

PERFORMANCE OF THE BELGIAN HEALTH SYSTEM: REVISION OF THE CONCEPTUAL FRAMEWORK AND INDICATORS SET SUPPLEMENT



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SUPPLEMENT

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- The external experts were consulted about a (preliminary) version of the scientific report. Their comments were discussed during meetings. They did not co-author the scientific report and did not necessarily agree with its content.
- Subsequently, a (final) version was submitted to the validators. The validation of the report results from a consensus or a voting process between the validators. The validators did not co-author the scientific report and did not necessarily all three agree with its content.
- Finally, this report has been approved by common assent by the Executive Board.
- Only the KCE is responsible for errors or omissions that could persist. The policy recommendations are also under the full responsibility of the KCE.

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APPENDIX 1. CHAPTER ON THE NEW CONCEPTUAL FRAMEWORK

Appendix 1.1. Pragmatic literature review

Table 1 – Search strategy conceptual framework HSPA

Pubmed					Date	Results
Search number	Query	Sort By	Filters	Search Details		
2	Health system performance[Title/Abstract]		from 2017 - 2021	("health system performance" [Title/Abstract]) AND (2017:2021[pdat])	15-Mar-21	270
1	Health system performance[Title/Abstract]			"health system performance" [Title/Abstract]	15-Mar-21	703
Google scholar						
	"Performance health system"				15-Mar-21	147
Scopus						
	TITLE (health AND system AND performance) AND PUBYEAR > 2016 AND PUBYEAR < 2022				15-Mar-21	280
	TITLE (performance AND health AND system) AND PUBYEAR > 2009 AND PUBYEAR < 2016				15-Mar-21	249

Appendix 1.2. HSPA conceptual frameworks identified

Table 2 – List of the 21 HSPA conceptual frameworks identified

Country/Institution	Year	Reference
WHO	2005	https://www.euro.who.int/__data/assets/pdf_file/0006/294882/Strengthening-HSPA-Hungary-Analysis-Recommendations.pdf
OECD	2006	https://academic.oup.com/intqhc/article/18/suppl_1/5/1798473
Canada (Ontario)	2007	https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-7-25
Developing countries	2008	https://www.sciencedirect.com/science/article/pii/S016885100700200X?via%3Dihub



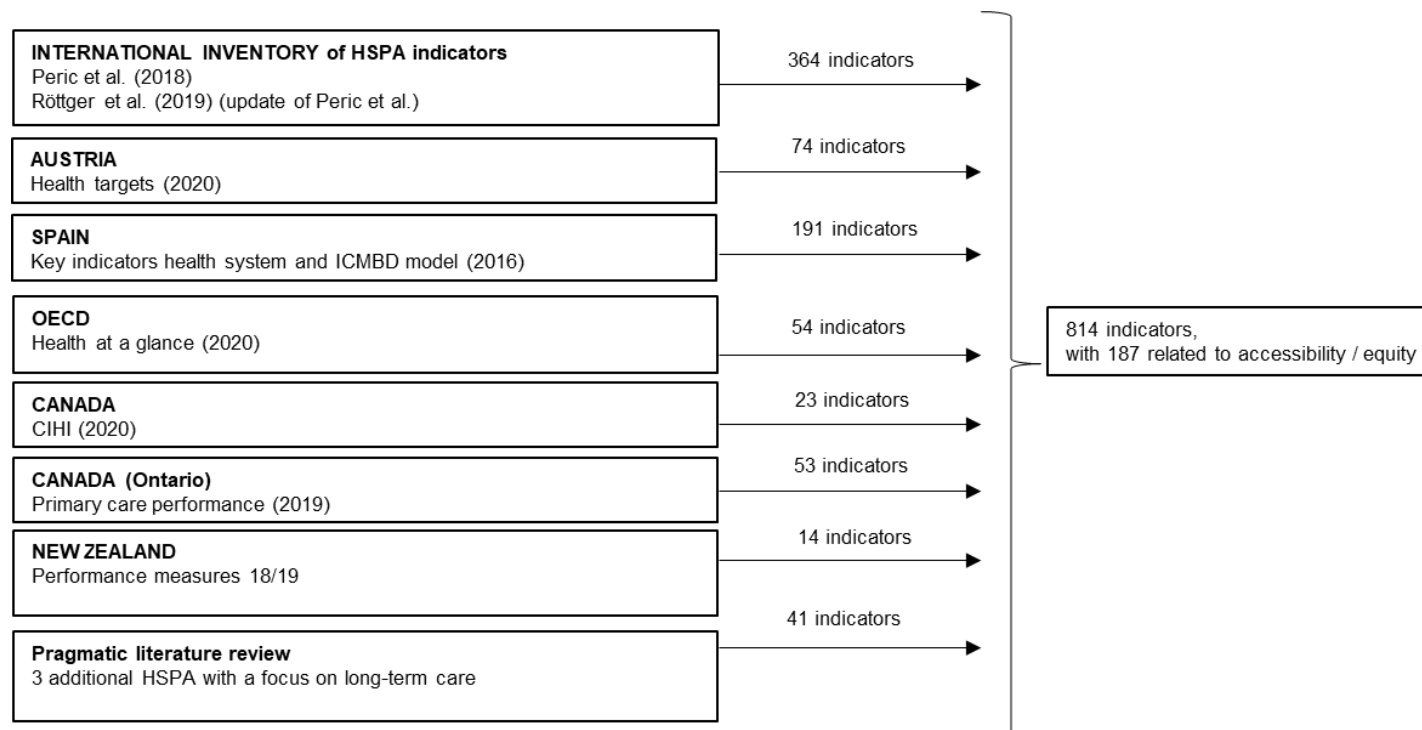
Armenia	2009	https://www.un.am/up/library/Armenia%20Health%20System%20Performance%20Assessment_eng.pdf
Georgia	2009	https://www.euro.who.int/__data/assets/pdf_file/0012/43311/E92960.pdf
Estonia	2010	https://www.euro.who.int/__data/assets/pdf_file/0015/115260/E93979.pdf
Canada	2013	https://secure.cih.ca/free_products/HSP_Framework_Technical_Report_EN.pdf
OECD (adapted from OECD 2006)	2013	https://www.oecd.org/els/health-systems/Health-at-a-Glance-2013.pdf
The Netherlands (adapted from OECD 2006)	2014	https://www.rivm.nl/bibliotheek/rapporten/2015-0050.pdf
Malta	2015	https://deputyprimeminister.gov.mt/en/dhir/documents/hspa%20-%20malta%20report%20-%20final%20050416.pdf
New Zealand	2015	https://reader.elsevier.com/reader/sd/pii/S0168851015001190?token=F2EDC1733D86C2E153C8E16DD7F814CD9ABB21123C86DF2CFD91A44BB635B0C57D62FA3CEA356D3C5978C4B177C1D074&originRegion=eu-west-1&originCreation=20210408133444
OECD	2015	https://academic.oup.com/intqhc/article/27/2/137/1787909
Norway (adapted from OECD 2006)	2016	https://www.rivm.nl/bibliotheek/rapporten/2015-0050.pdf
Sweden (adapted from OECD 2006)	2016	https://op.europa.eu/en/publication-detail/-/publication/97e7c6d8-173a-11e6-ba9a-01aa75ed71a1/language-en
OECD (simplified from OECD 2015)	2016	https://op.europa.eu/en/publication-detail/-/publication/97e7c6d8-173a-11e6-ba9a-01aa75ed71a1/language-en
Germany	2018	https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/5_Publikationen/Gesundheit/Berichte/HSPA-Abschlussbericht.pdf
Belgium	2019	https://kce.fgov.be/fr/performance-du-syst%C3%A8me-de-sant%C3%A9-belge-%E2%80%93-rapport-2019
Latvia	2019	https://onlinelibrary.wiley.com/doi/full/10.1002/hpm.2803
Posit	2020	https://www.sciencedirect.com/science/article/pii/S2213538319300876#fig0005
Ireland	2021	Kingos et al. (not published)



APPENDIX 2. CHAPTER ON RESILIENCE

Appendix 2.1. Update of the international inventory of HSPA indicators

Figure 1 – Update of the international inventory of HSPA indicators¹



Updated by Maertens de Noordhout et al.¹ from the international inventory of HSPA indicators^{2, 3}; and additional reports identified by a pragmatic literature review, i.e. Austria⁴; Spain^{5, 6}; OECD⁷; Canada^{8, 9}; New Zealand¹⁰, Long-term care and other HSPAs identified by the pragmatic literature review¹¹⁻¹³



Appendix 2.2. Longlist of indicators and reason of exclusion

No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
1	HSPA Ireland ¹⁴	2021	Health workers job satisfaction	Included		R-1
			Health worker absenteeism	Included		R-2 R-3 Unavailable data but proxy
			Use of staff support mechanisms (e.g. helplines)	Excluded	Unavailable data	
			Substitution rate of a hospital bed to ICU bed (%)	Included		R-6
			ICU beds turnover	Included		R-6
2	Health country profile - Belgium ¹⁵	2021	Mental distress (people with anxiety, depression)	Excluded	Out-of-scope: health status	
			New cancer diagnoses	Included		R-5
			Number of teleconsultations	Included		R-7
			Spending on consultations / teleconsultations	Included		R-7
			unmet health care needs during the first 12 months of the pandemic	Complementary	Unavailable repaeted data	Redundant with A-6, A-7, A-13, A-14 measured in the complementary analysis
			COVID-19 diagnoses (and link with lockdown measure)	Excluded	Out-of-scope: health status	
			Shortage of face masks	Excluded	Unavailable data	
			Weekly tests per 100 000 population and % positive test: Testing capacities	Included		R-8
			Coronaalerts download	Included		R-9



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Occupied COVID-19 / ICU beds Available / COVID-19 ICU beds / Total ICU beds	Included		R-6
			Workforce health reserve	Complementary	Unavailable repeated data	
			COVID-19 deaths among LTC residents	Excluded	Out-of-scope: health status	
			Vaccination: % of the population with two doses	Included		R-10 R-11
			Public health expenditure	Excluded	Sustainability	
3	OCED and EU - Health at a Glance ⁷	2020	Confirmed COVID-19 cases, reported COVID-19 deaths and excess mortality	Excluded	Out-of-scope: health status	
			GDP growth in the second quarter of 2020, compared to first quarter of 2020	Excluded	Out-of-scope: outside health system	
			Flattening the epidemic curve to allow the health system to cope with surges in demand	Excluded	Out-of-scope: health status / outside health system	
			Daily number of tests per 100 000 population	Included		R-8
			Mobile technologies to help track, trace and isolate SARS-CoV-2 infections have been developed / contact tracing apps	Included		R-9
			Reduction in populations' mobility over the March-May 2020 period, compared to baseline	Excluded	Out-of-scope: outside health system	
			Number of days to bring estimated Rt below one	Excluded	Out-of-scope: health status	
			Weekly reduction in the number of new ICU admissions	Included		R-6



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Central government additional COVID-19 health spending commitment	Excluded	Unavailable repeated data / Sustainability	
			Number of practising doctors and nurses per 1 000 population	Excluded	Unavailable repeated data / Accessibility	
			Occupancy rate - General hospital capacity – hospital beds and average share occupied before the COVID-19 crisis	Excluded	Before COVID	
			Intensive care capacity – ICU beds before the COVID-19 crisis	Excluded	Before COVID	
			Estimated ICUs capacity to cope with the surge in COVID-19 patients during the first wave of the pandemic in 2020	Included		R-6
			Reduction in the volume of primary care consultations during the first wave of COVID-19	Included		R-7
			Delays in cancer diagnoses and treatments	Included		R-5
			Reported care for chronic people	Excluded	Unavailable data	
			Reported mental health care: Hospital admission in psychiatry + emergency psychiatric services	Included		R-4
			Workforce - surge capacity: Reserve lists, additional working hours, etc.	Complementary	Unavailable repeated data	
			Adoption of telehealth and telemedicine	Included		R-7
			Share of population experiencing anxiety	Excluded	Out-of-scope: health status	
			Social health inequalities - Reported COVID-19 cases / deaths among vulnerable people	Excluded	Out-of-scope: health status	



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Reported COVID-19 deaths among residents of long-term care institutions	Excluded	Out-of-scope: health status	
4	European Observatory - Sagan et al. ¹⁶	2021	Existence of dedicated COVID-19 cross-party committees or working groups that facilitate political consensus over the response strategy	Excluded	Qualitative indicator	
			Existence, clarity, feasibility and timeliness of COVID-19 response strategy	Excluded	Out-of-scope: outside health system	
			Existence and comprehensiveness of contingency response plans and/or emergency legislation	Excluded	Qualitative indicator	
			The facility to introduce and update pandemic response plans and/or emergency legislation	Excluded	Qualitative indicator	
			Existence of fit-for-purpose epidemiological surveillance and early warning systems	Excluded	Qualitative indicator	
			Existence of data collection and data sharing mechanisms between stakeholders	Excluded	Qualitative indicator	
			Use of digital tools to support monitoring and surveillance	Excluded	Qualitative indicator	
			Mechanisms to identify change in need, access to services, at-risk populations	Excluded	Qualitative indicator	
			Ability to generate (or access) and process scientific evidence	Excluded	Qualitative indicator	
			Mechanisms to feed multidisciplinary scientific information into decision-making	Excluded	Qualitative indicator	
			Mechanisms to rapidly assess, learn and implement change	Excluded	Qualitative indicator	



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Existence or introduction of mechanisms for collaboration between sectors	Excluded	Qualitative indicator	
			Clarity of responsibilities and chain of command	Excluded	Qualitative indicator	
			Effective governance structures (transparency, accountability, stakeholder involvement, etc.).	Excluded	Qualitative indicator	
			Established and maintenance of public trust in response agencies	Excluded	Qualitative indicator	
			Existence and timeliness of communication strategy for COVID-19 response	Excluded	Qualitative indicator	
			Effective communication means to address relevant audiences	Excluded	Qualitative indicator	
			Mechanisms to involve all relevant stakeholders	Excluded	Qualitative indicator	
			Stakeholder representation	Excluded	Qualitative indicator	
			Agreements with relevant actors (e.g. international agencies, other countries' governments), regional and global collaborations	Excluded	Qualitative indicator	
			Adequacy of baseline spending on health (total, public, and as a share of government spending)	Excluded	Qualitative indicator	
			Existence of countercyclical health financing mechanism to mitigate the impact of economic shock, arising from mitigation measures	Excluded	Qualitative indicator	
			Protection funding for health care, e.g. earmarked funds for health care	Excluded	Unavailble repeated data	
			Ability to quickly reallocate general government funds	Excluded	Unavailble repeated data	



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Existence and adequacy of financial reserves for emergency use	Excluded	Unavailble repeated data	
			Ability to increase levels of public borrowing	Excluded	Qualitative indicator	
			Development of new and alternative procurement channels	Excluded	Qualitative indicator	
			Ability to make rapid changes to purchasing mechanisms	Excluded	Qualitative indicator	
			Ability to reallocate funding to different providers or activities	Excluded	Qualitative indicator	
			Existing levels of coverage (population, services, user charges) and its gaps	Complementary	Unavailble repeated data / Accessibility	
			Public knowledge of entitlements and changes to coverage	Excluded	Qualitative indicator	
			Inclusion of COVID-19-related health care services into health coverage	Excluded	Qualitative indicator	
			Existence/broadening of exemptions from user charges	Excluded	Qualitative indicator	
			Adequacy of pre-pandemic availability of health workforce	Excluded	Unavailble repeated data / Accessibility	
			Subnational health workforce mapping (location, availability, competencies)	Excluded	Unavailble repeated data / Accessibility	
			Ability to increase number of health workforce (e.g. private sector, students, retired health professionals)	Complementary	Unavailable repeated data	
			Ability to temporarily increase workload of health workforce (e.g. through extending hours, cancelling leave)	Excluded	Unavailable data	



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Ability to draw on workers from other areas (e.g. volunteers, emergency services, military, etc.)	Complementary	Unavailable repeated data	
			Crisis preparedness training, cross-training for additional skills	Excluded	Qualitative indicator	
			Training of health workers to treat specific or at-risk population groups	Excluded	Qualitative indicator	
			Ability to reassign health professionals to other areas / providers	Excluded	Qualitative indicator	
			Ability to expand responsibilities of health professionals to deliver new types of services	Excluded	Qualitative indicator	
			Monitoring of health workers job satisfaction	Included		R-1
			Monitoring of health worker absenteeism	Included		R-2 R-3 Unavailable data but proxy
			Mechanisms to ensure safety of health workers	Excluded	Qualitative indicator	
			Staff support mechanisms	Excluded	Qualitative indicator	
			Provision of adequate compensation for increased workload, hazardous working conditions	Excluded	Qualitative indicator	
			Timeliness and degree of implementation of nonpharmaceutical interventions	Excluded	Qualitative indicator	
			Ability to scale-up testing and lab capacity	Included		R-8
			Ability to implement effective contact tracing	Included		R-9
			Levels of adherence to isolation requirements	Excluded	Out-of-scope: outside health system	
			Availability and level of economic and social support for people needing to isolate/shield	Excluded	Out-of-scope: outside health system	



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Availability and level of economic support for businesses/individuals affected by restrictions	Excluded	Out-of-scope: outside health system	
			Other measures of support	Excluded	Out-of-scope: outside health system	
			Levels of pre-existing vaccine hesitancy (immunization coverage for national vaccination programme)	Excluded	Unavailable repeated data / Prevention	
			Roll-out of immunization programme (availability of vaccines, total coverage, coverage in priority and at-risk groups, etc.).	Included		R-10 R-11
			Access to routine public health services such as early childhood and maternity services, screening programmes, etc.	Excluded	Unavailable repeated data / Prevention	
			Adequacy of pre-pandemic availability of physical and material resources	Excluded	Unavailable repeated data / Sustainability	
			Existence of an agency responsible for emergency supplies, and of emergency reserves	Excluded	Qualitative indicator	
			Availability of physical resources (sufficient capacity of beds, ICU beds), equipment, medicines	Included		R-6
			Availability of non-COVID services (diagnostics, primary and specialist care, emergency care, mental health services, rehabilitation, etc.)	Included		R-4
			Monitoring of access to and change in utilization of services	Included		R-4
			Maintaining quality standards across all services	Complementary	Unavailable repeated data / Quality	



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
5	EU Expert Group - Thomas et al. ¹⁷	2020	Mechanisms of timely dissemination of guidelines and protocols	Excluded	Qualitative indicator	
			Ability to increase capacity to provide services (e.g. through tapping into private sector)	Excluded	Qualitative indicator	
			Ability to provide health services remotely	Included		R-7
			Set of contingency plans and protocols, emergency legislation	Excluded	Qualitative indicator	
			Functional management capacity for governance	Excluded	Qualitative indicator	
			Stakeholder participation and engagement	Excluded	Qualitative indicator	
			Leadership/steering and clear chain of command	Excluded	Qualitative indicator	
			Accountability of government agencies	Excluded	Qualitative indicator	
			Effective governance structures (transparency, accountability, stakeholder involvement)	Excluded	Qualitative indicator	
			Clear and feasible plan for response measures	Excluded	Qualitative indicator	
			Setting strategic direction	Excluded	Qualitative indicator	
			Established public trust in response agencies	Complementary	Unavailable repeated data	
			Effective communication	Excluded	Out-of-scope: outside health system	
			Collaboration between sectors	Excluded	Qualitative indicator	
			Agreements with relevant actors (e.g. international agencies, non-state providers, NGOs)	Excluded	Qualitative indicator	
			Innovative organizational culture, culture of learning	Excluded	Qualitative indicator	
			Use of feedback and analysis in informing decisionmaking	Excluded	Qualitative indicator	



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Mechanisms to assess, audit and learn from response to shock and implement change	Excluded	Qualitative indicator	
			Flow of information between stakeholders, data-sharing mechanisms	Excluded	Qualitative indicator	
			Flow of data, information and analysis into decisionmaking and evaluation	Excluded	Qualitative indicator	
			Mechanisms of timely dissemination of guidelines and protocols	Excluded	Qualitative indicator	
			Communication infrastructure (hard: phone, Wi-Fi; soft: press, community, NGOs)	Excluded	Out-of-scope: outside health system	
			Existence of data collection and linkage systems	Excluded	Qualitative indicator	
			Epidemiological surveillance and early warning systems	Excluded	Qualitative indicator	
			Existence of mechanisms to identify change in need and access to services	Excluded	Qualitative indicator	
			Levels of spending on health (total, public, and as a share of government spending)	Excluded	Sustainability	
			Equitable geographical distribution of health expenditure	Excluded	Equity	
			Information on public financial management	Excluded	Qualitative indicator	
			Countercyclical financing mechanisms in place to cushion financial impact of shocks	Excluded	Qualitative indicator	
			Protected funding for health care, e.g. earmarked funds for health care	Excluded	Qualitative indicator	
			Financial reserves available for deployment in health shocks	Excluded	Qualitative indicator	



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Change in health spending vs change in government deficit and GDP	Excluded	Sustainability	
			Development of alternative procurement channels	Excluded	Qualitative indicator	
			Ability to make rapid changes to purchasing mechanisms	Excluded	Qualitative indicator	
			Reallocation of funding to different providers or activities	Excluded	Qualitative indicator	
			Universal/effective health coverage (including vulnerable groups)	Complementary	Unavailable repeated data / Accessibility	
			Public knowledge of entitlements	Excluded	Qualitative indicator	
			Out-of-pocket payments as share of total health spending	Complementary	Unavailable repeated data / Accessibility	
			Catastrophic/impoverishing health spending	Complementary	Unavailable repeated data / Accessibility	
			Existence/broadening of exemptions from user fees	Excluded	Qualitative indicator	
			Capacity of diagnostics, primary and specialist care	Included		R-4 R-5
			Availability of pharmaceuticals and medical products, vaccines and equipment	Excluded	Unavailable repeated data / Sustainability	
			Mapping of health service providers (location, type, opening hours, accessibility)	Excluded	Unavailable repeated data / Accessibility	
			Numbers of doctors and nurses and their workload	Excluded	Unavailable repeated data / Accessibility	
			Workforce mapping (location, availability, competencies)	Excluded	Unavailable repeated data / Accessibility	
			Ability to increase capacity of services (e.g. existence of waiting lists, occupancy rates)	Included		R-6



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Ability to increase number of health professionals and their workload, workforce reserves	Complementary	Unavailable repeated data	
			Existence of an agency responsible for emergency supplies	Excluded	Qualitative indicator	
			Health workers job satisfaction	Included		R-1
			Health worker absenteeism	Included		R-2, R-3 Unavailable data but proxy
			Staff support mechanisms, helplines	Excluded	Qualitative indicator	
			Ensuring safety of health workers	Included		R-10
			Crisis preparedness training, cross-training for additional skills	Excluded	Qualitative indicator	
			Training of health workers to treat specific or at-risk population groups	Excluded	Qualitative indicator	
			Ensuring provision of services for at-risk population groups	Excluded	Unavailable data	
			Maintenance of quality and safety standards across all services	Complementary	Unavailable repeated data / Quality	
6	OCED and EU - Health at a Glance ¹⁸	2022	Initial COVID-19 vaccination course completion among people aged 60 and over	Included		R-11
			Initial COVID-19 vaccination course completion among all adults (18 years and over)	Included		R-10
			In-person consultations and teleconsultations with doctors	Included		R-7
			Teleconsultations with doctors during the first year of the pandemic	Included		R-7



No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Percentage of new cases of COVID-19 sequenced	Included		R-8
			Number of weeks where ECDC threshold for representative genomic SARS-CoV-2 monitoring was exceeded	Included		R-8
			Adult intensive care beds	Included		R-6
			Adult ICU occupancy rate	Included		R-6
			Percentage of primary care physician practices using Electronic Medical Records	Excluded	Unavailable repeated data / Sustainability	
			Percentage of physician practices that can share information with hospitals about patients' current medications	Excluded	Unavailable repeated data / Sustainability	
			Capital expenditure on health as a share of GDP and in relation to current health expenditure	Excluded	Sustainability	
			Changes in capital expenditure, in real terms	Excluded	Sustainability	
			Public spending on health care as a percentage of GDP, 2019-70 – Ageing Working Group reference scenario	Excluded	Unavailable repeated data / Sustainability	
			Public spending on long-term care as a percentage of GDP, 2019-70 – Ageing Working Group reference scenario	Excluded	Unavailable repeated data / Sustainability	
7	International inventory ^{2, 19-21}	2021	No indicator identified			
8	OECD - Evaluation of Luxembourg's COVID-19 Response ²²	2022	Prevalence of COVID-19 infections	Excluded	Out-of-scope: health status	
			Cumulative excess mortality rate per million population	Excluded	Out-of-scope: health status	



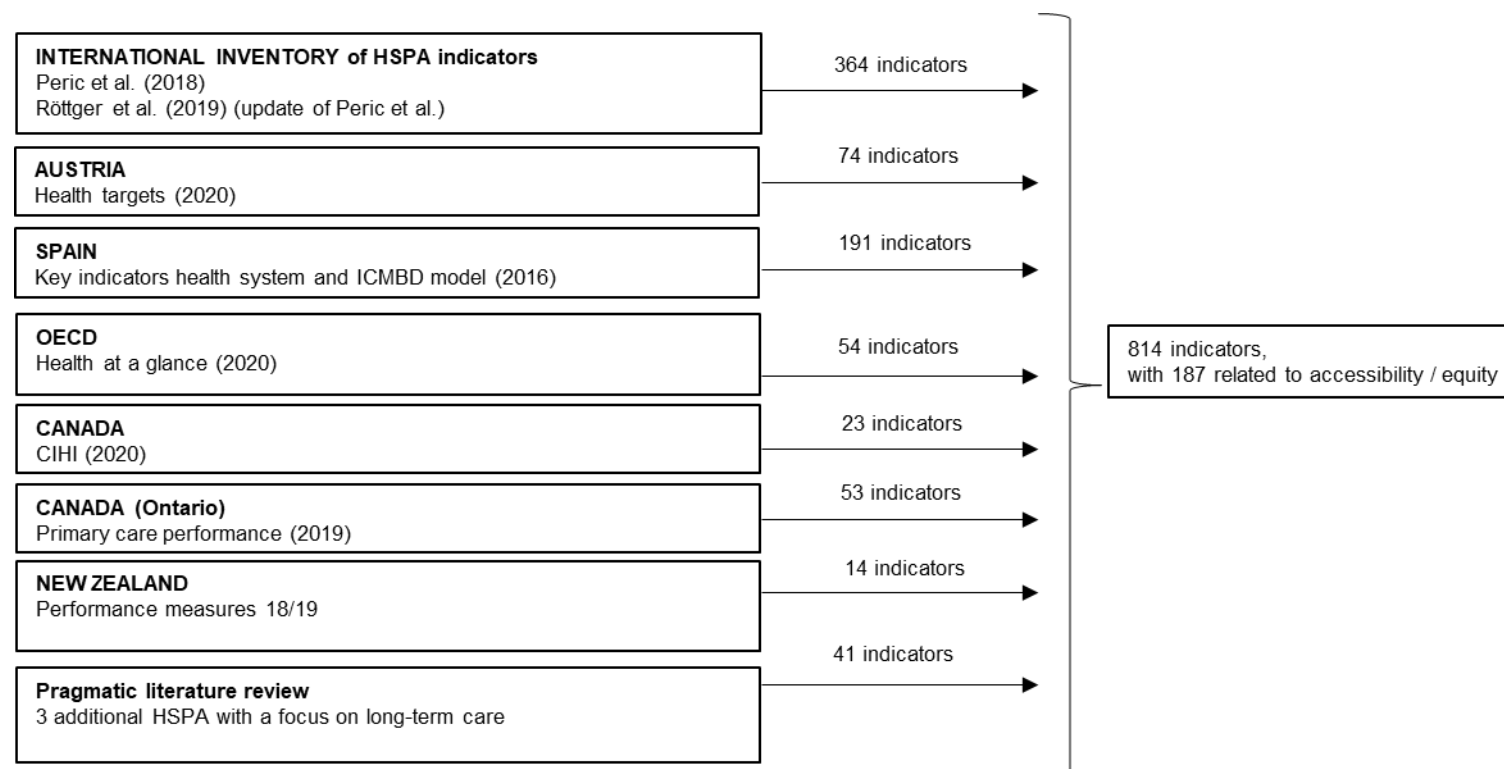
No.	Country/Institution/Authors	Year	Indicator	(Topic) included or excluded	Reason for exclusion	Comment
			Mortality rates in residential facilities	Excluded	Out-of-scope: health status	
			Proportion of the population who completed the vaccination schedule	Included		R-10 R-11
			Changes in the number of consultations with selected health professionals in cities	Included		R-7
			Hospital activity	Included		R-4
			Breast cancer screening	Included		R-5
			Cancer surgery activity	Included		R-4
			Number of weekly tests	Included		R-8
			Intensive care bed capacity	Included		R-6
			Number of professionals mobilised	Complementary	Unavailable repeated data	
			Shortage of health workers to respond to the COVID-19 pandemic	Included		R-2, R-3 Unavailable data but proxy
			Use of remote consultations	Included		R-7



APPENDIX 3. HEALTH SYSTEM GOVERNANCE

Appendix 3.1. Update of the international inventory of HSPA indicators

Figure 2 – Update of the international inventory of HSPA indicators¹



Updated by Maertens de Noordhout et al.¹ from the international inventory of HSPA indicators^{2, 3}; and additional reports identified by a pragmatic literature review, i.e. Austria⁴; Spain^{5, 6}; OECD⁷; Canada^{8, 9}; New Zealand¹⁰; Long-term care and other HSPAs identified by the pragmatic literature review¹¹⁻¹³



Appendix 3.2. Long list of indicators

Table 3 – Long list of potential governance indicators

Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
Estonia (2010)²³	Responsiveness		Satisfaction with the health care	Yes		20 HSPA frameworks
			Satisfaction with the quality of health care services	No	Similar indicators in quality-people-centredness (QP-1, QP-8 to QP-13)	
			Satisfaction with access to health care services	No	Similar indicators in accessibility (A-6, A-7, A-13, A-14), no other available data	
			Satisfaction with hospital care and primary care during the last visit	No	Similar indicators in quality-people-centredness (QP-1, QP-8 to QP-13)	
			Satisfaction with health care benefit package	No	Similar indicators in accessibility (A-6, A-7), no other available data	
Armenia (2009)²⁴	Stewardship		Is there adequate regulation of the health care sector?	No	Not quantitative	20 HSPA frameworks
			Does the Ministry of Health have appropriate policy instruments at its disposal to pursue targeted policy objectives?	No	Not quantitative	
			Are health system performance information and evidence used for decision-making in the Ministry of Health, especially in allocating public resources to promote equitable access to health care?	No	Not quantitative	
	Responsive ness	Dignity	Did health care providers show respect for patients, and were physical examinations conducted in a private setting?	No	Unavailable data and not relevant (provider level, rather in people-centredness)	



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
		Communication	Did health care providers explain to the patient his or her situation, diagnostic tests and treatments?	No	Similar indicators in quality, people-centred care (QP-1, QP-2 in the 2019 report, QP-12 in the next report)	
			Did the provider provide the patient with an opportunity to ask questions and discuss matters of concern related to the disease?	No	Similar indicators in quality, people-centred care (QP-3 in the 2019 report, QP-12 in the next report)	
		Confidentiality	Did the patient feel assured that his or her medical history was kept confidential?	No	Unavailable data and not relevant (provider level, rather in people-centredness)	
			Were there opportunities to have a conversation with health care providers that could not be overheard by others?	No	Unavailable data and not relevant (provider level, rather in people-centredness)	
		Autonomy	Did health care providers adequately explain the treatment options?	No	Similar indicators in quality, people-centred care (QP-2 in the 2019 report, QP-12 in the next report)	
			Were patient opinions considered in deciding on the course of treatment?	No	Similar indicators in quality, people-centred care (QP-3 in the 2019 report, QP-8, QP-9 in the next report)	
	Stewardship	Implementation of a policy cycle including evidence-based allocation of resources	Share of public health expenditures in the fiscal year that is not reflected in the Medium Term Expenditure Framework	No	Unavailable data and not relevant (rather sustainability)	20 HSPA frameworks
			Change in health revenues: Health revenues by source in million GeLs and as percentage of total revenue over time, share of total revenues by source over time	No	Similar indicators in equity (EQ-3 in the 2019 report, not kept in the next report)	



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
		Optimization of distribution of expenditure by level of care, including health promotion and public health	Change in health expenditures: Total and public expenditures on health as percentage of GDP, and public expenditures on health as percentage of total government expenditures over time, Public expenditures on outpatient care, inpatient care and public health and prevention services as percentage of total public health expenditures over time	No	Similar indicators in sustainability (S-3, S-20)	
		Improvement of regulation of the health sector	The share of drugs subject to state quality control and the total number of drugs registered in the country, over time	No	Not relevant	
		Ensuring health system disaster preparedness		Yes	But rather selected for the resilience	
		Ensuring intersectoral collaboration for promoting better health and health protection		No	Not quantitative	
Malta (2015)²⁶	Governance	Stewardship	Fatal accidents at the place of work/fatality rates - per economic sector	No	Not relevant	20 HSPA frameworks
			Percentage of health budget allocated to Public Health, including preventive services	No	Similar indicators in sustainability (Could be a sub-analysis of S-3, S-20, but not kept)	
			Public expenditure as % of GDP for hospitals, ambulatory services and long term care	No	Similar indicators in sustainability (Could be a sub-analysis of S-3, S-20, but not kept)	
			Generic share of pharmaceuticals in value/volume (public expenditure)	No	Similar indicators in efficiency (E-3)	



Country/Au thor	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source	
			Public outpatient pharmaceuticals as a percentage (%) of GDP	No	Similar indicators in sustainability (Could be a sub-analysis of S-3, S-20, but not kept)		
			Percentage of population covered by public health insurance (tax based, public health insurance and income tax, including Social Security contribution schemes)	No	Similar indicator in accessibility (A-1)		
OBS (2022) ²⁷	Governance	Policy and vision	Whether a strategic vision exists in written and traceable form	Does your country have a comprehensive set of policies, laws and/or guidelines that give a strategic vision to the sector?	No	Not quantitative	Governance chapter of report: "Health System Performance Assessment : A framework for policy analysis"
			Whether the strategic vision is of good quality viewed in terms of implementability	Demonstrates that the national health sector policy / strategy / plan is aimed at moving towards UHC	No	Not quantitative	
				Countries that have passed legislation on UHC	No	Not quantitative	
				Demonstrates that the national health sector policy / strategy / plan is comprehensive, coherent and well balanced	No	Not quantitative	
				National health policy oriented to PHC/UHC/UHC legislation	No	Not quantitative	
				The national health sector policy/strategy/plan clearly mentions indicators allowing for regular monitoring and evaluation	No	Not quantitative	



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
		Existence of multisectoral collaboration	The number of national policies for health and well-being that address at least two priority determinants of health, and involve at least two sectors, in target populations	No	Unavailable data and not relevant (rather for the report on health determinants)	
			Existence of multisectoral coordination or existence of cross-government groups on primary health care, with clearly defined roles and transparent proceedings & evidence of cross-sector integrated planning	No	Not quantitative	
		Quality of multisectoral collaboration	The composite index combining four assessed aspects of Health in All Policies in a country: whether a country has (a) favourable conditions for Health in All Policies development; (b) policy implementation; (c) monitoring and evaluation and (d) training and capacity building	No	Not relevant (outside the health system, but described in the HIT profile)	
	Stakeholder voice	Whether national health policies, strategies, plans, guidelines, or laws are developed with the broad participation of key stakeholders	Which stakeholders are involved in national health planning and review processes?	No	Not quantitative	
			The development or update of the national health sector policy/strategy/plan is done with the broad participation of key stakeholders	No	Not quantitative	
			Shows broad participation of key stakeholders during the preparation and the review itself	Yes		



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
			Multistakeholder participation and engagement with community, NGOs, CSOs, private	No	Not quantitative	
		Whether stakeholder participation is a priority for the government in general (whether an enabling environment exists for participation)?	Which mechanisms and dialogue platforms are in place to ensure involvement of key stakeholders in the health decision-making process?	No	Not quantitative	
	Information and intelligence	Whether a government is committed to collecting relevant health data for decision-making	Are relevant data collection database available, such as health surveys, birth and death registration, census, health facility reporting, health system resource tracking?	Yes		
			% completeness reporting by facilities (by type incl PHC, public, private)	No	Unavailable data and not relevant	
			Functional national HRIS/NHWA	No	Not quantitative (and quantitative data on the workforce are available in sustainability)	
			Completeness of birth registration	No	But Yes in the sub-analyses of the Score indicator	
			Completeness of death registration	No	But Yes in the sub-analyses of the Score indicator	



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
		Whether decisions are largely data-driven and evidence-based?	Country has a health sector monitoring and evaluation plan (M&E) or a documented methodology for monitoring health sector outputs and outcomes?	No	Not quantitative	
			Does the country have a Health Information System policy and/or strategic plan?	No	Not quantitative	
			Does the country have a set of core health indicators (updated yearly)?	No	Not quantitative	
			National health policy, strategy, plan (or health laws and regulations) clearly mentions indicators allowing for regular monitoring and evaluation?	No	Not quantitative	
			Priority setting based on data and evidence (on health priorities burden of disease, population risk, vulnerable status)	No	Not quantitative	
	Legislation and regulation	The capacity to develop and enforce laws and regulations to govern the behavior of actors towards protecting and improving public health	Are existing health laws aligned with the government's health policies and plans?	No	Not quantitative	
			Do national human rights laws prohibit discrimination on the basis of sex, gender identity, disability status, race/ethnicity and sexual orientation in areas such as education, employment and housing?	No	Not quantitative	
			To what extent are measures taken to effectively implement and enforce health legislation?	No	Not quantitative	



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
		Ensuring compliance with those rules, laws, and regulations	To what extent are executive and judicial actors resourced to implement and enforce health legislation?	No	Not quantitative	
Barbazza and Tello (2014) ²⁸	Governance	Accountability	Performance-based contracts	No	Not quantitative	Snowballing
			Fair competitive elections, systems of judicial redress, procedures to combat corruption	No	Not quantitative	
			Pay-for-performance technique	No	Not quantitative	
		Partnerships	Inter-ministerial and interdepartmental committees	No	Not quantitative	
			Public-private task force	No	Not quantitative	
			Integrated budgets and accounting, co-funding arrangements or earmarked grants	No	Not quantitative	
			Cross-cutting information education systems	No	Not quantitative	
			Common workforce training, qualifications, support and advice	No	Not quantitative	
			Ad-hoc, initiative-specific committees	No	Not quantitative	
		Formulating policy/strategic direction	National health plan	No	Not quantitative	
			National targets, goals and performance measures	No	Not quantitative	
			Multi-year strategic plan	No	Not quantitative	
			Policies, operational guidelines, training manuals, protocols	No	Not quantitative	



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
			Medium-term expenditure frameworks and national health accounts	No	Not quantitative	
			Targets- and priority-setting techniques (e.g. WHO-CHOICE)	No	Not quantitative	
		Generating information/intelligence	Commissioned reports by independent researchers	No	Not quantitative	
			Interministerial fact-finding commissions or task force; parliamentary investigations	No	Not quantitative	
			Periodic audits, public expenditure and performance reviews	No	Not quantitative	
			Health technology assessments	No	Not quantitative	
			Internationally recognized tools for conducting a situation analysis (e.g. HMNb Health Information Systems Situation Assessment Tool)	No	Not quantitative	
			Health impact assessment; environmental impact assessment geographic information systems, or health needs assessment	No	Not quantitative	
			Patient reported outcome measures	No	Not quantitative	
		Organizational adequacy/system design	Implementation or annual operational plan	No	Not quantitative	
			Monitoring and evaluation plan	No	Not quantitative	
			Training/personnel manuals	No	Not quantitative	
			Mission/vision statement, organizational chart	No	Not quantitative	



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
			On-the-spot training measures	No	Not quantitative	
			Peer-to-peer learning programs	No	Not quantitative	
		Participation and consensus	Open meetings, public workshops, national forums, citizen advisory committees, citizen juries	No	Not quantitative	
			Satisfaction surveys	Yes		
			Sector-wide approaches	No	Not quantitative	
			Consensus conferences	No	Not quantitative	
			National health forums	No	Not quantitative	
			Formal consultations in drafting legislations	No	Not quantitative	
		Regulation	Rules, procedures, decrees	No	Not quantitative	
			Codes of conduct	No	Not quantitative	
			Performance standards, accreditation, licensing/certification	No	Not quantitative	
			Statutory bodies (e.g. national regulatory agency)	No	Not quantitative	
			'Hard laws' (binding legislation); 'soft laws' (non-binding recommendations)	No	Not quantitative	
		Transparency	Watch dog committees (facility boards, health authority, ombudsman, parliamentary committees)	No	Not quantitative	
			Releasing performance information to providers and the public	No	Not quantitative	
			Inspectorates, fact finding commissions	No	Not quantitative	



Country/Au thor	Dimension	Sub-dimension		Indicator	Included	Reason for exclusion	Source
Siddiqi et al. (2009) ²⁹	Governance	Strategic vision	National	Publically available budgetary and financial information	No	Not quantitative	Snowballing
				Citizen report cards	No	Not quantitative	
				Conflict-of-interest boards	No	Not quantitative	
			What are the broad outlines of economic the policy of the government?	No	Not quantitative		
			Has health been recognized as a basic human right in the constitution of the country?	No	Not quantitative		
			What is the importance of heath in the overall development framework?	No	Not quantitative		
			How does health rank in priority in the overall development and plan of the country?	No	Not quantitative		
			What is the state's responsibility in the provision of health care and health?	No	Not quantitative		
			Health policy formulation	Is there a long-term vision and policy for health?	No	Not quantitative	
				Is there a national health policy/strategic plan stating objectives to be achieved with time frame and resources?	No	Not quantitative	
			Policy implementation	Are the implementation mechanisms in line with the stated objectives of health policy?	No	Not quantitative	
				What is the extent of implementation of the health policy?	No	Not quantitative	



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
		Participation and consensus orientation	National	Are the private sector, civil society, line departments and other stakeholders consulted in decision-making?	No	Not quantitative
				How are decisions related to health finalized—cabinet, parliament, head of government or state?	No	Not quantitative
			Health policy formulation	How are the inputs solicited from stakeholders for health policy?	No	Not quantitative
				How does government reconcile the different objectives of various stakeholders in health decision-making?	No	Not quantitative
				Are other state ministries involved in by the MoH in policies and programs to tackle health determinants?	No	Not quantitative
		Policy implementation		What is the level of decentralization in decision-making?	No	Not quantitative
				What is the extent of community participation in health services provision?	No	Not quantitative
	Rule of law	National		Who initiates or where are initiated laws relevant to health?	No	Not quantitative
				Are laws/regulations related health service provision, infrastructure, technology, human resources, pharmaceuticals in place?	No	Not quantitative
				How are the laws translated into rules, regulations, and procedures?	No	Not quantitative

Country/Au thor	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source	
		Health policy formulation	Is the MoH consulted for laws/regulations which relate to health?	No	Not quantitative		
			Does the MoH consult other line departments for laws/regulations pertaining to health?	No	Not quantitative		
			What is the relationship of MoH to the regulating bodies?	No	Not quantitative		
			What is the capacity of MoH for contracting, regulating, accrediting, licensing?	No	Not quantitative		
		Policy implementation	What procedures are in place for redressing grievances of (a) consumers, (b) contractors?	No	Not quantitative		
			How are the relevant laws enforced?	No	Not quantitative		
			Are tools/instruments for various functions like accreditation, regulation, licensing for health related activities available and how are they enforced/used?	No	Not quantitative		
		Transparency	National	Is information about financial and administrative procedures readily available?	No		Not quantitative
				How transparent is the process of resource allocation?	No		Not quantitative
			Health policy formulation	Are there monitoring mechanisms in place to ensure transparency of decisions?	No		Not quantitative
Who is involved in monitoring of the health services?	No			Not quantitative			



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source	
		Policy implementation	How are the district managers appointed/transferred?	No	Not quantitative		
			How soon is information from the financial audit available after the funds are disbursed?	No	Not quantitative		
		Responsiveness of institutions	National	Are health subsidies targeted? What is the targeting mechanism?	No	Not quantitative	
				Is needs assessment conducted as part of the policy process?	No	Not quantitative	
		Health policy formulation		Does the health policy address the health needs/burden of the local populations?	No	Not quantitative	
				Is the quality of health services and user satisfaction valued high by the MoH	No	Not quantitative	
		Policy implementation		How does the health system respond to regional/local priority health problems?	No	Not quantitative	
				How responsive are the health services to the medical and non-medical expectations of the population?	No	Unavailable data but similar to the indicator on statisfaction with healthcare (Yes)	
		Equity	National	Are there any social protection schemes in place to address financial barriers for the poor?	No	Not quantitative	
				Health policy formulation	What policies are in place for identifying issues of equity in provision and financing of health services and rectifying them?	No	Not quantitative



Country/Author	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
		Policy implementation	What are the differences in access to care by residence, income, gender, ethnicity, religion and others?	No	Similar indicators in equity (EQ-1 to EQ-7)	
			Is allocation of public sector resources by states, provinces, districts equitable?	No	Not quantitative	
		Effectiveness and efficiency	National			
			What is the turnover/tenure of the leadership at the MoH?	No	Not quantitative	
			What is the quality of bureaucracy, technocracy (training, qualifications, career development)?	No	Not quantitative	
		Health policy formulation				
			How efficient and up to date are the communication processes at the MoH; extent, form, filing, timeliness?	No	Not quantitative	
			Is there an in-service training program for staff?	No	Not quantitative	
		Policy implementation				
			What is the capacity of MoH for implementation measured in terms of regulatory, monitoring, financial and human resource management?	No	Not quantitative	
			What is the level of utilization of services?	No	Similar indicators in equity (EQ-1 to EQ-7)	
			Is there an in-service training program for staff? Are job descriptions available and followed by staff?	No	Not quantitative	
	Accountability	National	What is the role of elected bodies (legislature)?	No	Not quantitative	
			What is the role of judicial system?	No	Not quantitative	



Country/Au thor	Dimension	Sub-dimension	Indicator	Included	Reason for exclusion	Source
		Health policy formulation	Are mechanisms for overseeing adherence to financial, administrative rules in place?	No	Not quantitative	
		Policy implementation	What evidence is present about the effective enforcement of accountability processes?	No	Not quantitative	
	Intelligence, information	National	What information is available about the health system and health in the country and how accessible is it?	No	Not quantitative	
			What is the reliability of information available for development of policies?	No	Not quantitative	
		Health policy formulation	What evidence is there for the use of information in the decision-making process?	No	Not quantitative	
		Policy implementation	How is the relevant information about health generated?	No	Not quantitative	
			How is implementation of health policies monitored?	No	Not quantitative	
		Ethics	National	What is the importance attached to ethics in research and services?	No	Not quantitative
	Health policy formulation		What principles of bioethics are Yes in national health policy?	No	Not quantitative	
			Is there a policy on promoting ethics in health care and research?	No	Not quantitative	
	Policy implementation		What are the institutional mechanisms to promote and enforce high-ethical standards in health research and health care?	No	Not quantitative	

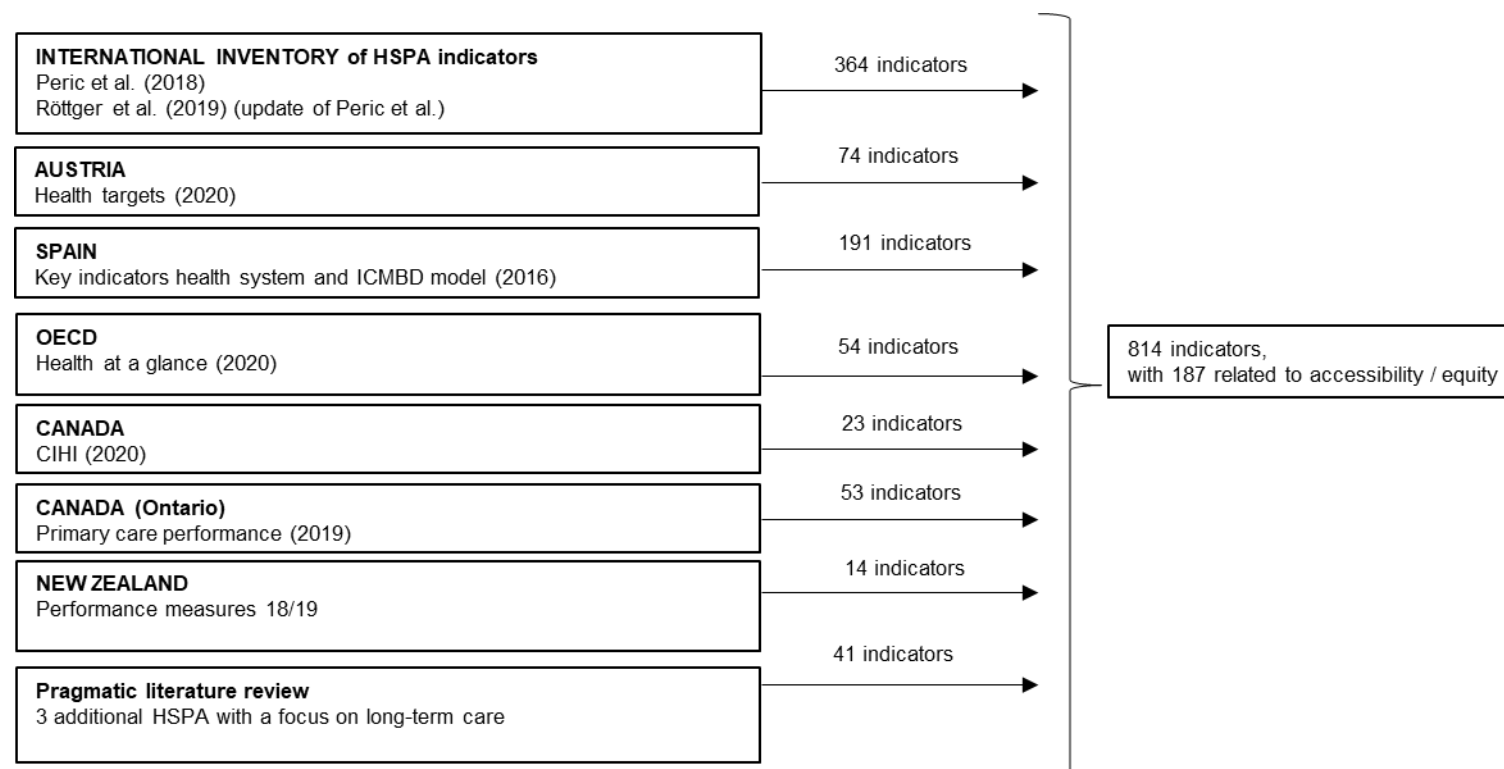
CSO: Civil Society Organisation; GDP: gross domestic product; HRIS: Human Resource Information System; M&E: Monitoring and Evaluation; MoH: Ministry of Health; NGOs: Non-profit organization; NHWA: National Health Workforce Accounts; OBS: European Observatory on Health Systems and Policies; PHC: primary healthcare; UHC: Universal Health Coverage.



APPENDIX 4. REVIEW OF ACCESSIBILITY AND EQUITY

Appendix 4.1. Update of the international inventory of HSPA indicators

Figure 3 – Update of the international inventory of HSPA indicators¹



Updated by Maertens de Noordhout et al.¹ from the international inventory of HSPA indicators^{2, 3}; and additional reports identified by a pragmatic literature review, i.e. Austria⁴; Spain^{5, 6}; OECD⁷; Canada^{8, 9}; New Zealand¹⁰; Long-term care and other HSPAs identified by the pragmatic literature review¹¹⁻¹³



Appendix 4.2. List of experts

Hervé Avalosse (Alliance Nationale Des Mutualités Chrétiennes), Rita Baeten (European Social Observatory), Nicolas Bouckaert (KCE), Thomas Deloffer (VPP), Brecht Devleeschouwer (Sciensano), Françoise De Wolf (Solidaris), Sophie Gerkens (KCE), Sophie Lanoy (LUSS), Pascal Meeus (RIZIV-INAMI), Caroline Obyn (KCE), Erik Schokkaert (KULeuven), Aline Scohy (Sciensano), Rudi Van Dam (FPS Social Security), Annemie Vlayen (FOD VVVL-SPF SP), Carine Van de Voorde (KCE), Sara Willems (UGent), Harun Yaras (FOD VVVL-SPF SP)

Appendix 4.3. Experts' assessments

Appendix 4.3.1. Average number of indicators per dimension

Experts were asked to distribute a maximum of 25 indicators across the 5 (sub-)dimensions. Results can be found below.

	Average	Median	Min	Max	
Equity	7.7	8	5	10	
Financial access	7.7	8	5	10	
Health literacy	1.3	1	1	3	
Health workforce availability	3.8	4	2	5	
Health services distribution	4.5	4.5	4	5	

Appendix 4.3.2. Equity (11 experts – 9 indicators selected after discussions)

ID (2019)	Name	Remarks of experts	Ranking / selected	Average	Median	N	N Top 3
EQ 2021	Transversal analyses: At least one contact in the healthcare system in past year (% pop aged 18+) - GP	Limits: contact in medical houses not included	1	7.45	11	8	6
EQ 2021	Transversal analyses: Number of contacts in the healthcare system in past year (pop aged 18+) - GP	Teleconsultations will be interesting to analyse when we will have enough data	2	6.91	8	9	5
EQ 2021	Transversal analyses: Number of contacts in the healthcare system in past year (pop aged 18+) - specialist	Rather at least one contact?	3	6	7	10	4



EQ 2021	Transversal analyses: Number of contacts or at least one contact in the healthcare system in past year (pop aged 18+) -ER		4	5.45	6	9	3
EQ 2021	Transversal analyses: At least one contact in the healthcare system in past year (% pop aged 18+) - specialist		5	5.36	5	7	3
EQ 2021	Transversal analyses: Regular contacts with dentist (pop aged 18+)		6	4.55	5	8	1
EQ 2021	Transversal analyses: Number of contacts in the healthcare system in past year (pop aged 18+) - Inpatient care	Rather at least one contact?	7	4.36	5	7	0
EQ 2021	Transversal analyses: Regular contacts with dentist (pop aged 18+)		8	4.36	6	8	0
Expert proposal	Transversal analyses: Regular preventive contacts with dentist, including children		9				
EQ 2021	Transversal analyses: Breast cancer screening (% women aged 50-69)	Also perform the analysis on other screening (colorectal and cervix)		4.09	6	9	0
EQ 2021	Transversal analyses: Number of contacts or at least one contact in the healthcare system in past year (pop aged 18+) - Day care			3.82	3	7	1
EQ 2021	Transversal analyses: At least one contact in the healthcare system in past year (% pop aged 18+) - ER			3.73	1	6	3
EQ 2021	Transversal analyses: Coverage of global medical record (pop aged 18+)			3.64	3	6	2
EQ 2021	Transversal analyses: Number of contacts in the healthcare system in past year (pop aged 18+) - ER			3.36	0	5	1
EQ 2021	Transversal analyses: Influenza vaccination (% pop aged 65+)			3.27	3	6	0
EQ-1	Income distribution in population (GINI coefficient)			3.27	0	4	3
EQ 2021	Transversal analyses: At least one contact in the healthcare system in past year (% pop aged 18+) - Inpatient care			2.45	0	4	0
EQ 2021	Transversal analyses: Number of contacts in the healthcare system in past year (pop aged 18+) - Day care			2.45	0	4	1
EQ 2021	Transversal analyses: Individuals using 5 or more medicines of >80 DDD (Defined Daily Dose) per year.	Attention => multifactorial: age, gender, socio-economic level		2.27	2	6	0



EQ-3	Share of regressive receipts in healthcare financing (Ratio regressive receipts / total receipts expressed as a %) (latest year available 2017)		1.82	0	2	2
EQ-2/3	Redistributive effect of public health insurance (latest year available 2017)		1.82	0	2	1
EQ 2021	Transversal analyses: Use of antidepressants (pop aged 18+)		1.55	1	6	0
EQ 2021	Transversal analyses: At least one contact in the healthcare system in past year (% pop aged 18+) - Day care		1.36	0	3	0
EQ-2	Share of progressive receipts in healthcare financing (Ratio progressive receipts / total receipts, expressed as a %) (latest year available 2017)		1	0	1	1
EQ 2021	Transversal analyses: Breast cancer screening - organised programme (women aged 50-69)		0.91	0	2	0
Expert proposal	A cross-sectional analysis for outpatient contacts in mental health (e.g. contact with a psychologist)? Perhaps too early to have data	Too early. Proposal: an indicator on the number of psychologists with RIZIV number (i.e. allowing a reimbursement) in the domain "mental healthcare"	0.36	0	1	0
Expert proposal	Indicator on digital divide	-	0.36	0	1	0
EQ 2021	Transversal analyses: Use of antibiotics at least once in the year (pop aged 18+)	-	7.45	0	0	0
Expert proposal	Mention of the Zorgnet-Icuro report on fair choices in healthcare (https://www.zorgnet-icuro.be/sites/default/files/2016%20Ethisch%20advies%2019%20def_0.pdf) but without proposal of indicators.	-	0	0	0	0



Appendix 4.3.3. Financial access (11 experts – 8 indicators selected after discussions)

ID (2019)	Name	Remarks	Selected	Ranking	Average	Median	N	N Top 3
A-4	Self-reported unmet needs for medical examination due to financial reasons in Belgium (% of individuals included in the survey) (EU-SILC) + HIS: Percentage of the households that had to postpone medical care because of financial reasons as subindicator	It would be interesting to have more details on the type of costs involved.	1	1	8.55	9	11	9
A-4	Self-reported unmet needs for dental examination due to financial reasons in Belgium (% of individuals included in the survey)	+ HIS as sub-analysis	2	2	5.91	8	10	6
A-2	Out-of-pocket payments (% of current expenditures on health)	+ sub-indicators: Private health insurance coverage (% on total health spending); %OOP per function (Inpatient care, outpatient medical care, dental care) + amount of co-payments (available?) + Healthcare coverage for selected goods and services. Caution point: Accessibility to private insurance is linked to the professional status and is a sign that the healthcare system has gaps --> development of two-tier medicine	3	3	5.09	5	10	4
EQ-5	Proportion of households facing catastrophic out-of-pocket payments		4	4	5.09	6	10	1
A-10	Out-of-pocket medical spending (% of final household consumption)	Based on the household budget survey => mention the limitations	5	5	5	4	10	2
EQ-4	Proportion of households facing (further) impoverishing out-of-pocket payments	Sub-indicator of A-4		6	4.36	6	8	1



A-1	Coverage by the compulsory health insurance (% of the population)	Include data on vulnerable population (homeless people, migrants, etc.)	6	7	4.18	1	7	4
A-14	Percentage of the billed fee supplements to the billed official health insurance fees	A similar indicator would be needed for outpatient activity but requires prior mandatory registration of supplements and non-reimbursable services => such registration should be recommended (there is an opportunity with the digitisation) => In the nice to have + mention the study of Solidaritas on supplements in ambulatory care based on 2016-2017 available data. Indicator A14 concerns only fee supplements. For an accessibility indicator, the total out-of-pocket payment (co-payments + non-reimbursable + supplements) should be taken into account => changed by "OOPs in hospital", with the supplements as sub-indicator.	7	8	3.09	3	8	0
A-12	Access to agreed tariffs: conventioned practising GPs in FTEs (per 10 000 population)	- Why only GPs and not all physicians? - I would suggest to move this to the section on availability - It would be better to have an indicator based on activity	8	9	2.91	3	7	1
NEW	Out-of-pocket payments as percentage of GDP			10	2.55	0	5	2
NEW	Percentage of the households that find it hard to cover their health expenses Belgium (HIS) (+/- every 5 years => for the next report, based on 2018 data + updated later on the website)	-		11	2.55	0	5	2



A-13	Access to agreed tariffs: conventioned practising dentists in FTEs (per 10 000 population) Or Access to agreed tariffs: contacts conventioned practising dentists (per 10 000 population) + nb in availability	I would suggest to shift this to the section on availability Est-ce que le nombre d'ETP reflète suffisamment l'activité / accessibilité réelle ? => privilégier un indicateur basé sur l'activité plutôt que sur les ETP (cf. rapport IMA - indicateur à adapter) ?	12	2.45	2	7	0
A-11	Out-of-pocket payments for dental care (% of current expenditure on dental care)	Sub-analysis of A-2	13	1.27	0	4	0
A-3	Out-of-pocket payments per capita (in US \$ PPP)	Rather in euros, US \$ PPP is only interesting for comparisons with countries outside Europe.	14	1.09	0	2	1
NEW	Informal payments to doctors	Non reliable indicator. The question is confusing, e.g. with allowed supplements ("QB 2 - Apart from official fees, did you have to give an extra payment or a valuable gift to a nurse or a doctor, or make a donation to the hospital?")	15	0.45	0	2	0
Expert proposal	Percentage of people who are in debt for their healthcare		16	0	0	0	0

Indicators in green were selected by one patient association without ranking (=> opinion not included in the score and only highlighted)



Appendix 4.3.4. Health literacy (11 experts – 2 indicators selected after discussions)

ID	Name	Remarks	Selected	Ranking	Average	Median	N	N top 3
NEW	Rate of respondents with excellent and sufficient health literacy (HIS)	Speak about the limitations (question in the HIS maybe not sensitive enough)	1	1	3.91	4	11	11
Expert proposal	Indicators on digital skills (digital health literacy - digital divide)		2					
NEW	Physician providing easy-to-understand explanation (% of respondents, contact with GP/SP) - (HIS)	Results are very good for this question (97.5% find the explanation sufficiently clear), which contrast with the indicator on the rate of respondents with excellent and sufficient health literacy		2	2.55	3	9	9
Expert proposal	Knowledge of the health and social security system: for example: difference between social contribution and complementary contribution, knowledge of rights (BIM status, chronically ill, ...), knowledge concerning tariffs (difference between co-payment and supplement)... Some reimbursements involve a higher health literacy: knowing about these gives access to them, while other patients don't benefit from this reimbursement.	No data. To integrate in the questionnaire of the HIS?						
Expert proposal	At a later stage, the results of the PaRIS-OECD study - 1st line (general practitioners) for patients with chronic disease could be used?							
Expert proposal	Internet use (e.g. the percentage of people seeking health-related information online)							
Expert proposal	Proportion of individuals with low HL levels	Sub-analyses of the first indicator						
Expert proposal	Rate of older adults with excellent and sufficient health literacy (HiS)	Sub-analyses of the first indicator						



Expert proposal	Proportion of older adults with low HL levels	Sub-analyses of the first indicator
Expert proposal	Time per consultation (more time = better explanation)	

Indicators in green were selected by one patient association without ranking (=> opinion not included in the score and only highlighted)

Appendix 4.3.5. Workforce availability and distribution (11 experts – 3 indicators selected after discussions)

ID (2019)	Name	Remarks	Selected	Ranking	Average	Median	N	N Top 3
A-5	Practising physicians (/1000 population)	- Results in full-time-equivalent (FTE) are more indicative than the number (an increase number of physicians works part-time) - Sub-analyses per specialty are important - Sub-analyses on practising physicians that acceded to the agreement on tariffs (conventioned physicians) - Sub-analysis on geographical distribution (per district)	1	1	5.64	6	11	11
A-6	Practising nurses (/1000 population)	- Results in full-time-equivalent (FTE) are more indicative than the number (an increase number of physicians works part-time) - Sub-analyses per sector of activity (in hospitals, home care, etc.) - Sub-analyses on practising physicians that acceded to the agreement on tariffs (conventioned physicians) - Sub-analysis on geographical distribution (per district)	2	2	4.18	5	9	9
NEW	Practising dentists (/1000 population)		3	5	2.09	2	8	3
NEW	Practising caring personnel (personal care workers) (/1000 population)	Only 2018 data available for Belgium (=> not kept)		3	2.36	3	7	4
A-7	Number of nurse vacancies	Rather and indicator of "sustainability" (moved)		4	2.18	3	7	3



A-8	Patient-to-nurse ratio (latest year available = 2019)	Rather an indicator on quality?	6	1.73	2	6	2
NEW	Practising pharmacists (/1000 population)		7	0.73	0	3	1
NEW	Practising physiotherapist (/1000 population)		8	0.45	0	3	0
NEW	Practising midwives (/1000 population)		9	0.36	0	2	0
NEW	Nurses to physician ratio	Not clear how this could relate to access?	10	0.18	0	1	0
Expert proposal	Practising nurses in home care (/1000 pop)	Sub-indicator of A-6	11	0.18	0	1	0

Indicators in green were selected by one patient association without ranking (=> opinion not included in the score and only highlighted)



Appendix 4.3.6. Health services distribution (12 experts – 4 indicators selected after discussions)

ID (2019)	Name	Remarks	Selected	Ranking	Average	Median	N	N top 3
NEW	Unmet need for medical examination due to geographic (too far for travel) or waiting time reasons (EU-SILC)	+ HIS as sub-indicator?	1	1	5.92	6	12	7
NEW	Percentage of the population who experienced delay in getting healthcare because the time to get an appointment was too long (HIS: +/- every 5 years => for the next report, based on 2018 data + updated later on the website)	=> Selected as sub-indicator of EU-SILC		2	4.83	6.5	9	7
NEW	Unmet need for dental examination due to geographic (too far for travel) or waiting time reasons (EU-SILC)		2	3	4.42	4.5	11	4
A-9	Waiting time of more than two weeks to get an appointment with a specialist (% of population asking an appointment) (HIS: +/- every 5 years => for the next report, based on 2018 data + updated later on the website)	+ add an indicator on GP (see below)	3	4	4.33	5.5	9	6
Expert proposal	Waiting time of one day or more to get an appointment with a GP (% of population asking an appointment in past year) (HIS) Sub-indicator: Percentage of population that experienced the waiting time to get appointment with GP as a problem (HIS)		4					
NEW	Waiting times for specific health services (no data)	=> Nice to have but no data Also interesting (but not available): waiting times for a physician that acceded to the agreement on tariffs (conventioned physicians)		5	3.33	2	6	4
NEW	Number of hospital beds per 1 000 population (with sub-analyses on the type of beds)	Available on healthybelgium ("key data in healthcare")		6	3.25	3.5	9	2



NEW	Percentage of the population who experienced delay in getting healthcare due to distance or transport problems (HIS: +/- every 5 years => for the next report, based on 2018 data + updated later on the website)	=> Selected as sub-indicator of EU-SILC	7	3	2.5	8	4
NEW	Numbers of people awaiting donor organs	More interesting to have the number of deaths among people on a waiting list (=> Nice to have)	8	2.33	1	6	2
NEW	Number of medical technologies unit per 1000 population (NMR, CT, MRI)	Available on healthybelgium ("key data in healthcare" and "HIT") and Sub-indicator of QA-6	9	2.08	2	9	1
A-16	Geographical access: Percentage of women aged 15-49 years old living within 30 minutes of the nearest maternity service (only one year available: 2019)	No recent data => sub-indicator of "unmet need". (Too time consuming to be calculated for the performance report only, should be calculated on a regular basis by an institution) => Would be useful to complement with other indicators of geographical accessibility (including accessibility in x minutes to conventioned physicians / dentists) => 'Nice to have'	10	0.67	0	3	0
NEW	Hemodialysis equipment per 1000 population		11	0.67	0	3	0
Expert proposal	Need for more data on accessibility to mental healthcare or to care for people with a high dependency level (e.g. access to reception facilities)	=> 'Nice to have'	12	0.33	0	1	0
NEW	Number of community pharmacies per 1000 population		13	0.17	0	1	0
Expert proposal	Access to abortion	Could be included in "mother and new born" if data (and if this domain is updated)		0	0	0	0
Expert proposal	Number of GP or medical houses that does not accept new patients	No data (but pilot project in Flanders) => "Nice to have"		0	0	0	0



Appendix 4.4. Correspondence between old and new numbering of indicators

Old indicators (2019 HSPA report)	New indicators
A-1 Coverage by the compulsory health insurance (% of the population)	A-1 Coverage by the compulsory health insurance (% of the population)
A-2 Out-of-pocket payments (% of current expenditures on health)	A-2 Out-of-pocket payments (% of current expenditures on health)
A-10 Out-of-pocket medical spending (% of final household consumption)	A3 Out-of-pocket medical spending (% of final household consumption)
EQ-5 Proportion of households facing catastrophic out-of-pocket payments (+ sub-indicator: Proportion of households facing (further) impoverishing out-of-pocket payments)	A-4 Proportion of households facing catastrophic out-of-pocket payments (+ sub-indicator: Proportion of households facing (further) impoverishing out-of-pocket payments)
EQ-4 Proportion of households facing (further) impoverishing out-of-pocket payments)	Sub-indicator of A-4
A-14 Percentage of the billed fee supplements to the billed official health insurance fees	A-5 Out-of-pocket payments for hospital stays, including billed fee supplements
A-4 Self-reported unmet needs for medical examination due to financial reasons in Belgium (% of individuals included in the survey)	A-6 Self-reported unmet needs for medical examination due to financial reasons in Belgium (% of individuals included in the survey)
A-4 Self-reported unmet needs for dental examination due to financial reasons in Belgium (% of individuals included in the survey)	A-7 Self-reported unmet needs for dental examination due to financial reasons in Belgium (% of individuals included in the survey)
	A-8 Share of physician activity done by « conventioned physicians » (i.e. physicians acceding to the agreement on national tariffs)
	A-9 Share of dentist activity done by « conventioned dentists » (i.e. dentists acceding to the agreement on national tariffs)
A-3 Out-of-pocket payments per capita (in US \$ PPP)	Not kept
A-11 Out-of-pocket payments for dental care (% of current expenditure on dental care)	Sub-indicator of A-2
A-12 Access to agreed tariffs: conventioned practising GPs in FTEs (per 10 000 population)	Moved in workforce availability and distribution (sub-indicator of A-10)
A-13 Access to agreed tariffs: conventioned practising dentists in FTEs (per 10 000 population)	Moved in workforce availability and distribution (sub-indicator of A-12)
A-5 Practising physicians (/1000 population)	A-10 Practising physicians (/1000 population)
A-6 Practising nurses (/1000 population)	A-11 Practising nurses (/1000 population) +(A8 patient to nurse ratio - not updated)
	A-12 Practising dentists (/1000 population)



A-7 Number of nurse vacancies	Moved in sustainability
A-8 Patient-to-nurse ratio (latest year available = 2019)	Sub-indicator of A-11
	A-13 Unmet need for medical examination due to geographic (too far for travel) or waiting time reasons (EU-SILC)
	A-14 Unmet need for dental examination due to geographic (too far for travel) or waiting time reasons (EU-SILC)
A-9 Waiting time of more than two weeks to get an appointment with a specialist (% of population asking an appointment)	A-15 Waiting time of more than two weeks to get an appointment with a specialist (% of population asking an appointment)
	A-16 Waiting time of one day or more to get an appointment with a GP (% of population asking an appointment in past year)
A-16 Geographical access: Percentage of women aged 15-49 years old living within 30 minutes of the nearest maternity service (only one year available: 2019)	Sub-indicator of A-13
	A-17 Number of deaths among people on waiting lists for organs



APPENDIX 5. REVIEW OF PEOPLE CENTRED CARE

Appendix 5.1. List of experts

People-centred care: Frédéric Bielen (BSM), Luk Bruyneel (Mutualités Libres – Onafhankelijke Ziekenfondsen), Sophie Ces (Alliance Nationale des Mutualités Chrétiennes), Jan De Maeseneer (Ghent University Hospital), Thomas Deloffer (VPP), Sophie Gerken (KCE), Geert Goderis (KULeuven), Philippe Lejeune (Santhea), Charline Maertens de Noordhout (KCE), Aline Scohy (Sciensano), Amélie Van Vyve (Sciensano), Quentin Schoonvaere (PAQS), Annemie Vlayen (FOD VVVL-SPF SP), Harun Yaras (FOD VVVL-SPF SP)

Appendix 5.2. Miro board

Needs	Health objectives	Structure	Dimension/outputs	Process	Outcome	Non medical determinants	Other
Acute care - getting better	Improving health care	Governance-stewardship - accountability	Quality	Timelines	Satisfaction (all actors)	Behavioral factors	Key data in health care
Care for older people	Improving equity	Health workforce	Accessibility	Continuity of care	Responsiveness (velocity of the system,...)	Psychological factors	Health system performance assessment
Health promotion	Improving end of life care	Financial	Person-centredness/empowerment	Coordination of care	Health status	Biological factors	HiT
Prevention-staying healthy	Improving health status	Health information	Costs	Efficacy		Material factors	Medical practice variation
Palliative care - coping with end of life	Improving health care for older people	Health services	Sustainability	Appropriateness		Environmental factors	Post-crisis evaluation (outbreak, attack,...)



Mental health care	Added-value/efficiency	Health technologies	Resilience	Demographic (health expectancy,...)	Health status report
Mother and new born	Expansion of mental health care	Health literacy	Equity	Cultural context	
Chronic care - living with illness	Renewal of funding and organisational models		Efficiency	Political context	
	Health professional well-being			Economic context	
	Organisation of home care for older people				
	Development of new health technologies (telemonitoring, etc)				
	Sufficient supply of quality health staff				
	System preparedness (outbreak, attack, climatic change,...)				
	Development of integrated care				
	Extension of social protection				
	Improving patient-centredness				



Appendix 5.3. Longlist of indicators related to people-centred care

Label
Availability of layman-adapted pharmacopoeia
Average percentage of positive experience in maternity, C/D bed or daycare
Carers reporting they felt involved in designing the care and support plan for the people that they care for (%)
Disease-specific patient-reported outcomes on treatment and disease progression
Doctor or health care professional discussed patient's main goals or priorities in caring for condition (base: has chronic condition)
Doctor routinely receives and reviews data on patient satisfaction and experiences with care
Doctors report time spent on administrative issues related to insurance or claims is a major problem
Frequency of care provided by informal carers
Generic patient-reported outcomes (e.g. EQ-5D, EQ VAS)
GP practices using the primary care patient experience survey
Health care professional providing easy-to-understand explanations (%)
Health care professional spending enough time with a service user during consultation (%)
Health care professionals involving service users in decisions about care and treatment (%)
Health worker absenteeism
Health workers job satisfaction
Healthcare law based on Patients' Rights
Health-related quality of life for carers
Knee replacement: Adjusted mean change between pre- and post-operative Oxford Knee Score, KOOS-PS, EQ-5D
No-fault malpractice insurance
Number/ proportion of people with certain chronic diseases who remain home and receive care in the community (prevent hospitalisations, reduce ALOS, improve wellbeing)
Patient experience of care
Patient experience with ambulatory care
Patient experience with ambulatory care: Doctor always listens, explains, shows respect, and spends enough time
Patient experience with ambulatory care: Doctor giving opportunity to ask questions or raise concerns,
Patient experience with ambulatory care: Doctor involving patient in decisions about care and treatment



Patient experience with ambulatory care: Doctor providing easy-to-understand explanations
Patient experience with inpatient care
Patient involvement in decisions about their care
Patient organisation involvement
Patient reported outcome after an intervention/treatment
Patient reported outcomes after treatment
Patient spent a lot of time on paperwork or disputes related to medical bills
Patients being able to choose providers in: primary, specialist, or hospital care (composite score 1 to 3)
Patients having a formal participation role in health policy (composite score 1 to 3)
Patients with a localised prostate cancer receiving no treatment around diagnosis date (%)
Patients with localised testicular cancer (seminoma) receiving adjuvant treatment after surgery (%)
People-reported quality of care (GP, family doctor or health centre services)
People-reported quality of care (hospital and specialist services)
Percentage of adults with intensive needs receiving care at home
Percentage of complaints investigated within 30 working days of being acknowledged by the complaints officer
Percentage of non-English speaking service users reporting having had access to translators or any other specific need (e.g. large text booklets)
Percentage of people, 16 years or older, who said, their primary care provider reviewed their prescription medication(s) with them in the past year
Percentage of service users reporting having had the opportunity to ask questions or raise concerns to their healthcare professionals
Percentages of informal carers reporting problems with their own social participation as a result of their care provision
Percentages of patients perceiving problems with planning and co-ordination of health care
Percentages of professional care providers expressing satisfaction with the quality of care delivered by their organisation
Percentages of professional care providers rating the quality of care delivered within their own unit or team as inadequate
Percentages of professional care providers reporting that sufficient staff and qualified staff is available to ensure good-quality care
Physician giving opportunity to ask questions or raise concerns (% of respondents, contact with GP/SP)
Physician involving patients in decisions about care and/or treatments (% of respondents, contact with GP/SP)
Physician providing easy-to-understand explanation (% of respondents, contact with GP/SP)
Population aged 15 and over receiving health services in the past 12 months who rate their level of satisfaction with those services as either "very satisfied" or "somewhat satisfied"



Population reporting to be informal carers

Primary care practices that routinely provide written instructions to patients with chronic diseases

Proportion of general hospitals measuring PREMs after a stay in C or D bed (%)

Proportion of GPs who are developing patient care plans collaboratively with patients and/or families

Proportion of patient involved in developing their home care plan

Proportion of patients reporting healthcare professional gives them an opportunity to ask questions or raise concerns about recommended treatment

Proportion of patients reporting healthcare professional spends enough time with them (last consultation in primary care: physician, nurse, ...)

Proportion of patients reporting their healthcare professionals involve their family, friends and/or carers as much as they want to be in decisions about their care

Proportion of patients reporting they are most often/always considered as a 'whole person' rather than just a disease/condition in relation to their care

Proportion of patients satisfied from the explanation and information they received from their home care providers

Proportion of patients satisfied from their home care coordination and service providers

Proportion of staff existing within ranges of years since the start of their career

Provider catalogue with quality ranking

Registry of bona fide doctors

Remuneration of doctors (general practitioners and specialists), ratio to average wage

Remuneration of nurses

Right to second opinion

Satisfaction with health care provision

Satisfaction with healthcare services (% good or very good)

Satisfaction with how familiar GPs and Paediatricians are with patients clinical history and follow-up health problems

Satisfaction with inpatient medical care

Satisfaction with outpatient medical care

Satisfaction with the health system

Satisfaction with the information received

Service users reporting they were treated with dignity and respect (%)

Share of individuals using the internet for seeking health information in the previous 3 months

Share of people agreeing that people are treated equally in their area

Staff reporting good/excellent patient safety culture in their service (%)



Staff reporting good/excellent work engagement (%)

Staff who have a satisfactory rating appraisal (annual) (%)

The proportion of doctors involving patients in care/treatment decisions

The proportion of people feeling supported to manage their long-term condition

Use of staff support mechanisms (e.g. helplines)

Waiting time of more than 4 weeks for getting an appointment with a specialist



APPENDIX 6. COMPARISON WITH THE WHO HSPA FRAMEWORK FOR UHC

Table 4 – Comparison of frameworks: Resources generation

HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Workforce					
Availability					
Health worker density at national level	Density of health workers per 10 000 population at national level, by occupation	Yes	Yes	Limited to physicians, nurses, dentists and informal carers: A10; A11; A12; ELD 3; ELD6; MH2, MH12; other not retained by the experts (see review of accessibility)	Key data in healthcare: Limited to (nurses), midwives and speech therapists (see Health Professionals - activity)
Health worker density at sub-national level	Density of health workers per 10 000 population at sub-national level, by occupation	Yes	Yes		
Distribution/mix					
Existence of advanced nursing roles	Existence of advanced nursing roles (Yes/No/Partly)	No (qualitative)	Yes	No data currently available	HiT profile: Yes, development of the role in process - See sections 4.2.2 Trends in the health workforce; 4.2.4 Training of health personnel and 4.2.6 Other health workers' career paths
Specialist surgical workforce	Density of specialist surgical workers, per 100 000 population.	Yes	Yes	Sub-indicator of A10	
Family medicine practitioners	Density of family medicine practitioners per 100 000 population.	Yes	Yes	Sub-indicator of A10	
Health worker distribution by age group	Percentage of active health workers in the given age groups, by occupation (age groups considered are the following: <25, 25–34, 35–44, 45–54, 55–64, ≥ 65 years), by occupation	Yes	Yes	Limited to physicians and nurses: S-7 and S-10	Key data in healthcare: Limited to (nurses), midwives and speech therapists (see Health Professionals - activity)



Female health workforce	Percentage of female health workers in active health workforce, by occupation	Yes	Yes	Limited to physicians, nurses, dentists and informal carers: A10; A11; A12; ELD3; ELD6; MH2	Key data in healthcare: Limited to (nurses), midwives and speech therapists (see Health Professionals - activity)
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HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Education					
Continuing professional development	Existence of national systems for continuing professional development (Yes/ No/Partly).	No (qualitative)	Yes		HiT profile: Yes, See BOX 2.5 Health professionals: quality initiatives and sections 4.2.4 Training of health personnel and 6.2 Future developments
In-service training	Existence of in-service training as an element of national education plans for the health workforce, aligned with the national health plan (Yes/No/Partly)	No (qualitative)	Yes, partially		Seen as a component of continuing education (see above). To be accredited, physician must follow continuing training and participate to peer review session (Glem) = +/- "in-service training".
Additional				Sustainability - Education: S-9 Nursing students following the bachelor route (% of new graduates)	
Additional				Sustainability: S-4 Medical graduates (/100 000 population) S-5 Medical graduates becoming GP (% of those with medical specialisation) S-8 Nursing graduates (/100 000 population)S-14 Foreign-trained physicians (% of those licensed to practice) S-16 Foreign-trained nurse (% of those licensed to practice) S-18 Projection of the number of contacts with GPs (Demand), evolution in % S-19 Projection of the number of GPs active in the healthcare sector (Supply), evolution in % S-22 Projection of the number of nurses active in the healthcare sector (Supply) S-23 Projection (horizon scanning) on the demand for nurses (Demand) S-24 Share of healthcare professionals who consider leaving the profession S-25 Number of nurses vacancies in hospitals S-26 Number of hospital bed closures (as proxy of nurse absenteeism)	



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Infrastructure and medical equipment					
Availability					
Health facility density	Total number of health facilities per 10 000 population Total number of hospitals per 100 000 population	No	Yes	Not retained by the experts (see review of accessibility) - or no data available (for mental care centres, see review of accessibility)	Key data in healthcare: Limited to hospitals - Number only; see "General hospitals - Organisation of the hospital landscape"
Percentage of facilities with amenities – (water, sanitation and hygiene: WASH)	Percentage of facilities with basic amenities that meet criteria of WASH (general readiness)	No	No but expected 100%		
Percentage of facilities with power	Percentage of facilities with power and communications that meet standards (general readiness)	No	No but expected 100%		
Medical equipment density (selection of priority medical equipment of high cost and high complexity)	Selected priority medical equipment density per 1 000 000 population. The following priority medical equipment is recommended: • Magnetic resonance imaging (MRI) • Computerized tomography scanner (CT) • Position emission tomography scanner (PET-CT) • Nuclear medicine • Mammograph • Radiotherapy equipment	Yes	Yes	QA-6, limited to CT scan and MRI	Key data in healthcare: Number of equipment only (MRI, CT, PET, PET-CT); see "General hospitals - Quality - Medical imaging" Medical practice variations: Number of interventions only; see "Cross-system services - PET-Scan" HiT profile: Number of single-photon emission, see section 4.1.2 Medical equipment Medical practice variations: Number of interventions only (on breast imaging); see "Women and pregnancy - Breast - Breast imaging"



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Infrastructure and medical equipment					
Percentage of facilities with electronic health management information systems	Percentage of facilities that have electronic reporting systems and percentage of elements that are digital	No	Yes		HIT profile: Data on hospitals and GPs, see section 4.1.3 Information technology and eHealth
Percentage of facilities using electronic health records	Percentage of facilities using electronic health records	No	Yes		HiT profile: Data on hospitals and GPs, see section 4.1.3 Information technology & eHealth
	Additional (Health information technologies)			Sustainability - Health technologies and infrastructure: S-27 Percentage of GPs meeting the thresholds for use of eHealth services to qualify for the integrated practice bonus for at least 6 on the 8 eHealth services	
	Additional (Infrastructure)			Sustainability - Health technologies and infrastructure: S-11 Curative care bed-days (number/capita)	
Distribution/mix					
Health facility distribution	Disaggregation by types of healthcare; it is recommended to categorize existing types across primary healthcare, first referral point of care, second referral point of care, etc.; location (district/province/national; rural/urban); public/private sector	Partially	Yes, partially	A-18, Others not retained by the experts (see review of accessibility) - or no data available (for mental health centres, see review of accessibility). For GP, see workforce	Key data in healthcare: Limited to the number of hospitals; see "General hospitals - Organisation" and the number of mental health networks ("see "mental healthcare") Optional indicators: Mental health centres distribution + Future number of residential care beds according to various policy scenarios vs Projected need for residential care for older people
Hospital bed density and distribution	Total number of hospital beds per 10 000 population Disaggregated by: type/ward; public/private sector; location (district/province; rural/urban)	No	Yes	Not retained by the experts (see review of accessibility) In the list of optional indicators in sustainability.	Key data in healthcare: Data on beds and on hospital stays: (1) General hospitals - Organisation of the hospital landscape - Categorisation of hospital activities - Evolution of the number of accredited hospital beds and (2) General hospitals - Care activity within general hospitals - Hospital stays Optional indicator: Future number of hospital beds according to various policy scenarios (supply side) vs Projected required number of hospital beds (demand side)
Medical equipment distribution (high cost and high complexity)	Disaggregation by public/private sector; location (e.g. urban/rural, across regions); type of healthcare	Yes	Yes	QA-6 (limited to X-ray, CT scan, MRI units);	



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Maintenance					
Building and grounds maintenance: Percentage of facilities with evidence of systems for maintenance and repair for buildings and grounds	Indicative questions conducted through a health facility assessment • Does this facility follow a routine maintenance schedule for any vehicles? • Is preventive and corrective maintenance ever carried out for any of the systems such as electrical, water sanitation, sewerage or ventilation? • Does this facility follow routine maintenance for any of the equipment related to infrastructure?	No	No	No data and very partial description	HiT profile: limited description in sections 4.1.1 Infrastructure, capital stock and investments and 2.7.2 Regulation and governance of provision Optional indicator: age of hospital infrastructure
Maintenance and repair systems for medical equipment: Percentage of facilities with evidence of systems for maintenance and repair for medical equipment	Indicative questions conducted through a health facility assessment: • Is there a schedule for inspection, testing and preventive maintenance for any medical equipment as guided by the manufacturer's recommendations? • Is there a contract for maintenance and/or repair for any laboratory machines?	No	No	No data and very partial description	HiT profile: limited description in 4.1.1 Infrastructure, capital stock and investments Optional indicator: age of some heavy medical equipment



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Pharmaceuticals					
Availability					
Unexpired essential medicines in medicine outlets are available	According to WHO / Health Action International (HAI) “the availability of individual medicines is reported as the percentage (%) of medicine outlets in which the (unexpired) medicine was found on the day of data collection” (WHO, 2008).	No	No	No data available for Belgium in the WHO/HAI surveys	
Percentage of medicine outlets in which the medicine was found on the day of data collection	These data are collected regularly through the WHO/HAI surveys. The medicines to be counted would be identified through the national list of essential medicines. If such a list does not exist, the WHO essential medicines list (publicly available) could be used.	No	No	No data available for Belgium in the WHO/HAI surveys	
Additional (unavailable health products)				Sustainability - Health technologies and infrastructure: S-28 Number of notifications of temporarily unavailable packs of medicines for human use with a critical impact	
Distribution/mix					
Percentage of treatment sites that received all orders in full and on time during a defined period	Calculation of the indicator: • Numerator: Number of health facilities that received all orders for essential medicines / tracer items in full and on time during a defined period • Denominator: Total number of health facilities that received orders for essential medicines / tracer during the same period	No	No	No Belgian data	
Percentage of households more than 5/10/20 km from a health facility/pharmacy that is expected to dispense essential medicines	This indicator is measured as the percentage of households against public facilities and also against private facilities.	No	Partially	Density of community pharmacies not retained by the experts (see review of accessibility)	HiT profile: Limited to data on the density of community pharmacies; see 2.7.4 Regulation and governance of pharmaceuticals - Distribution



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK		
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA Other
Governance of resource generation				
Setting quality standards				
Existence of national and/or sub-national mechanisms for accreditation of health workforce education and training institutions and their programmes (Yes/No/Partly)	The following questions should guide a response to this indicator: 1. Have national and/or sub-national mechanisms for accreditation of health workforce education and training institutions and their programmes been established? 2. Are national and/or sub-national mechanisms for accreditation of health workforce education and training institutions and their programmes compulsory? 3. Are there national and/or sub-national mechanisms for accreditation of health workforce education and training institutions and their programmes that are not compulsory? 4. If established, do national and/or sub-national mechanisms for accreditation of health workforce education and training institutions and their programmes take into account national education plans for the health workforce?	No (qualitative)	Yes	HiT profile: Yes, partially described in BOX 2.5 Health professionals: quality initiatives and in sections 4.2.1. Planning and registration of human resources and 4.2.4 Training of health personnel (accreditation of physicians not compulsory but promoted by financial incentives)
Standard on the duration and content of health workforce education and training	Existence of national and/or sub-national standard on the duration and content of health workforce education and training, by health workforce education and training programme. The following questions should guide a response to this indicator: 1. Are entry requirements to health workforce education and training programmes established concerning age, previous studies, previously acquired competence by study and past professional experience? 2. Are the total number of hours to be spent on health workforce education and training established? 3. Is there a list of knowledge, skills and competencies to be acquired during health workforce education and training?	No (qualitative)	Yes	HiT profile: Yes, partial description in 4.2.4 Training of health personnel



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK		
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA Other
Existence of a medical device nomenclature system				
Existence, comprehensiveness, and flexibility of pharmaceutical policy, legislation and regulation. This includes the functioning and political backing of the drug regulatory authority and the transparency of decisions for stakeholders.	The following questions should guide a response to this indicator: 1. Existence of a National Medicine Policy that sets objectives and strategies for the pharmaceutical sector based on priority health problems 2. Existence of a functioning National Drug Regulatory Authority responsible for the promulgation and enforcement of regulations 3. Existence of a National Quality Control Laboratory 4. Existence of a functioning system for pharmaceutical registration and monitoring 5. Existence of an officially defined protocol for ensuring the quality of medicines	No (qualitative)	Yes	HiT profile: yes, partial description in sections 2.4.3. Regulation of services and goods - Regulation of medical devices and aids and 2.4.4. Regulation and governance of pharmaceuticals. Currently not based on priority health problems (Desirable information: definition of health priorities)
Resource planning				
Existence of mechanisms and models for health workforce planning (Yes/No/Partly)	The following questions should guide a response to this indicator: 1. Are clear and explicit health workforce planning objectives set up in the national health policy? 2. Is there a coordinated communication and information flow among national-level intersectoral stakeholders? 3. Is there a dedicated and established Human Resources for Health Planning Committee, a designated entity or a specific group at the national level responsible for the health workforce? 4. Is there a methodology established for health workforce planning? 5. Are complete data with full coverage of the population available in a sustainable manner to provide quantitative assessment required for health workforce planning? 6. Are policy actions based on the recommendations of the health workforce Planning Committee implemented?	No (qualitative)	Yes	Some descriptions in the technical sheets of S-19 and S-22, including limitations HiT profile: yes, partial description in section 2.4 Planning



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on HealthyBelgium.be: Belgian HSPA	Other
Existence of a medical device nomenclature system					
Existence, comprehensiveness, and flexibility of pharmaceutical policy, legislation and regulation. This includes the functioning and political backing of the drug regulatory authority and the transparency of decisions for stakeholders.	The following questions should guide a response to this indicator: 1. Existence of a National Medicine Policy that sets objectives and strategies for the pharmaceutical sector based on priority health problems; 2. Existence of a functioning National Drug Regulatory Authority responsible for the promulgation and enforcement of regulations; 3. Existence of a National Quality Control Laboratory; 4. Existence of a functioning system for pharmaceutical registration and monitoring; 5. Existence of an officially defined protocol for ensuring the quality of medicines	No (qualitative)	Yes		HiT profile: yes, partial description in sections 2.4.3. Regulation of services and goods - Regulation of medical devices and aids and 2.4.4. Regulation and governance of pharmaceuticals. Currently not based on priority health problems (Desirable information: definition of health priorities)
Resource planning					
Existence of mechanisms and models for health workforce planning (Yes/No/Partly)	The following questions should guide a response to this indicator: 1. Are clear and explicit health workforce planning objectives set up in the national health policy?; 2. Is there a coordinated communication and information flow among national-level intersectoral stakeholders?; 3. Is there a dedicated and established Human Resources for Health Planning Committee, a designated entity or a specific group at the national level responsible for the health workforce?; 4. Is there a methodology established for health workforce planning?; 5. Are complete data with full coverage of the population available in a sustainable manner to provide quantitative assessment required for health workforce planning?; 6. Are policy actions based on the recommendations of the health workforce Planning Committee implemented?	No (qualitative)	Yes	Some descriptions in the technical sheets of S-19 and S-22, including limitations	HiT profile: yes, partial description in section 2.4 Planning
Existence of an eHealth strategy or policy		No (qualitative)	Yes		HiT profile: yes, partial description in sections 4.1.3 Information technology and eHealth and 6.1.3 Healthcare efficiency
Existence of health technology (medical device) policy		No (qualitative)	Yes		HiT profile: yes, description in section 2.4.3. Regulation of services and goods - HTA
Existence of lists of approved medical devices for public procurement or reimbursement		No (qualitative)	Yes		HiT profile: yes, partial description in 2.7.4 Regulation and governance of pharmaceuticals
Existence of List of National Essential Medicines		No (qualitative)	Yes, partially		HiT profile: yes, partial description in 2.7.4 Regulation and governance of pharmaceuticals (essential medicines = category A)



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK		
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA Other
Assessing quality standards				
Existence of a health workforce unit in the Ministry of Health responsible for developing and monitoring policies and plans on health workforce (Yes/No/Partly)	The following questions should guide a response to this indicator: 1. Are there functions to monitor health workforce policies and plans as part of the monitoring of health services development? 2. Are there institutional mechanisms in place to coordinate an intersectoral health workforce agenda, including negotiations and intersectoral relationships with relevant other line ministries, government agencies and stakeholders?	No (qualitative)	Yes	HiT profile: yes, partial description in section 2.4 Planning. Moreover, a working group on workforce, including multiple experts and stakeholders from various health administration has been created but such information is not described on the Healthybelgium.be website. Such information was not included in the HiT because it was created after its publication but will be introduced in the updates.
Ministry of Health responsibility for health technology policy implementation	Includes one or more of the following: • Existence of a national health technology assessment unit • Existence of national health technology management units • Existence of medical equipment management unit (if possible, disaggregated by: national, regional, hospital level)	No (qualitative)	Yes	HiT profile: yes, description in section 2.4.3. Regulation of services and goods - Health Technology Assessment but no description on medical equipment management unit at regional (not existing) and hospital level
Are pharmaceuticals and other consumables monitored for quality?	The following indicators should guide a response: • Existence of standard procedures for the quality control of health products at initial receipt at the central level • Existence of a system for the collection of data regarding the efficacy, quality and safety of marketed products (post-marketing surveillance) • Product batches of pharmaceuticals that have undergone a quality control process at the initial receipt according to standard procedures (percentage) • Percentage of health facilities that have a procedure in place to report product quality issues	No (rather qualitative)	Yes, partially	HiT profile: yes, partial description in section 2.4.4. Regulation and governance of pharmaceuticals but no data reported (e.g. on the percentage of health facilities that have a procedure in place to report product quality issues)



Table 5 – Comparison of frameworks: Financing

HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Revenue raising					
Sufficient funds					
Current health expenditure (CHE) as a percentage of Gross Domestic Product (GDP)		Yes	Yes	Sub-analyses of S-3	HiT profile: described in section 3.1. Health expenditure
Domestic general government health expenditure (GGHE-D) as a percentage of gross domestic product (GDP)		Yes	Yes	S-20	
Domestic general government health expenditure (GGHE-D) as a percentage of current health expenditure (CHE)		Yes	Yes	S-3	
Domestic general government health expenditure (GGHE-D) as a percentage of general government expenditure (GGE)		No	Yes		
Excessive waiting times		Partially	No	A-13, A-14, A-15, A-16	Relevant indicator requiring data provision: (excessive) waiting times (direct data)
Out-of-pocket (OOP) expenditure as a percentage of current health expenditure (CHE)		Yes	Yes	A-2	HiT profile: section 3.1.
Health expenditure from external sources (EXT) as a percentage of current health expenditure (CHE)		No	No		
Domestic private health expenditure (PVT-D) as a percentage of current health expenditure (CHE)		Yes	Yes	Sub-analyses of S-3	HiT profile: described in section 3.1. Health expenditure
Voluntary health insurance (VHI) Prepayments as a percentage of current health expenditure (CHE)		Yes	Yes	Sub-analyses of S-3	
		Additional (Financial sustainability)		S-21 Projection of public expenditure on reimbursed pharmaceuticals	
Stable funds					
Evolution of indicators mentioned above		Yes	Yes	See above	See above
Equitable revenue raising					
OOP expenditure as a total of health expenditure		Yes		A-2, A-5	HiT profile: described in section 3.1. Health expenditure
OOP expenditure as a total of household consumption		Yes		A-3	
Kakwani indices: a measure of progressivity that can be calculated for each source of financing. The progressivity of the entire financing system can be subsequently established by weighting the progressivity (using the macro-weights) of the finance sources		No	Yes, partially	Not selected by experts (see accessibility - equity chapter)	HiT profile: see section 3.3.2 Collection (box 3.3)



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Pooling resources					
Equitable pooling					
Per person expenditure, by pool (Public expenditure per capita)		Yes		Sub-analyses of S-3	HiT profile: described in section 3.1. Health expenditure
Population coverage, by pool		Yes, partially	Yes, partially	A-1	Relevant indicator requiring data provision: vulnerable population not covered
Ratio of voluntary health insurance coverage as a percentage of the population (1), to voluntary health insurance expressed as a percentage of current health expenditure (2)		Yes, partially	Yes, partially	(1) not kept because of data quality, see appendix 1 of HSPA 2019; (2) Sub-analyses of S-3	HiT profile: described in sections 3.1. Health expenditure and 3.5. Voluntary health insurance Relevant indicator requiring improved data provision: the actual percentage of the population covered by voluntary health insurance (without double counting)
Does your country's strategy for pooling revenues reflect international experience and evidence?	This question focuses on the country's policy, strategy and/or vision regarding pooling arrangements. Information you need to look at: - Available policy statements on fragmentation and how they try to mitigate it - Policy statements on Voluntary Health Insurance	No (qualitative)	Yes, partially		HiT profile: see sections 3.3.3 Pooling and allocation of funds (box 3.4) and 3.5. Voluntary health insurance (no comparison with international experience)
Are multiple revenue sources and funding streams organized in a complementary manner, in support of a common set of benefits?	Look at different revenue sources and fund flows within a health system and how they may or may not complement each other. Promised benefits/entitlements and the way that funds flow to, or from, this is of great importance in analysis of the issues raised by this question.	No (qualitative)	Yes		HiT profile: Limited description in section 3.3.3 Pooling and allocation of funds (box 3.4)



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION			If yes, where on the HealthyBelgium website: Belgian HSPAOther	
		Inclusion in the HSPA framework	Inclusion in the global framework		
Pooling resources					
Administrative efficiency					
Spending on administration, total and by pool		No	No	Optional indicator: administration spending (almost if international comparison possible)	
Purchasing goods and services					
Efficient purchasing					
Payment mechanisms: Descriptive information about how different types of care are paid for					
Information on strategic purchasing	The extent to which health systems are able to choose who to purchase from, what to purchase, and at what price	No (qualitative)	Yes	HiT profile: sections 3.3.4. Purchasing and purchaser–provider relations, 3.4.1. Cost sharing (user charges) and 3.7. Payment mechanisms	
Price data	Data on prices paid for certain services, ideally used for comparison	No (qualitative)	Yes, partially	HiT profile: sections 3.3.4. Purchasing and purchaser–provider relations, 3.4.1. Cost sharing (user charges), and 3.7. Payment mechanisms; some lack of transparency due to supplements or confidential discounts (pharmaceuticals) Relevant data requiring provision: data on supplements and non -reimbursed services; data on discounts for the purchase of pharmaceuticals (e.g. by hospitals)	



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework		Inclusion in the global framework	
				If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Purchasing goods and services					
Efficient purchasing					
Are provider payments harmonized within and across purchasers to ensure coherent incentives for providers?	When multiple payment methods exist across different purchasing agencies (i.e. coverage schemes or health programmes), or within one purchasing agency, these need to be coordinated and harmonized to ensure a coherent set of incentives for providers. Information you might look at: - the payment methods used in different schemes, and then at payment levels/rates - cost-sharing mechanisms (user fees and co-payments) and whether these are harmonized across different schemes and programmes should look into elements of strategic purchasing, contracting, financial incentives	No (qualitative)	Yes		HiT profile: sections 3.3.4. Purchasing and purchaser-provider relations, 3.4.1. Cost sharing (user charges), and 3.7. Payment mechanisms
Do purchasing arrangements promote quality of care?	This question considers whether, or not, purchasers are taking active measures to influence provider behaviour and performance specifically to improve quality of care. The information needed centres on purchasing instruments that specifically promote quality of care, for example: - performance agreements - policies or instruments for selective contracting - better coordination of care through blending or bundling of payment methods, for example, capitated provider networks - specific financial incentives - the existence and use of standardized quality indicators across payers and providers.	No (qualitative)	Yes		HiT profile: section 3.7.1. Paying for health services
Allocation according to need					
To what extent is the payment of providers driven by information on the health needs of the population they serve?	This question is concerned with the way in which funds flow from purchasers to service providers. Information you might look at the type of allocation mechanisms used	No (qualitative)	Yes, partially		HiT profile: see section 3.3.1 Coverage box 3.1



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Governance of financing					
Comprehensive coverage					
Out of pocket spending as a share of current health spending OR as a share of household consumption		Yes	Yes	A-2, A-3	
Catastrophic health spending incidence	The percentage of the population or of households who spend in excess of some share of their ability or capacity to pay on healthcare OOP health service needs for those bearing the greatest burden of ill-health are matched by including essential/catastrophic package and exemptions in co-payment).	Yes	Yes	A-9	
Impoverishing health spending incidence	The percentage of the population or of households whose remaining resources after spending OOP leave them below a poverty line	Yes	Yes	Sub-analyses of A-9	
Co-payment design	Descriptive information on how co-payments and related exemptions are designed in public/statutory health system(s)	No (qualitative)	Yes		HiT profile: 3.4.1. Cost sharing (user charges) HiT profile: 3.4.1. Cost sharing (user charges) and 3.3.1 Coverage
Is there a set of explicitly defined benefits for the entire population?	Being explicit and clear about entitlements, and any related conditions of access, reduces uncertainty for the population. As uncertainty generally constitutes a barrier to accessing services, this is a positive move. Information you might look for includes explicit statements of benefits and entitlements, for example: - A defined list of guaranteed services (either positive or negative lists), or levels of care for example, PHC - a specific set of universal entitlements, that is, for all citizens - services with co-payments and exemptions for certain priority groups	No (qualitative)	Yes		



HSPA FRAMEWORK FOR UHC INDICATIVE MEASURE	DEFINITION	BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
		Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Governance of financing					
Comprehensive coverage					
To what extent are population entitlements and conditions of access defined explicitly and in easy-to-understand terms?	This question focuses on the population's awareness and understanding of its entitlements. For example, what it can access free, or with a limited co-payment, at the point of service. Information you might look at: - explicit statements that are concise and simple, and are widely communicated to the population - any available survey that might capture aspects of this question	No (qualitative)	No		Relevant indicator requiring data collection: An indicator on the knowledge of the health and social security system and on the knowledge of rights (e.g. knowledge of protections measures). But rather qualitative.
		Additional (Accessibility - financial access)		A-6 Self-reported unmet needs for medical examination due to financial reasons (% of individuals included in the survey) A-7 Self-reported unmet needs for dental examination due to financial reasons (% of individuals included in the survey) A-8 Share of physician activity done by « conventioned physicians » (i.e. physicians acceding to the agreement on national tariffs) A-9 Share of dentist activity done by « conventioned dentists » (i.e. dentists acceding to the agreement on national tariffs)	
Quality public financial management					
Indicators from Public Expenditure and Financial Accountability (PEFA) Performance assessment report	For example, the ability to conduct multi-year planning and forecasting	No (qualitative)			PEFA: data seems only available for Brussels HiT profile: section 3.3. Overview of the statutory financing system - update of 17 June 2021 Policy Analysis - A multi-year trajectory for the healthcare budget (analysis)



Table 6 – Comparison of frameworks: Governance

HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA Other	
Policy and vision					
Whether a strategic vision exists in written and traceable form (through documents, directives, regulations, guidelines, etc.)	- Does your country have a national health policy/strategy/plan (NHPSP) ? - Is the NHPSP aimed at moving towards UHC?	No (qualitative)	Not on the website but existing	Strategic vision of both the Federal State and the Federated States are public but are not included in the Healthybelgium.be website (see for example, the "Note de politique Générale Santé Publique 2023" for the Federal state). An important part concern accessibility (and UHC) Health target: Initiatives on the identification of health and healthcare priorities and targets are in process. The definition of indicators is the next step (See also the updates of the HiT profile)	
Whether the strategic vision is of good quality viewed in terms of implementability	Does the NHPSP clearly mention indicators allowing for regular monitoring and evaluation of the sector?	No (qualitative)	Not yet	Desirable information: the definition of health and healthcare priorities and targets (in process)	
Existence of multisectoral collaboration		No (qualitative)	Yes	HiT profile: Yes, in process see section 2.5 Intersectorality	
Quality of multisectoral collaboration	- The number of national policies for health and well-being that address at least two priority determinants of health, and involve at least two sectors, in target populations - The composite index combining four assessed aspects of Health in All Policies in a country: whether a country has (a) favourable conditions for Health in All Policies development; (b) policy implementation; (c) monitoring and evaluation and (d) training and capacity building.	No	No	No data for Belgium	



INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Stakeholder voice					
Whether national health policies, strategies, plans, guidelines, or laws are developed with the broad participation of key stakeholders	• Which stakeholders are involved in national health planning and review processes? • Which mechanisms and dialogue platforms are in place to ensure involvement of key stakeholders in the health decision-making process?	No (qualitative)	Yes, partially		HiT profile: see sections 2.4.3. Regulation of services and goods (Basic benefit package) or 2.1. Organization (description of the National Institute for Health and Disability Insurance + end of the section)
Information and intelligence					
Whether a government is committed to collecting relevant health data for decision-making	• Government's commitment to collect health data via health surveys, birth and death registrations, census, health facility reporting, health system resource tracking, capacity for analysis, synthesis and validation of health data • Does the country have a health sector monitoring and evaluation plan or a documented methodology for monitoring health sector outputs and outcomes? • Does the country have a Health Information System policy and/or strategic plan? This question reflects on the existence of planned activities for strengthening the Health Information System by, for example, ensuring alignment between different data systems • Does the country have a set of core health indicators (updated yearly)?	Yes	Yes	S-31	HiT profile: see section 2.6 Health information systems and 4.1.3 Information technology and eHealth + all the website HealthyBelgium.be (Indicators on health status are for example updated on a regular basis)
Whether decisions are largely data-driven and evidence-based.	• Does the NHPSP clearly mention indicators allowing for regular monitoring and evaluation of the sector?	No (qualitative)	Not yet		Not assessed but it is the aim of the Healthybelgium website. This will yet be improved by the definition of health priorities and health target (in process) Desirable information: the definition of health and healthcare priorities and targets (in process)



HSPA FRAMEWORK FOR UHC		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
INDICATIVE MEASURE	DEFINITION	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA Other	
Legislation and regulation					
The capacity to develop and enforce laws and regulations to govern the behavior of actors towards protecting and improving public health	• Are existing health laws aligned with the government's health policies and plans? • Do national human rights laws prohibit discrimination on the basis of sex, gender identity, disability status, race/ethnicity and sexual orientation in areas such as education, employment and housing?	No (qualitative)	No		Out-of-scope
Ensuring compliance with those rules, laws, and regulations	• to what extent are measures taken to effectively implement and enforce health legislation? • to what extent are executive and judicial actors resourced to implement and enforce health legislation?	No (qualitative)	No		Out-of-scope
		Additional (Sustainability - governance)		S-29 S-30	Citizen satisfaction with the healthcare system Trust in the healthcare system


Table 7 – Comparison of frameworks: service delivery and intermediate objectives

HSPA FRAMEWORK FOR UHC INDICATIVE MEASURE	BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			Other
	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	
Public Health				
Effectiveness				
Preventable mortality (includes road traffic death rate; mortality from selected infectious diseases such as tuberculosis, cholera, malaria, HIV/AIDS, influenza)	Yes		P-13	
Child survival (under 5 years)	No	Yes	Out-of-scope (HSR)	Health Status Report: Mortality - Infant mortality
Child malnutrition prevalence	No	Yes, partially	Out-of-scope (HSR)	Health Status Report: Health determinants - Nutritional habits
Vaccination coverage for different conditions (measles, polio, etc)	Yes		P-1, P-2, P-3, P4, P-12, P-14	
Incidence rates of vaccine-preventable disease	Yes		P-5	
Prevalence of tobacco use	No		Out-of-scope (HSR)	Health Status Report: Determinants of Health - Tobacco use
	Additional (Prevention)		P-6 Breast cancer screening (% women aged 50-69) P-7 Breast cancer screening – organised programme (% women aged 50-69) P-8 Cervix cancer screening (% women aged 25-64) P-9 Colorectal cancer screening (FOBT) (% pop aged 50-75) P-11 Regular contacts with dentist (% pop aged 3+)	
Safety				
Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)	No	No, but expected limited in Belgium		
User experience				
None identified	No	No		
Access				
Prevalence of populations using unsafe or unimproved water sources	No	No, but expected limited in Belgium		
Equity				
Above effectiveness indicators at sub-national level/by population subgroup (e.g. urban-rural, socio-economic status)	Yes	Yes	see sub-analyses of indicators above + the chapter on equity	Health Status Report: Health Inequalities
Efficiency				
None identified	No	No	None identified	



HSPA FRAMEWORK FOR UHC INDICATIVE MEASURE	BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Primary care				
Effectiveness				
Amenable mortality	Yes		QE-8	
Antenatal care: Quality antenatal care (% women who reported having their blood pressure checked and giving a urine and blood sample at any point during pregnancy among those who sought care from skilled providers)	No	No	Not selected in the mother and newborn domain but other indicators on antenatal care were available (see HSPA 2019)	
Infectious disease: People living with HIV receiving ART	No	No	Optional indicator if data routinely available and if selected by experts: People living with HIV receiving ART	
Chronic disease: Proportion of people with diabetes who are undiagnosed (20-79)	No	Yes	No but other indicators on diabetes are available in the quality dimension	Health Status Report: Non-Communicable Diseases - Diabetes
Chronic disease: Proportion of adult population with diabetes on medication whose blood glucose is controlled	No	Yes	No but other indicators on diabetes are available in the quality dimension	
Chronic disease: Hospital admission rate for hypertension / asthma / COPD / diabetes complications (15+) [also: efficiency]	Yes		QE-1, QE-2, QE-10 (rate for hypertension not selected)	
Chronic disease: Diabetes lower extremity amputation rate	No	No	Existing data but not selected. Other indicators on diabetes are available in the quality dimension	
Mental health: Suicide mortality rate	No	Yes	Out-of-scope (HSR)	Health Status Report: Mental Health - Suicidal behaviour
Safety				
Minimum equipment availability (% pieces of essential equipment that are available and functioning at a health facility to provide effective and safe essential health services)	No	No	Data availability?	
Patient reported medical, medication, and lab test errors (% reporting)	No	No	Optional indicator if data routinely available and if selected by experts: Patient reported medical, medication, and lab test errors	
	Additional (Quality - safety) - Rather long term care but such domain is not specified in the WHO HSPA framework for UHC		MH-9 Patients (65+ years old) prescribed antidepressants with anticholinergic effect (%) ELD-7 Fall incident during the last month in home for older people ELD-8 Prevalence of pressure ulcers (grade II-IV) in home for older people ELD-9 Prevalence of MRSA carriage in residential facility (% of residents) ELD-13 Polypharmacy among older people (5 or more drugs of >80 DDD per year) (% of insured population 65+)	



HSPA FRAMEWORK FOR UHC INDICATIVE MEASURE	BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK		
	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA
Primary care			
User experience			
Regular physician explains things in a way that that is easy to understand (HIC) Rated how the provider listened at last outpatient visit as good or better	No	No	In HSPA 2019 but not selected in the next report
	Additional (Quality - people-centredness)		QP-1 Physician spending enough time with patients during the consultation (% of respondents, contact with GP/SP) QP-8 Proportion of patients living with a chronic condition rating last consultation with healthcare professional (physician, nurse...) as good to excellent QP-9 Proportion of patients living with a chronic condition discussing with the healthcare professionals involved in their care what is most important for them in managing their own health and wellbeing QP-10 Proportion of patients living with a chronic condition involved as much as they want to be in decisions about their care QP-11 Proportion of patients living with a chronic condition reporting they have a care plan that takes into account all their health and wellbeing needs QP-12 Proportion of patients living with a chronic condition reporting they always receive useful information at the time they need it to help them manage their health and wellbeing
Access			
Health centre/health post/GP practice density per 100,000 population	Yes		A-10 (sub-analyses)
% persons aged 16+ reporting unmet needs for medical examination or treatment (EU+EEA)	Yes		A-6, A-13
% women reporting barriers in access to care due to distance OR % women who report barriers in care access due to cost of treatment			



HSPA FRAMEWORK FOR UHC INDICATIVE MEASURE	BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK			
	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Primary care				
Access				
		Additional (Quality - accessibility). Some indicators rather concerned long term care (but such domain is not specified in the WHO framework). Moreover, the distinction between primary care and specialized care was not straightforward (e.g.; indicators on all physicians concerned both primary and specialised care)	A-11 Practising nurses (/1000 population) A-12 Practising dentists (/1000 population) MH-12 Number of psychologists registered at RIZIV-INAMI MH-3 Waiting time longer than 1 month for first contact in ambulatory mental health centre (% of pop with contact in ambulatory mental health centre) A-7 Self-reported unmet needs for dental examination due to financial reasons (% of individuals included in the survey) (EU-SILC) A-8 Share of physician activity done by « conventioned physicians » (i.e. physicians acceding to the agreement on national tariffs) A-9 Share of dentist activity done by « conventioned dentists » (i.e. dentists acceding to the agreement on national tariffs) A-4 Proportion of households facing catastrophic out-of-pocket payments A-14 Unmet need for dental examination due to geographic (too far for travel) or waiting time reasons (EU-SILC) A-16 Waiting time of one day or more to get an appointment with a GP (% of population asking an appointment in past year) (HIS on the basis of PE02_2) ELD-1 Long-term care in residential facility (% pop aged 65+) ELD-2 Long-term home nursing care (% pop aged 65+) ELD-3 Informal carers (% of pop aged 15+) ELD-4 Number of long-term care beds in institutions (per 1 000 pop 65+) ELD-5 Low care-dependent people in residential/nursing facility for older people (% of residents)	



INDICATIVE MEASURE	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA
Primary care			
Equity			
Above effectiveness indicators at sub-national level/by population subgroup (e.g. urban-rural, socio-economic status)	Yes		see sub-analyses of indicators above + the chapter on equity
Efficiency			
Hospital admission rate for hypertension / asthma / COPD / diabetes complications (15+)	Yes		QE-1, QE-2, QE-10
	Additional (Quality - efficiency)		E-3 Use of low-cost medication (% of total ambulatory DDDs) E-4 Biosimilar treatments (%)
	Additional (Quality - continuity and appropriateness of care). Some indicators rather concerned long term care (but such domain is not specified in the WHO framework). Moreover, the distinction between primary care and specialized care was not straightforward (e.g.; indicators on all physicians concerned both primary and specialised care)		QA-1 Proportion of people living with diabetes with appropriate follow-up (% of people under insulin) QA-2 Proportion of people living with diabetes with appropriate follow-up (% of people receiving glucose-lowering drugs other than insulin) QA-3 Use of antibiotics (total DDD/1000 pop/day) QA-4 Use of antibiotics at least once in the year (% of population) QA-5 Use of antibiotics of second intention (% total DDD antibiotics) QC-1 Coverage of global medical record (% of people who have a global medical record (GMR) with a general practitioner) QC-2 Usual Provider Continuity index ≥ 0.75 QC-3 GP encounter within 7 days after hospital discharge (% patients 65+) QC-4 Proportion of people living with diabetes (under insulin) with a convention/passport/care trajectory (% of patients) QC-5 Proportion of people living with diabetes (receiving only glucose-lowering drugs, excluding insulin) with a convention/passport/care trajectory (% of patients) QC-7 Number of people with a referral pharmacist (/number of people who should have a referral pharmacist) MH-6 Use of antidepressants (total DDD/1000 pop/day) MH-7 Use of antidepressants (% of adult population, at least once in the year) MH-8 Percentage of patients with short-term duration (< 3 months) of antidepressants treatment (% of pop under antidepressant) ELD-10 Prescription of anticholinergic drugs >80 DDD in older people (% of pop 65+) ELD-11 Prescription of antipsychotics in residential/nursing facility for older people (% of residents 75+) ELD-12 Prescription of antipsychotics outside residential/nursing facility for older people (% of pop 75+) ELD-13 Polypharmacy among older people (5 or more drugs of >80 DDD per year) (% of insured population 65+)



INDICATIVE MEASURE	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA
Specialised care			
Effectiveness			
In-hospital mortality rate within 30 days of hospital admission for acute myocardial infarction / stroke	Yes		QE-5, QE-6
Perioperative mortality rate	Yes		QE-7
	Additional (Quality - effectiveness)		QE-11 Percentage of people with laboratory confirmed pulmonary tuberculosis successfully treated QE-3 Breast cancer 5-year relative survival rate (%) QE-4 Colorectal cancer 5-year relative survival rate (%)
Safety			
Proportion of the population without access to safe, affordable surgery and anaesthesia	No	No	Optional indicator if data routinely available and if selected by experts: Proportion of the population without access to safe, affordable surgery and anaesthesia
	Additional (Quality - safety)		QS-1 Prevalence of healthcare-associated infections (% of patients hospitalised) QS-2 Incidence of hospital-acquired MRSA infections (/1000 hospital stays) QS-7 Proportion of methicillin-resistant Staphylococcus aureus (MRSA) in acute care hospitals (% , median) QS-8 Proportion of Escherichia coli with reduced susceptibility to 3rd or 4th generation cephalosporins (3GC/4GC I/R E. coli) in acute care hospitals (% , median) QS-9 Percentage of health workers thinking staffing levels are appropriate to provide the best care for patients QS-10 Average % positive response of healthcare providers in hospitals for overall perceptions of patient safety
User experience			
Estimated % of seriously injured patients transported by ambulance	No	No	Optional indicator if data routinely available and if selected by experts: Estimated % of seriously injured patients transported by ambulance
	Additional (Quality - people-centredness)		QP-13 Average percentage of positive experience in maternity, C/D bed or day care EOL-4 Death at usual place of residence (home or in residential care) (% of terminal cancer patients who died in the year)



INDICATIVE MEASURE	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Specialised care				
Access				
Proportion of the population without access to surgery	No	No	Not selected by the experts (see the chapter on accessibility).	
Access to radiotherapy services	No	Yes	Not selected by the experts (see the chapter on accessibility)	Medical Practice Variations: Cross-system services - Radiotherapy (data on consumption, including geographical repartition, etc.)
	Additional (Accessibility)		A-10 Practising physicians (/1000 population) (sub-analyses by specialty) MH-2 Practising psychiatrists (/1000 pop) ELD-6 Number of practising geriatricians (per 10 000 population) A-6 Self-reported unmet needs for medical examination due to financial reasons (% of individuals included in the survey) (EU-SILC) A-8 Share of physician activity done by « conventioned physicians » (i.e. physicians acceding to the agreement on national tariffs) A-4 Proportion of households facing catastrophic out-of-pocket payments A-13 Unmet need for medical examination due to geographic (too far for travel) or waiting time reasons (EU-SILC) A-15 Waiting time of more than two weeks to get an appointment with a specialist (% of population asking an appointment in past year) (HIS on the basis of PE02_3) A-17 Number of deaths among people on waiting lists for organs A-18 Percentage of the population living within 20 km of the nearest hospital EOL-1 Patients who received palliative care (% of terminal cancer patients who died in the year)	
Equity				
Above effectiveness indicators at sub-national level/by population subgroup (e.g. urban-rural, socio-economic status)			No data available for QE-5, QE-6	See above
Efficiency				
Hospital admission rate for hypertension / asthma / COPD / diabetes complications (15+)	Yes		QE-1, QE-2, QE-10	



INDICATIVE MEASURE	Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website: Belgian HSPA	Other
Specialised care				
	Additional (Quality - efficiency)		E-1 One-day surgical admissions (% of surgical admissions) E-2 (MN-9) Average length of stay for a normal delivery (days) E-5 Proportion of low-care dialysis (%)	
	Additional (Quality - continuity and appropriateness of care)		QA-6 Spine imaging (X-ray, CT scan, MRI units per 100 000 population) QA-8 (MN-3) Caesarean section rate (per 1 000 live births) QA-9 Patients with localised testicular cancer (seminoma) receiving adjuvant treatment after surgery (%) QC-6 Patients with cancer discussed at the multidisciplinary team meeting (%) MH-4 Rate of involuntary committals in psychiatric hospital wards (/10 000 pop) MH-5 ER visits for social, mental or psychic reason (% of admission in ER in general hospitals) MH-10 Number of hospitalisation days in psychiatric hospital wards (/1000 pop) MH-11 Proportion of readmissions within 30 days in psychiatric hospitals (in the same hospital, %) EOL-2 Patients who died within one week after start of palliative care (% of terminal cancer patients who received palliative care and died in the year) EOL-3 Patients who received chemotherapy in the last 14 days of life (% of terminal cancer patients who died in the year)	



HSPA FRAMEWORK FOR UHC INDICATIVE MEASURE		BELGIAN GLOBAL POPULATION HEALTH FRAMEWORK		
		Inclusion in the HSPA framework	Inclusion in the global framework	If yes, where on the HealthyBelgium website:
Governance of service delivery				
Decision-making authority				
What degree of autonomy does the service delivery entity (facility, district, provider network, region) have to take operational, tactical and strategic decisions?	Operational decision concern day-to-day decisions such as scheduling of health workers, distribution of supplies, scheduling surgeries, etc. These are generally simple, routine decisions. Tactical decisions concern the ability to negotiate contracts, set targets, etc. They are more complex than operational decisions and require a medium-term vision of how to achieve the goals as set out in a policy or strategy. Strategic decisions concern long-term planning, making trade-offs between different long-term priorities, forming alliances, adapting to external changes that affect planning and implementation (for example, competition with other provider networks/hospitals, changes in legislation, demographic trends, environmental concerns)	No (qualitative)	Information included	HiT profile: see section 2.4. Regulation and planning and 2.5 Intersectorality
Service integration				
Existence of national level strategy/ plan/ policy to promote integrated service delivery	Supporting questions: Does strategy set out clearly defined goals, identified measures and responsible bodies to ensure implementation? Are there other mechanisms to facilitate integrated service delivery in place such as identified referral pathways; incentives to promote provider coordination/joint working through for example, the creation of multi-disciplinary teams or provider networks; mechanisms supporting the implementation of shared health records?	No (qualitative)	Yes	HiT profile: see BOX 2.4 Health facilities: quality initiatives, BOX 5.5 Are efforts to improve integration of care working? and sections 4.1.3 Information technology and eHealth, 4.2.1 Planning and registration of human resources, 5.2 Patient pathways, 5.3 Primary care, 5.12 Mental healthcare and 6.1.2 Healthcare quality
Quality assurance mechanisms				
Existence of national approaches for quality assurance of health services	Supporting questions: Does strategy set out clearly defined goals, identified measures and responsible bodies to ensure implementation? Are there other mechanisms to facilitate integrated service delivery in place such as identified referral pathways; incentives to promote provider coordination/joint working through for example, the creation of multi-disciplinary teams or provider networks; mechanisms supporting the implementation of shared health records?	No (qualitative)	Yes	HiT profile: see BOX 2.4 Health facilities: quality initiatives, BOX 5.5 Are efforts to improve integration of care working? and sections 4.1.3 Information technology and eHealth, 4.2.1 Planning and registration of human resources, 5.2 Patient pathways, 5.3 Primary care, 5.12 Mental healthcare and 6.1.2 Healthcare quality



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