, a national screening program exists (since 2001 in Flanders and 2002 in Wallonia and Brussels) for women aged 50-69 years. The latter co-exists with opportunistic screening (mammograms performed outside of the program). Mammograms within this program are called hereafter “mammothests”, to be distinguished from all other mammograms (opportunistic screening or diagnostic test)^m.

Result: In 2010, the total coverage of breast cancer screening was 60%, far below the EU-15 average of 68%, and even further of the 75% target set by the EU.⁵ (Figure 9) Moreover, only half of this coverage occurred within the program (30% screening coverage with the “mammothests” in 2010). Differences between regions are striking with regard to the coverage within the program: 46% in Flanders, while only 11% in Brussels and 7% in Wallonia. (Figure 8) This is probably partially due to the persistence of pre-existing higher levels of opportunistic screening in Wallonia and Brussels before the start of the program.³⁴

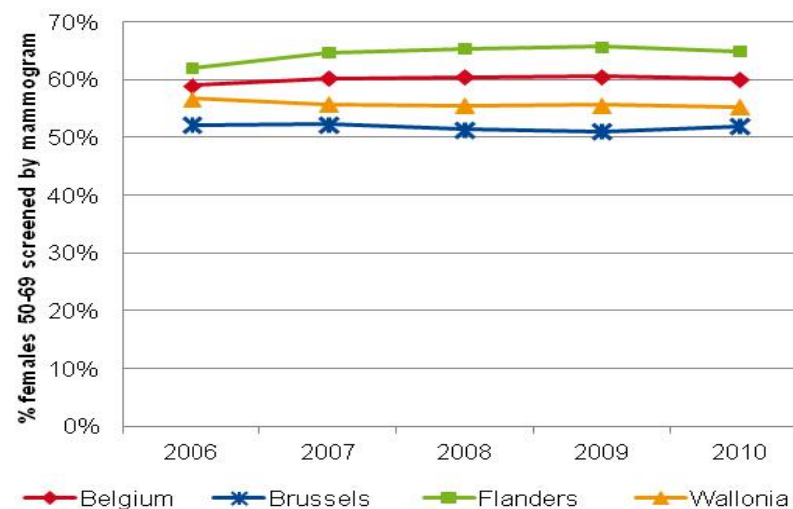
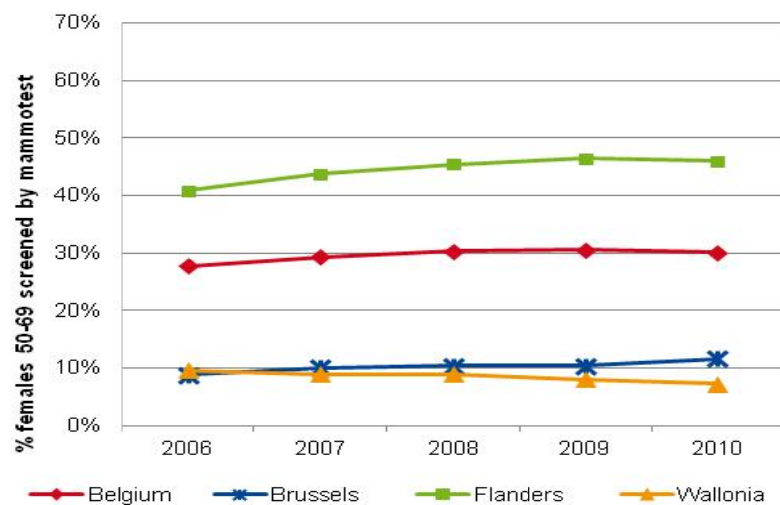
- Cervical cancer, a cancer with a low incidence and a medium to poor prognosis, can be largely detected in a curable stage by the smear test (or Pap test).³⁵ This test is recommended every three years for women aged 25-64 years. Currently, the screening for cervix cancer is essentially opportunistic.

Result: The cervical cancer screening coverage has remained stable around 62% between 2007 and 2010. In a previous study from 1998-2000, the coverage rate was already 59%.³⁶ Compared to other European countries, Belgium caught up with the EU-15 average of 61% in 2008, but is still far from some countries such as UK (80%) or Finland (70%) (Figure 9).

^m It is not possible to distinguish in the nomenclature between mammograms done for opportunistic screening from mammograms done for a diagnostic.



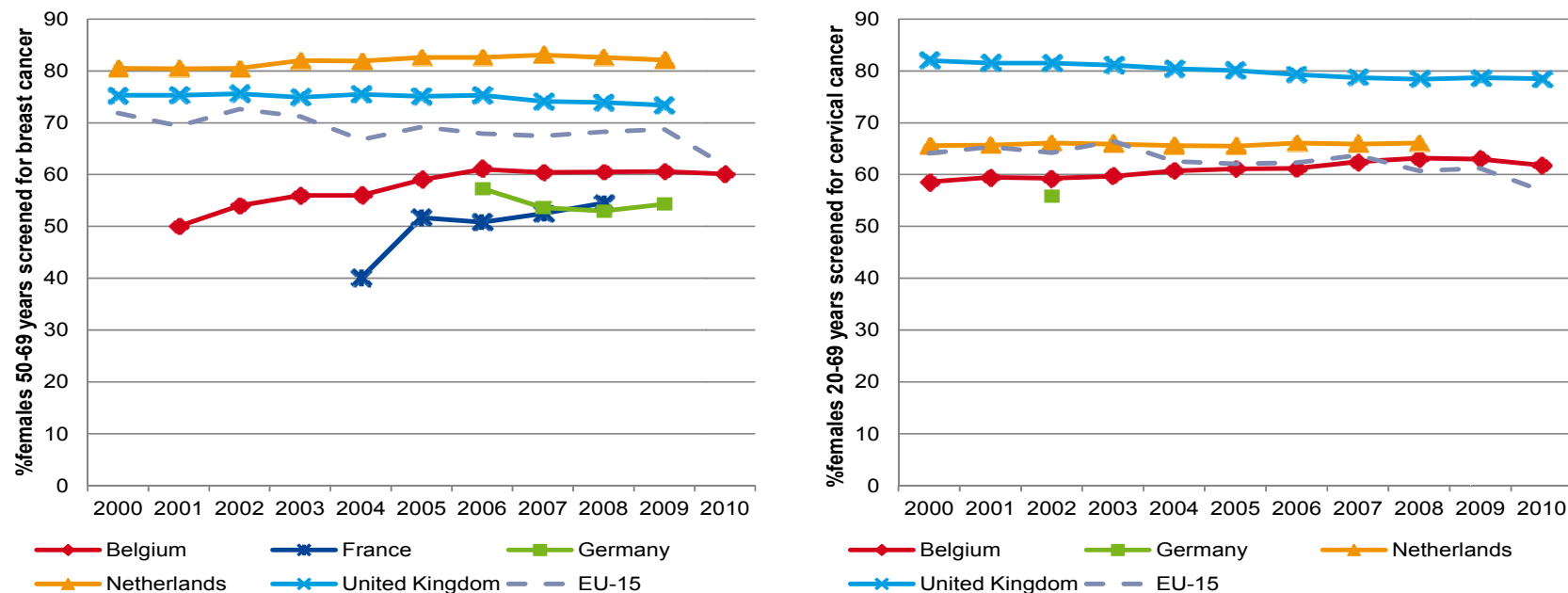
Figure 8 – Percentage of women (aged 50-69) who had a mammogram (within program (a) or overall (b)) within the last two years, by region (2006-2010)



Note: mammotest = organised screening program, mammogram = organized + opportunistic screening + diagnostic test; Source: IMA-EPS, KCE calculation



Figure 9 – Breast cancer and cervical cancer screening: international comparison (2000-2010)



Source: OECD Health Data 2012, except IMA-EPS for Belgium 2008-2010 (KCE calculation)

Coverage of vaccination

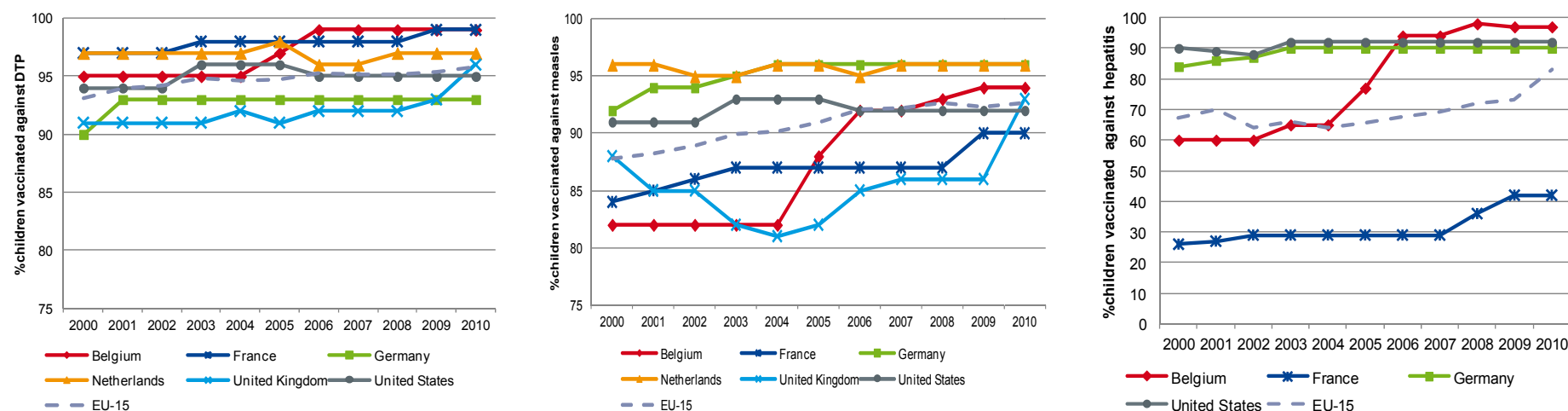
Immunisation is one of the most powerful and cost-effective forms of primary prevention. The choice of the vaccinations included in our set is based on the international indicators from European Community Health Indicators Monitoring (ECHIM) and OECD. In Belgium, as vaccination is a regional health competence, the vaccination rates are measured at regional level, and a national rate is computed as a weighted average of the three regional rates.

The WHO-recommended target rate for a collective immunisation is 90% for Diphtheria-Tetanus-Pertussis (DTP) and 95 % for measles. In general,

the recommended coverage rates are reached in Belgium. The 3rd dose-coverage of Diphtheria-Tetanus-Pertussis (DTP3), Haemophilus Influenzae B (Hib), poliomyelitis (Polio3), hepatitis B (Hep3) has increased and exceeds 95%. Only for Measles-Mumps-Rubella (MMR) the coverage was still just below 95% in 2009. It must be noticed that some small epidemic outbreaks of measles have occurred in recent years, in all regions and a large outbreak of measles occurred in 2011.³⁷

Compared with other European countries, Belgium ranks very good for DTP3 coverage, particularly since 2003. For measles (1st dose), the global coverage ranks good, has much improved and reaches almost the recommended level.

Figure 10 – Percentage of children covered by main vaccinations (2000-2009): international comparison



Source: OECD Health data 2012

In Belgium, seasonal influenza vaccination is currently recommended in 5 groups of persons defined as being of influenza complications (like persons aged >65 years and all persons living in institutions; healthcare professionals; pregnant women; persons aged 50-64 years with health risks like obesity; chicken and pig farmers).³⁸ The WHO recommends a target vaccination rate of 75% for the elderly.³⁹ The last Intermunicipal Agency (IMA) report which covers the winters 07-08 and 08-09, shows that the vaccination coverage of elderly does not reach the WHO target (63% in 2008-2009)⁴⁰, except for elderly residing in institutions (83%). Compared to other countries, coverage in Belgium is lower than in France, UK and the Netherlands (between 70% and 80%), and similar to the EU-15 average (63%).

Accessibility of long-term care (residential care for elderly and informal carers)

Relative to the 65+ population, the number of beds in residential care facilities has remained constant over the past decade, at 7 beds per 100 persons of 65 and over in 2010.⁴¹ This stable figure hides large shifts in the sector: the number of beds in homes for the elderly has decreased steadily in the last decade, from around 88 000 in 2000 to 64 000 in 2011, while the number of beds in nursing homes almost doubled, from around 33 000 to 65 000 over the same period. There are also large differences between regions. In 2010, the number of beds in homes for the elderly per 100 inhabitants of 65 years and older was considerably higher in Wallonia and Brussels than in Flanders (Table 16) while the density of nursing home beds does not diverge much between the regions. Overall, the number of beds in residential facilities in relation to the elderly population is much higher in Wallonia and Brussels than in Flanders.

**Table 16 – Number of accredited beds in homes for the elderly and nursing homes per 100 population 65 years and older, per region, 2010**

	Beds in homes for the elderly			Beds in nursing homes		
	Wallonia	Flanders	Brussels	Wallonia	Flanders	Brussels
Number of beds /100 inhabitants 65 +	4.9	2.5	6.3	3.4	3.3	3.8

Source: RIZIV – INAMI 2011

Data are available internationally for the proportions of population over 65+ recipient of long-term care (LTC) in residential care. With a percentage between 6% and 7%, Belgium is higher than the EU-15 average (that is between 4% and 5%), and similar to the Netherlands. No data are available for recipients of home care.

Informal carers, defined as people providing assistance with basic activities of daily living (ADL) for at least one hour per week, are an important component in the long-term care process.⁵ The number of informal carers is estimated to decrease in the coming decades, as a result of declining family size, changes in residential patterns of people with disabilities and rising participation rates of women in the labour market.

The average proportion of informal carers varied from 8% in Sweden to 16.2% in Italy. The Belgian average of 12.1% of the population aged 50 and older is slightly higher than the overall average of the OECD-countries (11.7%).⁵

Other results are available in the documentation sheets (Supplement S1 available on the web) and include data on share of women, weekly hours of care, distribution of care recipients, employment rate and hours of work, leave from work, flexible work schedule, and mental health problems related to informal care giving.

As there are currently no data on patient needs, these two indicators are still insufficient to evaluate the accessibility of long-term care.

Accessibility of end-of-life care: timeliness to start palliative care

The last indicator of accessibility is specific to end-of-life care. The start of palliative care is sometimes delayed until patients are in terminal phase. This can denote either problems of accessibility of end-of-life care, either that the decision to start palliative care was taken too late. There is currently very little information on the real moment when palliative care is started, but the time when the palliative lump sum is requested for a patient can provide some indication.ⁿ A study from the Christian Sickness Funds (2006) gives some indications: the application for the palliative lump sum occurred for half of the patients in less than a month before their death. In 20% of the cases, patients died within the week of application.^{42,43} More data are needed on this indicator.

ⁿ Patients who stay at home and have a life expectancy of less than three months can benefit from a “palliative statute”. It involves a lump sum and the abolition of patient co-payment for nursing, GP visits and visits of the physiotherapist. The use of palliative lump sums at home increased from 8 504 lump sum in 2004 to 20 170 in 2010 (source: RIZIV – INAMI).



3.3 Key findings

Workforce

- The density of practising physicians (those who performed more than one reimbursed clinical act) increased slightly from 2.83 /1000 population in 2000 to 2.91/1000 population in 2010. Expressed in full-time equivalents, medical density decreased to 1.95 /1000 population.
- The density of practising nurses in the healthcare sector was 10/1000 population in 2009. On 100% nurses, 68% were active in the healthcare sector (37% in hospitals, and the rest in residential care for older persons or in nursing home care). This result was not available in the previous report.

Financial accessibility

- The coverage of population by health insurance is very high (99.5%), due to compulsory affiliation to a sickness fund.
- Between 2003 and 2010, the out-of-pocket (OOP) expenditures rose from €5.33 to €7.25 billion. Their share in total health expenditures remained constant during the same time period: 20.0% in 2003 and 19.4% in 2010. OOP expenditures per capita amounted to €665 in 2010. Comparison with other European countries shows that OOP expenditures (expressed as a % of total health expenditures) in Belgium are at the higher end, with countries such as France, the Netherlands and the United Kingdom lying below 10%.
- In 2008, 14% of the households declared that they had to postpone some of their healthcare (medical care, surgery, drugs, glasses or lenses, mental healthcare) due to problems of financial accessibility. In 1997, this percentage was below 10%.

Coverage of preventive measures

- During the last five years, the coverage of organized breast cancer screening stagnates around 30%, with huge differences in participation between regions (Brussels: 12%, Flanders: 46%, Wallonia: 7%). Overall coverage, including all mammograms, stabilized around 60%, which is far below the EU-15 target (75%).
- Coverage of cervical cancer screening was stable between 2007 and 2010 (62%-63%), while the number of tests performed annually was divided by 2 between 2008 and 2010, due to changes in reimbursement rules. Coverage in Belgium is within the EU-15 average (63%) but lower than in the UK (around 80%).
- In general, the WHO-recommended coverage rates of children vaccination are reached in Belgium. The coverage rates of diphtheria-tetanus-pertussis, poliomyelitis, hepatitis B have increased and are now above 95%. Only for measles the coverage was still just below 95% in 2009.
- The WHO-recommended coverage of elderly vaccination against influenza is not met: 63% in the winter 2008-2009 against a 75% target. Vaccination rates for elderly residing in an institution are higher (82%).



Accessibility of long-term care (residential care for elderly and informal carers)

- Relative to the 65+ population, the number of beds in residential care facilities has remained more or less constant over the past decade, from 71 beds per 1000 persons of 65 years and over in 2000 to 70 beds in 2010. With 6%-7% of 65+ residing in residential care, Belgium is higher than the EU-15 average, between 4% and 5%, and is similar to the Netherlands. No data on home care users are available for international comparison.
- Informal carers, defined as people providing assistance with basic activities of daily living (ADL) for at least one hour per week, are an important component in the long-term care process. The Belgian average of 12.1% of the population aged 50 and older reporting to be an informal carer is slightly higher than the overall average of the OECD-countries (11.7%).

Timeliness to start palliative care

- There is currently little information about the moment when a palliative status is requested. A study from the Christian Sickness Funds (2006) gives some indications: the application for the palliative lump sum occurred for half of the patients in less than a month before death. In 20%, patients died within the week of application. More data are needed (trend over time, international comparison) on this indicator.

4 QUALITY OF HEALTHCARE

Quality is defined as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge”.⁶ It is further subdivided into 5 sub-dimensions: effectiveness, appropriateness, safety, continuity of care and patient centeredness.

4.1 Effectiveness of care

4.1.1 How did we evaluate the effectiveness of care?

Effectiveness is defined as “the degree of achieving desirable outcomes, given the correct provision of evidence-based healthcare services to all who could benefit but not those who would not benefit”. All indicators are thus outcome (results) indicators.

4.1.1.1 Preventive care

No indicator provides information on the effectiveness of preventive care, as updating this set of indicators for preventive care did not belong to the operational objectives of this 2012 report. Examples of such indicators include: declines in mortality for cancer for which there is a screening programme, shifts in staging at diagnosis of cancer and incidence or mortality of epidemics for which vaccination exists.

4.1.1.2 Curative care

Four indicators have been selected to assess the effectiveness of curative care: three indicators related to the survival after a diagnosis of cancer, and one indicator on the effectiveness of ambulatory services to treat patients with a chronic condition (in this case: asthma).

Cancer Care

1. 5-year relative survival after breast cancer, by stage
2. 5-year relative survival after cervical cancer, by stage
3. 5-year relative survival after colon cancer, by stage

Chronic care

4. Avoidable hospital admissions for asthma



4.1.1.3 Long-term care

Three indicators are selected to assess the effectiveness of mental healthcare:

1. Suicide rate
2. Rate of involuntary committals as a percentage of all hospitalizations
3. Participation rates by people with mental illness of working age in employment

With regard to the effectiveness of long-term care for the elderly, no data are currently available at a national level. However, the BelRAI^o will provide data soon on a selected indicator: the prevalence of malnutrition in elderly being in residential care facility or receiving home care (BMI<19)^p.

4.1.1.4 End-of-life care

Some indicators have been proposed by the expert groups, such as the percentage of palliative patients for which physical symptoms (pain for instance) have been assessed and controlled, but there are currently no data available for this indicator.

4.1.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

^o The Resident Assessment Instrument (RAI)⁴⁴ is originally developed to assess the care needs of the elderly in institutions, and has later been extended with instruments for different care settings and subgroups. In Belgium a national pilot project (the BelRAI) is ongoing, but is not yet implemented in all care settings: the assessment instruments for home care, for long-term care facilities and acute care have already been adapted to the Belgian situation (details in Appendix C).

^p This indicator is already measured in the Netherlands (Dutch Health Care Performance Report 2010^{3,20}) and also belongs to the set of indicators proposed by the OECD working group on long-term care quality indicators.⁴⁵

4.1.2.1 Survival after a cancer

Survival rates after cancer are one of the key indicators of the effectiveness of the healthcare system and are commonly used to track progress in treating disease over time. They reflect both how early the cancer was detected, and the effectiveness of the treatment.⁵ In Belgium national 5-year relative survival data became available only recently and no evolution of relative survival can be given already in this report. For international comparisons, data refer to the incidence year 2004. Rates are expressed as “relative 5-year survival years”, meaning that they have been corrected for the age-specific expected mortality.

The 5-year breast cancer relative survival rate is 80% in most OECD countries⁵ and has improved in all countries between 1997-2002 and 2004-2009. In Belgium, the 5-year relative survival of women diagnosed between 2004 and 2008 was 88%.⁴⁶ Survival rates are very good compared to other European countries (Figure 11).

The 5-year cervical cancer relative survival rate was 69.8% for women diagnosed between 2004 and 2008. Compared to other EU-15 countries, relative survival rates of patients diagnosed in 2004 are within the EU average (Figure 11).

All countries have also shown improvement in 5-year colorectal cancer relative survival over the years. There are differences in colorectal cancer relative survival between gender across countries: survival rates are usually higher for females.⁵ In Belgium, on the cohort of patients diagnosed with colon cancer between 2004 and 2008, the relative survival was 62.3% for males and 64.6% for females. Again, relative survival rates after colorectal cancer^q are very good compared to other European countries (Figure 11).

Only for breast cancer and colon cancer, the US has higher survival rates than Belgium (data shown in documentation sheet in Supplement S1). To be able to distinguish the effect of early screening from the actual care, relative survival rates should be compared across countries by stage, information which is not yet available at international level.

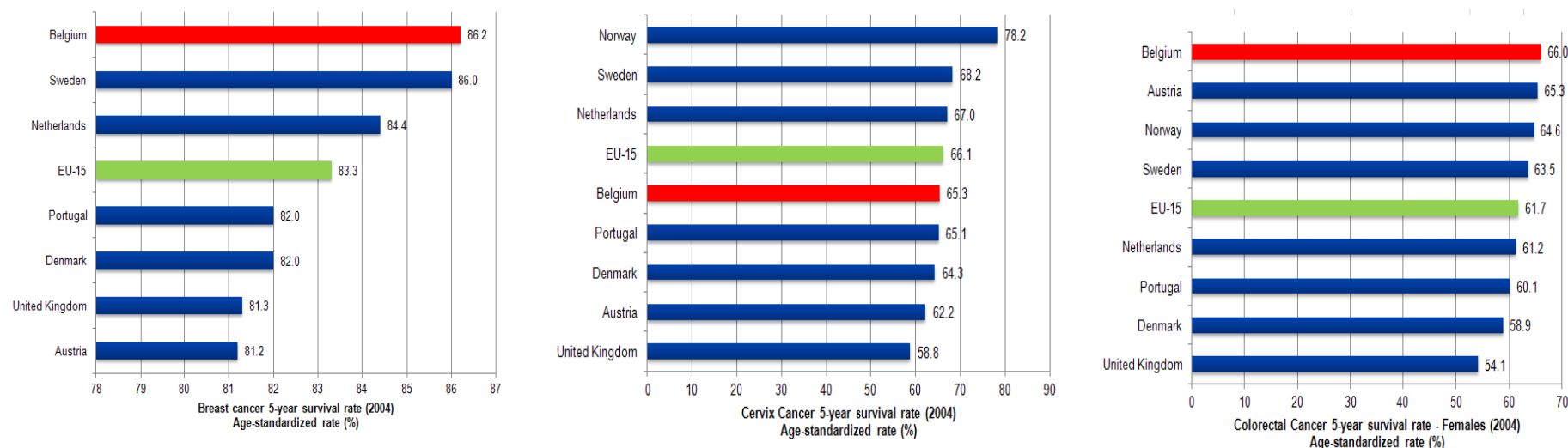
^q Survival rates after colorectal cancer, and not specifically colon cancer, are available in the OECD Health Data 2012.



**Table 17 – 5-year relative survival by stage, period 2004-2008:
Belgium**

Cancer type	All patients	Stage					missing
		I	II	III	IV		
Female breast cancer	88.0%	99.8%	93.3%	73.8%	29.2%		73.4%
Cervical cancer	69.8%	92.2%	63.6%	54.5%	17.0%		64.6%
Colon cancer: males	62.3%	91.6%	86.1%	61.7%	14.5%		54.5%
Colon cancer: females	64.6%	96.3%	86.1%	62.1%	16.0%		55.5%

Source: Belgian Cancer Registry and Evaluation of Cancer Plan (Cancer Centre)⁴⁶

**Figure 11 – 5-year relative survival after breast, cervix and colorectal cancer for females: international comparison (2004)**

Source: OECD Health Data 2012

Note: results for colorectal cancer males give similar results for Belgium

Effectiveness of ambulatory care for a chronic condition

Asthma, a chronic condition, is either preventable or manageable on an outpatient basis through proper prevention or primary care intervention. Proper management of asthma in primary care setting can reduce exacerbation and costly hospitalisations. The hospital admission rate for asthma commonly serves as a proxy for primary care quality. Hence, high admission rates may indicate poor effectiveness of primary care, or poor care coordination or continuity.⁵ This indicator belongs to the set of HCQI (healthcare quality indicator) of the OECD.

Across OECD countries, there is an 11-fold difference in hospital admission rate for asthma. Females have consistently higher rates for asthma admissions compared to males (on average 85% higher).⁵ This is

also the case in Belgium: in 2009, the asthma admission rate for females was 52/100 000 inhabitants and 28/100 000 inhabitants for males. Belgian rates in the OECD Health data (2007) show that 48.4/100 000 inhabitants are slightly above the EU-15 average (47.2/100 000 inhabitants). This might highlight the need for more effective and targeted care in primary care setting.

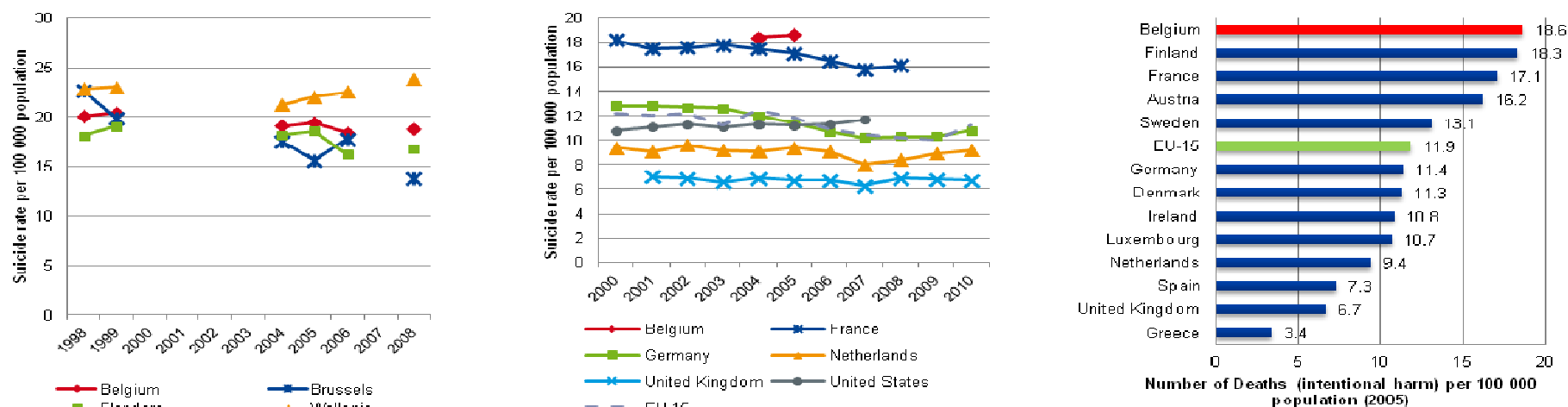
Effectiveness of mental healthcare: suicide rate in the general population, involuntary committals within the psychiatric hospitalization and working status of persons with mental illness



Suicide rate

Despite a slight decrease (from 20.05/100 000 inhabitants in 1998 to 18.75/100 000 inhabitants in 2008) the number of suicide deaths in the general population is considerably higher than in other European countries. For the time period of the analysis, suicides rates are higher in Wallonia than in Flanders and Brussels (Figure 12). Important differences within regions were also found in previous research. In Wallonia, the highest suicide rates are found in the province of Namur (25.4/100 000 inhabitants) while in Flanders the highest rates are observed in East Flanders (21.4/100 000 inhabitants).⁴⁷ The suicide rate is also higher for men than for women, and higher for middle-aged adults (aged 40-64 years).

Figure 12 – Suicide rates (number per 100 000 population) per region (1999-2008) and international comparison



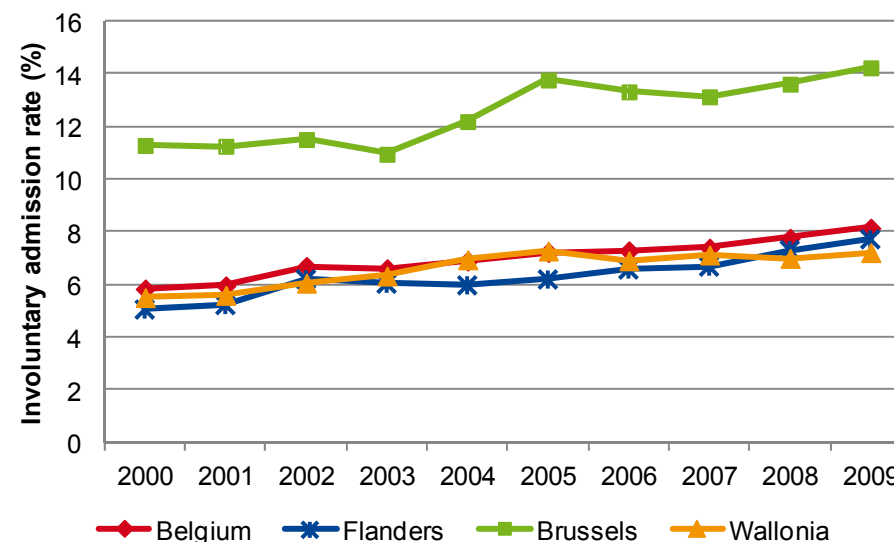
Source: DGSIE (Belgium) and OECD Health Data 2012 (international, data for Belgium only available in 2004-2005)



Involuntary committal in psychiatric hospitals

The percentage of involuntary psychiatric hospitalizations ("for observation"; "internment"; "prolongation involuntary admission"; "probation"; "other judicial conditions";) in Belgium steadily increased between 2000 and 2009 from 5.8% to 8.2% of all psychiatric hospitalizations (Figure 13). The rate in Brussels is twice as high compared to the two other regions (Brussels 14.2%, Flanders 7.7%, Wallonia 7.2%). The three most common conditions among the 7 719 involuntary committals registered in 2009 were schizophrenia (n=1 579 or 20.46%); psychotic conditions (n=1 270 or 16.45%) and alcohol abuse (n=723 or 9.37%). The three conditions with the largest share of involuntary committals in 2009 were paraphilia (57/157 or 36.31%); schizophrenia (n=1 579/6 274 or 25.17%) and psychotic conditions (n=1 270/5 747 or 22.10%). Results based on old data (year 1998) showed that rates of involuntary committal are very low in Belgium compared to other European countries. These results have been confirmed in analyses of involuntary committal population rates.

Figure 13 – Percentage of involuntary committals in psychiatric hospitals, by region (2000-2009)



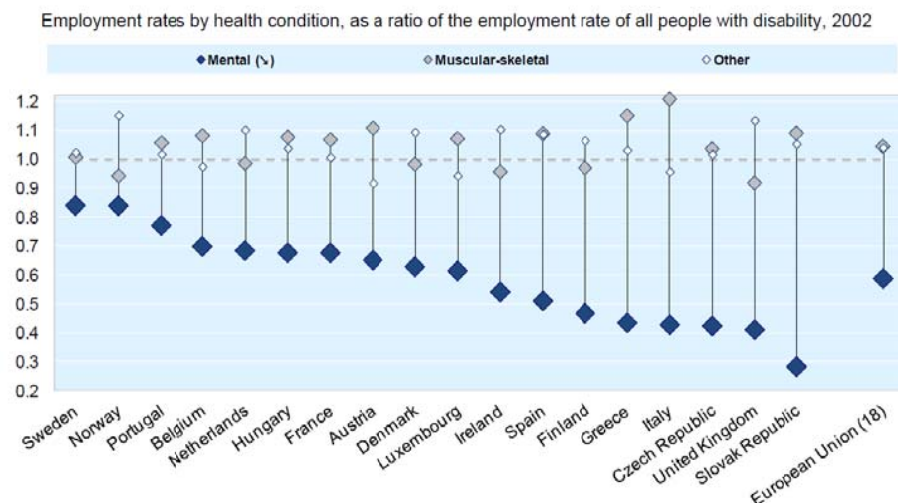
Source: FPS Public Health, Minimum Psychiatric data (RPM – MPG)

Participation rate by people with mental illness of working age in employment

The last EU Labour Force Survey performed in 2002 showed that the employment rate of people with mental disabilities is low compared to the employment rate of people with other disabilities.²⁹ Belgium performs well but is ranked lower than Norway, the Netherlands, Sweden and Portugal (Figure 14). An update of this study (year 2011) is expected to be released soon.



Figure 14 – Employment rates by health condition, as a ratio of the employment rate of all people with disability: international comparison (2002)



Source: European Labour Force Study 2002

4.1.3 Key findings

- The relative survival 5 years after a diagnosis of breast cancer, cervix cancer and colon cancer is respectively 88%, 70% and 63% (62% for men, 65% for women). Belgium has the highest 5-year relative survival rate in Europe for female breast cancer, and colon cancer, but the cervical cancer survival is lower than the EU-15 average.
- Hospital admission rates for asthma are stable over time (2004-2009), and Belgium is just above the EU-15 average.
- The suicide rate is considerably high compared to other European countries, even if it decreased slightly in Belgium between 1998 and 2008. The suicide rate is higher for men than for women, and higher for middle-aged adults (aged 40-64 years). For the period analysed, the rate is higher in Wallonia than in Flanders and Brussels.
- The percentage of involuntary psychiatric hospitalizations in Belgium steadily increased between 2000 and 2009 from 5.8% to 8.2% of all psychiatric hospitalisations. The rate in Brussels is twice as high as in the two other regions (Brussels 14.2%, Flanders 7.7% and Wallonia 7.2%). Results are based on old data (year 1998). They showed that rates of involuntary committal are very low in Belgium compared to other European countries.
- The last EU labour survey (in 2002) showed that Belgium performs well compared to EU countries concerning the employment rate of people with mental disabilities, but more recent data are lacking.



4.2 Appropriateness

4.2.1 How did we evaluate the appropriateness of care?

Appropriateness can be defined as “the degree to which provided healthcare is relevant to the clinical needs, given the current best evidence”. The link between effectiveness and appropriateness reflects the link between outcomes and processes.

Seven indicators were selected to measure the appropriateness of care:

Screening out of the target groups

1. Breast cancer screening for women younger than target age group (aged 40-49)
2. Breast cancer screening for women older than target age group (aged 71-79)

Application of guidelines

3. Follow-up of diabetic patients (blood and eye exams)
4. Prescription of antibiotics according to guidelines

Geographic variation in surgical interventions

5. Geographical variation in caesarean sections per 1000 live births

Mental Health

6. Average daily quantity (ADQ) of medication prescribed (antidepressants / antipsychotics / hypnotics and anxiolytics)

Aggressiveness of care at the end-of-life

7. Proportion of cancer patients receiving chemotherapy in the last 14 days of their life

4.2.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

Mammograms coverage outside of the target groups

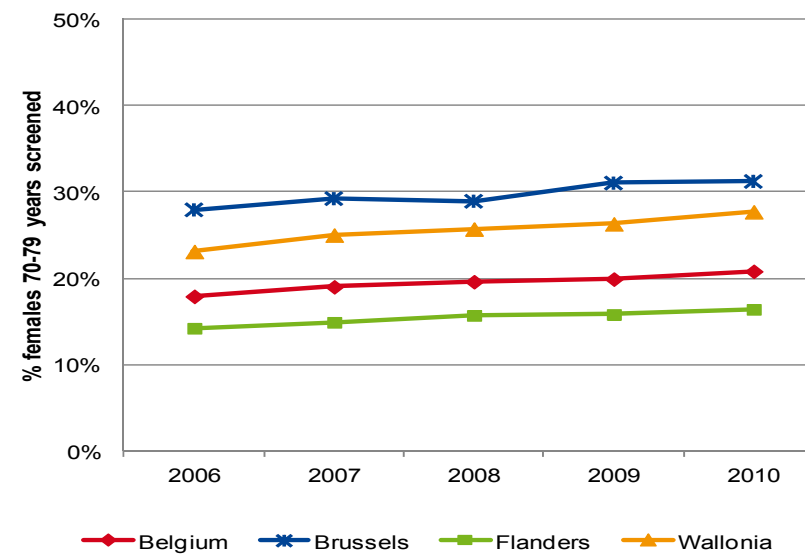
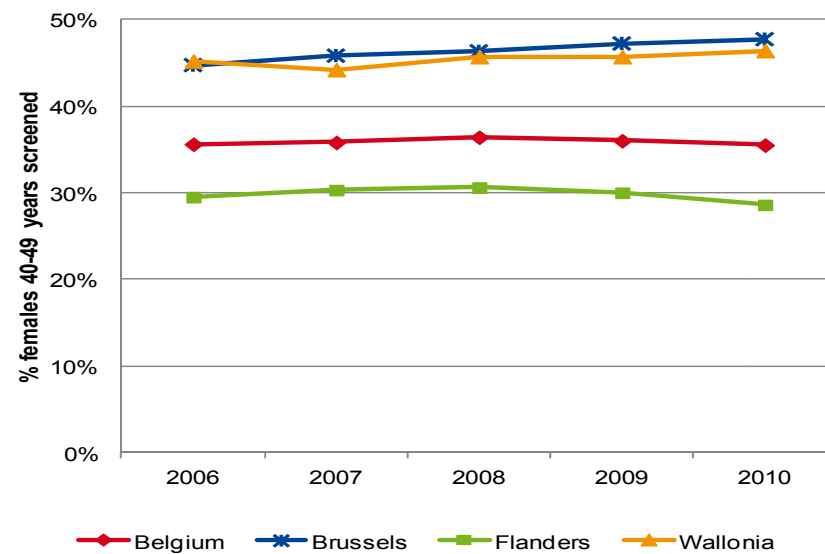
The national breast cancer screening programme set up since 2001-2002 targets women aged 50-69. Two recent guidelines have not recommended the extension of this target group to younger (40-49) or older age categories (70-79) in Belgium.^{48, 49} Those two indicators reflect the extent to which the screening is performed outside of the target group.

The percentage of women aged 40-49 who received a mammogram^r in the last 2 years was stable around 35% between 2006 and 2010, with large differences across regions. For women 71-79 years old, the rates are lower (21% in 2010), but increasing, and also with higher rates in Brussels and Wallonia (Figure 15). It should be noted that a small proportion of those mammograms are performed for diagnostic reasons⁴⁷ (it is not possible to distinguish between opportunistic screening and diagnostic mammograms, based on the reimbursement codes).

^r This includes all mammograms, for opportunistic screening and for diagnosis



Figure 15 – Mammogram coverage of women aged 40-49 years and of women aged 70-79 years, by year and region



Source: IMA-EPS, KCE calculation

**Application of guidelines: follow up of diabetic patients (chronic care) and prescription of antibiotics (acute care)**

Several situations permit evaluation of the quality of the monitoring of chronic patients, in particular the integrated and multidisciplinary management of diabetic patients. For diabetic patients, the guidelines recommend that glycated haemoglobin, albumin and creatinine are monitored preferably once a year, and never less often than every 15 months. It is also recommended that an ophthalmologist performs a dilated fundus examination every year in order to early detect ocular complications. Over a 15-month period, 95% of insulin-dependent patients received a blood sugar check, 93% a creatinine check and 56% an albumin check. In the last 12 months 57% had undergone a check and, over a period of three years, 20% of patients had no ophthalmologic consultation. The recommendations are relatively well observed with regard to glycated haemoglobin. The situation is less satisfactory among diabetic patients who are not treated with insulin. The ophthalmologic consultation appears to be an issue for one third of diabetics. Subgroup analyses showed that guidelines are less well followed for patients older than 75 years and for patients in residential care.²⁶

The appropriateness of therapeutic prescription is evaluated on the basis of the prescription of antibiotics according to guidelines. Since the early 2000s, the authorities have been raising awareness among the public and physicians concerning the issue of antibiotic resistance. Antibiotics should be prescribed only where they are really necessary and the choice should preferably tend towards first-line antibiotics. For most indications, amoxicillin should be prescribed in first intention without clavulanic acid.

43% of patients who consult a GP receive at least one prescription for antibiotics during the year. This – high – figure has been stable since 2006. The number of days of treatment is increasing (23.9 in 2008 compared with 21.2 in 2006). Furthermore, the antibiotics prescribed are not always first-line. For example, a combination of amoxicillin and clavulanic acid is very often prescribed even though a prescription for amoxicillin alone would suffice (the 45% has been stable since 2006). In addition, a much higher rate of prescriptions to patients over the age of 75 in residential care is observed in comparison with the over-75s in general.²⁶

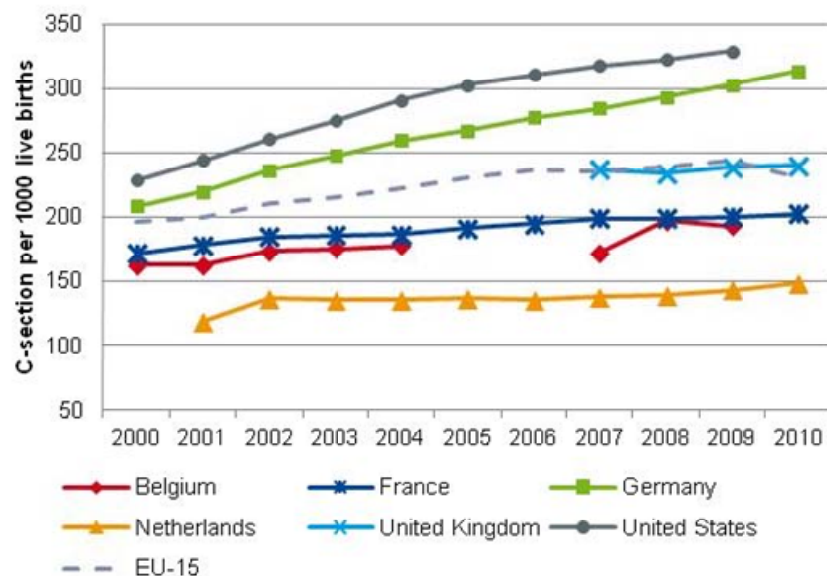
There are no international data for this specific indicator, but comparison of antibiotics prescribed per capita reveals that Belgium is in the top 5, and more than twice as much as the Netherlands (Belgium, 27.5 DDD/1000 pop/day versus the Netherlands, 11.4 DDD/1000 pop/day).⁵

Geographic variation in surgical interventions as evidence of inappropriate care: the case of caesarian section

Results from international comparison show that C-sections are increasing in the majority of European countries, with EU-15 average at 251/1000 live births in 2009. Belgium has a C-section rate similar to France, and lower than the EU-15 average. In 2009, the C-section rate in Belgium was 193/1000 live births. Despite this somehow reassuring result, the rate is continuously increasing. Moreover, an analysis of the FPS Public Health revealed a very high variability between hospitals; in the period 2004-2007, the national rate was 13.7% (based on a selection of low-risk pregnancies from 2004-2007) and relative differences ranged from 61% to 70% around this average.⁵⁰ Geographic variability for elective surgical procedures has also been shown in Belgium for hip replacement and knee replacement, two procedures for which Belgium ranks in the top of EU-15 countries.^{5, 51}



Figure 16 – C-sections per 1000 live births: international comparison

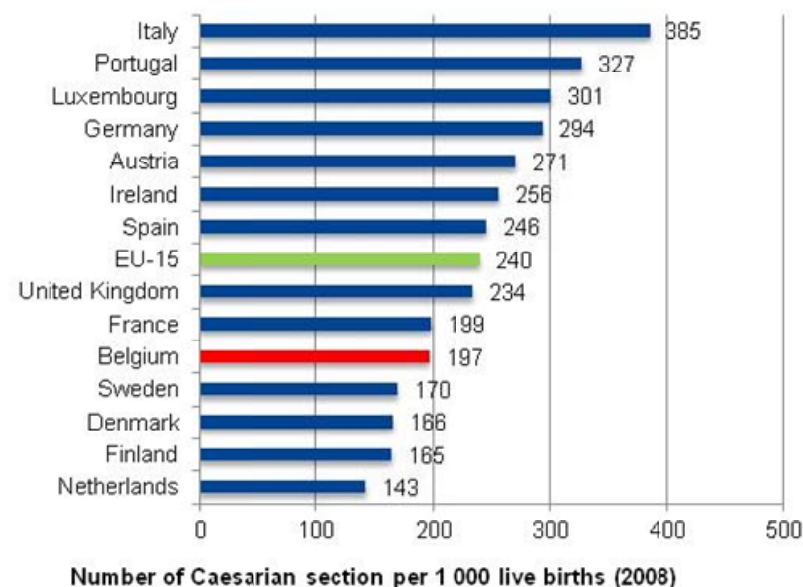


Source: OECD Health data 2012, except for Belgium 2009 (FPS Public Health)

Appropriateness of prescriptions in mental healthcare: antidepressants

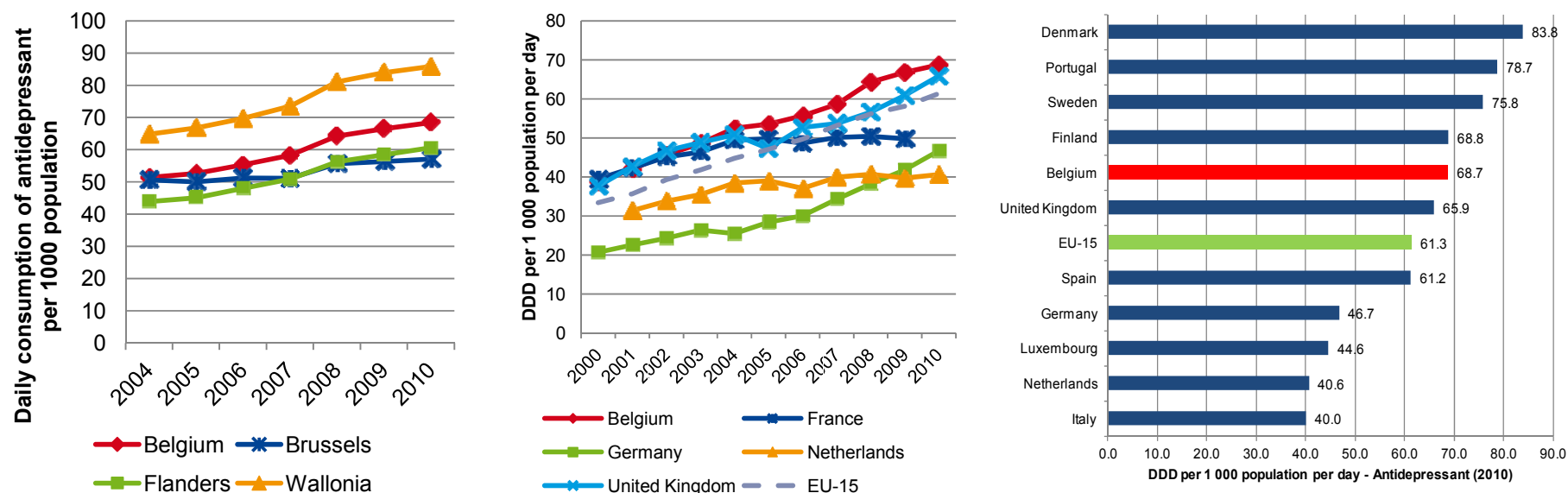
Average daily quantity of antidepressants prescribed (Defined Daily Dose (DDD) per 1000 population)

The prescription of the average daily quantity antidepressants prescribed per 1000 population increased from 51.4 (2004) to 68.4 (2010). Prescription of antidepressant drugs are highest in Wallonia (85.9,



compared to 57.1 in Brussels and 60.7 in Flanders). It is considerably higher for females (92.8) compared to males (43.1).

International comparison shows that Belgium ranks high in terms of antidepressant consumption (see documentations sheet). We cannot conclude from these figures if Belgium is performing better or worse. Nevertheless, the large differences (between sexes; between regions; international context) pinpoint that the appropriateness of antidepressant drugs (e.g. over- and underconsumption) needs to be studied and monitored.

**Figure 17 – Defined daily dosage of antidepressants per 1000 population per day: by region (2004-2010) and international comparison (2000-2010)**

Source: Pharmanet (RIZIV – INAMI, for Belgium) and OECD Health Data 2012 for international comparison

Average daily quantity of antipsychotics prescribed (per 1000 population per day)

The prescription of antipsychotic medication increased from 2004 (8.0 per 1000 population) to 2010 (10.5 per 1000 population), with differences between regions (higher in Brussels and Wallonia than in Flanders).

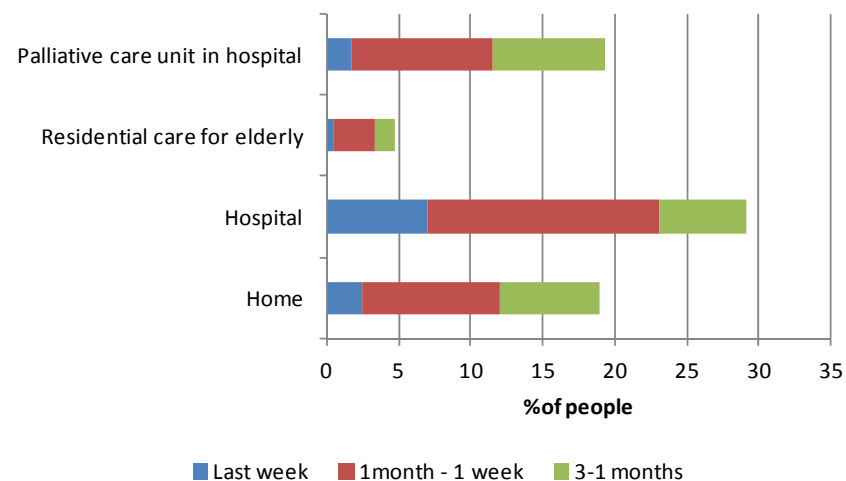
Aggressiveness of care at the end-of-life: chemotherapy for cancer patients

Receiving (or initiating) a session of chemotherapy near the end-of-life for cancer patients is considered inappropriate aggressiveness of treatment.

The percentage of people receiving chemotherapy near the end of their life is an internationally used indicator. A study of the Christian Sickness Funds on end-of-life care for cancer patients (data 2005)^{43,42} showed that the highest use of chemotherapy during last month of life was observed for cancer patients who died in hospital (23.1%). The use of chemotherapy was 12.1% for patients dying at home and 11.5% for those dying in palliative care units. The lowest use of chemotherapy was seen in cancer patients who died in residential care for elderly (3.4%).



Figure 18 – Chemotherapy near end-of-life for patients with cancer, by place of death



Source: Results from study “De CM neemt het levenseinde onder de loep: de cijfers”⁴³



4.2.3 Key findings

- Breast cancer screening is recommended for women aged 50-69 years. However, there is a large group of women who are screened before that age (36% in Belgium overall, 48% in Brussels, 46% in Wallonia and 39% in Flanders). Evolution over time shows no real declining trend. Older women undergo less often a mammography: 21% of 71-79 years old women had a mammography in the last two years (Brussels 31%, Wallonia 28% and Flanders 16%). Evolution over time shows rising trends (from 18% in 2006).
- Over a 15-month period, 95% of insulin-dependent patients received a blood sugar check, 93% a creatinine check and 56% an albumin check. In the last 12 months 57% had undergone a test and, over a period of three years, 20% of patients had no ophthalmological consultation.
- The percentage of prescription with amoxicillin alone (compared to amoxicillin and clavulanic acid) is stable, around 45% (Brussels: 43%, Flanders: 46%, Wallonia: 41%). Belgium ranks very high internationally in terms of antibiotic prescription but there are concerns about comparability of results in total of Defined Daily Doses (DDD), especially if differences in package size exist between countries.
- Caesarean rates in Belgium are lower than the EU-15 average (in Belgium 193/1000 live births in 2009, EU-15 average 251/1000 live births), but increasing, as in the majority of European countries. Several studies on Belgian data have shown a large variability in caesarean rates between hospitals.
- The prescription of antidepressants also increased from 2004 to 2010, with large differences between regions (higher in Wallonia than in Brussels and Flanders). International comparison shows that Belgium ranks high in terms of antidepressant consumption.

- The use of chemotherapy during the last days of life for patients dying from cancer is an indicator of the aggressiveness of care. There are currently no national data on this indicator. In a study from the Christian Sickness Funds, the highest use was observed for cancer patients who died in hospital (23.1%) and the lowest for patients who died in residential care (3.4%). To interpret this indicator correctly, more data are needed on trends over time, regional differences and international comparability.

4.3 Safety of care

4.3.1 How did we evaluate the safety of care?

Safety can be defined as “the degree to which the system has the right structures, renders services, and attains results in ways that prevent harm to the user, provider, or environment”.⁴ Including the provider and environment in this definition extends the dimension beyond quality.

Six indicators to evaluate the safety of healthcare have been studied:

A generic indicator

1. Medical radiation exposure of the Belgian population

Healthcare Acquired Infections

2. Incidence of MRSA in hospital
3. Incidence of post-operative sepsis (Patient Safety Indicator, PSI, calculated on hospital discharge databases)

Other safety indicators in hospital

4. Incidence of pressure ulcer in hospitals (Patient Safety Indicator, PSI, calculated on hospital discharge databases)
5. In-hospital mortality after hip fracture

Prescription of antidepressants to elderly

6. Percentage of persons aged 65 years and older prescribed antidepressants using an anticholinergic antidepressant

Four other indicators related to safety of long-term care for elderly patients are not yet measurable, but data from the BelRAI will probably be available for the next performance report (details on those indicators in Appendix C).



4.3.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

Medical radiation

Medical ionising radiation is particularly high in Belgium, in particular due to a large use of scanner and medical imaging in general. The irradiation level is measured in millisieverts (mSv). The average level of medical radiation by inhabitant increased from 2004 to 2009, stabilized in 2010 (2.29 mSv/pop) and decreased in 2011 (2.22 mSv/pop). The patients more exposed are chronic patients, patients in residential care, and persons above 45 years old. Children are less exposed. Prescription of medical imaging is more frequent and more intense in Wallonia.²⁶ Results from international comparisons show that average doses of medical irradiation are particularly high in Belgium (Figure 19).

Table 18 – Exposition to medical radiation per inhabitant (expressed in nb mSv): Belgium (2004-2011)

	2004	2005	2006	2007	2008	2009	2010	2011
nb mSv/inhab.	2.00	2.01	2.11	2.18	2.25	2.29	2.29	2.22
Evolution year (X+1)/X		0.4%	4.6%	3.6%	3.4%	1.6%	0.1%	-2.9%

Source: RIZIV – INAMI

Figure 19 – Exposition to medical radiation per inhabitant (most 20 exams, expressed in mSv): international comparison

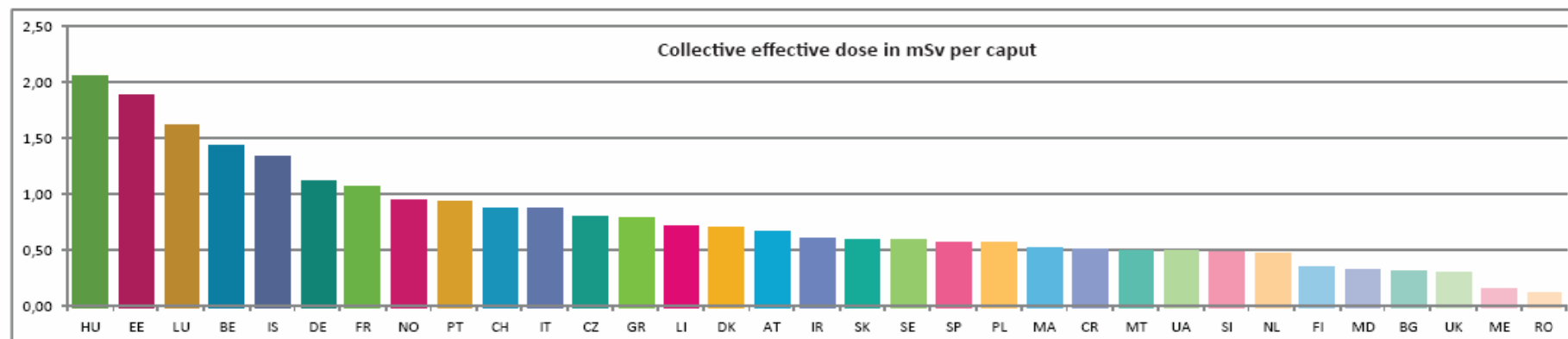


Figure 1. Collective effective dose [mSv] per caput in 33 European countries was estimated using Top 20 method. The data is preliminary data available on 12th March 2012 and will be verified by countries before the Workshop in Athens on 24-26 2012. Some countries have expressed their willingness to submit their data later during the project.

Source: European Population Dose from Radiodiagnostic Procedures – Results of Dose Datamed 2 (http://ddmed.eu/_media/results/ddm2_results_irpa13v2.pdf)



Healthcare-acquired infections (HAI)

Healthcare-acquired infections occur after exposure to healthcare. According to the European Centre for Disease Control and Prevention (ECDC, www.ecdc.europa.eu) each year 4 million patients acquire a HAI in the EU and about 37 000 of them die as the direct consequence of the infection. The most frequent types of HAIs are surgical site infections, urinary tract infections, pneumonia, bloodstream infections and gastrointestinal infections. In Belgium, the last prevalence survey in half of the acute hospitals occurred in 2007, and showed that 6.2% of the patients were infected by a HAI.⁵² New results of prevalence are expected to be available at the end of 2012, based on a common protocol developed by the ECDC.

In Belgium, surveillance of HAIs is under the responsibility of the WIV – ISP, and is organized by the NSIH group (National Surveillance of Infections in Hospitals). For MRSA, the surveillance is mandatory in all acute care hospitals (since 2007). The third indicator, post-operative sepsis, belongs to the set of safety indicators from the OECD.

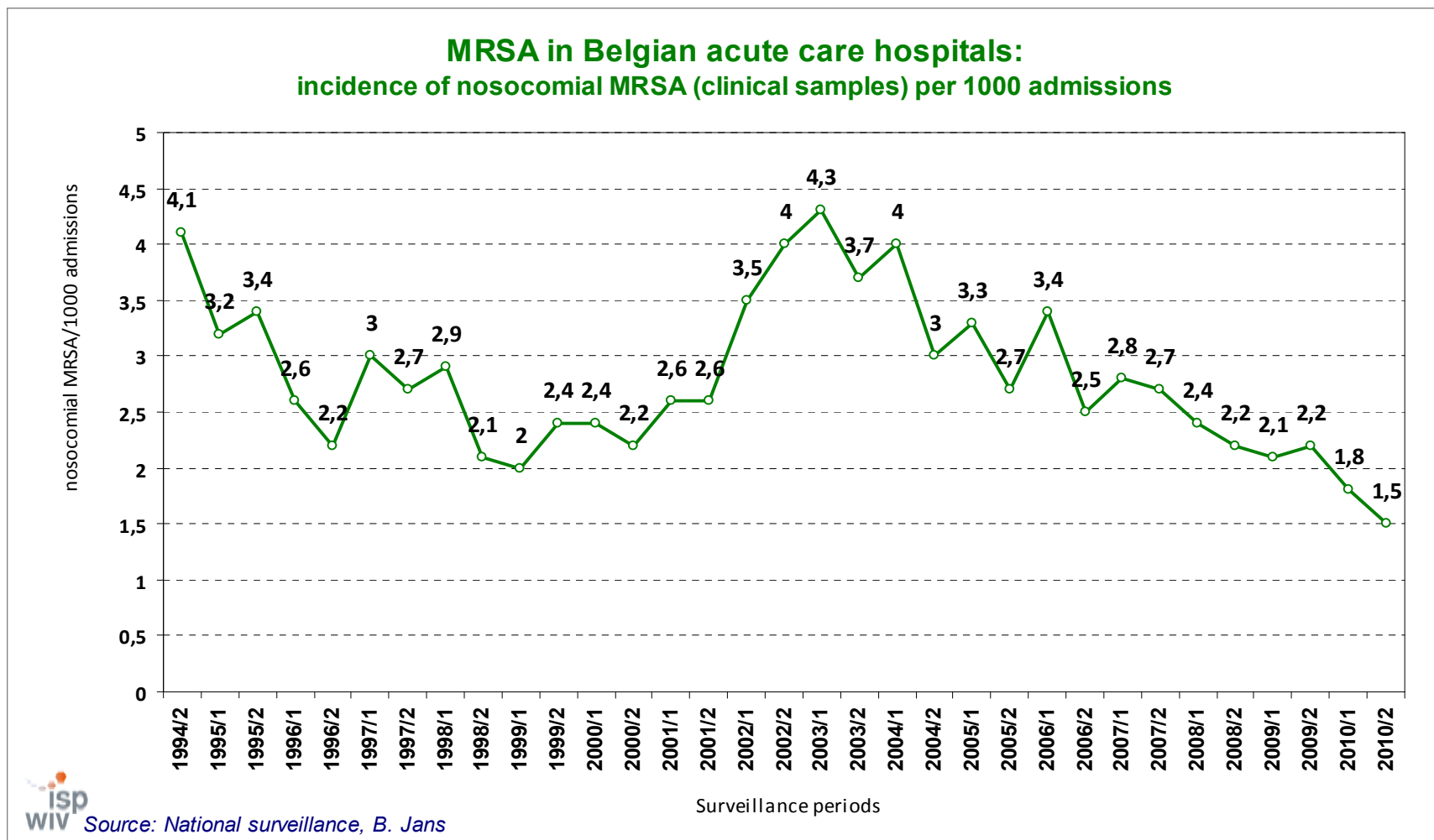
Incidence of MRSA

A decreasing incidence was found between 1994 and 1999 (from 4.1 to 2 cases/1000 admissions), after which the incidence again increased reaching 4.3 in 2003. Since 2003, we measure a slow, constant and statistically significant decrease of the incidence of nosocomial MRSA in acute care hospitals, finally reaching 1.5 new cases/1000 admissions during the second semester of 2010 (test for linear trend for a cohort of hospitals participating at least at 5 surveillance periods since 2003: annual decrease of -0.29 new cases/1000 admissions, $p < 0.001$) (Figure 20). This decrease was most impressive in the Brussels hospitals. Probably, the application of the recommendations for the control of MRSA (since 2003, actually in revision), the national hand hygiene campaigns, and the rationalization of the use of antibiotics influenced positively this evolution. Nevertheless, the interpretation of the indicator remains influenced by the screening practices which vary in coverage rate and intensity between hospitals.⁵³

No international organisations include data on MRSA, making comparison difficult. An exception is the European Antimicrobial Resistance Surveillance System (EARSS), but this European program does not focus on nosocomial acquisition.



Figure 20 – Mean incidence of Healthcare Acquired MRSA, per 1000 admissions (1994-2010)



Source: National Surveillance of Infections in Hospitals (NSIH), WIV – ISP



Patient Safety Indicators (PSI)

Incidence of post-operative sepsis

Incidence of post-operative sepsis is an international indicator of patient safety in hospital (Patient Safety Indicator, PSI)^{54, 55}, which is monitored on the basis of hospital discharge data. This indicator has also been studied on Belgian data, although with a slightly different methodology.⁵⁶

Between 2000 and 2007, the incidence of post-operative sepsis was stable around 8 cases per 1000 admissions. However, when compared to the few other European countries which provided data, Belgium ranks rather high, but it is unclear whether this is due to higher incidence rates or differences in coding of secondary diagnoses.

Incidence of pressure ulcer

The occurrence of a pressure ulcer in a hospitalised patient has a serious negative impact on the individual's health⁵⁷ and often leads to a longer hospital stay. Pressure ulcers can be prevented with appropriate nursing care.^{58, 59} This indicator also belongs to the set of safety indicators that can be calculated based on discharge data, but its accuracy largely depends on the accuracy of the coding practices in hospitals.

The global rate of pressure ulcers in acute hospitals was 12/1000 stays in 2000 and reached 17/1000 stays in 2007, with increasing trends over time for both surgical and medical hospitalisations. No more recent data are available on the OECD Health Data for Belgium.

Other data than administrative discharge databases are available to estimate prevalence of pressure ulcers. In 2008 a prevalence study was organised for the first time, following the last European Pressure Ulcer Advisory Panel guidelines (specific for registration and classification of pressure ulcers). This study was organized in 84 hospitals in 2008, and included 19 964 patients. A pressure ulcer prevalence of 12.1% was observed. Contrary to previous Belgian pressure ulcer prevalence measurements, no distinction was made between a pressure ulcer and incontinence associated dermatitis. The prevalence of grade 2 to 4 pressure ulcers was 7%.⁶⁰

In-hospital mortality after hip fracture

Hip fractures are frequent causes of disability in elderly and are associated with an important mortality risk. Because in-hospital mortality after hip fracture gives direct information about outcomes and indirectly about the technical quality of care, it is first considered as an indicator of in-hospital safety, and secondly as an indicator of quality-effectiveness of care. The in-hospital mortality rate after a hip fracture was 6.3% in Belgium between 2004 and 2007. There was also a high variability in mortality rates between hospitals.⁵⁰

Patients aged 65 years and older prescribed antidepressants using an anticholinergic antidepressant drug (%)

While elderly individuals can be treated effectively with antidepressant medications, they are at greater risk of adverse drug reactions due to the physiological changes associated with the aging process. In particular, antidepressants with strong anticholinergic effects (e.g., imipramine, amitriptyline and doxepin) are not recommended for ongoing use in the elderly as they can cause orthostatic hypotension, sedation and confusion. Use of these agents has been associated with high rates of adverse effects, including falls, among elderly patients. The health system has considerable influence over this indicator, as it is treatment-based. The appropriateness of prescribing behaviours by clinicians within the health system can be increased through education and training and the use of guidelines.^{61, 62}

During the last 5 years the prescription of antidepressants known for their anticholinergic side-effects for elderly (≥ 65 years) is stable (14%). The percentages are consistently higher in Flanders (17%) compared to Wallonia (11%) and Brussels (10%). It should be noted that international comparisons are hampered by absence of available data but also by lack of consensus about what is an antidepressant with anticholinergic side-effects.^{63, 64, 65} Nevertheless, the relatively high prescription rates of antidepressants with (potential) anticholinergic side effects warrant further investigation. Problems with the appropriateness of the prescription of psychopharmacological drugs in the elderly population have been documented before⁶⁶ and should be a continuous area of attention.



4.3.3 Key findings

- The average level of medical irradiation increased from 2004 to 2009, stabilized in 2010 (2.29 mSv/pop) and decreased in 2011 (2.22 mSv/pop). The patients more at risk are chronic patients, patients in residential care, and persons above 45 years old. Children are less exposed. Prescription of medical imaging is more frequent and more intense in Wallonia. Results from international comparisons show that average doses of medical radiation are particularly high in Belgium.
- A decreasing incidence in healthcare-acquired MRSA was observed between 1994 and 1999, after which the incidence again increased in 2003. Since 2003, we measure a slow and constant decrease of the incidence of MRSA in acute care hospitals. This decrease was most impressive in the Brussels hospitals.
- Incidence of post-operative sepsis is an international indicator of patient safety (PSI) which is monitored on the basis of hospital discharge data. Between 2000 and 2007, the incidence of post-operative sepsis was stable around 8 cases per 1000 admissions. Belgium ranks high in comparison with other European countries, but this might be due to large differences in coding practices between countries.
- Incidence of pressure ulcer is another PSI. The incidence rate of pressure ulcers in acute hospitals was 12/1000 stays in 2000 and reached 17/1000 stays in 2007, with increasing trends over time for both surgical and medical hospitalisations.
- The in-hospital mortality rate after a hip fracture was 6.3% in Belgium between 2004 and 2007, with large variability between hospitals. More data are needed on trends over time, and few data are available for benchmarking at international level.
- During the last 5 years the prescription of antidepressants known for their anticholinergic side-effects for elderly (≥ 65 years) is stable (13-14%). The percentages are higher in Flanders (16-17%) compared to Wallonia (13-14%) and Brussels (10%).

4.4 Continuity of care

4.4.1 How did we evaluate the continuity of care?

Continuity addresses “the extent to which healthcare for specified users, over time, is smoothly organised within and across providers, institutions and regions”⁴, and to which the entire disease trajectory is covered.¹

Several aspects of continuity have been distinguished, based on the fact that continuity is the result of good information flow, good interpersonal skills, and good coordination of care.⁶⁷⁻⁷²

Informational continuity: availability and use of data from prior events during current patient encounters; information links care from one provider to another and from one health event to another⁷⁰;

Management continuity: coherent delivery of care from different providers, most commonly whether follow-up visits are made when care crosses organisational boundaries (often focus on care plan for specific, chronic health problem)⁶⁹;

Relational continuity: an ongoing relationship between patients and one or more providers that connects care over time and bridges discontinuous events⁶⁸;

Coordination: the integration, coordination and shared information between professionals or between provider organisations.⁷⁰

Six indicators that assess the four above-mentioned aspects of continuity are presented:

Informational continuity

1. Percentage of persons who have a global medical record (GMD – DMG)

Management continuity

2. Percentage of hospital discharge followed with a GP's encounter within a 6-weeks period for senior patients (65+)

Relational Continuity

3. Proportion of encounters that were conducted by the GP consulted most frequently: Usual Provider Continuity (UPC) index.



Coordination

4. Proportion of cancer patients discussed at the multidisciplinary meeting
5. Number of re-admissions per 100 patients with a diagnosis of (a) schizophrenia or (b) bipolar disorder
6. Number of contacts between the GP and the palliative patient during the 3 last months of his/her life

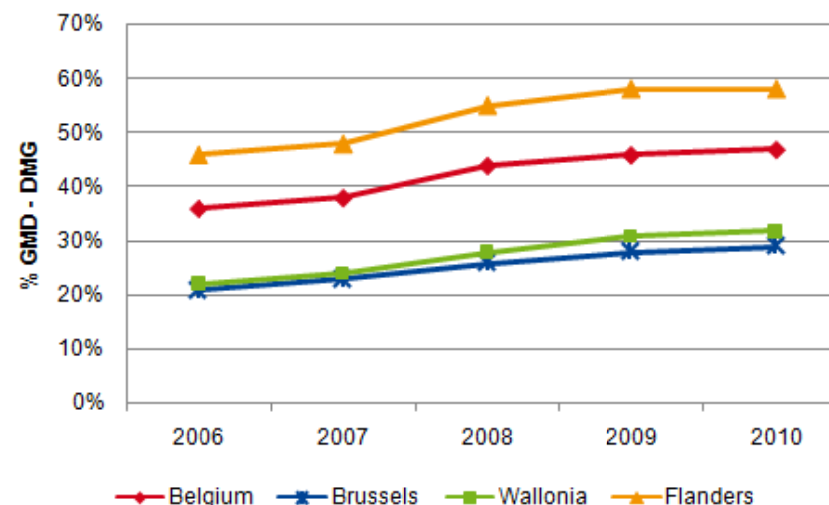
4.4.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

Informational continuity

Since 2001, the global medical record (GMD – DMG) allows patients to entrust a GP with the task of managing their medical data. The use of a GMD – DMG increases progressively and reached 46% in 2009 but with large differences between regions (Flanders 58%, Wallonia 31%, and Brussels 28%). The coverage by the GMD – DMG is higher for the elderly (78% coverage for the 75+), and persons entitled to increased reimbursement (entitled 54% versus not entitled 44%).

Figure 21 – Percentage of population with a global medical record (GMD – DMG), by region (2006-2009)



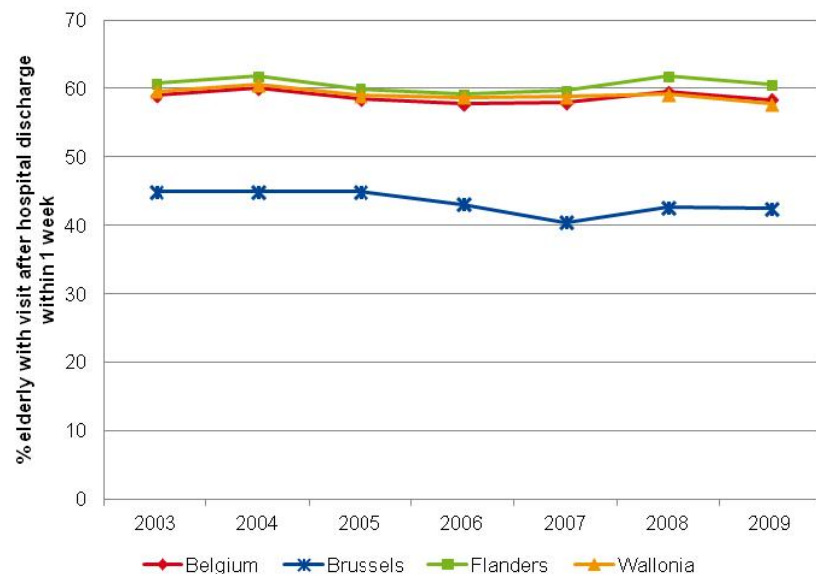
Source: RIZIV – INAMI

Management continuity

Link Hospital-GPs

As hospitalisation discharge is a pivotal moment in the care of an older person, a GP's encounter in the 6 weeks following discharge is advised in the U.K.⁷³ We have adapted the definition to one week, which is more relevant in Belgium. A majority of elderly (58%) have at least one contact with a GP in the week after a discharge from the hospital. In the Brussels region, this percentage is lower (42.5%). This result is an indication of continuity of care between the hospitals and the first line, even if we do not know if the GP's encounter followed a discharge plan from the hospital or from the patient's own initiative.

Figure 22 – Percentage of hospitalisations for the elderly (aged 65 and over) followed by a contact with a GP within 1 week after discharge, by region (2003-2009)



Source: IMA – EPS, KCE calculation

Link GPs-specialists

Since 2007, patients with a GMD – DMG are entitled to a larger reimbursement of health expenditures for a specialist consultation if they are referred by a GP. The measure is limited in scope: it applies only to certain specialists and to one consultation per year per specialist. This measure aims to improve the specialist-general practitioner's collaboration and to stimulate a first encounter with a GP because in Belgium, patients are free to go directly to the second line. However, the percentage of specialist consultations identified as prescribed by a GP and leading to increased reimbursement is very small (around 2% of all consultations at specialists). This result does not allow drawing any conclusion on the real proportion of referrals between GPs and specialists. However, it draws the

attention to a reimbursement measure aimed at facilitating the coordination between GPs and specialists. Possible explanations for the low percentage found in the data are a lack of knowledge by GPs or a too heavy administrative burden.

Relational continuity

A longitudinal relationship between physician and patient is acknowledged to encourage communication, improve satisfaction, medication compliance, and behavioural problems, and stimulate receipt of preventive services and decrease hospitalisations and emergency department visits for patients with chronic disease.⁷⁴ There are several measures of longitudinal continuity with the Usual Provider of Care (UPC) index as one of the most common index used. The advantage of this indicator is its easy interpretation.

In the population of patients who had at least 3 contacts with a GP during two years, around 44% have seen the same GP (not taking into account out-of-hours contacts). This percentage was stable in the period 2003-2009. It reaches 55% for patients aged 65-84 years. 72% of the patients meet the less stringent criteria of having seen the same GP at least 75% of the time ($UPC \geq 0.75$). Some differences are observed between the three regions, with a greater proportion of patients having encounters with the same GP at least in 75% of the cases ($UPC \geq 0.75$) in Wallonia (74%), Flanders (71%) and a smaller proportion in Brussels (66%).

These results also show that the relational continuity with the main provider of care is good and stable over time. It also shows that the lower coverage rates of the GMD – DMG in Wallonia do not implicate a worse relational continuity with the GP.

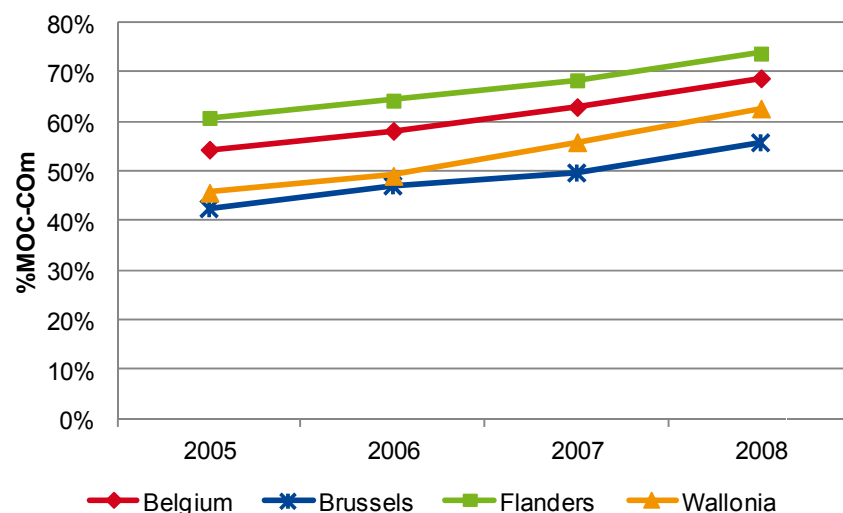
Coordination: Multidisciplinary team for cancer patients

Multidisciplinary team meetings (MOC – COM) have been implemented in many countries as the predominant model of cancer care to ensure that all patients receive timely diagnosis and treatment, that patient management is evidence-based, and that there is continuity of care.⁷⁵ In all cancer guidelines developed by the KCE and the College of Oncology, multidisciplinary discussion is recommended to decide on the diagnostic, staging and treatment plan of cancer patients. Since its introduction in



2003, a clear increase of its use is noticed for all cancer types and discussions about how to better involve GPs are currently conducted. Overall, about 69% of cancer patients were discussed at the MOC – COM in 2008, with large variations between types of cancer (in 2008: 84% of breast cancer patients, 74% lung cancer, 59% prostate cancer).⁴⁶ Although an increasing use is noticed for all three regions, cancer patients are more frequently discussed at the MOC – COM in Flanders (74% in 2008), followed by Wallonia (63% in 2008) and Brussels (56% in 2008).

Table 19 – Percentage of cancer patients who had a MOC – COM, per region, (2005-2008)



Source: Belgian Cancer Registry and evaluation of Cancer Plan⁴⁶

Note: all tumours excl. non-melanoma

Coordination: Mental health care

Although unforeseen and unavoidable emergencies do arise in mental health, mental health related emergency room (ER) admission is used as an indicator of poor coordination of care and service failures. Due to delays in receiving data, results on the ER use for mental health problems are not available for this report. They will be analysed for the next update.

Hospital readmission rates are also widely used as proxies for relapse or complications following an inpatient stay for psychiatric and substance use disorders since they indicate premature discharge (sub-optimal discharge planning: follow-up care and support have not been appropriately coordinated before discharge) or lack of continuity of services (e.g. follow-up visits after discharge).

The re-admission rates for patients with schizophrenia and bipolar disorders within the 30-days of the initial hospitalisation are situated around the OECD-average of EU-15 countries (20.2% for schizophrenia and 15.6% for bipolar disorders). For both conditions these readmission rates are the highest in Flanders (schizophrenia 25.2%; bipolar disorders 19.7%) and lowest in Brussels (schizophrenia 10.2%; bipolar disorders 7.1%). For schizophrenia, there is an overall increasing trend in Belgium (especially in Flanders and Wallonia). For bipolar disorders, there is only an increasing trend in Flanders. The re-admission rates for patients with bipolar disorders are decreasing in Wallonia.

Coordination: End-of-life of palliative patients

With the regulation of palliative care services in the residence of the patient (at home or in a residential setting) a more prominent role of the GP is needed for the coordination of services. This is thus an indicator of continuity of care. There are currently no national data on the contacts with GPs during end-of-life of palliative patients but some results can be given from different studies. A study on Christian Sickness Funds members shows that 72% of the palliative patients who died at home in 2005-2006 had a contact with a GP during the last week of their life.^{42, 43} The number of contacts between palliative patients and their GP appeared however higher in the Netherlands than in Belgium.⁷⁶



4.4.3 Key findings

- The continuity of medical information managed by GPs is stimulated since 2001 by the global medical record (GMD – DMG) in Belgium. Since its introduction, the use of the GMD – DMG shows an increasing trend. Moreover, the GMD – DMG particularly reaches the vulnerable population (elderly and persons entitled to increased reimbursement) but it could be improved, especially in Brussels and in Wallonia.
- The management continuity between hospital and GPs is a interesting indicator, overall for elderly. Within one week after a hospitalisation discharge, a majority of elderly patients (58%) have at least one contact with a GP. Results are however lower in Brussels compared to the two other regions.
- The relational continuity with the same GP is good in Belgium, particularly in the age group 65-84 years and in Wallonia.
- The coordination of care for cancer patients is organised by multidisciplinary oncology meetings for about 69% of cancer patients, with large variations between types of cancer (89% breast cancer), and between regions.
- The coordination of mental health care requires a broad array of services (e.g. assertive community care; follow-up by GPs) in the community. The re-admission rate within the same hospital for patients with schizophrenia and bipolar disorders are situated around the OECD-average, with higher and increasing rates in Flanders.
- The coordination of palliative care at home or in nursing homes should be at the level of the GP. However, national data are lacking and some studies showed less contacts between palliative patients and their GP when they compared the Belgian situation to the Netherlands.

4.5 Patient Centeredness

4.5.1 How did we evaluate patient centeredness?

Patient-centeredness is defined as “providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions”.⁶

According to this definition, several categories are used to classify the indicators:

- Acknowledgement of patients needs, wants, preference: patients' right; patients' needs; preference of care; pain management; privacy; spiritual support; cultural needs; patients' strengths; psycho-social aspects; comfort; social support.
- Providers skill of communication: providers ability to listen to their patients carefully; providers ability to explain things clearly; courtesy/respect; spent enough time to their patient; emotional support to relieve fear and anxiety; language; global communication skills; poor communication.
- Patients and carers involvement (enabling patients to manage their care and to make informed decisions about their treatment options): patients/carers information; informed consent; self-management support; patients/carers involvement in services and delivery planning; patients involvement in quality improvement; patients' participation in decision or shared decision-making.

Three indicators related to centeredness are available:

1. Percentage of population above 15 years old who report to be satisfied with healthcare services
2. Percentage of adult inpatients who reported how often their pain was controlled
3. Percentage of patients dying in their usual place of residence (home or institution)



4.5.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

Patients' satisfaction

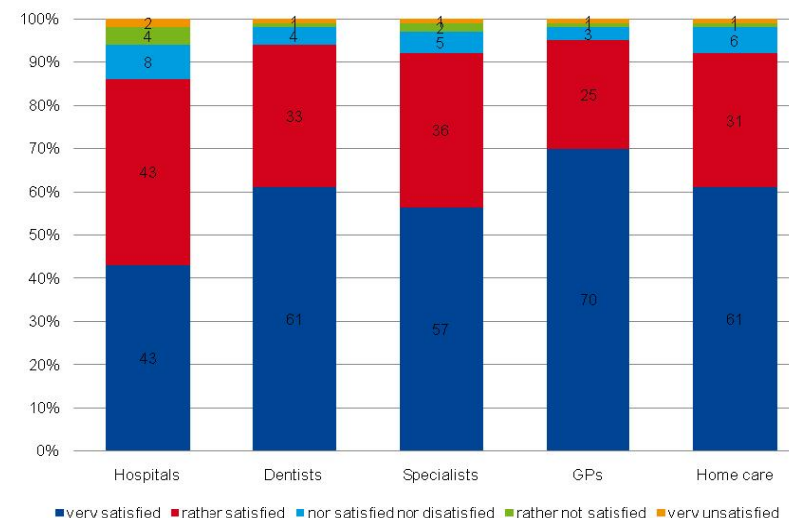
Patients have often other expectations, wishes and priorities than healthcare providers and their satisfaction depends of the answers to these issues. Although patients' satisfaction is only one limited aspect of a patient's experience with the healthcare system, it is still a very widely used measure in evaluating patients' care experience.^{77, 78}

Belgian citizens reported in the HIS that they are in general satisfied with their contact with the healthcare system: the satisfaction level is above 90% for contacts with GP, dentists, specialists and home care services. Only for hospitals the satisfaction level is lower (87%).

Differences between men and women are negligible. Differences with respect to age are limited. The satisfaction level also hardly differs between socioeconomic groups.

Large differences are however observed with regard to the geographical location of the patient: satisfaction is systematically lower in cities than in rural areas. Also, large differences exist between regions, as satisfaction is always higher in Flanders than in Wallonia. Lowest satisfaction rates are observed in Brussels.

Figure 23 – Degree of satisfaction with healthcare services, by type of service (2008)



Source: Results from Health Interview Survey, Scientific Institute of Public Health (WIV – ISP)

Pain control

Pain control or pain assessment is paramount in a patients' perspective. The RN4CAST-project included a one-off international survey (European countries) of nurses and patients. Sixty Belgian hospitals participated in the patient survey, with 2 623 patients surveyed and a response rate of 68%.⁷⁹ Results showed that 69% of patients needed medicine for pain during their hospital stay and among them 41% declared that their pain was always well controlled. This places Belgium very low compared to the average of 54% for the 8 countries who participated. Other data from the study show that 47% of the patients said that their pain was usually well controlled. Less than 2% said their pain was never controlled. The vast majority of patients considered that the hospital staff did everything they could to help them with their pain (always 71% of patients; usually 23% of patients).



Place of death

Place of death is considered an important indicator of quality of palliative care. A survey showed that in Flanders, 71.6% of persons interviewed expressed a preference for dying at home.⁸⁰ There are currently no national data published on the place of death of patients eligible for palliative care in Belgium. Data are however available from death certificates (palliative or not) in Flanders and in Brussels. A recent study (2007) on these death certificates showed a shift from dying in hospital (55.1% of all deaths in 1998 to 51.7% in 2007) to dying in a nursing home (18.3% in 1998 to 22.6% in 2007). The percentage of deaths at home remained stable.⁸¹ The decline in hospital beds and the increased number of deaths in nursing homes can be explained by the substitution of residential beds by skilled nursing beds in care homes.

Table 20 – Evolution of place of death over time in Flanders and Brussels (1998-2007)

Period	Home	Hospital	Nursing Home	Other
1998	23.0%	55.1%	18.3%	3.6%
2007	22.5%	51.7%	22.6%	3.1%

Source: A study on death certificates in Flanders and Brussels⁸¹

There are large differences between countries with regard to the place of death of patients with cancer. The percentage of cancer patients dying at home is very low in Norway (13%), higher in Flanders (28%) and much higher in the Netherlands (45%).

4.5.3 Key findings

- **There is currently a real lack of data on patients' centeredness. The few measurable indicators only provided fragmented information of a complex subject.**
- **Belgian patients are in general satisfied with their contact with the healthcare system. Data of the patients' experience will be available in the new wave of the Health Interview Survey.**
- **One survey in hospitals showed a relatively good management of pain. The vast majority of patients considered that the hospital staff does everything they can to help them with their pain (always 71% of patients; usually 23% of patients).**
- **A recent study on death certificates in Flanders and Brussels showed a shift from dying in hospital to dying in a nursing home. The percentage of deaths at home remained stable. There are large differences between countries with regard to the place of death for patients with cancer. The percentage of cancer patients dying at home is very low in Norway (13%), higher in Flanders (28%) and much higher in the Netherlands (45%).**



5 EFFICIENCY IN HEALTHCARE

5.1 How did we evaluate the efficiency in healthcare?

Efficiency is defined as “the degree to which the right level of resources (i.e. money, time and personnel, called input) is found for the system (macro-level) and ensuring that these resources are used to yield maximum benefits or results (called output)”^{4, 8}

Three indicators measure specifically the efficiency of the healthcare system:

1. Percentage of prescription of low-cost drugs in ambulatory setting
2. Rates of one-day hospitalisations for surgery
3. Length of hospitalisation for a normal delivery

Other indicators already mentioned above can also help to illustrate the efficiency of the health system (for instance the coverage of mammograms outside target groups for breast cancer screening).

5.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

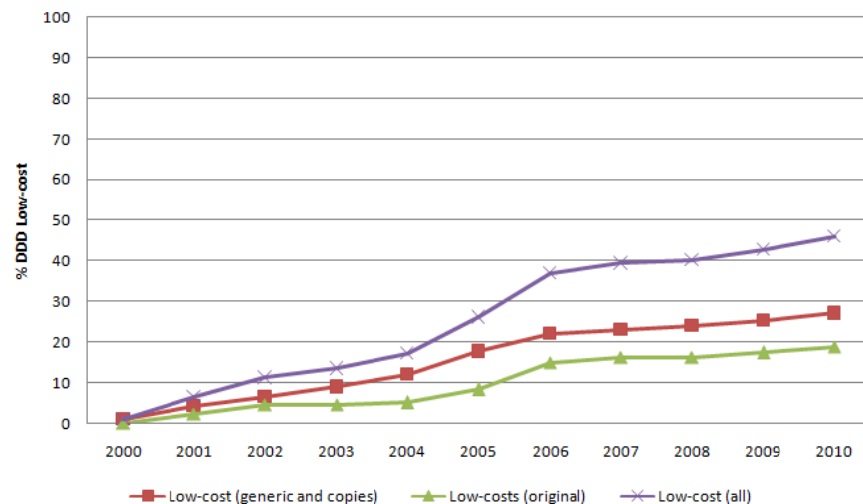
Utilisation of less costly drugs in ambulatory care

The price of generic drugs is minimally 31% less expensive than the price of the original drug. Low-cost drugs are defined as (1) original drugs for which a generic alternative exists and which have lowered their public retail price to the reimbursement basis so that there is no supplement to be paid by the patient; (2) generic drugs and copies. Promoting the prescription of low-costs drugs is thus a good way to limit health expenditures, both for the third-party payer and for the patient. Depending on their specialty, physicians and dentists are required to prescribe a certain minimum percentage of low-cost drugs, the so-called “quotas”, introduced in 2006 and revised (higher) in December 2010.

Between 2000 and 2010, the total number of DDD prescribed in ambulatory setting increased from 2.76 billion to 4.7 billion. On the same period, the proportion of low-cost DDD continuously increased to reach 46.0% in 2010 (27.1% from generic drugs and 18.9% as original drugs which lowered their price).



Figure 24 – Percentage of low-cost medication delivered in ambulatory setting (DDDs) (2000-2010)



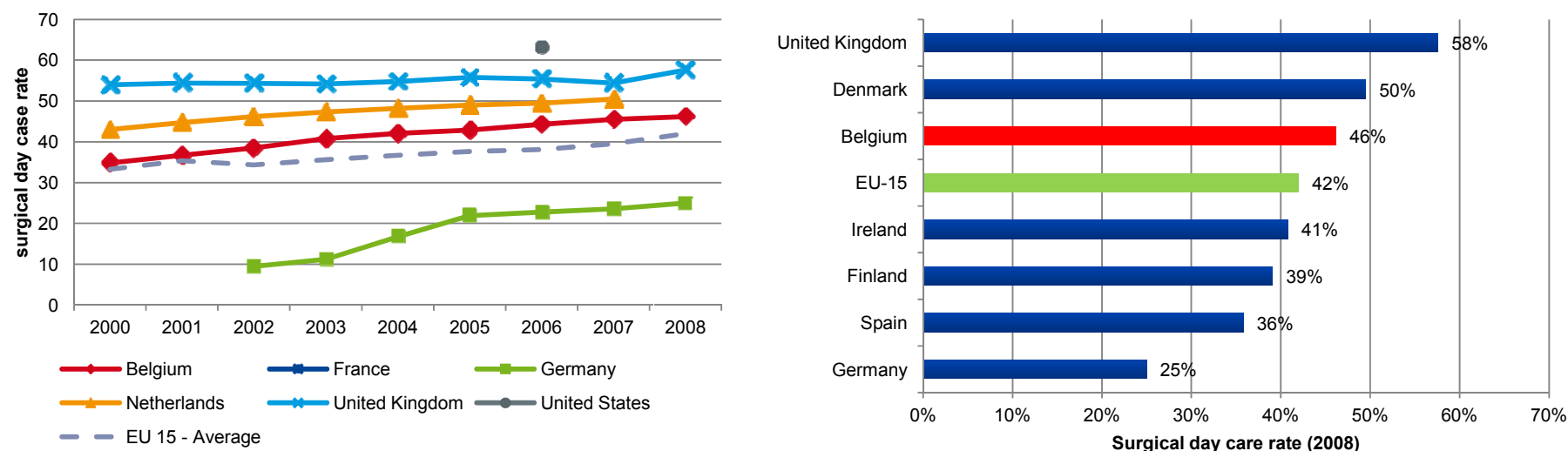
Note: DDD Defined Daily Doses

Source: RIZIV – INAMI, Pharmanet

Utilisation of less costly infrastructures (one day versus classic hospitalisation)

Carrying out elective procedures as day cases when allowed by clinical circumstances (e.g. inguinal hernia repair, circumcision, cataract surgery, etc.) saves money on bed occupancy and nursing care. It is therefore considered as an indicator of efficiency.

The Belgian surgical day-case rate grew from 42.1% in 2004 to 46.2% in 2008. The comparison with other European countries shows similar increasing trends, with Belgium higher than the European average (Figure 25).

**Figure 25 – Percentage of surgical one-day hospitalisations on all surgical hospitalisations: international comparison**

Source: OECD Health data 2010⁸², except KCE calculation for Belgium 2008

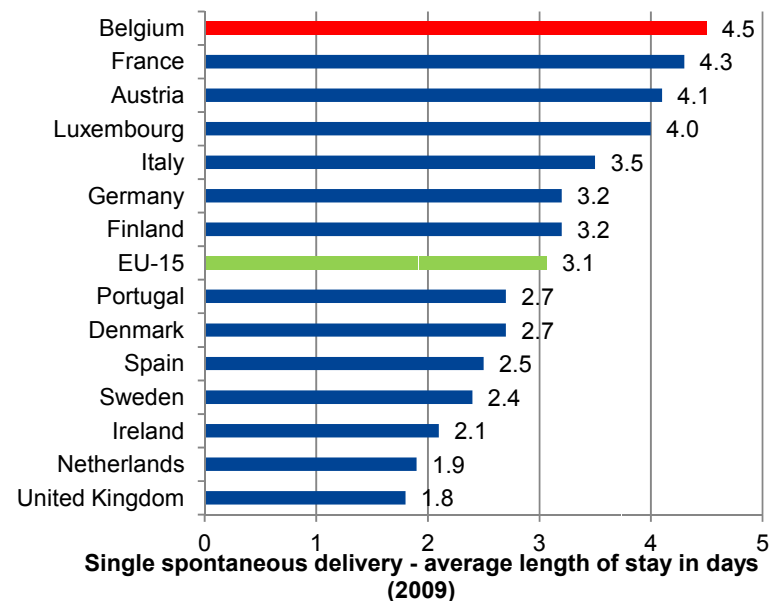
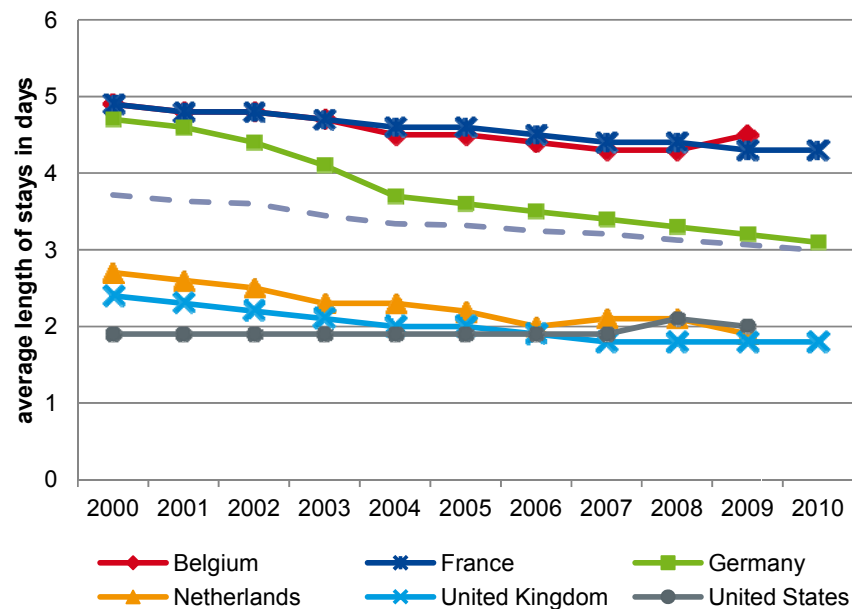
Utilisation of less costly infrastructures (shortening classic hospitalisations)

The length of stay after a normal delivery is determined more by factors of organisation and care provider characteristics than clinical patient characteristics only (e.g. severity of illness). It is therefore a good indicator to benchmark the efficiency of the healthcare system.

In Belgium, the duration of hospitalization for a normal delivery slightly decreased from 5 days in 2000 to 4.3 days in 2008. This is approximately 1.5 day above the EU-15 average of 2.9 days (Figure 26).



Figure 26 – Average length of stay for a normal delivery: international comparison



Source: OECD Health Data 2012

5.3 Key findings

- The percentage of low-cost drugs in ambulatory setting increased from 7% in 2001 to 46% in 2010.
- The percentage of surgical hospitalisations that were performed in one-day hospital grew from 42.1% in 2004 to 46.2% in 2008. These increasing trends are observed overall in Europe. Belgium is situated above the EU-15 average.
- The duration of hospitalization for a normal delivery slightly decreased from 5 days in 2000 to 4.3 days in 2008. This is approximately 1.5 day above the EU-15 average of 2.9 days.



6 SUSTAINABILITY OF THE HEALTH SYSTEM

6.1 How did we evaluate the sustainability of the health system?

Sustainability is defined as the system's capacity:

- To provide and maintain infrastructure such as workforce (e.g. through education and training, facilities and equipment);
- To be innovative;
- To stay durably financed by collective receipts;
- To be responsive to emerging needs.

For all four elements of the definition, specific indicators were selected. The last indicator, total health expenditures, is a generic indicator of financial sustainability.

Maintenance of workforce

1. Evolution over time of the mean age of practising GPs
2. Medical graduates becoming GPs
3. Nursing graduates

Maintenance of facilities

4. Acute care bed days (number per capita)

Innovation

5. Number of GPs using an electronic medical file

Financial Sustainability

6. Health expenditures according to the System of Health Accounts (Total, repartition, % gross domestic product (GDP), per capita)

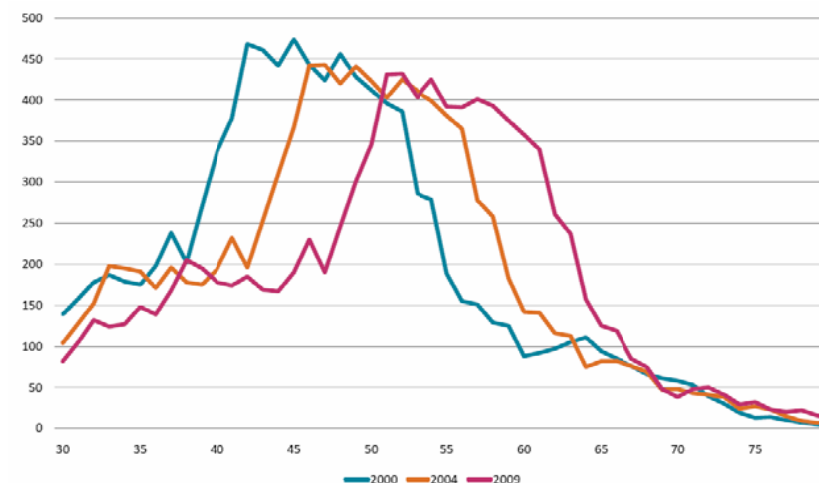
6.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

Maintenance of workforce: GPs

The cohort of active GPs is changing: it is very fast approaching retirement age, as shown by the lines superimposed for the years 2000, 2004 and 2009 of physicians with over 1 250 contacts (Figure 27). Another way of measuring this change is to calculate the average age of GPs currently practising. The average age of full time equivalents (FTE) was 51.4 years in 2009, while it was 47.3 years in 2000.

Figure 27 – Age distribution of GPs (2000-2004-2009)



Note: only GPs with more than 1 250 contacts /year

Source: Performance of general medicine in Belgium, a check up (RIZIV – INAMI)²⁶

**Table 21 – Mean age of practising GPs (2000-2009)**

	2000	2004	2008	2009
Number of GP smoothed FTE	8 515	8 472	8 336	8 283
Mean age	47.3	49.2	51.3	51.4

Source: Performance of general medicine in Belgium, a check up (RIZIV – INAMI)²⁶

One of the reasons for this ageing of GPs is the problematic recruitment of new GPs. As a matter of fact, the non-replacement of older GPs is directly related to the numbers of new physicians entering the medical profession and, of these, the percentage entering general medicine. The percentage of newly-graduated generalists is calculated by comparing the number of graduates entering general medicine to all graduates entering a specialist area in the two years following graduation (upon completion of the seven-year study cycle). This percentage currently stands at 30%, while it was 34% in 1996.²⁶

Table 22 – Progression between 1996 and 2008 of graduates in medicine in the two years following graduation according to type of specialisation

Graduates after 2 years	1996	1998	2000	2002	2004	2006	2008
number of physicians (after 7 years)	1 105	1 235	1 172	1 180	1 142	814	941
physicians without specialisation	193	247	202	211	118	110	160
% physicians without specialisation	17%	20%	17%	18%	10%	14%	17%
physicians with a specialisation (GP+SP)	912	988	970	969	1 024	704	781
specialists (SP)	600	628	632	684	756	493	554
generalists (GP)	312	360	338	285	268	211	227
%GP compared to GP +SP	34%	36%	35%	29%	26%	30%	29%

Source: RIZIV – INAMI

Compared to other European countries, Belgium has a number of medical graduates (all) of 9 medical graduates per 100 000 pop, slightly lower than the 11.5/100 000 pop EU-15 average (Figure 28).

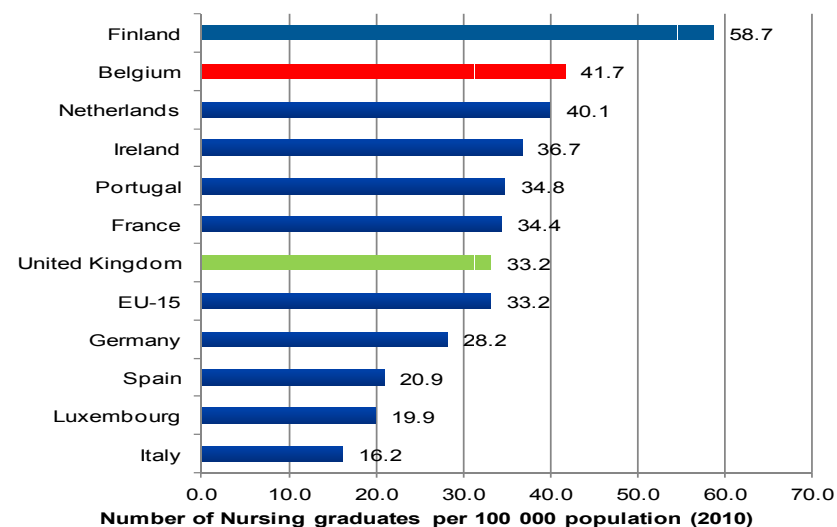
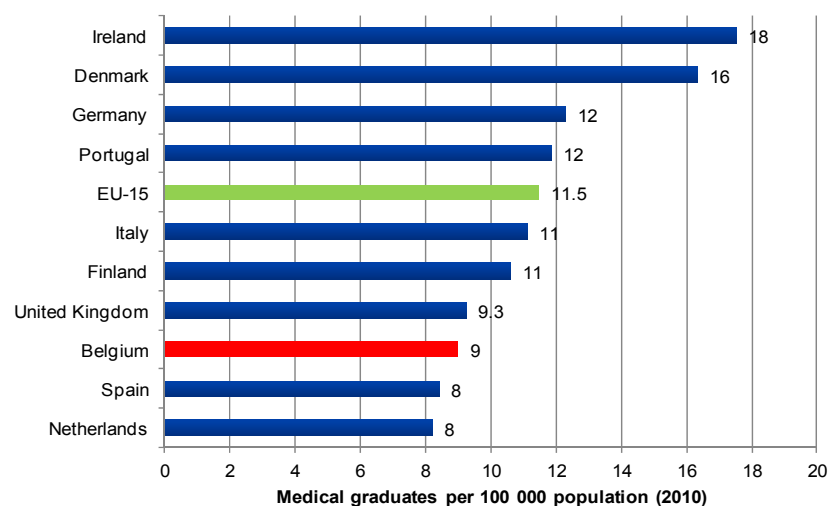


Workforce: nursing

There is currently no indicator at the macro level to document the question on workforce in nursing. However, macro-level data should be complemented with data that reflect the situation at the micro level. An example of micro-level data is the recent large-scale European nursing workforce study based on survey data. It was illustrated that in Belgian hospitals nurses have, on average, to take care for more patients compared to other EU countries.⁷⁹

Contrary to the GPs, the source of this problem does not seem to be from the education side, as Belgium forms a very high number of nursing students every year, where the number for 100 000 is 41.7, high above the EU-15 average of 31.3. A word of caution is necessary when interpreting this figure, as also foreign students are counted, and those will probably not work in Belgium.

Figure 28 – Medical and nursing graduates (per 100 000 pop): international comparison (2010)



Source: OECD Health data 2012

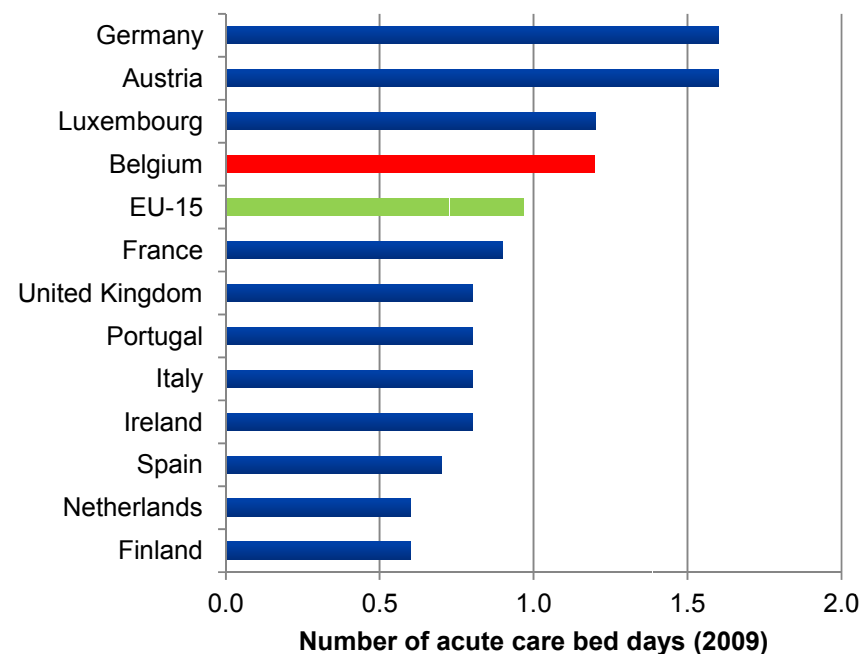
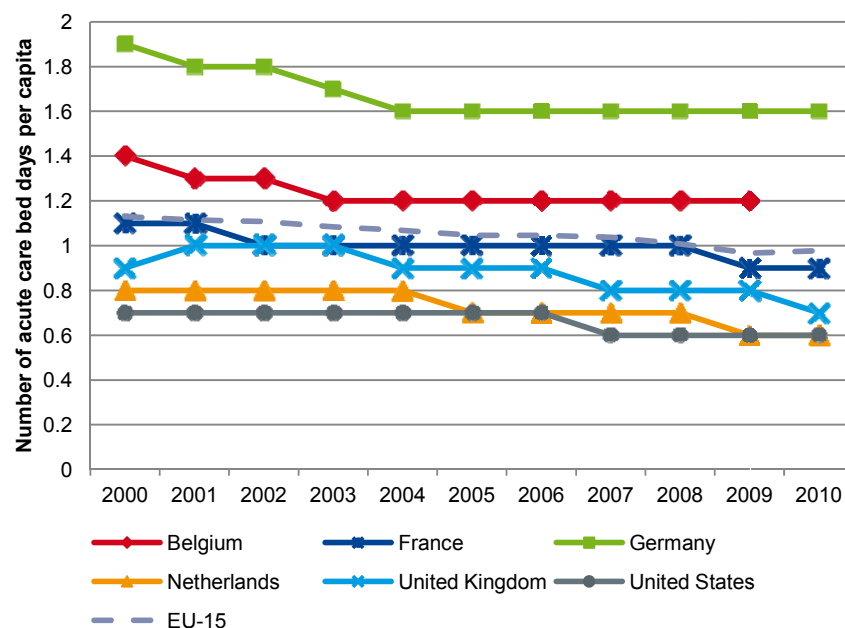


Maintenance of facilities: number of acute bed days

The number of acute care bed days per capita is indicative of the population's need for acute care beds, and thus about the needed infrastructure. This indicator indicates how this need is met.

In 2009, there were 13 million days spent in acute care hospitals (classic hospitalisation only, excluding one day). Per capita, this represents 1.2 acute care bed days. This figure is decreasing between 2000 and 2003, and stable since 2003. The EU-15 average is a bit lower, around 1 day/inhabitant. Of the neighbouring countries, only Germany has a higher utilisation of acute care hospitals per inhabitant.

Figure 29 – Acute care bed days per capita, international comparison



Source: OECD Health data 2012

**Innovation: the percentage of GPs using an electronic file to maintain their patients' medical records**

The percentage of GPs using an electronic file with recommended software to maintain their patient's medical record increased from 61% in 2004 to 74% in 2010.

Table 23 – Percentage of GPs using recommended software to maintain their patients' medical records

	2004	2008	2009	2010
% of GPs who received a lump sum for using an electronic medical records.	61%	72%	75%	74%

Source: RIZIV – INAMI

Total healthcare expenditures as an indicator of financial sustainability

Trends in health expenditure are an important indicator of affordability, and thus sustainability. For international comparisons, the standard international definitions for healthcare and healthcare expenditure of the OECD's System of Health Accounts (SHA) are classically used. SHA aims at measuring consumption of health and long-term care services.

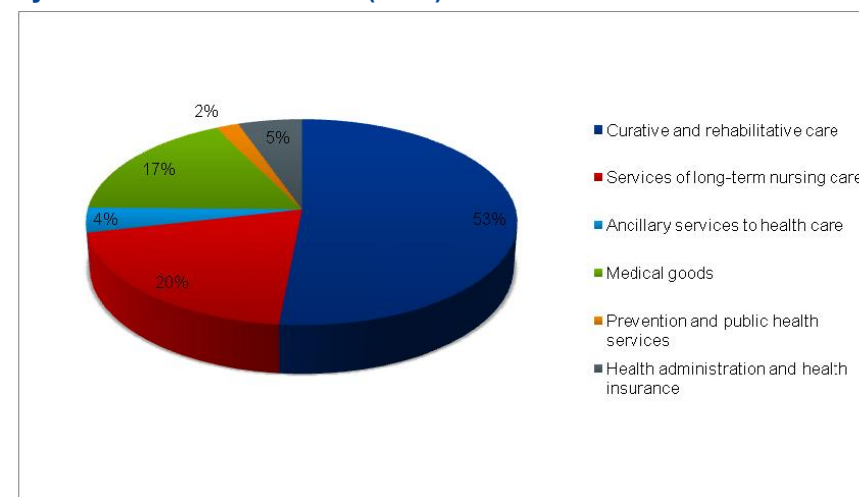
Health Accounts are only comparable since 2003. The total health expenditures increased from €27.6 billion in 2003 to €37.3 billion in 2010. Per capita, this represents an increase from €2660/inhabitant in 2003 to €3430/inhabitant in 2010. To allow comparisons between countries, these data are also expressed in 2005 US\$ Purchasing Power Parities (PPP). Finally, the share of Total Health Expenditures (THE) in Belgian gross domestic product (GDP) accounts for 10.5% of GDP, compared to 10.0% in 2003.


Table 24 – Total health expenditures according to the System of Health Accounts (2003-2010)

	2003	2004	2005	2006	2007	2008	2009	2010
Absolute amounts (in billions €)	27.6023	29.4811	30.6064	30.5214	32.2427	34.5992	36.303	37.3737
Per capita	2660.18	2828.97	2920.84	2893.59	3034.41	3230.56	3362.48	3430.17
Per capita (US\$ PPP)	3026.8	3155.5	3246.8	3277.6	3423.3	3698.4	3911.4	3968.8
% GDP	10.0	10.1	10.1	9.6	9.6	10	10.7	10.5

Source: OECD Health Data 2012

More than half of the total health expenditures (53%) is spent for curative care (HC.1) or rehabilitation care (HC.2). The following two most important contributors are services for long-term care (LTC) (specifically the health component, not the social component, HC.3, 20%)^s and medical goods (mainly pharmaceuticals products, HC.5, 17%).

Figure 30 – Health expenditures in Belgium by main function in the System of Health Accounts (2010)


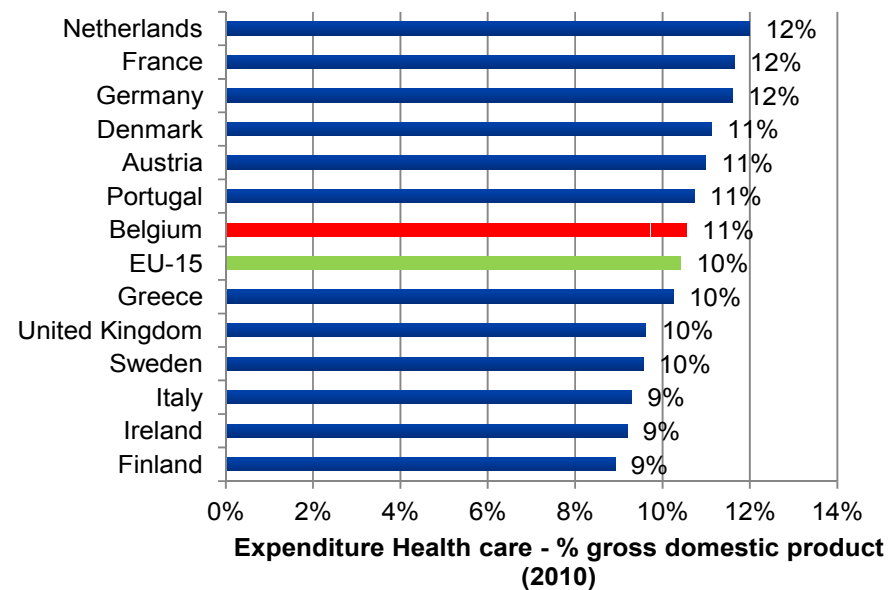
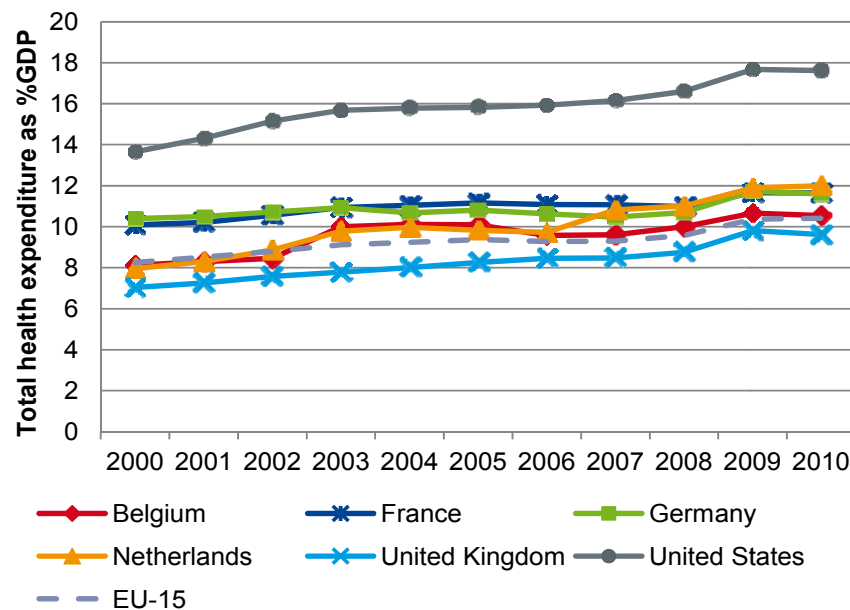
Source: OECD Health Data 2012

Expressed as a percentage of the GDP, Belgium is very close to the EU-15 average. But caution is needed when comparing total healthcare expenditures, as the better and the more exhaustive the registration of healthcare expenditures, the higher the level of these expenditures.

^s Roughly speaking, one could define healthcare as care helping individuals performing activities of daily living (ADLs) (e.g. dressing, eating...), and social care as care helping individuals performing instrumental activities of daily living (IADLs) (e.g. shopping, laundry, ...). In practice, the division of LTC into its health and social components is challenging as many services provided to LTC recipients have both a health and social component. To ensure comparability of the System of Health Accounts (SHA) for long-term care, the OECD issued specific guidelines.²⁴



Figure 31 – Total health expenditures as a % of GDP: international comparison



Source: OECD Health data 2012



6.3 Key findings

- Concerning the Belgian healthcare workforce, some results are challenging since GPs are aging. The average age of FTEs of GPs is currently 51.4 years. This average age has risen very rapidly since 2000, when it was 47.3 years. One of the reasons of this ageing of GPs is the problematic recruitment of new GPs. The number of graduates who specialize either in general medicine or in another specialty was 781 in 2008. Among these graduates, the percentage of graduates in general medicine was 34% in 1996 and is actually (2008) 29%.
- The number of nursing graduates per 100 000 population is very high in Belgium compared to other EU-15 countries: 41.7/100 000 population compared to the average EU-15 of 31.3 /100 000 population but the foreign students are counted although they will probably not work in Belgium.
- The analysis of the maintenance of the facilities shows a relative high utilisation of acute care hospitals per inhabitant. In 2009, there were 13 million days spent in acute care hospitals (classic hospitalisation only, excluding one day). Per capita, this represents 1.2 acute care bed days in 2009, a bit higher than the EU-15 average (1 bed day/inhabitant).
- The innovative perspective of the health system is measured by the percentage of GPs using an electronic file to maintain their patient's medical record. This percentage increased from 61% in 2004 to 74% in 2010.
- Concerning the financial sustainability, the total health expenditures increased from €27.6 billion in 2003 to €37.3 billion in 2010. Per capita, this represents an increase from €2 660/inhabitant to €3 430/inhabitant in 2010. The share of total health expenditures in Belgian gross domestic product (GDP) accounts for 10.5%, compared to 10.0% in 2003, which is very close to the EU-15 average.

7 PERFORMANCE OF HEALTH PROMOTION

7.1 How did we evaluate the performance of health promotion?

According to the Ottawa charter²³, "health promotion is the process of enabling people to increase control over, and to improve their health". The process of health promotion is complex and can be understood as all the efforts that a society does to promote the health of the citizens. It covers a whole range of interventions (e.g., policies, law, environmental interventions), situated for a considerable part outside the health system. It is also largely situated outside the so-called "health promotion sector"^t.

The guiding principles of health promotion are the following:

- Participation
- Empowerment
- Sustainability
- Multistrategic
- Equity
- Multisectorial

^t In Belgium, the "health promotion sector" is represented by the structures depending on the Health Administrations and Ministries of the Regions and Communities.



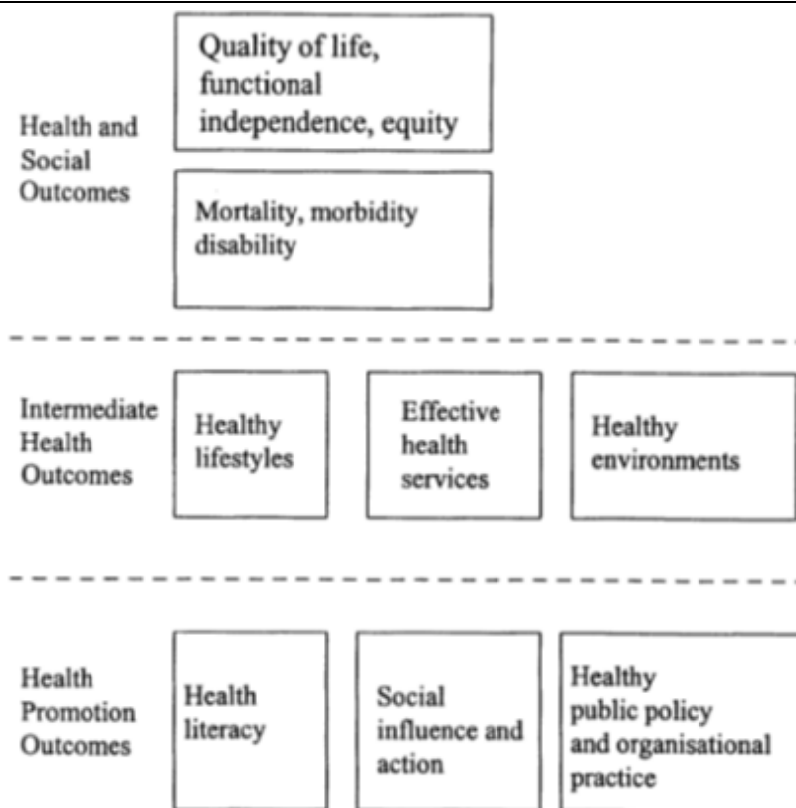
Several frameworks have been proposed to classify health promotion indicators. Nutbeam⁸³ has proposed a framework that classifies health promotion indicators in 4 broad classes ranking from most proximal indicators (health promotion actions), through health promotion outcomes (health literacy, social influence and policies), intermediate health outcomes (healthy lifestyle, effective health services and healthy settings), to final health and social outcomes (physical health like morbidity and mortality, and social health like well-being and equity). In this work, we adopted the Nutbeam's framework to classify the indicators, because it corresponds largely to the broad axes and principles of the Ottawa Charter.²³

In the context of this project, it has not been possible to perform a full evaluation of health promotion in Belgium since this would necessitate a complete study in itself. With regard to the limitations we faced (constraint of a limited set of indicators and unavailability of data for many indicators), we illustrated some categories of the Nutbeam's framework. Although the most distal from action outcomes like health outcomes and healthy lifestyles are easier to document, we also tried to define indicators and present results for more proximal indicators (as healthy environment, health promotion outcomes).

**Figure 32 – The Nutbeam's framework and selected indicators to measure performance of health promotion**

The Nutbeam's framework

Indicators selected and classified within the Nutbeam framework

**Health and Social outcomes**

- Overweight and obesity
- Dental health: decayed, missing, filled teeth at age 12
- Incidence of HIV

Intermediate Health outcomes

Healthy Lifestyles

- Daily smokers
- Alcohol consumption
- Physical activity
- Nutrition (fruits and vegetables)

Healthy Environment

- Composite index of health promotion policies in the municipalities
- Percentage of schools with a participative health promotion team
- Offer of physical activity at secondary school

Health Promotion outcomes

- Health Literacy: health literacy level (not measured)
- Social influence and action: poor social support
- Healthy public policy and organisation practice: Tobacco Control Policies Scale

Source: adapted from the Nutbeam framework⁸³

"Health promotion actions", the last category in the Nutbeam's framework, is not represented here



7.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

7.2.1 Health outcomes

Four important indicators of general health outcome have already been described above in the chapter on the health status of the population: life expectancy, health expectancy, self-perceived health and infant mortality, as they are less specific to health promotion.

Overweight and obesity

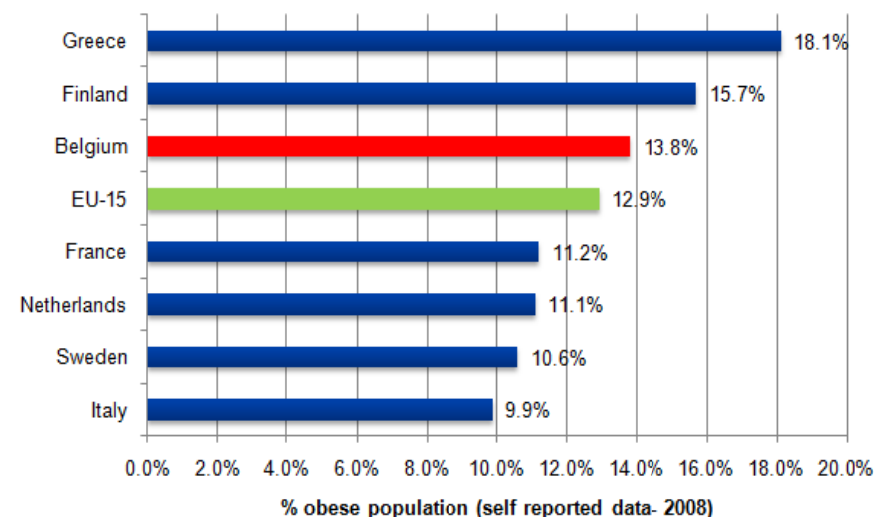
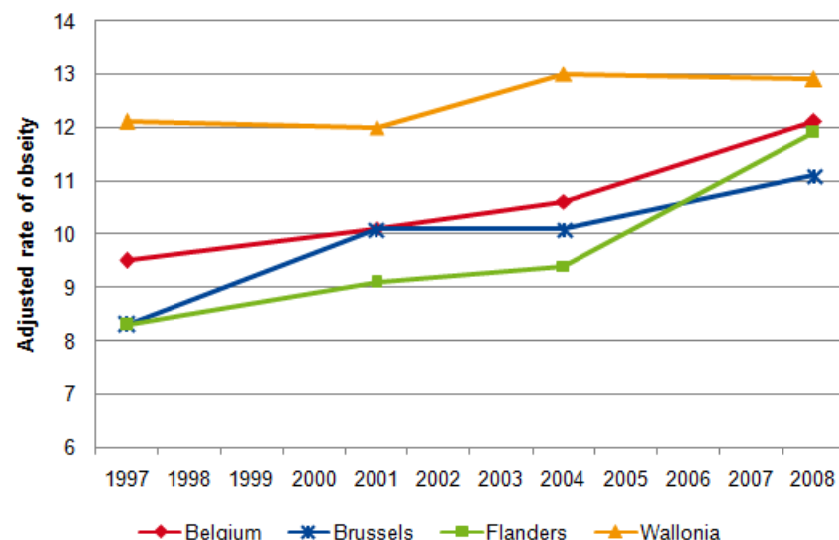
Adult population (aged 18 years or older)

In 2008, 47% of the Belgian population (aged 18 years or older) was considered as being overweight or obese (Body Mass Index (BMI) ≥ 25), and almost 14% was considered as obese (BMI ≥ 30). Results are based on the reported weight and height. Overweight is more frequent in men than in women. For obesity, no differences were found between men and women.

Although the obesity and overweight rates are slightly lower than the average EU-rate, they gradually increased over time. After standardization for age, the rate of obese people is higher in Wallonia than in the two other regions, but the difference tends to have decreased over time (Figure 33). As for other indicators related to overweight, like poor nutritional habits or lack of physical activity, a strong social gradient is observed.



Figure 33 – Percentage of the adult population (aged 18 years or older) with obesity (BMI ≥ 30), by region (1997-2008), and international comparison (2000-2008)



Source: Health Interview Survey, Scientific Institute of Public Health (WIV – ISP), and OECD Health Data for international comparison

Overweight and obesity in children and adolescents

The HIS survey provides information about the overall prevalence of overweight and obesity in young people (2-17 years) (<https://www.wiv-isp.be/epidemie/epifr/CROSPFR/HISFR/his08fr/9.etat%20nutritionnel.pdf>): overall 18% of the young people (aged 2-17 years) are found to be overweight and 5% was found to be obese. There was no difference between genders.

Dental health: decayed, missing, filled teeth (DMFT) at age 12

DMFT is an international index describing the amount – the prevalence – of dental caries in an individual. DMFT numerically expresses the caries prevalence and is obtained by calculating the number of Decayed (D),

Missing (M), Filled (F) teeth (T). WHO goals set for the year 2010 a maximum mean DMFT score below 1.0 for 12-year-olds.

In a national survey performed in 2009-2010⁸⁴, the mean DMFT score in a sample of 30 children aged 12 was 0.9 (± 1.37). This confirms the result (1.0) from a previous study based on a large sample performed in Flanders in 2001. Nevertheless, 43% of these children had sign(s) of dental caries in permanent teeth. The mean DMFT score was 1.3 (± 1.82) for the 12-14 year-olds (n=95). The very small sample does not allow any stratified analysis by sex, region or by socioeconomic status.

The number of studies performed in Belgium to date still remains limited. Moreover, the scope is often limited to small selected areas.⁸⁵



Incidence of HIV

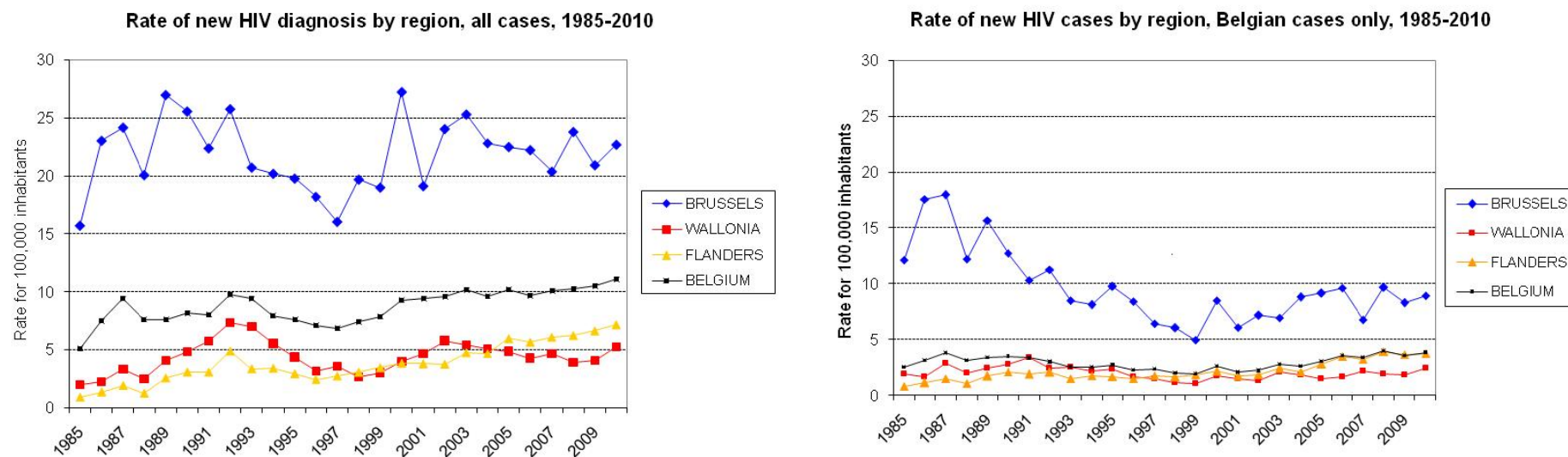
HIV is an important communicable disease in Europe. It is associated with serious morbidity, high costs of treatment and care, significant mortality and shortened life expectancy. It is also a perfectly avoidable infection, since the transmission is largely avoidable by behavioural measures (safe sex, safe injection). Therefore, its incidence in a defined population is an indicator of the success/failure of health promotion.

In Belgium, the true incidence rate is not known, and is approached by the diagnostic rate. This is an approximation since the diagnostic can occur long after the infection (the HIV-infection remaining long asymptomatic).

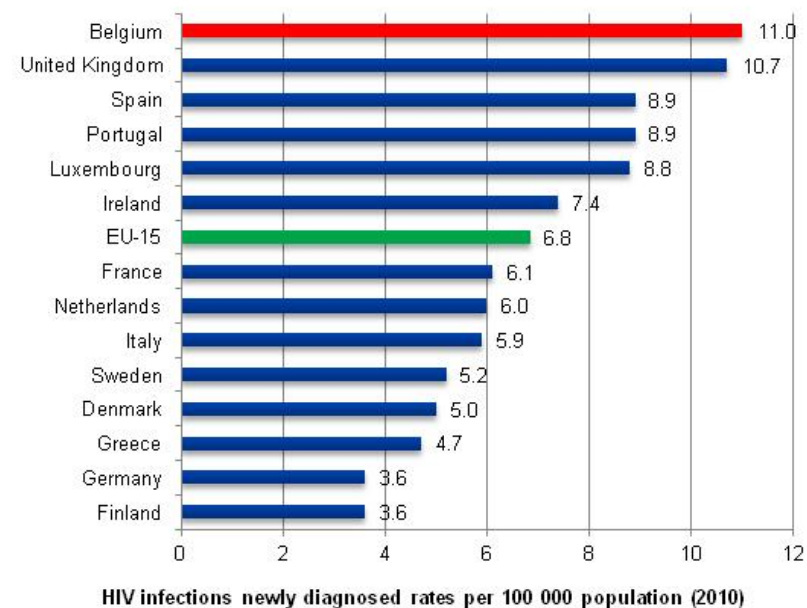
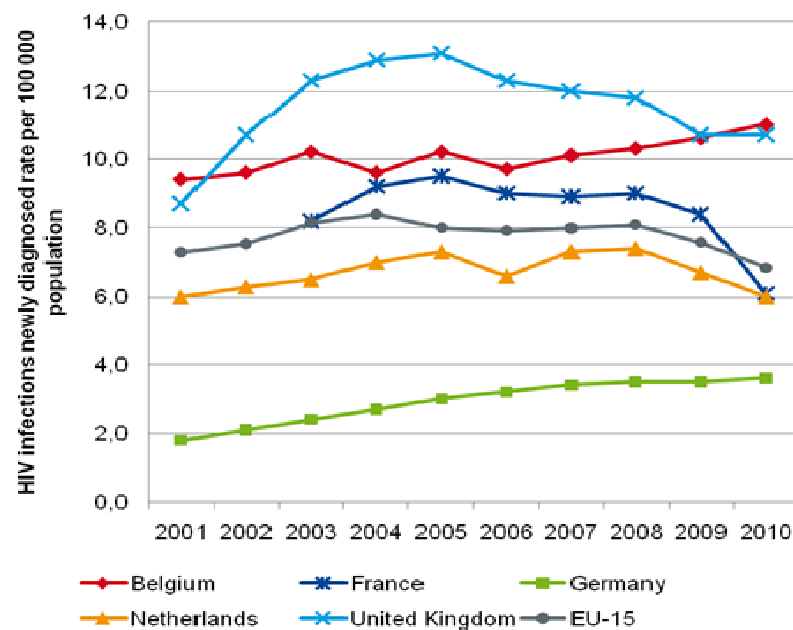
The diagnostic rate in Belgium for all cases is around 10 per 100 000 inhabitants. Belgium has the particularity to have a large proportion of non-Belgian cases (60% of cases with a known nationality), being a mix of resident and non-resident people. A large proportion of the non-Belgian cases originate from countries with a high prevalence of HIV (such as Sub-Saharan African countries). Parts of this large number of non-Belgian cases are imported cases, and as such cannot be interpreted as a failure of health promotion in Belgium. There is no clear-cut explanation for the large number of imported cases in Belgium. Further analysis is needed. For Belgian cases only, the rate is fluctuating around 3-4 per 100 000 inhabitants.

Figure 34 (a and b) show the evolution of the diagnostic rate of HIV by region from 1985 to 2010, for all cases and for Belgian cases only. The rates in Flanders and Wallonia are quite comparable. However, a steady increase is observed in Flanders since 1997. The rates in Brussels are much higher than in the other regions. The Brussels region mainly consists of a large city, with the socio-cultural characteristics of an urban context. A high HIV-rate is a usual phenomenon observed in large towns. The HIV-rates in the two other regions represent an average of rates from rural, semi-urban and urban contexts.

For Belgian patients, the most frequent way of infection was male homosexual contact (see Supplement S1).⁸⁶

**Figure 34 – Diagnostic rate of HIV by region, for all cases (a) and for Belgian cases only (b) (1985-2010)**

Source: Scientific Institute of Public Health (WIV – ISP) ⁸⁶

**Figure 35 – Rate of the new HIV diagnosis per 100 000 inhabitants: International comparison**

Source: OECD Health Data 2012



7.2.2 Intermediate health outcomes

7.2.2.1 Healthy Lifestyle

Daily smokers

The percentage of daily smokers was around 20% in Belgium in 2008, which is slightly lower than the EU average. It has significantly decreased since 10 years, mostly in men, in whom the rate of daily smoking passed from 31% in 1997 to 23.7% in 2008. The rate in women is lower, but it remained stable until 2004. The decrease in the rate of smoking is mainly found in highly-educated people. The rate of smoking in young people is as high as for the rest of the population. However, a closer examination of the data in this age group reveals that smoking prevalence peaks between 21 and 24 years, a priority target for prevention.

The comparison between regions shows that the rate of smoking is lower in Flanders than in the other regions.

Alcohol consumption

The consumption of alcohol is assessed on the basis of three indicators:

- Percentage of men and women aged 15 years and over reporting an excessive alcohol consumption (more than 21 glasses/210g a week in men and 14 glasses/140g a week in women);
- Percentage of the non-abstinent population (aged 15 years and over) reporting a problematic alcohol consumption (defined as a tendency to addiction based on CAGE scale, 2+ cut off);⁸⁷
- Percentage of the population (aged 15 years and over) reporting a risky single-occasion drinking (≥ 6 drinks) at least once a week.

The percentage of excessive alcohol consumption has remained stable around 8%. However, the rate of people with problematic drinking behaviour (tendency to addiction) is increasing, mostly in Brussels. Alcohol consumption behaviour is more typically masculine. Risky single-occasion drinking is highest in the 15-24 age group.

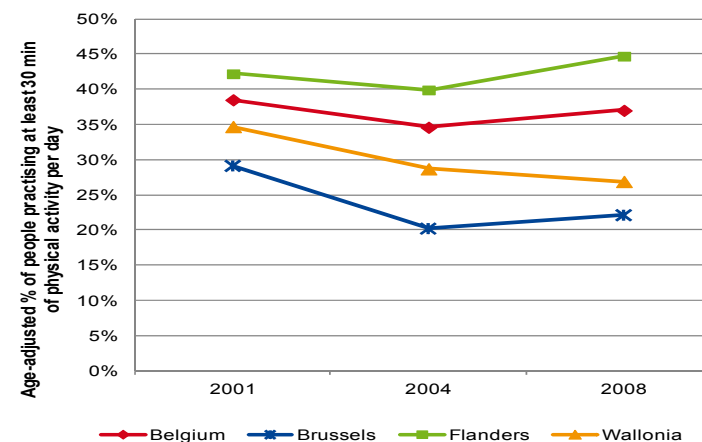
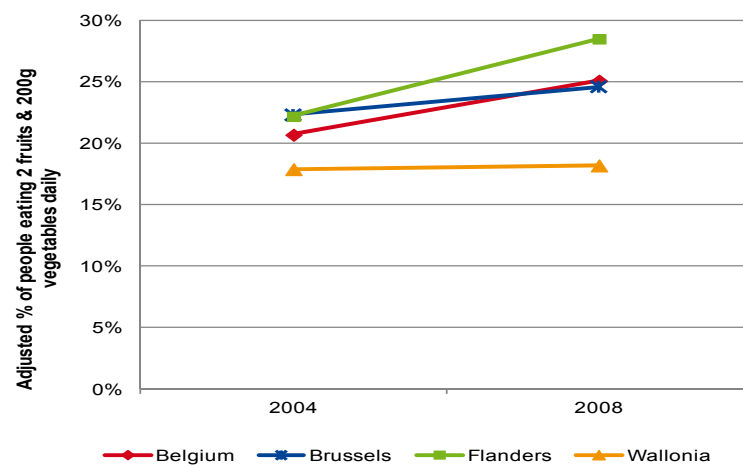
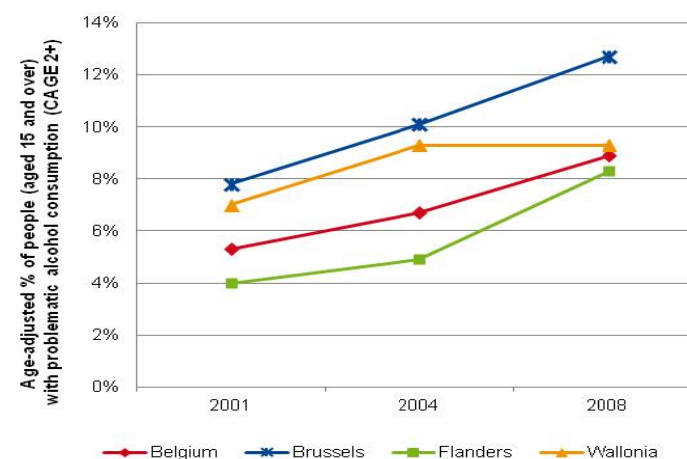
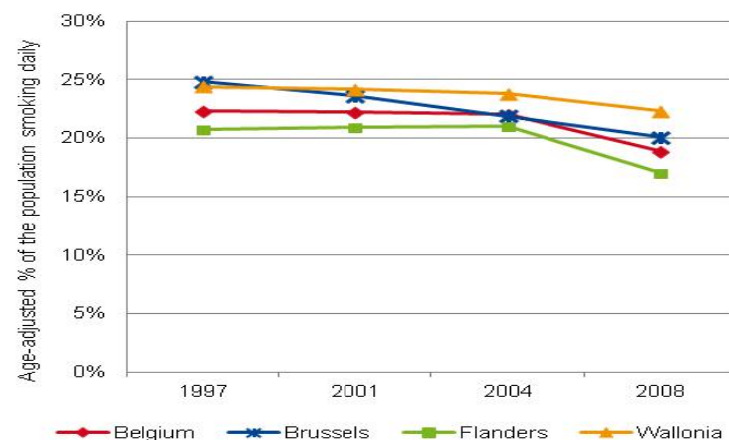
Table 25 – Alcohol consumption habits for the population (aged 15 or older) (1997-2008)

	1997	2001	2004	2008
Drinks alcohol in excess	7%	9%	9%	8%
Exhibits problematic drinking behaviour (CAGE questionnaire)		7%	8%	10%
Drinks 6 or more drinks in a single occasion at least weakly				8%

Source: Health Interview Survey, Scientific Institute of Public Health (WIV – ISP)



Figure 36 – Percentage of the population (a) smoking daily, (b) with problematic alcohol consumption, (c) consuming at least 2 fruits and 200 vegetables daily, (d) performing at least 30 min of physical activity per day, by region (1997/2001-2008)



Source: Health Interview Survey 2008, Scientific Institute of Public Health (WIV – ISP)



Consumption of fruits and vegetables

The consumption of fruits and vegetables is expressed by three complementary indicators:

- Percentage of the population reporting to eat fruits daily;
- Percentage of the population reporting to eat vegetables daily;
- Percentage of the population reporting to eat at least 200g vegetables and 2 fruits per day.

The daily consumption of fruits and vegetables (in the whole population) has progressed over time, and reaches 65% for fruits and 84% for vegetables. Although this is an encouraging progression, the quantity consumed is far too low. Only 25% of the people reports to eat at least 200g vegetables and 2 fruits daily, which is a proxy of the nutritional recommendations (which are “300g vegetables and 2 fruits per day” according to the “Actieve Voedingsdriehoek”,⁸⁸ or five portions of either fruits or vegetables, according to the WHO⁸⁹ and the Belgian Nutritional Plan⁹⁰).

Physical activity

Strong evidence demonstrates that compared to less active individuals, more active people have lower rates of all-cause mortality, coronary heart disease, high blood pressure, stroke, type 2 diabetes, metabolic syndrome, colon and breast cancers, and depression.^{91, 92} But the quantity of physical activity is difficult to measure. The questionnaires and the development of indicators raised many questions and criticism. The questionnaire will be changed in the next (E)-HIS. Moreover, very few international data are currently available. This being said, we present the currently available data on physical activity in Belgium.

The global percentage of people (15 years or more) practising at least 30 minutes of any type of (at least moderate) physical activity per day is 38%. There is a lot of room for improving this global level. The (at least moderate) physical activity rate is almost twice as higher in men than in women. There are important regional differences with a higher rate of practising (at least moderate) physical activity in Flanders (45%) than in Wallonia (27%) or Brussels (22%).

7.2.2.2 Healthy Environment

In Flanders, the Vlaams Instituut voor Gezondheidspromotie (VIGeZ) has developed a set of global indices aiming to measure the level of intensity of “health promotion” in several settings (schools, work, and municipalities). Such indicators focus on public health authorities responsibilities (as opposed to the usual measures of health behaviour).

It is in line with two axes of the Ottawa charter.²³

- Developing healthy public policies
- Developing healthy environment

Three specific themes were analysed: smoking, healthy eating and physical activity. Those indicators of health promotion in settings can be seen globally as a summary result, or can be decomposed into specific dimensions. They can be used as an (auto)-evaluation indicator for the municipalities, which can compare themselves to the others. The trends over time can also be followed (with caution). For the indicators on schools, results can also be obtained from the Health Behaviour in School-aged Children (HBSC) studies in Wallonia and Brussels.

Index of health promotion policies in the municipalities

The municipalities represent the most close-to-the-citizen level of public authority.

Results are only available for Flanders. The scores, that represent the weighted sum of “good” answers to questions related to the health promotion policies at municipality-level (in the field of tobacco, healthy eating and physical activity), range between 0 and 100%. The municipalities score low for tobacco prevention (global score=37%) and healthy eating (global score=36%), a bit better for physical activity (global score=50%). The average scores hide a large dispersion of scores with some municipalities doing nothing, and others performing very well. It is important to further analyse the reason for those low rates and for the variability, in order to intervene efficiently.



Percentage of schools with a health promotion working group

The percentages of schools with activities in health promotion are calculated separately for 3 themes: smoking prevention, healthy eating and physical activity. The existence of a working group working on health promotion as a whole cannot directly be deduced from those results. However, the separate indicators are a good proxy of the situation.

For Flanders, the following results are extracted from the VIGeZ 2009 report:⁹³

- The existence of such a working group is rather good implemented in the secondary schools (42% for smoking prevention, 64% for healthy eating and 54% for physical activity; the main roles of the working group are “to give advice to the Direction” or “taking part in setting up the health promotion policies of the schools”.
- Whatever the theme, in the majority of schools, the working group is composed mostly of teachers; parents and students are not part of the team as such.
- However, other participation mechanisms exist for the students: a feedback of the discussions of the working group is given to students and parents. In almost half of the schools, the students can take part in the decisions. In 38% they only can give their opinion or make suggestions.

From the VIGeZ report we can conclude that a working group for health promotion is implemented in a majority of schools. While students and parents are seldom part of those groups, other participation mechanisms exist. The authors conclude that the participation culture is quite largely implemented.

In Wallonia and Brussels, the Health Behaviour in School-aged Children (HBSC) study is a cross-national research survey conducted in collaboration with WHO-Europe. The HBSC aims to gain new insight into young people's health, well-being, health behaviours, and their social context. A part of the survey is devoted to the health strategies and environmental context of the school, and is answered by the school directors.

In the French speaking part of Belgium (Wallonia and Brussels) survey 2010, 44 secondary schools directors were interviewed regarding the health related projects conducted in the school. Some indicators that we retained as performance indicators could be extracted from the report.

Almost half of the schools report they have a permanent health cell (40%). However, it seems that the participation of students is quite poor, since students are only implied in 7.7% of the cases. Other mechanisms of participation are maybe present, but were not part of this questionnaire. This point could be explored more profoundly in the future. As participation is an essential dimension in the success of health promotion, this dimension should be further improved.

Offer of physical activity at secondary school

Physical activity in young people is an important health-enhancing activity. Schools can offer many opportunities to young people to engage in physical activities. For Flanders, the following results are extracted from the VIGeZ 2009 report⁹³.

**Table 26 – Offer of physical activity in secondary schools in Flanders**

	N	Minimum	Maximum	Mean	Std. Deviation
Education	416	.00	10.00	6.0643	2.08702
Supply	416	.00	8.59	5.4758	1.29252
Reglementation	416	1.21	10.00	6.9500	1.74638
Participation	416	.00	10.00	5.3100	2.31019
Networking	416	.00	10.00	4.7332	3.41978
Total	416	8.74	84.27	56.3475	14.46473

Note: The table provides an overview of the partial scores for several health promotion dimensions. Those partial scores are calculated as a 0-10 index resulting from the weighted sum of “good” answers to a long questionnaire. The score of “supply” is one of those partial scores. The global score, called “Total score of the physical activity policy in the secondary schools” (calculated as a percent), represents a global intensity of the health promotion policies on the theme of physical activity, in all respondent schools. The global score ranges between 0 and 100, and should be interpreted as a “percentage” of a perfect score (in terms of health promotion policy).

Source: VIGeZ report⁹³

In summary, we can conclude that health promotion policies related to physical activity in Flemish schools are in progress, score quite good and are generally integrated in a global school policy. A separate analysis of the dimension “supply” reveals that infrastructure scores quite good. Nearly 100% of schools have (access to) a gym but with sometimes insufficient space available. However, the availability of a swimming pool is more problematic. Although the range of activities has increased since 2006, the accessibility of facilities could improve.

Data for Brussels and Wallonia are extracted from the HBSC survey.⁹⁴ This report shows that 20% of the responding schools had no adequate sport facilities, and that another 10% had no sport facilities. In those schools, the children are going to another place to have the sport lessons.

Data on the availability of (extra) physical activity and on the integration of the physical activity in the global school-policy should be collected in Wallonia and Brussels in order to conclude and eventually make recommendations.

7.2.3 Health Promotion outcomes

7.2.3.1 Health Literacy

Health literacy is one of the most important indicators for health promotion. It can be defined as “the individual skills to understand and manage the information related to health, health determinants, and health care”. It is related to the “empowerment” dimension, which is one of the most representative aspects of health promotion.⁹⁵

Unfortunately, no data exist in Belgium yet. At international level, the tools to adequately measure health literacy are still under validation.^{96, 97}

7.2.3.2 Social influence and action

Social support

Social support is a protective factor in times of stress. It is a resource that helps individuals to deal with the difficulties of life (according to different modalities, like emotional support, material aid, information...). Low levels of social support have been linked to increased rates of depression, somatic illnesses and mortality.

Fifteen percent of the population aged 15 years or older reported poor social support in 2008. There is no significant gender difference. The lack of social support is gradually increasing with age. There is also a strong association with educational level (age-adjusted rate equals 22% on the lowest educational level versus 10% in the highest). The rate is much lower in Flanders than in the other regions, especially in Brussels.



7.2.3.3 *Healthy Public Policy*

The Tobacco Control Policies Scale

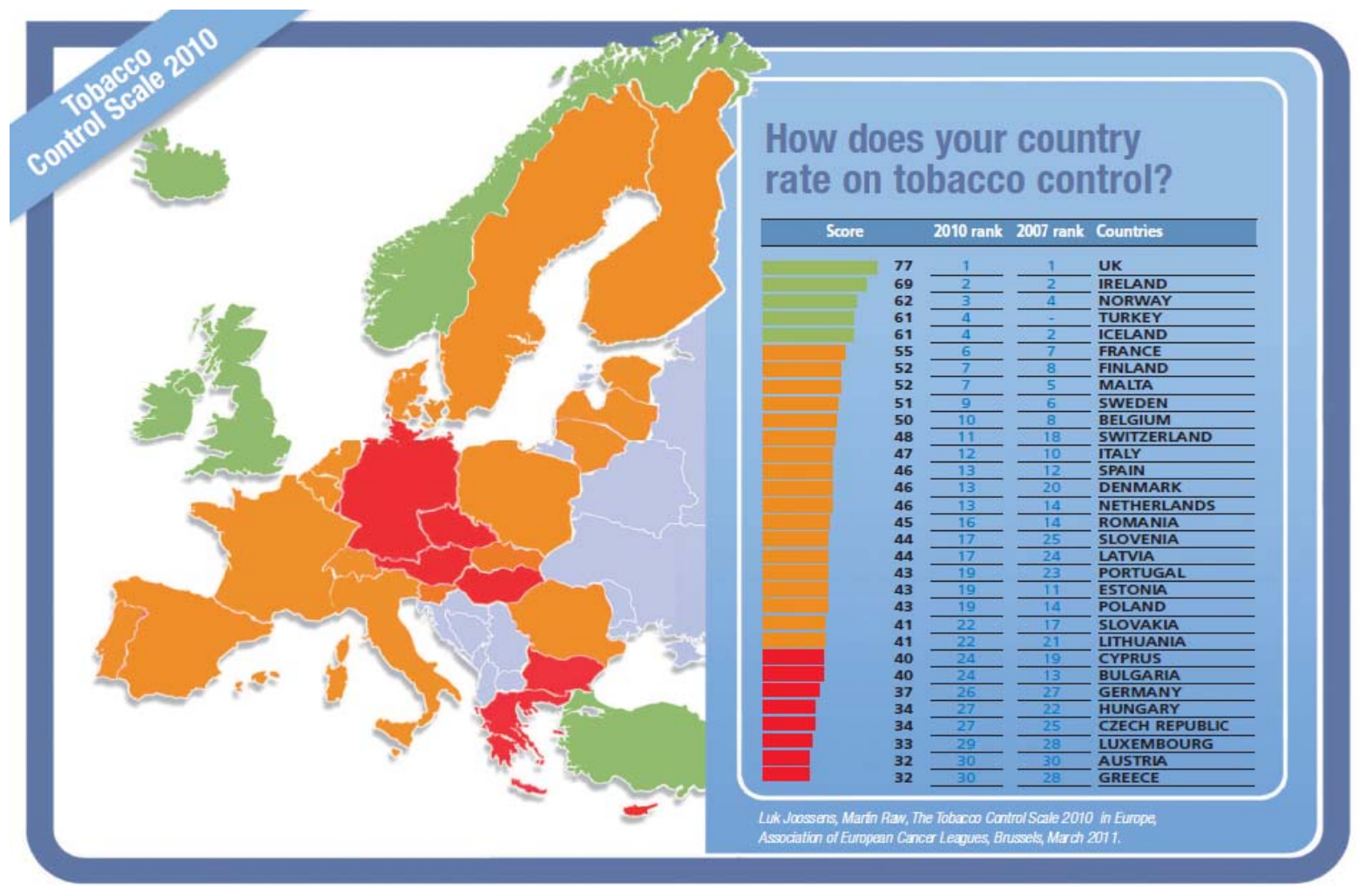
The concept of multi-pronged and “comprehensive” tobacco control policies arose from governments’ and non-governmental organisations’ policy initiatives during the 90s. The interest of the composite index “Tobacco Control Policies Scale” is to provide a global and internationally comparable level of the Tobacco Control Policies in a country. It is composed of the following elements⁹⁸:

- Price increases through higher taxes on cigarettes and other tobacco products;
- Bans/restrictions on smoking in public and work places;
- Better consumer information, including public information campaigns, media coverage, and publicising research findings;
- Comprehensive bans on the advertising and promotion of all tobacco products, logos and brand names;
- Large, direct health warning labels on cigarette boxes and other tobacco products;
- Treatment to help dependent-smokers stopping, including increased access to medications.

Belgium is situated on the 10th place out of 32, with a global score of 50/100. The scores of the more extreme countries were respectively 32 (Greece) and 77 (UK). The authors conclude that “Belgium missed a golden opportunity to adopt comprehensive smoke-free legislation when the parliament modified legislation in December 2009 (articles 4 and 5). The new law still permits smoking in bars, discotheques and casinos. Also smoking is still allowed in some public places in smoking-rooms under strict rules. Data from the Ministry of Health show that half of the bars in 2010 do not respect the weak restrictions which applied to them. On the other side, Belgium was the first EU country to introduce pictorial health warnings in 2006 and to print the number of the quit line on all cigarette packs in 2011”.



Figure 37 – International comparisons on the Tobacco Control Scale in Europe (2010)



Source: A survey of tobacco control activity in 31 European countries in 2010⁹⁸



7.3 Key findings

- In 2008, 47% of the population was in overweight, and 14% was obese. These percentages are increasing over time. Both overweight and obesity increase sharply with age until the age of 65, and are strongly associated with educational level. The obesity rate in the lowest educational level is twice as high as in the higher educational levels. Differences between regions are small.
 - The number of studies performed in Belgium on oral health of the population is scarce and are often limited to small selected areas. In a 2009-2010 study, the mean DMFT (dental health: decayed, missing, filled teeth) score was 0.9. This score meets the WHO goals set for the year 2010 (maximum mean DMFT score below 1.0 for 12-year-olds). However, more data are needed on larger samples.
 - The rate of new HIV diagnosis in Belgium is a bit higher than the European (EU-15) mean. A large proportion of those new diagnosis are made in non-Belgian people. Those are probably imported cases, with different patterns of transmission than those of the Belgian cases. The rate in Brussels is higher than in the other regions, representing an urban phenomenon. The male homosexual transmission is the main way of transmission for the Belgian cases. The number of cases resulting from this transmission way is increasing; the number of cases transmitted by other ways is not diminishing either.
 - The percentage of daily smokers was around 20% in Belgium in 2008. It has significantly decreased since 10 years. It is higher in men than in women, in all age groups. However, the rate is more decreasing in men than in women. The Belgian rate is slightly below the EU-15 average rate.
- In 2008, 8% of the population was considered to have a weekly alcohol over-consumption. Over-consumption is already common in young people (aged 15-24 years). Regional differences are observed in this age group, with more young people reporting over-consumption in Flanders than in the other regions. The problematic alcohol consumption (trends to dependency) seems to increase in all regions and mostly in Brussels. The regular risky single-occasion drinking (more than 5 glasses) among young people is of concern.
 - In 2008, almost two-third of the population ate fruit every day, which is an improvement compared to 2004. The daily vegetables consumption was still higher than that of fruits (84%). However, only 26% of the people ate 2 fruits and 200g vegetables daily, with even lower rates in Wallonia (F: 28.5%, B: 24.6%, W: 18.2%).
 - The global percentage of people practising at least 30 minutes of any type of physical activity per day is low, at 38%. It is lower in women. It is much higher in Flanders (45%) than in the two other regions, and is especially low in Brussels. The rate is also surprisingly declining in Wallonia.
 - When assessing the global public policy on tobacco control with the Global Tobacco Scale, Belgium is ranking at an intermediate position.



8 EQUITY AND EQUALITY

8.1 Introduction

Equity is a key feature in the evaluation of the performance of a health system.¹ It is also a controversial normative issue, referring to judgement and political position. A broad range of perspectives and definitions have been proposed, and are discussed in the Supplement S2 of this report: “The place of equity in assessments of the performance of health systems.”

Being aware of this feature, we have approached the dimension of equity with two complementary ways:

1. In a first subchapter, called “Socio-economic inequalities”, we document the inequalities in health, health determinants and healthcare utilization in Belgium across the socioeconomic position. Indeed, for the purpose of operationalisation and measurements, Braveman^{99, 100} suggests defining equity in health as “the absence of systematic inequalities in health/health determinants between social groups who have different social positions in a social hierarchy”.
2. In a second subchapter, we have proposed contextual indicators that can highlight issues of equity in healthcare at a global level. This is the purpose of the second part of the chapter, called “Equity of the health system at a global level”.

8.2 Socio-economic inequalities

8.2.1 How did we evaluate socio-economic inequalities?

Socio-economic health inequalities refer to disparities in health status/health determinants/utilization of health services, most often in disfavour of the social groups that are already disadvantaged by their position on the social scale. The presence of socio-economic inequalities is consistent and has long been recognized.^{101, 102} Tackling health inequalities has long been a priority for the WHO.¹⁰³ It has become a high level priority target at European level, with the DG Sanco 2d Health Programme¹⁰⁴ and in the USA.¹⁰⁵ To assess the progress towards reducing social inequalities in health, it is important to measure them¹⁰⁰,

and to monitor if they change over time (by repeating those measurements).

The measurement of health inequalities requires choosing:

- a characteristic defining the social groups
- one or more synthetic inequality measures in the health-related indicator(s).

Characteristics used to define the social groups

The social groups can be defined by different characteristics at household, individual or even geographical levels: the household income, the educational level, the occupation, a deprivation index, or a combination of some of those variables.

Social groups’ definition varies according to the availability of the socio-economic variables in the different data sources we used.

For the indicators issued from the Health Interview Survey, different socio-economic (SE) variables are available. For most indicators of this report, the highest educational level attained by the reference person and his/her partner was chosen to define the social position. Indeed, this information is considered to be the most comparable and robust choice, because it is largely available, less sensitive and prone to bias than the income level. It was coded according to the International Standard Classification of Education (ISCED) summarized as lower education (no diploma or primary school diploma), lower secondary education, higher secondary education and higher education. For the indicator “delayed contacts with health services for financial reasons”, the income level of the household was chosen as proxy for the SE level. Indeed, this choice is more pertinent when explaining purely financial barriers.

For the indicators of Life and Health Expectancy, the educational level was grouped into 5 groups (no education and primary level were split).

For the indicators calculated from the Permanent Sample or from the RIZIV – INAMI, the status of increased reimbursement was chosen as proxy for the SE level. Two social categories were defined with this



variable, the BIM^u (increased reimbursement, mostly corresponding to people with a low income level) and BO (normal reimbursement).

Measurement of inequalities

In a first step, we showed the disparities across the socio-economic groups for all the indicators for which data were available (this detailed information can be found in the documentation sheets in the Supplement S1).

In a second step, we summarized the detailed information by computing indices, allowing quantifying the size of the inequalities. A wide variety of summary indices can be used.¹⁰⁶ They differ by several properties: their nature (absolute versus relative), their scope and complexity: simple pairwise measures (like the rate difference, or the relative risk) comparing only two groups are easy to compute and to understand. However, from a public health perspective, more complex measures involving all social groups are more useful since they measure the total impact of the inequality on the population health.¹⁰⁷

The following inequality indices are described in this chapter:

- For the Life/Health Expectancy:
 - o The absolute difference in years between the lowest and the highest educational groups
 - o The Relative Concentration Inequality Indices (CII rel): the relative concentration index is the sum of the difference in life expectancy between each group and the highest educational level, weighted by the size of each group, and divided by the life expectancy
- For the indicators issued from the Health Interview Survey
 - o The age-adjusted rate ratio (between the extreme educational levels)
 - o The absolute difference in age-adjusted rates (idem)
- The Population Attributable Fraction (PAF): this is the relative gain in health (or health determinant) rate that would be expected at population level if all the groups experienced the rate of the more advantaged social

group. It is computed as the difference between the overall rate in the population and the rate in the more advantaged group, divided by the overall rate in the population.

In this chapter, we highlighted the indicators for which we observed a relative risk (RR) as large as 1.2 (or 0.83 when the gradient was reverse).

Limitations

The inequalities could not be measured for all the indicators due to lack of data on social position. This is the case for many of the quality indicators. Therefore, our conclusions for this dimension are largely incomplete.

Some issues known to be related to social inequalities were not studied in this work (like the waiting time for some interventions). A deeper focus of the topics specifically linked to the inequalities should be performed in the next report.

For the indicators from the Permanent Sample (EPS), only two statutes are available. It is difficult to measure the impact of inequalities at population level with the BIM status. Indeed, people with a preferential reimbursement status for financial reasons are people with a very low income, representing less than 5% of the population. On the other hand, the preferential reimbursement status also comprises people with a physical handicap but no financial disadvantage. The definition could be refined in the next survey.

We did not perform an analysis of the small scale geographical disparities in the indicators. Such a representation is a way to highlight health inequalities related to ecological poverty indices. This was beyond the scope of this work. Moreover, the data originating from the HIS cannot be analysed on a small scale, because of the size of the sample.

^u BIM: Bénéficiaire à Intervention Majorée (beneficiary of increased reimbursement); BO: Bénéficiaire Ordinaire



8.2.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

8.2.2.1 Inequalities in indicators of General Health Status

Life and Health Expectancies

To assess inequalities in life and health expectancies, complex processing of data on mortality, social position and disability are needed.¹⁰⁸ Currently, the most recent and robust data in Belgium concern the year 2001 for the inequalities in life expectancy^{109, 110} and the year 2004 for the inequalities in health expectancy.¹¹¹ As mentioned, in both studies, the educational levels are reported in 5 categories (no diploma, primary, secondary lower, secondary higher, and higher education). With this way of grouping, more extreme groups are compared with the pairwise indices than for the other indicators, making the differences between the compared appearing very large. Concentration inequality indices are more appropriate measures because they take into account the share of the social levels.

Table 27 shows the life expectancy at 25 years by educational level, in 2001. Large inequalities in life expectancy between the educational levels are observed in both sexes, defined as the difference in life expectancy between a particular educational level to the highest level. A gradient of inequalities is observed. The difference between the extreme levels is 7.5 years in men. The Relative Concentration Index in men was 3.7%. In women, the same tendencies were observed as for men, but the gaps between each educational level and the highest were smaller than in men. The gap between the extreme educational levels was 5.9 years in women and the Relative Concentration Index in men was 3.7 %.

Table 27 – Life expectancy at 25 years by sex and educational level, absolute difference to highest educational level and concentration inequality indices (CII) (Belgium 2001)

	Men		Women	
Diploma	Total	Diff to the highest level	Total	Diff to the highest level
Higher	55.0		59.9	
Secondary higher	52.5	-2.5	58.5	-1.4
Secondary lower	51.3	-3.7	58.0	-1.9
Primary	49.3	-5.7	56.2	-3.7
No diploma	47.6	-7.5	54.0	-5.9
Total	51.4	-3.7	57.1	-2.8
CII absolute		1.9		0.8
CII relative		3.7		1.4

Source: Deboosere et al.¹¹²

Table 28 shows the health expectancy at 25 years by educational level, in 2001. Inequalities between the educational levels in health expectancy are much larger than for life expectancy. Again, a gradient of increasing inequalities when the educational level decreases is observed. The difference between the extreme levels is 18.6 years in men. The Relative Concentration Index in men is 15.3%, which is much larger than for life expectancy. In women, the same tendencies were observed as for men. The gap between the extreme educational levels was 18.2 years in women. The Relative Concentration Index in women was 16.6%. This means that people with low educational level not only live shorter than those with a high educational level, but also that they spend much less time in good health.



Table 28 – Health expectancy at 25 years by sex and educational level, absolute difference to highest educational level and concentration inequality indices (Belgium 2004)

	Men		Women	
Diploma	Total	Diff to the highest level	Total	Diff to the highest level
Higher	46.33	0.0	47.1	
Secondary higher	41.54	-4.8	41.27	-5.8
Secondary lower	39.71	-6.6	42.01	-5.1
Primary	36.65	-9.7	36.27	-10.8
No diploma	27.75	-18.6	28.92	-18.2
Total	40.5	5.9	40.4	6.7
CII absolute		6.2		6.7
CII relative		15.3		16.6

Source : Van Oyen et al.¹¹³

The self-perceived health

Important inequalities are observed in self-perceived health. An absolute difference of 29% is observed between the lowest and the highest educational levels (Table 29); the relative risk is 67%. The Population Attributable Fraction is 11%, meaning that the global increase of the rate in the whole population would be 11.2% if all educational levels experienced the rate of subjective health of the people of the highest educational level.

Infant mortality is also known to be linked with socio-economic status. In Belgium, only partial data exist and confirm this fact. For instance, a clear

association was found in Brussels between the number of household incomes and infant mortality.¹¹⁴ These data are not presented in detail in this report.

8.2.2.2 Inequalities in the indicators of accessibility

The percentage of households reporting to have delayed contacts with the health system for financial reasons was strongly related to the income level, with 27% of delay in the households of the lowest quintile versus 4% in the households of the highest quintile (Table 29). This represents a relative risk of 6.2. The population attributable fraction was as large as 71%.

Inequalities of smaller size are observed for the screening of breast and cervix cancer. Lower coverage rates are observed for patients with lower socio-economic status (identified by their entitlement to increased reimbursement). The absolute difference of coverage between lowest and highest educational levels were respectively 14.3% and 15.3% for breast and cervix cancer screening. The relative risks were respectively 0.77 and 0.76.

For the indicators on vaccination (vaccination of children and vaccination of the elderly), a reverse phenomenon was observed. The vaccination against influenza in the elderly, measured with the EPS data, showed a better coverage in the patients with BIM. It could be due to the fact that they reside more often in institutions for elderly, where vaccination is more systematic. For the vaccination rate in children, in the last vaccination survey in children in Wallonia (2009), children with lower socio-economic status (measured with the educational level of the mother) had slightly better coverage than children from higher socio-economic level. This association was not found in Flanders.



8.2.2.3 Inequalities in the indicators of quality of care

Data by social status were only available for some indicators of quality of care.

Socio-economic inequalities could be observed in:

- The follow-up of diabetic patients: the absolute difference in the percentage of patients with a correct follow-up was 10%, the relative risk was 0.83, and the PAF was 7.4%.

No important inequality was observed for the following indicators:

- Prescription antibiotics according to guidelines
- Physician encounter after hospital discharge for elderly patients (65+)
- % of people with at least a contact with a GP in the year
- Percentage of people with a high fidelity to their GP (Index of Usual Provider of Care > 0.75)

Reverse Inequalities

Some interventions are not appropriate. Hence, a high rate for those interventions signs a lack of appropriateness. This is the case for breast cancer screening outside the target groups (< 50 or ≥ 70 years). Since the coverage is higher in the advantaged social groups, the appropriateness is also worse in this group.

Missing data

Unfortunately, for a large number of interesting indicators of quality, the socio-economic inequality could not be measured. Conclusions must be considered as largely incomplete. The missing data concern 14 indicators.^v

^v Cancer 5-year relative survival rate after breast cancer; Cancer 5-year relative survival rate after cervix cancer; Cancer 5-year relative survival rate after colon cancer; Deaths due to suicide (/100 000 pop); Patients who died within one week after start of palliative care service (%); Hospital admissions for asthma in adult patients (/100 000 pop); Caesarean sections (per 1000 live births); Incidence of hospital acquired MRSA infections (/1000 admissions); Incidence of post-operative sepsis (/100 000 discharges); Incidence of pressure ulcers in hospitals (%); In-hospital mortality after hip fracture (%); Patients with cancer discussed at the multidisciplinary team (MDT) meeting (%); Number of contacts between the patient and the GP

8.2.2.4 Indicators of the Health promotion domain

Daily smoking and obesity present a high relative risk (respectively 1.68 and 2.11) between the lowest and highest educational groups. For daily smoking, the absolute difference in rates is as high as 8.9%. Moreover, for daily smoking and obesity, a high Population Attributable Fraction (PAF) is observed (-36.1 % for smoking and -34.8% for obesity). This means that for those 2 factors, the inequalities have a large global impact on the population health, and that a large gain could be obtained in the population health if all social classes experienced the level of smoking/obesity prevailing in the more educated group.

The rate of overweight people (defined as the people with a BMI ≥ 25) presents more moderate inequalities, with a relative risk of 1.45 and a PAF of 14.7%.

For the determinants having a positive impact on health, a higher rate is generally observed in the more educated classes, meaning that the relative risk will now be lower than 1. We observe important inequalities for the consumption of at least 200g of vegetables and 2 fruits daily (RR= 0.74, and PAF=13.1%). For physical activity, the inequalities are rather important, with a RR of 0.56 and a PAF 12.3%.

Strong inequalities are observed in the level of social support, with 24.4% of the people from the lowest educational level reporting a poor social support, versus only 10.1% for the people of the highest level. This represents a RR of 2.4, and a PAF of -34.8%.

during the 3 last months of life; Pain control during hospitalisation (% of patients with pain always controlled).



No or weak inequalities

The daily consumption of fruits or vegetables once a day showed no important link with the social status.

The link between the consumption of alcohol and social status was not clear.

Data by socio-economic status were not available for: Decayed/ missing/ filled teeth at age 12 (mean score at age 12) and Incidence of HIV (/100 000 pop).

Table 29 – Inequalities expressed with absolute difference, relative difference, and summary measures

	Overall value (f)	Value in lowest social group (f)	Value in higher social group (f)	Absolute difference (lowest vs highest)	Relative Risk (lowest vs highest)	Summary measure (CII or PAF)
General Health Status						
Life Expectancy at 25 in men, 2001 ^{i; ii}	51.38	47.56	55.03	-7.47	n.a.	3.73%
Life Expectancy at 25 in women, 2001 ^{i; ii}	57.09	53.98	59.9	-5.92	n.a.	1.43%
Healthy Life Years at 25 in men, 2001 ^{i; ii}	40.47	27.75	46.33	-18.58	n.a.	15.30%
Healthy Life Years at 25 in women, 2001 ^{i; ii}	40.42	28.92	47.1	-18.18	n.a.	16.56%
% of the population (aged 15+) that assess their health as good or very good ⁱⁱⁱ	76.8%	57.4%	85.7%	-28.3%	0.67	11.6%
Accessibility of care						
Delayed contacts with health services because of financial reasons (% of households) ^{iv}	14.0%	27.0%	4.0%	23.0%	6.75	-71.4%
Breast cancer screening (% women aged 50-69) ^v	60.1%	48.6%	62.9%	-14.3%	0.77	4.7%
Cervix cancer screening (% women aged 25-64) ^v	61.8%	48.9%	64.2%	-15.3%	0.76	3.9%
Appropriateness						
% of adult diabetes patients receiving appropriate care, in terms of regular retinal exams and blood tests ^v	54.0%	48.0%	58.0%	-10.0%	0.83	7.4%
Health promotion						
% of the population (aged 15+) that reports to smoke daily ⁱⁱⁱ	20.5%	22.0%	13.1%	8.9%	1.68	-36.1%
% of the population (aged 15+) reporting a poor social support ⁱⁱⁱ	15.5%	24.4%	10.1%	14.3%	2.42	-34.8%



% of the adult population considered as being obese (BMI $\geq$ 30) ⁱⁱⁱ	13.8%	19.2%	9.1%	10.1%	2.11	-34.1%
% of the adult population considered as being overweight or obese (BMI $\geq$ 25) ⁱⁱⁱ	46.9%	57.8%	40.0%	17.8%	1.45	-14.7%
% of the population reporting to eat at least 200g vegetables and 2 fruits per day ⁱⁱⁱ	26.0%	21.7%	29.4%	-7.7%	0.74	13.1%
% of the population reporting to practice at least 30 minutes of PA per day ⁱⁱⁱ	38.1%	24.0%	42.8%	-18.8%	0.56	12.3%

ⁱ in years; ⁱⁱ 5 educational levels; ⁱⁱⁱ 4 educational levels; ^{iv} 5 income levels; ^v 2 reimbursement categories;

rates are not adjusted for age; summary measures= CII (Concentration Index of Inequalities) relative for life and health expectancy, PAF (Population Attributable Fraction) for all the other indicators

Source: Health Interview Survey and EPS (WIV – ISP and KCE calculations)

PA: physical activity



8.2.3 Key findings

With regard to general health status:

- Life expectancy presents a strong increasing gradient with the social position. This gradient is still much more important with health expectancy. Inequalities are observed in self-perceived health.
- Inequalities in those global and “end of course” indicators reflect inequalities in factors influencing them: social and living conditions, health determinants, health system. Those should be identified and tackled.

With regard to accessibility:

- Very large inequality is observed in the delay of health care for financial reasons.
- Moderate inequality is observed in breast and cervix cancer screening.
- On the contrary, for vaccination, it seems that the coverage in the disfavoured group is at least as good as in the favoured group (with some partial data showing even a better coverage). This is a good point for the action of preventive health services.
- Also the coverage of the global medical record is better in the less advantaged groups.

With regard to the quality of care:

- For most of the indicators, socio-economic inequalities could not be measured. The conclusions are incomplete.
- Moderate inequality was observed for the surveillance of diabetic people.

With regard to health promotion indicators:

- Very important inequalities are observed for daily smoking and obesity (with a Population Attributable Fraction of more than 30%). As obesity and smoking are strongly associated with a higher morbidity, tackling the inequality in those factors represents a top priority.

- Inequalities are also observed for overweight, eating enough fruits and vegetables, and in a lesser extent for practising physical activity.
- Very important inequalities are observed for the social support.

8.3 Equity of the health system at a global level

8.3.1 How did we evaluate the equity of the health system at a global level?

Equity is a controversial dimension. Generally, equity refers to “equality of something”. However, there is a large heterogeneity in the different approaches. Indeed, vertical equity is defined as the unequal treatment of the unequals and horizontal equity is defined as equal treatment of the equals. An example of vertical equity are tax systems which are organized so that everyone pays taxes based on ability to pay. An example of horizontal equity is the attempt to provide the same care to patients who have the same needs. Equity implies therefore some degree of solidarity between the richest and the poorest, between the healthy and the sick. In an attempt to reconcile solidarity and personal responsibility¹¹⁵, approaches have been proposed to define what should be equalized among individuals. Some propose to equalize resources¹¹⁶⁻¹¹⁸, while others prefer to equalize outcomes¹¹⁹⁻¹²¹. These theories offer interesting lines of thought and show how the definition of fairness and how to achieve it, are essentially normative issues and therefore philosophical issues.

To establish equity indicators in the context of a report on the performance of a healthcare system requires an approach as neutral as possible and must reflect societal choices. In this chapter, we have evaluated the global equity of the healthcare system in an indirect (or contextual) way.



Belgium background: In Belgium, some specific measures such as entitlement to increased reimbursement and the Omnio status have been taken to promote the financial accessibility. The maximum billing aims to avoid “catastrophic” health expenditures and other measures are targeting categories of patients, such as patients with chronic illness or children. Several Belgian studies, and their results, are discussed in detail in Supplement S2 of this report: “The place of equity in assessments of the performance of health systems.”

8.3.1.1 Global or contextual indicators

Two contextual indicators are described below:

- the progressivity of the financing of the healthcare system
- the Gini coefficient of inequality in income

The progressivity of financing the healthcare system translates the equity before using the system. By progressivity, we do not mean the “cost sharing” at the point of care (i.e. supplement, co-payment, coinsurance, non-reimbursable drugs, premiums to private insurance ...) but the way to finance the public system. A financing is defined as progressive (regressive) when the average rate of “taxation” (considered in a broad sense) is increasing (decreasing) with the income. And the financing is defined as proportional when the average rate of taxation is constant. We characterize the relative progressivity of the most important sources of financing of the Belgian healthcare system: the direct taxes are more progressive than the social contributions which are more progressive than the indirect taxes. Simple ratios are computed to describe the progressivity of the financing for the period 2005-2011. We do not evaluate the global redistribution effect of the financing and use of the healthcare system because such an evaluation implies the knowledge of individual data about consumption of care, all financing sources and about the available income. These data are not totally available for Belgium and a robust comparison with other countries is not possible due to lack of data. Wagstaff and van Doorslaer have contributed in a substantive way to the evaluation of the equity in financing and delivering of healthcare but, unfortunately, they do not mention Belgium in their work.¹²²⁻¹²⁸

We contextualize also the equity issue by means of the income inequality measured by the Gini coefficient. Some authors have showed the association between the income inequality and some indications of poor objective or subjective health.^{100, 129-131} The Gini coefficient is simple to interpret and to compute for Belgium and international organizations use it to characterize the income inequality in an international perspective. It has been recently recommended by a WHO workgroup which was working on indicators for the “Health 2020 targets”.¹³²

8.3.2 Facts and figures

This section is a short summary of the detailed results which are presented for each indicator in the Supplement S1 of this report (available on the website).

The disparities of health status and health consumption are presented with the indicators of the other dimensions. The computation of the two contextual equity indicators (progressivity of the financing and income inequality) shows that the public financing of the healthcare system becomes less progressive and that our redistribution system (tax and transfers) makes our country one of the most egalitarian in the world.

The public financing of the healthcare system becomes less progressive essentially for two reasons: (1) the part of the regressive receipts (indirect taxes) is increasing and (2) the part of the progressive receipts (direct taxes and special contribution for social security) is decreasing. Globally, these two evolutions make the financing less progressive.

Nevertheless, the Belgian society is one of the most egalitarian if we compare the Gini coefficient pre and after taxation and transfers (social allowances).

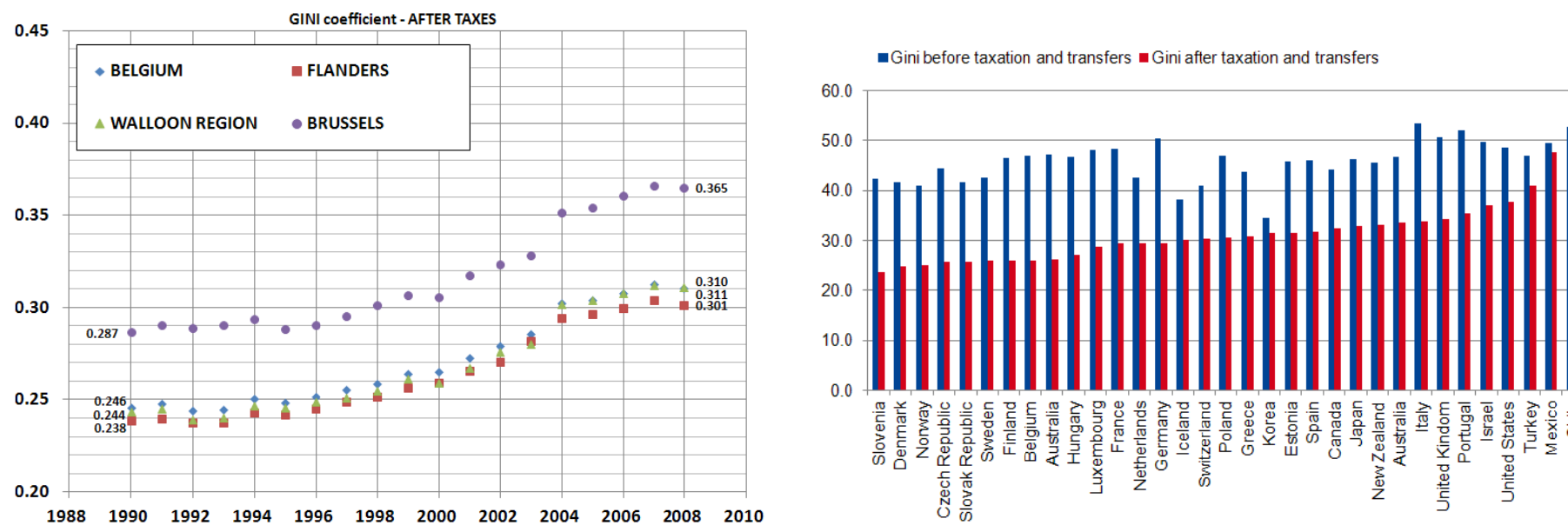
These two results are not contradictory because the society can organize a substantial income redistribution using a large system of transfers and taxes and finance a specific collective sector (i.e. the public healthcare system) using resources (taxation and contributions) which are little progressive.

Table 30 – Progressivity indicators of the financing of the public healthcare system (2005-2011)

Indicators of progressivity	2005 (final accounts)	2006 (final accounts)	2007 (final accounts)	2008 (provisional accounts)	2009 (provisional accounts)	2010 (budget)	2011 (budget)
Ratio proportional receipts/total receipts	71.1%	71.0%	72.0%	70.6%	69.4%	64.8%	61.4%
Ratio progressive receipts/total receipts	18.9%	19.0%	18.0%	17.3%	17.2%	19.4%	18.4%
Ratio regressive receipts/total receipts	10.0%	10.0%	10.0%	12.1%	13.4%	15.8%	20.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Vade mecum de la sécurité sociale, RIZIV – INAMI, KCE calculation

Figure 38 – Gini coefficient before and after taxation and transfers (1998-2010): Belgium and international comparison



Source: DGSIE (Belgium) and OECD Health Data 2012 (international comparison)

Note: the Gini coefficient is a coefficient for inequality of income in a population. When there is perfect equality (everybody has the same income, the coefficient is 0). When there is perfect inequality, the coefficient is 1 (one person has all the revenues). A lower coefficient indicates a more equal distribution of the incomes.



8.3.3 Key findings

Equity in financing

- Public financing of the Belgian healthcare system becomes less progressive, certainly since 2005.
- The international comparison of the progressivity is not relevant because of the great diversity of systems.

Income inequality

- Income inequality in Belgium is relatively high before the redistributive impact of taxes and transfers.
- Thanks to the system of taxation and transfers, Belgium is one of the most egalitarian countries.
- The high level of income redistribution and the more egalitarian distribution of disposable incomes should have a positive impact on Belgian population health.

9 TOWARDS A MORE COMPREHENSIVE HEALTH SYSTEM PERFORMANCE ASSESSMENT: ADDRESSING CURRENT SHORTCOMINGS

In this section, we identified 10 limitations that should be addressed to improve the evaluation of the health system performance. Those issues relate to the lack of suitable indicators, the lack of data, the need for a better indicator or for more details. Some of the following conclusions result from the many indicators for which we could not find any data (see section “Indicators under development” in Supplement S1 of this report, available on the KCE website), and from the discussions with Belgian experts.

An indicator of global health status with potential for action: avoidable/amenable mortality

The previous report included one indicator of health status which was premature mortality, expressed as potential years of life lost (PYLL) before the age of 70 years. This indicator was too general, limiting the potential of action and was not retained in this report. Instead, the avoidable/amenable mortality expressed by group of causes could be more informative for the measurement of the effectiveness of health services. A recent EU funded project established the list of conditions for which variations in mortality between countries are likely to reflect variations in performance of healthcare systems.¹³³ This indicator could replace premature mortality in a future set of performance indicators.

Financial accessibility: need for a more comprehensive picture

While the coverage of the compulsory health insurance is quasi exhaustive in terms of the proportion of the population covered, part of covered services is paid directly by patients. Out-of-pocket payments remain high, and 14% of the people report to delay healthcare because of financial reasons (with a strong gradient with household income). Several protection mechanisms were introduced to maintain a financially accessible healthcare system. Examples are lump sums for the chronically ill and the



maximum billing system (MAB).¹³⁴ In addition to these publicly-funded mechanisms, individual private insurances reimburse several healthcare services. A prerequisite to guide policy within this domain is an improved transparency in ambulatory supplements as well as in private hospital insurances (the percentage of people with private hospital insurance, and what is specifically covered by these private insurances).^{135, 136}

Workforce counts: better data on the supply side available, but data on the need side still lacking

An effective healthcare workforce planning should be considered within a global policy taking into account supply and patient needs.

Data on the supply side

Current head counts of practising physicians undoubtedly represent an improvement of the information compared with the former situation when the medical workforce was estimated by the total number of licensed medical doctors (regardless of whether they worked in the healthcare sector or not). However, the real activity level of physicians was not taken into account. Since 2009, this count is conducted by the RIZIV – INAMI, which evaluates the number of full-time equivalents (FTE) of active physicians. For the first time, preliminary counts of the number of practising nurses by sector of activity are now available.

However, the density of practising healthcare workers is difficult to interpret, as no optimal density to meet population needs has been defined. International comparisons are of little help here since they are not interpretable without taking into account the organisation of care, which varies across countries.

Data on the need side

Workforce planning also requires information on the need/demand side, information that is currently scarce.

Indeed, several informal sources point out that the needs are insufficiently met, at least as far as the nurse workforce is concerned. It is widely known that there is general lack of nurses in the Belgian hospitals. Moreover, the continuously rising and changing demand for health services, due to ageing populations, technological advances and higher patient expectations, require a larger and more skilled nursing workforce.¹³⁷

Macro-level data on the needs should be complemented with data that reflect the situation at the micro level. An example of micro data is a recent large-scale European nursing workforce study based on survey data. It illustrated that in Belgian hospitals nurses have, on average, to take care for more patients compared to other EU countries.⁷⁹ More nurses reported to be dissatisfied with their job and have the intention to leave their job.^{79,138}

No indicators of the needs have been defined yet in this report, but the reflection should continue on this topic.

Mental healthcare: current indicators do not reflect the recent changes in the sector

In the field of mental health, the currently available indicators do not reflect the recent major changes in the sector. Indeed, since the end of the 20th century, a strong de-institutionalization movement in the mental healthcare sector has led to the development of new models of organization. One model, the “balanced care” model is gaining influence in most industrialized countries.¹³⁹ It implies that community services should be offered whenever possible, while hospital services should be available when ambulatory care cannot provide a good answer to the patient's needs.

In Belgium, the most recent reform efforts to attain a balanced integrated care model focus on the development of “care networks” (the so-called “Art. 107 project”) oriented to 5 functional modules:

1. Prevention and promotion of mental health;
2. Intensive, community based, treatment teams for acute as well as for chronic physical conditions;
3. Rehabilitation teams focusing on social integration;
4. Intensive residential teams for acute and chronic mental health problems that require inpatient treatment;
5. Specific residential facilities in which care can be provided in a home or home-replacing environment.¹⁴⁰



Some indicators can be proposed to monitor these evolutions (e.g. the percentage of patients with case management; the percentage of expenditures spent on community care compared to total expenditures on mental health care). They could not yet be measured because of limitations in the current data. Instead, we had to rely on general indicators (e.g. suicide rates) or indicators focusing on the psychiatric hospitalization episode (e.g. re-admission rates; involuntary committals).

At international level, despite several performance measurement initiatives, a recent survey of twenty-five EU countries noted that data on suicide rates and the number of psychiatric beds were readily available but other data were scarce.¹⁴¹ Efforts are undertaken by international organizations such as the OECD⁶² to propose indicators specific for mental healthcare. However, the operational development and data availability are often limited. For instance, despite the inclusion of “Persons aged 65+ years prescribed antidepressants using an anticholinergic anti-depressant drug (%)” in the OECD shortlist for mental healthcare indicators, there is no operational development of this indicator. What’s more, the few published studies disagree about what is an antidepressant with anticholinergic side effects.^{63, 64} As a consequence, international comparison of mental healthcare system performance is seriously hampered.

Continuity and coordination of care: new data soon available with the new pathways in ambulatory care, but still many gaps remain

The fact that new pathways in ambulatory care for type 2 diabetic or chronic renal failure patients were recently started and are currently being evaluated, shows the importance of the coordination of care for the policy makers.¹⁴² We plan to include the results of those projects in the next edition of this report.

Some other relevant indicators have been identified, for instance:

- The experience of the patient with regard to the coordination of his/her care. Some countries such as the Netherlands, France, U.K., Germany, Canada, U.S. or Australia^{20, 143} have performed specific surveys to answer that question. This indicator, although being central, is currently still not measured in Belgium.

- The availability of the whole health information of a patient at any time by all care providers is a central question, linked to the one of the patient electronic medical record, and to the access to it. Two indicators under development reflect this issue: the % of general practices with access to the hospital data of their patient, and the % of patients for which information on medication prescribed at any setting is accessible at any setting. Some initiatives are already in place, such as the “Réseau Santé Wallon” (<https://www.reseausantewallon.be/>) and pilot projects are being run, such as Vitalink in Flanders (<http://www.vitalink.be/>), but without many connections between them, and currently without much data to evaluate them. In this matter, the e-Health platform should have an important role to play.

Patient centeredness: many initiatives but few data

Patient centeredness is intrinsically difficult to measure with quantitative data, because it is related to the health system’s ability to successfully answer to the particular needs of the patient or to encourage the patient’s involvement. To effectively measure this, there are two main methodological approaches used:¹⁴⁴

- Self-report measures of doctors’ patient-centeredness;¹⁴⁵
- External observation of consultation process: rating scales or verbal behaviour coding system.

In Belgium, the Health Interview Survey (HIS) is a major source of data self-reported by the population. It provides a measure of the patient’s satisfaction with the health system, an indicator that has been discussed above, but which is subject to many critiques, both on the validity of the concepts and on the measures of satisfaction.^{77, 78} To improve our understanding on patient experiences, in the next wave of the HIS the item on satisfaction will be replaced by a question on the patient’s experience with ambulatory healthcare services (GP or specialists), based on the OECD questionnaire.¹⁵ Patient experience with ambulatory care will thus be included in the following update of this report.

Patient centeredness is nevertheless a matter of concern for the Belgian healthcare system: several initiatives have been launched in Belgium. Three of them are described below. These 3 initiatives emphasize the commitment of the healthcare system to the patient centeredness



approach. More detailed analysis should be performed to evaluate their quality.

First, since 2003, an ombudsman service exists for managing patients' complaints in public hospitals. This service records the number and the motive of complaints each year but does not assess the justification and the follow-up of the complaints. In 2010, 16 907 records were registered versus 9 026 in 2006. However, these numbers should be interpreted carefully: more registered complaints can refer to declining services but also to more effective ombudsman services in terms of visibility, availability, comprehensiveness of the recording... or a change in the patients' culture of complaints. There is also an international trend to develop a similar indicator for assessing the existence of a complaint resolution process in general practice¹⁴⁶⁻¹⁴⁸. In Belgium, this is not yet operational.

Second, since 1999, general and psychiatric Belgian hospitals can ask for financial support to create a post of intercultural mediator or intercultural mediation coordinator. Linguistic and cultural barriers have indeed a negative impact on access and quality of care. In 2009, intercultural mediators have done more than 80 000 interventions in 17 languages. The mode of organization is hospital dependent: one or several mediator(s); availability during office hours only or also very exceptionally during out-of-hours in case of an emergency. The coordination cell of the FPS Public Health ensures the follow-up and the assessment of the requests. The assessment encompasses patients encounters, care providers training, booklet editing... However, an assessment of real patients' (or physicians') needs and responses quality is lacking. Moreover, it remains difficult to comply to all language translations (no less than 170 different nationalities are taken care of in some hospitals). In this context, a pilot project has started recently (2012) to allow mediation support by internet (video conferences). In this pilot project, a network is set up between hospitals with intercultural support and also local medical home or health centres. This project will be evaluated each year.

Third, some pilot projects are recently launched in Flanders to stimulate the patients' involvement in decision concerning their disease in hospital quality management systems. In 2013, several public hospitals will allow

the participation of patients' representatives in their board of governors. Measurement of quality indicators is soon expected in this domain.

Long-term care: no data currently, waiting for first results using the BelRAI assessment

Long-term care in this report refers to long-term care for the elderly needing assistance (mainly in residential care or receiving home care) and long-term care related to mental health problems. Indicators from the latter topic have been discussed above.

Some indicators have been chosen to assess the long-term care for disabled elderly patients, as the prevalence of malnutrition in elderly being in residential care or receiving home care (BMI <19), the percentage of elderly physically restrained, the prevalence of falls, the incidence of pressure ulcers and the problem of polymedication. Those indicators could not be measured, which highlights the current lack of data in this domain. However, the BelRAI^w will soon provide data on some selected indicators.

At the international level, a working group from the OECD is currently developing a project specifically for long-term care⁴⁵, focusing on quality. The proposed framework for monitoring and improving quality in long-term care services will be based on the national framework of six OECD-countries (Australia, Canada, England, Finland, the Netherlands and the United States). This framework prioritised care effectiveness and user safety as key quality dimensions, followed by patient centeredness (including responsiveness, empowerment and communication) and care coordination and integration. The final phase in the report is the development of policies to achieve quality in long-term care and to address the shortcomings. The release of the report is planned for the end of 2012.

^w The Resident Assessment Instrument (RAI)⁴⁴ is originally developed to assess the care needs of the elderly in institutions, and has later been extended with instruments for different care settings and subgroups. In Belgium a national pilot project (the BelRAI) is ongoing, but is not yet implemented in all care settings. The assessment instruments for home care, for long-term care facilities and acute care have already been adapted to the Belgian situation. Data are expected before the edition of the next performance report.

**Efficiency deserves more attention in future report**

Obviously, efficiency in healthcare cannot be sufficiently assessed with the few indicators selected in this work. International literature proposes efficiency measures which explicitly identify inputs and outputs.^{8, 16} This could certainly be an interesting area of research.

End-of-life care: many local studies in Belgium, but few national data

The few indicators measured in this report are based on the population of patients dying from cancer, or on the population of patients receiving palliative care at home. This does not cover the whole population of patients eligible for palliative care, which highlights a real gap in data availability. Moreover, so far no data at national level have been published on accessibility nor on quality of end-of-life care in Belgium. Results from local studies (especially from Flanders) are well available, but are based on restricted number of patients, do not allow studying evolution of trends over time, and hence cannot be included in a performance report whose aim is to be reproduced every few years. Compared to the other domains of care, end-of-life care is little or not at all represented in databases from international organisations.

Health promotion: data on health literacy are lacking, while they are already available in other European countries

Health literacy is a relatively new concept considered as a crucial resource in health management. It can be defined as the individual skills necessary to understand and manage factors interacting with one's health. This gives individuals the opportunity to make healthier choices. It has been defined as a priority of action for the 2008-2013 European Union strategy. Different tools have been used in the world to measure it. The European project on health literacy has developed a comprehensive questionnaire aiming to build and validate 12 indicators. Those intend to measure various aspects of health literacy. A first survey occurred in Europe in 2010-2011, but Belgium did not participate.⁹⁷

10 GENERAL CONCLUSION

This report presents the results of a first global evaluation of the performance of the Belgian health system, building on a former feasibility study. By means of seventy-four indicators with numerical values, this report intends to provide an overall overview of the health system performance, pointing to some directions for policy actions and generating questions for further follow-up or research.

It represents a substantial improvement over the previous report, by being more comprehensive and by updating the former set with more relevant indicators. Moreover, it allows in some cases the measurement of evolution. Also, important previous gaps in basic data have been filled since the last edition, like the cause-specific mortality rates or the cancer survival.

Belgium is not the first country having exercised this challenge. With the signing of the 2008 Tallinn Charter on health systems, the Member States formally committed themselves to the monitoring and evaluation of health system performance. Several neighbouring countries, having years of experience with health system performance measurement served as example for this report. This is certainly true for the Dutch Performance Report. One of the weaknesses hampering successful performance measurement (also identified in former Dutch performance reports) is the availability of up to date data. Regular updating of administrative data and dynamic publishing of results on a website could partially solve this problem. Yet, this is only one of the options that can be considered if policy makers commit themselves to a systematic measurement and monitoring of the performance of the Belgian health care system.



■ APPENDICES

APPENDIX 1. LIST OF INDICATORS MEASURED IN THE 2012 REPORT, CLASSIFIED BY TIER OF THE HEALTH SYSTEM, DOMAIN OF CARE AND DIMENSION

Health Status					
- Life expectancy - Health expectancy - Self-perceived health - Infant mortality rate					
Healthcare					
Dimension	Domain of care Generic	Preventive Care	Curative Care	Long-term care (elderly/mental health)	End-of-Life Care
Accessibility	- Number of practising physicians (per 1000 population) - Number of practising nurses (per 1000 population) - Coverage health insurance status of the population - Amount of co-payments and out-of-pocket payments % of people who delay contacts	- Coverage breast cancer screening - Coverage cervical cancer screening - Coverage vaccination coverage children - Coverage influenza vaccination for elderly		- Number of beds in residential care facilities per population 65 years and older % of population over 50 years old reporting to be an informal carer	% of patients who died within one week after start of palliative care service



because of financial reasons

Quality - Effectiveness

- 5-year relative survival rate after breast cancer, by stage
- 5-year relative survival rate after cervix cancer, by stage
- 5-year relative survival rate after colon cancer, by stage
- Hospital admissions for asthma
- Suicide rate
- Rate of involuntary committals as a percentage of all hospitalizations per year
- Participation rates by people with mental illness of working age in employment

Quality - Appropriateness

- % of women aged 40-49 years old who had a mammogram within the last two years
- % of women aged 70-79 years old who had a mammogram within the last two years
- Prescription of antibiotics according to guidelines
- % of adult diabetics receiving appropriate care, in terms of regular retinal exams and blood tests
- Geographic variability in caesarean sections (per 1000 live births)
- Average daily quantity of medication (antidepressants, antipsychotics, hypnotics and anxiolytics) prescribed
- % of cancer patients receiving chemotherapy in the last 14 days of life



Quality - Safety	Medical radiation exposure of the population	- Incidence of hospital acquired MRSA infections - Incidence of post-operative sepsis - Incidence of pressure ulcers in hospitals - In-hospital mortality after hip fracture % of persons aged 65 years or older prescribed antidepressants using an anticholinergic antidepressant drug		
Quality - Continuity of Care	- Coverage of global medical record - Usual provider of care index	% of cancer patients discussed at the multidisciplinary team meeting % of physician encounter after hospital discharge for elderly patients (65+)	% of discharges from psychiatric in-patient care readmitted to psychiatric in-patient care that occurred within 30 days (schizophrenia, bipolar disorder)	Number of contacts between the patient and the GP in the last 3 months of life
Quality - Patient centeredness	Satisfaction with health care services	Assessment of pain level during hospitalization		Patients dying in their usual place of residence
Equity	- Indicators of the progressivity of public healthcare financing - Gini coefficient before and after taxation and			



	transfers	
Efficiency	% prescription of low-cost drugs	% surgical day-case - Average length of stay for normal delivery
Sustainability	- Medical graduates becoming GP - Mean age of GP - Nursing graduates % of GPs using an electronic medical file - Health expenditures (total, distribution, % of gross domestic product, per capita)	Acute care bed days (number per capita)

Health Promotion

Type of indicator	Indicator
Health outcomes	% of overweight or obese adults - Average number of decayed, missing, filled teeth in children at age 12 - Incidence of HIV
Intermediate health outcomes: healthy lifestyles and healthy environments	% of daily smokers % of problematic alcohol drinkers (3 indicators) % of daily consumption of fruits and vegetables % of daily physical activity % offer of physical activity at primary and secondary level in schools % health promotion policies in the municipalities % of schools with health promotion dimension in their school project
Health promotion outcomes	% of persons with poor social support - Tobacco Control Scale



APPENDIX 2. LIST OF CHANGES TO INDICATORS COMPARED TO THE 2010 REPORT

This section lists the modifications that were done to indicators since the 2010 report. Indicators for which no data were available in 2010 are in red.

Indicator in 2010 report	Status in 2012 Report
Accessibility	
A1: Number of physicians and nurses No data available for the number of nurses in 2010	Some data available in 2012
A4: Coverage of preventive child health care	Removed in 2012 Rationale: this indicator was defined as an indicator of accessibility, as its initial aim was to focus on infants from underprivileged families (defined according to six criteria) or infants from migrants. The previous report showed that only results at national level were available, which makes it less interesting as an indicator of accessibility.
A5: Additional illness-related costs for chronically ill people No data available in 2010	Removed in 2012 Rationale: The calculation of additional illness-related costs for chronically ill people would require a good definition of chronic diseases and a cost-of-illness study of each identified chronic disease. This is a project in itself, and is not feasible within the time-frame of the present project.
Quality	
QA1: Prescription according to guidelines (Urinary tract infection, acute otitis media, uncomplicated hypertension) No data available in 2010	Modified in 2012
QA3A: Utilisation of minimal and non-invasive surgical techniques (laparoscopic cholecystectomies, PCIs)	Removed in 2012 Rationale: the use of minimal-invasive techniques is a means for reducing post-operative complications, length of stay and costs. It is therefore an indicator of efficiency. However, these techniques are not considered appropriate for all patients and careful patient selection is necessary. The use of these newer minimal-invasive techniques is also considered to be an indication of innovation (sustainability). In 2012, laparoscopic cholecystectomies and PCIs are standard interventions.



QA4: Percentage of institutions that use special protocols or guidelines outlining procedures for high-risk or complex processes	Removed in 2012 Rationale: this indicator, originally from the Dutch healthcare performance set of indicators, could only be estimated via the diffusion and use of clinical pathways in Belgian hospitals, and was furthermore based on non-validated results. No better data will be available in the near future.
QA6: Hysterectomy by social class	Removed in 2012 Rationale: the results for 2010 showed no differences in hysterectomies rates by social class, and hysterectomies rates have been declining steadily since the publications on which this indicator was originally based.
QC1: Number of people who are not registered with a GP	Modified in 2012 Rationale: as the concept of “registered with a GP” in Belgium refers to the GMD – DMG, this indicator was redefined more specifically as “percentage of population with a GMD – DMG”. It was also changed into a positive indicator (higher percentage indicates better coverage).
QC2: Average length of stay (LOS) in acute care hospitals	Modified in 2012 Changed to more specific LOS for normal delivery Rationale: this indicator was previously seen as an indicator of the good continuity of care. However, experts were convinced that it was more indicative of how efficient the healthcare system is. Instead of all hospitalizations in acute care, a specific diagnosis was chosen: LOS for normal delivery, which is also an indicator used by the OECD.
QE03: Colorectal cancer screening No data available in 2010	Some data available in 2012, but data still too premature to perform evaluation
QE06: Acute care hospitalization rates for pneumonia and influenza	Modified in 2012 Rationale: this indicator is a measure of effectiveness of preventive care. Since the most effective prevention measure against influenza and pneumonia is vaccination, which is already an indicator for influenza, makes the indicator redundant. It was modified into “Acute care hospitalization rates for asthma”, which is also an indicator used by the OECD.
QE07.3: Salt consumption	Removed in 2012 Rationale for exclusion: the results for this indicator were based on a Belgian study published in 2008, which will not be repeated.



QE08: Breast feeding at 6 months of age	Removed in 2012 Rationale: a new set of indicators to assess performance of health promotion was proposed, and experts did not retain this indicator, mainly because six months of exclusive breast feeding is hardly compatible with the length of the maternity leave in Belgium. Moreover, the previous report showed that data from Kind and Gezin and ONE were not comparable, due to different time frames used (KG: 3 months, ONE: 24 weeks).
QE09: Annual check-up at the dentist for children	Removed in 2012 After a thorough examination of the nomenclature codes, it appears that it is not possible to isolate preventive care at the dentist for children.
QE10: Decayed, missing, filled teeth at age 12 No data available in 2010	Some data available in 2012
QE11: Cardiovascular screening in individuals aged 45-75 No data available in 2010	This indicator was removed. Rationale: this indicator was not measurable in the 2010 report because of lack of specific nomenclature codes. Since 2011 cardiovascular prevention is part of the new GMD – DMG+, which will be monitored.
QE12: Colon Cancer 5-year survival rate No data available in 2010.	Data available in 2012 Source: Belgian Cancer Registry
QE13.1: Premature mortality. No data available in 2010	Removed in 2012 Premature mortality, expressed as Potential Years of Life Lost (PYLL) is correlated with indicators already in the set (infant mortality, life expectancy) and has no potential for action, as it does not highlight the potential problems. Avoidable mortality would be a better indicator.
QE14: Breast Cancer 5-year survival rate No data available in 2010	Data available in 2012 Source: Belgian Cancer Registry
QE15: Cervical Cancer 5-year survival rate No data available in 2010	Data available in 2012 Source: Belgian Cancer Registry
QE16b: In-hospital mortality after community-acquired pneumonia (CAP)	Removed in 2012 Rationale: this indicator was linked to the indicator “QE16a: In-hospital mortality after hip fracture”, both being indicators included in feedback on quality of care



	sent by the FPS Public Health to Belgian hospitals. During the review process, the team decided that the latter indicator, mortality after hip fracture, was a better indicator than mortality after CAP, to assess safety of care (and not efficacy, as in the 2010 report).
QS1: Incidence of serious adverse effects of blood transfusion	Removed in 2012 Extremely rare events, so difficult to interpret evolution over time.
QS2: Incidence of healthcare related infections	Removed in 2012 Changed to prevalence of HAI, currently no data. Rationale: this indicator is not measurable (no surveillance system can monitor the incidence of all healthcare related infections). This indicator has thus been redefined more specifically as “the incidence of hospital-acquired bloodstream infection”, which is measurable.
QS4: Incidence of post-operative surgical site infections	Changed to post-operative sepsis Rationale: this indicator has low coverage, in terms of number of hospitals and of type of operations covered. It has been changed into “incidence of post-operative sepsis”, which can be measured by administrative data, and hence includes national coverage and a wider range of interventions. It is also included in OECD indicators.
QS5: Incidence of pressure ulcers in long-term care facilities and individuals at risk No data available in 2010	Data not yet available in 2012 (but soon). Source: BelRAI
Sustainability	
S1.1: Amount reimbursed by the maximum billing system	Removed in 2012
S2: Qualification levels of healthcare providers	Modified in 2012.
S4: Yearly amount of the Special Solidarity Fund (SSF)	Removed in 2012 Rationale: the SSF acts as a safety net, besides the compulsory health insurance, and decisions to reimburse treatment are based on a case per case basis. It was included in the previous set as a sustainability indicator, showing the system's



capacity to be responsive to emerging needs. However, treatments reimbursed by the SSF are usually those waiting for approval by European Medical Agency (EMA), and are reimbursed by compulsory health insurance after this approval. This is thus not a very relevant indicator of the sustainability of the healthcare system.

S6.1: Number of acute care beds (per 1000 population)

Removed in 2012

Rationale: this is a secondary indicator linked to the indicator “S6 acute care bed days, number per capita”. The latter was preferred because it also accounts for occupancy rate and length of stay.



APPENDIX 3. LIST OF INDICATORS MEASURABLE IN A NEAR FUTURE

This appendix lists the indicators that were selected as pertinent to evaluate the performance of the Belgian health system, and for which data will be available in a near future (i.e. in a 3-years time frame). The idea is to present those results in the next issue of this report.

For each indicator, a short rationale is provided, and (future) source of data are indicated.

Health Promotion

- **% of people (aged 45-75) with a global medical record+ (GMD – DMG+) (specific consultation on health promotion and preventive care)**

The global medical record is a medical file centrally managed by the GP. The GMD – DMG+, introduced in April 2011, contains an additional component of prevention and health promotion. The GP can play a major role in health promotion. It is the right person to make a state of play of risk factors, organize preventive interventions (vaccination and screening), and counsel for healthy behaviours. The GMD – DMG+ is a tool to help the GP in this task. Monitoring the coverage of the GMD – DMG+ is thus an indicator of health promotion.

Source of data: RIZIV – INAMI

Continuity of care

- **Percentage of patients registered in an ambulatory pathway for chronic care (diabetes/renal failure) and frequency of physician encounter for patients registered in an ambulatory pathway for chronic care (diabetes/renal failure)**

Pathways for chronic care are set up in Belgium since 2009. The aim of these pathways is to improve follow-up and collaboration between patients with chronic disease, general practitioner, specialist physicians and other healthcare professionals. Because the registration in a pathway is voluntary, the percentage of patients registered in the pathways of care is a indicator of the patients' participation in this public investment. According to the RIZIV – INAMI,

there were 20 176 registered pathways for diabetes and 15 428 for renal failure on 31 October 2011.¹⁴² But the exact denominator is currently unknown. This item will be estimated by the ACHIL project which aims to evaluate the pathways for chronic care. Evaluation will be presented in May 2013.

Source of data: ACHIL project

- **% of visits to the Emergency Rooms in general hospitals for mental health and/or substance-related problems**

Although unforeseen and unavoidable emergencies do arise in mental health, mental health related emergency room use is used as an indicator of poor coordination of care and service failures.¹⁴⁹ The community treatment system to support services for people with mental health related problems is regarded as ineffective when utilization rates of emergency departments of general hospitals are high.¹⁵⁰ Highly accessible outpatient care is considered to help people to enter treatment before reaching the crisis stage and minimize the need for emergency room visits.¹⁴⁹ In addition, it is assumed that effective liaison between emergency rooms and mental health crisis resources reduces the use of emergency rooms for mental health services/clients. High rates of mental health related emergency room visits are not only a concern for members of the mental health community. It is also a concern that emergency department overcrowding results in decreased quality of care and increased likelihood of medical error.¹⁵⁰

In the US, it has been illustrated that mental health related emergency room visits are on the rise for more than one decade.¹⁵¹ This stresses the importance of the availability of expertise in the field of mental health in emergency rooms to manage these crises. Depending on the number of visits for psychiatric problems, availability of a mental health specialist in every emergency room may not be practical. Still, there should be a minimum protocol by which mental health expertise is accessible for immediate care for every citizen.¹⁵²

Source of data: RHM – MZG since 2008 (information not available in RCM – MKG). Due to delays in accessing the data, this indicator could not be measured in this report.



Patient-centeredness

- **Patient experiences with ambulatory services**

Patient-centered care is supported by good provider-patient communication so that patients' needs and wants are understood and addressed and patients understand and participate in their own care. A good communication is not easy as it requires several competencies (listening, explaining, courtesy...) In 2011 the OECD has edited a questionnaire on patient experiences with some questions related to the quality of the consultation.¹⁵ The WIV – ISP decided to include in the Health Interview Survey (2013) the module of the OECD instrument dedicated to the patient experiences with ambulatory care.

Source of data: next Health Interview Survey, WIV – ISP

Long-term Care

The majority of indicators will be based on the BelRAI project^x

^x The Resident Assessment Instrument (RAI)⁴⁴ was originally developed to assess the care needs of the elderly in institutions, but is later extended with instruments for different care settings and subgroups (post-acute care, institutional mental healthcare, ambulatory mental healthcare, palliative care, acute hospital care and persons with mental disabilities). The structured and standardized assessment aims to realize a high-quality care planning and quality monitoring. Different care providers can assess the different items, resulting in a multidisciplinary approach of the care needs of the elderly.

In Belgium a pilot project (the BelRAI) is ongoing and is not yet nationally implemented in all care settings. The assessment instruments for home care and for long-term care facilities, for acute care and for palliative care are adapted to the Belgian situation.

The interRAI for **long-term care facilities** (interRAI-LTCF)¹⁵³ is a standardized instrument to evaluate the needs, the competences and the preferences of the residents in a long-term care setting (care home or other institutional setting) and aims to stimulate the continuity of care via a consistent assessment system and a patient-focused approach. The assessment instrument gives a description of the most important aspects of the functional capacity, the mental and physical health, the needs and the use of care of the individual resident, whereby most items function as specific triggers for care planning. Next to the assessment instrument,

- **Evolution over time in utilization of BelRAI (home care and in institution)**

Source: BelRAI

- **Prevalence of malnutrition by elderly (BMI <19)**

Older persons are particularly vulnerable to malnutrition due to complications such as changes in appetite and energy level, chewing and swallowing problems, change in nutritional requirements, loss of cognitive function and deteriorating vision.¹⁵⁵ The data for this indicator will be available in the BelRAI database. This indicator belongs to the set of indicators in the OECD long-term care quality project.⁴⁵

Source of data: BelRAI

analysis protocols are developed as guidance for the care planning. The interRAI-LTFC has been adapted to the Belgian situation and translated into Dutch and French (BelRAI-LTFCF).

The InterRAI for **home care** (interRAI-HC)¹⁵⁴ is a person-centered assessment system to guide the home care planning for chronic care patients but also for patients with post-acute care needs (for example after hospitalisation). The evaluation of the needs, the strengths and the preferences of the client indicate the functioning and the quality of life of the client. The interRAI-HC consists of the assessment instrument (standardised scoring scheme) and the CAPs (clinical analysis protocols). Some items of the instrument function as triggers for specific problems or risks for functional deterioration and link the interRAI-HC to a series of CAPs. These CAPs contain general guidelines for the further assessment and for individualized care and services. The 30 CAPs cover different domains and each triggered CAP needs to be discussed during multidisciplinary consultation to determine the necessary care services and the priority of each CAP. The interRAI-HC has been adapted to the Belgian situation and translated into Dutch and French (BelRAI-HC).



- **Percentage of residents who were physically restrained during the last 7 days**

Restraint-free care should be the aim of high quality nursing care. However, in reality, physical restraints are commonly used in geriatric long-term care.¹⁵⁶ This indicator belongs to the set of indicators in the OECD long-term care quality project.⁴⁵

Source of data: BelRAI

- **Percentage of residents who had a fall during the last 30 days**

Fall incidents are a common cause of morbidity and mortality in elderly. Persons who fell once, have an increased risk on future fall incidents. The most recent Health Survey Interview reports that in the 12 months preceding the interview 7% of the Belgian population had an accident resulting in a medical consultation.¹⁵⁷ The most common cause of the accidents were falls (54%) and were common in children and in persons of 65 years and older. In more than 40% of the elderly, the fall caused a fracture. Within the domain of state of health of the BelRAI-LTCF and the BelRAI-HC, a subdomain on fall incidents determines the risk on future fall incidents. In the OECD long-term care quality project the indicator on the incidence of falls and fall-related fractures is proposed as example of a quality outcome on user safety.⁴⁵

Source of data: BelRAI

- **Incidence of pressure ulcers: a. in long-term care facilities b. in individuals at risk (home care)**

The occurrence of a pressure ulcer in a hospitalised patient has a serious negative impact on the individual's health⁵⁷ and often leads to a much prolonged hospital stay. Pressure ulcers can be prevented with good quality nursing care.^{58, 59} Currently no data are available, but it will be possible to evaluate this indicator using BelRAI data. This indicator is also included in the set of OECD indicators in quality of

long-term care.⁴⁵

Source of data: BelRAI

- **Prevalence of MRSA's in nursing homes**

The WIV – ISP is currently finalizing a study, of which the results will be available at the end of 2012 (http://www.nsih.be/nursing_homes/inleiding_fr.asp).

Source: WIV – ISP

Efficiency

- **Chronic care: patients with home dialysis as a percentage of all patients with dialysis**

There are different treatment options for patients whose kidneys fail. The patients can be dialysed, either with haemodialysis or with peritoneal dialysis. In both cases patients can also receive a kidney transplant, either from a deceased or a living donor. Ultimately, kidney transplantation is considered to be the most preferable option, whenever possible.

Substitution of the more expensive haemodialysis in hospital by the less expensive alternatives such as low-care haemodialysis in satellite centres and peritoneal dialysis has been slower in Belgium than in many other countries. This is thought to be partly due to the financing mechanisms for dialysis. Since 1995 the Belgian government has modified the financing system a couple of times, with the explicit goal of introducing incentives for substitution. For this reason, the indicator is categorised in the performance dimension efficiency. Since home dialysis is not indicated for all patients with end-stage renal disease, it is also considered an indicator of appropriateness.

Source of data: IMA. Preliminary analyses for this report were run on the EPS, but the sample of patients under dialysis was too small to draw any conclusion. Analyses will have to be done on the total IMA database.



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