DERIVING PRELIMINARY ESTIMATES OF PRIMARY CARE SPENDING UNDER THE SHA 2011 FRAMEWORK
Deriving Preliminary Estimates of Primary Care Spending under the SHA 2011 Framework
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Acknowledgements

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Executive Summary

1. Primary care is a cornerstone of health systems as it typically represents the first point of contact for patients. Strengthening primary care has been identified as an effective policy tool to improve health outcomes and reduce waste by limiting unnecessary hospitalisations and associated costs in hospitals and other parts of the health system. Spending on primary care is therefore a key parameter in the discussion as to whether primary care services are provided efficiently and therefore essential to inform policy development and planning to improve the organisation of primary care delivery.

2. Spending on primary care reflects the financial resources used to pay for the labour and capital inputs required to deliver primary care services. An international harmonised measurement of primary care spending therefore needs to address two issues:
   - agreeing on a precise definition of the activities and the scope of the primary care sector; and
   - mapping this definition into an appropriate accounting framework.

3. In responding to these needs, this document proposes a conceptual approach to estimate primary care spending using the System of Health Accounts 2011 (SHA) framework. It puts forward three options on how to demarcate primary care spending and, based on these options, presents preliminary results for 22 OECD countries. The preferred option by the OECD Secretariat combines several health care functions with health care providers resulting in an estimate of spending on primary care representing roughly 14% of current health spending across OECD countries. The various caveats that exist in operationalising a definition of primary care spending are emphasised. As such, caution should be exercised when analysing any resulting data.

4. The preliminary estimations should be considered as a starting point and what is currently feasible using the current SHA 2011 framework and data submissions. Future work could look into a more granular measure of primary care, analysing in detail the composition of various service/provider combinations, as well as examining the possibility to capture additional dimensions inherent in the overall concept of primary care such as care-coordination or the notion of first contact.
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1. Introduction

5. There is broad consensus that resources allocated to primary care can help improve health system performance. Wider use of primary care services are associated with fewer hospitalisations and visits to emergency departments, lower costs and reduced mortality (Friedberg et al., 2010). Hence, strengthening the primary care sector by, for example, increasing the number of General Practitioners (GPs), the development of team-based approaches to primary care and enhancing the scope of nurses are key elements of many recent health reforms in OECD countries (OECD, forthcoming). Yet, little is known about how much different countries actually spend on primary care and whether spending has increased over time or not. Measuring the financial resources dedicated to primary care is also an important element to assess the allocative efficiency of the health system in a country.

6. A number of factors help explain the absence of comparative measures of primary care spending: in particular, a general lack of agreement on an internationally accepted, precise definition of what activities comprise primary care; the scope of primary care providers; and complexities of mapping any eventual definition into widely available data frameworks. This section discusses some of these challenges and highlights some of the past attempts that informs the ongoing work in measuring primary care spending.

1.1. What is primary care?

7. The concept of primary care is multi-dimensional and evolving. Many competing definitions exist, each focussing on different aspects of primary care. Box 1 presents a non-exclusive list. On a global level, the oldest established definition probably dates back to the Alma-Ata declaration of 1978. Indeed, the 40th anniversary of the declaration has brought the discussion of primary care and the link with the Sustainable Development Goals (SDG) back into focus. One of the most influential pieces of work on primary care concepts can be attributed to Starfield (1994) introducing the mnemonic device of the 4 ‘C’ stressing that primary care is first-contact, comprehensive, continuous and co-ordinated care.

8. Other publications discuss different notions around the concept of primary care. The Institute of Medicine (1994) highlights that primary care can be
- care provided by certain clinicians,
- a set of activities,
- a level of care or setting,
- a set of attributes of care, or
- a strategy for organising the health care system.
9. Due to the multi-dimensional concept of primary care and the different notions of what primary care entails around the globe it is rather complicated to find a universally accepted definition and by consequence a measure of spending on primary care.

<table>
<thead>
<tr>
<th>Box 1. Definitions of Primary Care</th>
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<tbody>
<tr>
<td><strong>Alma-Ata declaration (1978)</strong></td>
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<td>“Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.”</td>
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<tr>
<td><strong>Institute of Medicine (1994)</strong></td>
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<tr>
<td>“Primary care is the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community.”</td>
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<tr>
<td><strong>Starfield (1998)</strong></td>
</tr>
<tr>
<td>“Primary care is that level of a health care system that provides entry into the system for all new needs and problems, provides person-focused (not disease oriented) care over time, provides for all but very uncommon or unusual conditions, and coordinates or integrates care provided elsewhere by others.”</td>
</tr>
<tr>
<td><strong>Kringos et al. (2014)</strong></td>
</tr>
<tr>
<td>“Primary care is the first level of professional care where people present their health problems and where the majority of the population's curative and preventive health needs are satisfied.”</td>
</tr>
<tr>
<td><strong>Expert panel on effective ways of investing in health (2014)</strong></td>
</tr>
<tr>
<td>“Primary care is the provision of universally accessible, integrated person-centred, comprehensive health and community services provided by a team of professionals accountable for addressing a large majority of personal health needs. These services are delivered in a sustained partnership with patients and informal caregivers, in the context of family and community, and play a central role in the overall coordination and continuity of people’s care.”</td>
</tr>
</tbody>
</table>
1.2. Challenges in measuring primary care spending

10. There are two main challenges when it comes to measuring primary care spending:

- Firstly, while there seems to be a broad consensus about certain characteristics of primary care, such as it being the first point of contact of patients, being accessible, coordinated and comprehensive, no such consensus exists when it comes to specifying a list of primary care activities and distinguishing primary care providers from secondary care and other non-primary care providers.

- If agreement can be found on a common operational definition of primary care, the second challenge is then to translate this into existing classifications of health expenditure. The obvious starting point would be to use, as much as possible, existing routine data collections based on such an accounting framework. This, however, has repercussions for the choice of the definition that should be operationalised. When trying to operationalise a very detailed definition of primary care into an accounting framework, the existing categories used in the classifications to measure health spending may not correspond to the definition. Additionally, the definition may require a level of granularity of data not available in some countries, thus limiting the applicability of the proxy measure and comparability of data.

11. Hence, for a meaningful and comparable estimation of primary care spending a balance needs to be found between agreeing on a policy relevant definition and having sufficient data to support such a definition. At any rate, any eventual measure will only be a proxy to actual primary care spending given that the multi-dimensional concept that cannot be fully captured in existing accounting frameworks.

1.3. Previous work in estimating primary care spending using SHA 2011

12. During the 2016 meeting of Health Accounts Experts and Data Correspondents, the OECD Secretariat presented two possible options to measure primary care spending using the annual Joint Health Accounts Questionnaire (JHAQ) data submissions for the collection of health spending information based on the methodology of the System of Health Accounts 2011 (SHA 2011).

13. SHA 2011 serves as a common accounting framework for the definition, demarcation and categorisation of health expenditure. This global standard proposes a tri-axial accounting approach classifying transactions used in the consumption of health care goods and services around three core dimensions of: financing (who pays?), provision (who provides the good or service?) and function (what is the purpose of the good or service?). Within this framework, primary care is not defined as a separate category within any of the classifications. Potentially, the functional classification could have incorporated categories such as primary, secondary and tertiary care. Instead, preference

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1 An alternative option would be to develop a new framework and new data collection dedicated exclusively to the measurement of primary care spending. This option is not pursued further.

2 DELSA/HEA/HA(2016)5 “Measuring primary care spending and efficiency”
is given to a classification distinguishing categories of health care goods and services along the notion of primary purpose (e.g., curative, rehabilitative, long-term, prevention) and its mode of provision (inpatient, outpatient, day case, home-based). Regardless of the precise definition of primary care activities, various components of primary care are included under a number of different functional and provider categories.

14. In the 2016 document it was argued that in the absence of any additional data collection the two-dimensional HCxHP table of the JHAQ (which cross-classifies health care services against health care providers) would be the most promising starting point to estimate primary care spending. This requires the identification of those combinations of health care functions and health providers that constitute components of primary care. It was acknowledged that such an approach is a simplification of the concept of primary care as it reduces primary care to a list of aggregated services delivered by different groupings of health care providers. Other key attributes of primary care, that is, whether care is coordinated, comprehensive or accessible cannot be captured directly by the SHA framework.

15. The original two options discussed included a

- **narrow definition**³ comprising outpatient curative and rehabilitative care [excluding specialist care and dental care], home-based curative and rehabilitative care, ancillary services, and preventive services if provided in an ambulatory setting; and a

- **wider definition**⁴ comprising outpatient curative and rehabilitative care including specialist care [excluding dental care], home-based curative and rehabilitative care, ancillary services **if provided in an ambulatory setting** and total preventive services **in all settings (including hospitals and LTC facilities)**.

16. For these two definitions pharmaceuticals dispensed by both ambulatory providers and retail pharmacies might be added as an additional component of primary care.

17. Table 1 briefly summarises the pros and cons of the application of these definitions, based on the 2016 JHAQ data. The **narrow option** to measure primary care spending was closer to the desired definition of primary care but had marginally less country coverage. Primary care accounted for 12% of current health spending according to this definition. The **wide option** included elements such as specialists’ care (generally considered outside of primary care) but could be applied more widely and yielded a higher share of “primary care” spending (17% on average).

18. Generally, the 2016 OECD Health Accounts Meeting welcomed the work of the OECD Secretariat on this topic but questioned the inclusion or exclusion of some specific services or providers in the definitions of primary care. Moreover, it was agreed that given the different notions of primary care, having a “band of different options” to define primary care would be preferable to having a single definition. In this respect it was felt

³ SHA 2011 codes: HC131, HC139, HC23, HC14+HC24, HC4, HC6 under HP3

⁴ SHA 2011 codes: HC13+HC23 [minus HC132], HC14+HC24, HC4 under HP3 and all HC6
that observing country-specific time trends was as important, if not more important than cross-country comparisons.

19. At the same time, WHO and the Bill and Melinda Gates Foundation (BMGF) had started to work on a methodology to estimate primary care spending in low and middle-income country as part of the Primary Health Care Performance Initiative (PHCPI). Hence, a closer cooperation among the international organisations for the two streams of work was deemed desirable.

Table 1. Summary of options in defining primary care spending

<table>
<thead>
<tr>
<th>Alignment with definition of primary care</th>
<th>Narrow option</th>
<th>Wide option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of countries fulfilling data requirements</td>
<td>Closer to desired definition</td>
<td>Including specialist care</td>
</tr>
<tr>
<td>Average primary care spending as % of CHE [min, max]</td>
<td>12% [6%; 18%]</td>
<td>17% [11%; 34%]</td>
</tr>
<tr>
<td>Average primary care spending as % of CHE incl. pharmaceuticals [min, max]</td>
<td>28% [14%; 41%]</td>
<td>34% [18%; 61%]</td>
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Comparability Issues

| Countries unable to split into generalist and specialist care; unclear where physiotherapy and similar services are accounted for | Normal comparability issues with breaks and deviations from definition |

Source: OECD (2016).

20. A number of countries have also shown an interest in identifying the extent of their financial resources dedicated to the provision of primary care. Australia, for example, estimates its primary health care spending within its national health accounting framework to equate with 37% of current spending in Financial Year 2015-16 whereby including

“...expenditure on health goods and services, such as medical services, dental services, other health practitioner services, pharmaceuticals and community and public health services. Primary health-care services are delivered in many settings, such as general practices, community health centres, Aboriginal health services and allied health practices (for example, physiotherapy, dietetic and chiropractic practices, and tele-health) and come under numerous funding arrangements” (AIHW, 2017).

21. In the United States, the states of Oregon and Rhode Island require payers to report primary care spending rates: in Rhode Island, the largest commercial insurer spent 10.6% of its total health spending on primary care in 2013, while in Oregon this share ranged between 8.9% and 12.5% depending on the payer (Koller and Khullar, 2017). In another study where primary care spending of health insurers across the United States was analysed, average spending ratios were estimated to stand between 5.8% and 7.1% of insurance spending depending on the applied definition (Bailit et al., 2017).
2. Refined measurement of primary care spending

2.1. Process to specify measures for primary care spending

22. Following the discussion at the 2016 Health Accounts Experts and Data Correspondents Meeting, the OECD Secretariat decided to broaden the consultation to include primary care experts outside of the Health Accountants and Health Data expert community in an attempt to justify or refine the proposed definition. This consultation round was also to help lend support of the primary care community and provide some more solid scientific evidence to any proposed measures for primary care.

23. The consultation process with primary care experts was conducted in two steps:

- First, experts were sent an empty HCxHP table of the JHAQ and asked to allocate a value between 1 and 5 to each individual “cell” within the table (each “cell” representing a health service/provider combination). The value should reflect the expert’s opinion as to what extent the range of transactions recorded in each individual cell should be included in a definition of primary care spending. Since experts had no health accounting background, the ICHA-HC and ICHA-HP definitions of each category were also provided and the basic accounting rules of SHA shortly described. Moreover, experts were invited to provide additional plain text comments.

- In the second phase, experts received the results of the average ranking across all experts together with an additional set of questions asking for further clarification of some results trying to rule out any possible misunderstanding in the completion of the survey arising from SHA definitions or the SHA accounting concept.

24. Selected experts consisted mainly of clinicians but also health economists and health services researchers from Europe, North America, Asia and Australia partly representing national or international physicians’ associations. At the same time, WHO initiated discussions by circulating the survey to their regional offices.

2.2. Results of the consultation process

25. Figure 1 highlights those cells in the HCxHP table which were identified by at least two-thirds of experts as being relevant or highly relevant (scores 4 or 5) to be included in a measure of primary care spending. Since the aim of this exercise was to

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5 The value 1 should be attributed to cells where transactions are recorded with no relevance to primary care and the value 5 should be attributed to cells that are highly relevant for an inclusion in a measurement of primary care spending.

6 A frequent comment received was that it was rather difficult to allocate primary care delivery into the existing ICHA-HC/HP categories which are too broad in some instances.
identify primary care activity for which a consensus among experts exists, the criteria of any cell being included in a measurement of primary care spending if supported by at least 2/3 experts seemed reasonable.

26. The approach of making a binary decision to either include or exclude a particular HCxHP cell in a measure of primary care spending based on the nature of the ‘majority principle’ has the advantage of being easy to operationalise – the total value of the cell is either included in primary care spending or not. It has, however, the drawback that certain specific activities (or providers) subsumed within a HCxHP cell included in a measure of primary care may in fact have little relevance for primary care, while in other cases, certain services (or providers) that should be covered under primary care go unreported if the HCxHP is not included in a definition. For example, the combination outpatient dental care provided in dental practices (HC132 x HP32) can include very basic dental services as well as advanced oral surgery, which may not be equally relevant for primary care. On the other hand, general outpatient curative care provided in hospitals (HC131 x HP1) may cover basic services delivered in outpatient hospital departments as well as emergency visits. The former set of activities could be understood as primary care in some instances, while the latter typically is not.

Figure 1. Cells to be included in a definition of primary care based on 1st round feedback of experts

<table>
<thead>
<tr>
<th>SHA 2011</th>
<th>Health care providers</th>
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<tr>
<td><strong>Health care functions</strong></td>
<td><strong>Hospital</strong></td>
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<td><strong>Curative care</strong></td>
<td>Patient curative care</td>
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<td>Day curative care</td>
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<td>General outpatient curative care</td>
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<td>Specialised outpatient curative care</td>
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<td>All other outpatient curative care</td>
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<td>Integrated curative care</td>
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Note: Cell is marked green if at least 2/3 of experts ranked them as relevant or highly relevant (4 or 5 points)
Source: Authors.

27. Based on this first feedback, primary care spending would be measured by expenditure on:
- General outpatient curative care (HC131) if provided in medical practices (HP31) or ambulatory health care centres (HP34);
- Dental outpatient curative care (HC132) if provided in dental practices (HP32);
- Home-based curative care (HC14) if provided by medical practices (HP31), providers of home health care services (HP35) or households (HP81);
- Outpatient long-term care (HC33) if provided in medical practices (HP31);
- Home-based long-term care (HC34) if provided by medical practices (HP31) or providers of home health care services (HP35);
- Prescription pharmaceuticals (HC511) if dispensed in medical practices (HP31) or pharmacies and other retailers (HP5);
- Over-the-counter medicines (HC512) if dispensed in pharmacies and other retail (HP5);
- The preventive services ‘Information, education and counseling programmes’ (HC61), ‘Immunisation programmes’ (HC62), ‘Healthy condition monitoring programmes’ (HC63), ‘Healthy condition monitoring programmes’ (HC64) if provided in medical practices (HP31) or ambulatory health care centres (HP34);
- The preventive services ‘Immunisation programmes’ (HC62) and ‘Epidemiological surveillance and risk and disease control programmes’ (HC65) if provided by providers of preventive services (HP6).

28. After the second round of consultation intended to confirm the results and clarify any possible misunderstandings:

- there was a consensus to report pharmaceuticals (HC511 and HC512) separately from health services as part of an additional option to measure primary care spending;
- there was no longer a consensus that households (HP81) can provide primary care services;
- there were diverging views regarding the extent to which providers of preventive care (HP6) provide primary care services. This essentially relates to the difference between measuring primary care and primary health care;
- it was unclear as to what extent long-term care (health) should be considered as part of primary care. While first round feedback suggested that, if provided as outpatient and home-based services, long-term care should be included, some second round feedback was less clear to what specific activities (and providers) within long-term care this referred. The confusion may arise from the definition of long-term care (health) in SHA, combining skilled ‘nursing care’ such as wound dressing, administering medication and giving injections with ‘personal care’ referring to help with activities of daily living (ADL). While it seemed that

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7 This category mainly refers to institutions providing population-based preventive services, such as public health agencies.

8 There may again be different opinions whether there is a difference between the two concepts or whether the terms can be used synonymously. This paper follows the distinction made by the Institute of Medicine (1994), whereas primary health care as defined by the WHO includes public health interventions aimed at the population at large while the focus of primary care is the delivery of personal services.
the skilled ‘nursing care’ component of long-term care (health) should be part of primary care if being provided by an integrated primary care team there appeared to be less of a consensus about help with ADL where care provision may be less integrated with medical services and possibly even provided by family members.

2.3. Operationalising the outcome of the expert consultation

29. The results of the expert consultation process provide some additional scientific support for an eventual decision on the definition of primary care spending. Other factors, such as data availability and simultaneous discussions outside of the consultation round also need to be taken into account in the operationalisation of a definition within an existing health spending data collection.

2.3.1. Data availability

30. The strong consensus among experts, to include general outpatient curative care and dental care but to exclude outpatient specialist care in a definition of primary care, suggests that the separate reporting of these ambulatory care categories is a prerequisite for inclusion in international comparisons of primary care spending. The inclusion of expenditure on specialist outpatient care would substantially overestimate primary care spending. In the 2018 JHAQ data collection round, 22 OECD countries\(^9\) were able to separate spending on general outpatient curative care and dental care from specialist outpatient care for reporting year 2016 or 2015.

31. On the other hand, the inability to report a breakdown of preventive spending (HC6) at the second-digit level should not be considered as an obstacle. Nearly 90% of spending of HC6 indeed refers to categories HC61 to HC64 (Gmeinder et al., 2017). Hence, for all countries that are only able to report HC6 at the first-digit level, this value will be used instead of the subcategories HC61 to HC64 resulting in a marginal but considered acceptable overestimation (as it can potentially include HC65 and HC66).

2.3.2. Operationalising a definition of primary care

32. Before deciding which elements of the HCxHP table to use in any measures of primary care spending the impact of different approaches in terms of spending needs to be assessed. Such an evaluation is presented in some detail in Annex A. The main results of these scenario analyses are the following:

Original measurement based on first round feedback

33. Calculating primary care spending based on experts’ first round feedback yields an average of 31.1% of current health expenditure – of which 15.5% stem from prescribed pharmaceuticals and over-the-counter medicines. This leaves 15.6% of current health spending without pharmaceuticals.

\(^9\) Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Iceland, Latvia, Lithuania, Luxembourg, Mexico, Norway, Poland, the Slovak Republic, Slovenia, Spain, Sweden, and Switzerland.
Adjusted feedback based on second round feedback

34. Based on the second round discussion detailed in section 2.2 the following adjustments were made:

- Households (HP81) as providers of home-based curative (HC14) or rehabilitative care (HC24) to be excluded (with virtually no spending implication);
- providers of preventive care (HP6) providing immunisation programmes (HC62) and epidemiological surveillance and risk and disease control programmes (HC65) to be excluded (with very limited spending implication);
- while pharmaceuticals can be an important element of a comprehensive primary care treatment, spending on prescribed pharmaceuticals and over-the-counter medicines to be included, but only in a complementary option to measure primary care spending;
- outpatient long-term care (HC33) and home-based long-term care (HC34) to be excluded based on the assumption that the majority of the spending refers to help with ADL outside of primary care teams. This decision has substantial spending implications. Long-term care provided by providers of home health services (HC34 x HP35) alone represents 3% of current health expenditure on average and much more in the Scandinavian countries Denmark (14.6%), Norway (12.6%) and Sweden (7.8%). The decision to include or to exclude this particular cell has hence important consequences for the ranking of countries in primary care spending.

35. Implementing these adjustments to the original set of selected variables would reduce primary care spending to around 12.4% of current health expenditure in 2016 on average across the 22 OECD countries.

Pragmatic proposal for a measure of primary care spending

36. A further adjustment to operationalise the expert opinion is to limit primary care spending from a functional perspective to general outpatient curative care (HC131), outpatient dental care (HC132), home-based curative care (HC14) and the preventive services HC61 to HC64 but to extend the set of providers to include all ambulatory care providers (HP3). While such an extension of the set of providers dilutes slightly the differences in the nature of the providers it may be preferable from the point of view of data availability. Primary care spending demarcated in such a way would equate with 13.6% of current health expenditure. This demarcation is proposed to be the key measurement option in the following section.

2.4. Measures proposed by the OECD Secretariat to identify primary care spending using the SHA framework

37. When choosing a mapping of primary care spending to be implemented within the SHA framework the need to have a policy-relevant definition that is close to one applied within the primary care community has to be balanced with issues of data availability. At the same time, the wish of countries to have a “band of options” to measure primary care spending reflecting differences in the national notions of primary care should also be respected.
38. Having this in mind, the Secretariat proposes the following three potential aggregates as proxies to measure expenditure of activities around primary care (Figure 2):

1. Summing up expenditure of the functions general outpatient curative care (HC131), outpatient dental care (HC132), home-based curative care (HC14) and the preventive services HC61 to HC64 for all health care providers (all HP). It is proposed that this aggregate will be called “expenditure on basic services”.

2. Using the functional definition of ‘aggregate 1’ and adding expenditure for prescribed pharmaceuticals (HC511) and over-the-counter medicines (HC512) for all health care providers (all HP). Such an aggregate will be called “expenditure on basic services and pharmaceuticals”.

3. Using the functional definition of ‘aggregate 1’ but limiting spending to providers of ambulatory health care (HP3). This aggregate refers to “expenditure on basic services provided by providers of ambulatory care” and appears to be the most appropriate proxy for “primary care spending” using the SHA framework and JHAQ data submissions.

39. While the preference of the OECD Secretariat lies on using aggregate measure 3 in the analysis of primary care spending there are good reasons to also provide data for aggregate measures 1 and 2:

- Being able to compare spending on “basic services” across countries is particularly suited for those countries that have currently not yet implemented the three core dimensions of SHA. This is the case in many low and middle-income countries where a full health provider breakdown is so far lacking. Providing aggregates stemming from a functional perspective only also serves in mapping data of OECD to WHO which will use an aggregate combining basic care and pharmaceuticals in their database.

- In some countries, the delivery of primary care can be organised outside of ambulatory providers (as defined in SHA) by design. This can refer, for example, to general outpatient curative care providers located in dedicated primary care units of hospitals (HC131xHP1). Based on the information of the OECD Health System Characteristics Survey, this primary care delivery model appears to be uncommon in most OECD countries. Nevertheless, using the aggregate “expenditure for basic services” rather than “expenditure for basic service provided by providers of ambulatory care” for comparisons may be of more interest in those countries where some primary care activity is organised outside of ambulatory providers.

- Comparing primary care spending (‘aggregate 3’) with basic care spending (‘aggregate 1’) allows – at least conceptually - for some form of efficiency analysis in the provision of basic care: to what extent are basic services provided in the most appropriate setting? Delivering basic services in inpatient settings or other providers may be more costly (e.g., general care provided in a hospital.

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10 It should be borne in mind, however, that (based on the SHA framework) there appears to be no clear consensus among primary care experts which types of activities outside of ambulatory primary care providers constitute primary care.
emergency department) or the quality of services may be lower (e.g., general consultation at walk-in pharmacy) or they simply demonstrate the gaps in the development of community-based primary care. At this stage, any results of this kind of analysis, however, should be interpreted with caution as problems with data granularity and accounting practices affect comparability across countries.

Figure 2. Three alternative to measure spending around primary care

<table>
<thead>
<tr>
<th>SHA 2011</th>
<th>Health care providers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health care functions</strong></td>
<td><strong>Providers of ambulatory health care</strong></td>
</tr>
<tr>
<td></td>
<td>Hospitals</td>
</tr>
<tr>
<td><strong>Curative care</strong></td>
<td>Inpatient curative care</td>
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<tr>
<td>Outpatient curative care</td>
<td></td>
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<tr>
<td>General outpatient curative care</td>
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<tr>
<td>Specialized outpatient curative care</td>
<td></td>
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<tr>
<td>Home-based curative care</td>
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<tr>
<td><strong>Rehabilitative care</strong></td>
<td>Inpatient rehabilitative care</td>
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<tr>
<td>Outpatient rehabilitative care</td>
<td></td>
</tr>
<tr>
<td>Home-based rehabilitative care</td>
<td></td>
</tr>
<tr>
<td><strong>Long-term care (health)</strong></td>
<td>Inpatient long-term care (health)</td>
</tr>
<tr>
<td>Outpatient long-term care (health)</td>
<td></td>
</tr>
<tr>
<td>Home-based long-term care (health)</td>
<td></td>
</tr>
<tr>
<td><strong>Ancillary services (not specified by medical goods)</strong></td>
<td>Laboratory services</td>
</tr>
<tr>
<td>Imaging services</td>
<td></td>
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<tr>
<td><strong>Medical goods</strong></td>
<td></td>
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<tr>
<td>Over-the-counter medicines</td>
<td></td>
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<tr>
<td>Other medical non-durable goods</td>
<td></td>
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<tr>
<td>Therapeutic appliances and other medical durable goods</td>
<td></td>
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<tr>
<td><strong>Preventive care</strong></td>
<td>Information, education and counselling programmes</td>
</tr>
<tr>
<td>Immunisation programmes</td>
<td></td>
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<tr>
<td>Early disease detection programmes</td>
<td></td>
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<tr>
<td>Mental health, substance and alcohol abuse treatment programmes</td>
<td></td>
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<tr>
<td>Epidemiological surveillance and risk and disease control programmes</td>
<td></td>
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<tr>
<td>Preparing for disaster and emergency response programmes</td>
<td></td>
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<tr>
<td><strong>Governance and health system and financing administration</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors.
3. Preliminary primary care spending estimates

40. This chapter compares spending for the 22 OECD countries using the three options set out in section 2.4 with a more detailed analysis for option 3- the preferred option of the Secretariat.

3.1. Spending on “basic care” services

41. Spending on ‘basic care’ stood at 17% of all health spending in 2016 across a group of OECD countries ranging from 12-13% in countries such as Austria, Latvia, the Slovak Republic and Denmark to around 25% in Estonia (Figure 3).

Figure 3. Expenditure for basic care as a share of current health expenditure, 2016 (or latest year)


3.2. Spending on “basic care and pharmaceuticals”

42. If spending on retail pharmaceuticals is added to ‘basic care’ spending then the level of this aggregate roughly doubles (Figure 4). On average, this figure reaches 33% of overall health spending across the OECD but with substantial variation. It stands at 40% or above in many Central and Eastern European countries such as Lithuania, Estonia, Hungary, Poland and Latvia as well as in Mexico. At the other end of the scale, ‘basic care and pharmaceuticals’ constitutes only a fifth of total spending in Denmark and Norway. The spread of this aggregate figure is very much influenced by the importance of retail pharmaceutical spending in a country: pharmaceuticals alone account for 27-28%
of all spending in Latvia and Lithuania while representing only 5-6% in Norway and Denmark.

**Figure 4. Expenditure for basic care and retail pharmaceuticals as share of current health expenditure, 2016 (or latest year)**

![Graph showing expenditure for basic care and retail pharmaceuticals as share of current health expenditure, 2016 (or latest year).](image)

*Source: OECD Health Statistics 2018.*

### 3.3. ‘Primary care’ spending

43. As mentioned in the section 2.4, limiting spending on ‘basic care’ services when provided by ambulatory providers appears to be the closest currently feasible proxy to estimate ‘primary care’ spending. Yet, it needs to be borne in mind that identifying primary care spending by combining health care activities and providers that deliver them is a simplification of the concept of primary care since it only uses two criteria—other important criteria such as whether care is coordinated or comprehensive cannot be identified within the SHA framework.

#### 3.3.1. Primary care spending and its components

44. Using the concept to approximate primary care as ‘basic care’ provided in ambulatory settings, ‘primary care’ accounts for roughly 14% of total health spending, ranging from 10% or less in the Slovak Republic and Switzerland to over 18% in Australia and Poland (Figure 5).
Across the OECD, more than half of primary care spending is accounted for by general outpatient care (6.8% of current health spending) and 40% by spending on dental care (5.5%). Prevention (1%) and home-based curative care (0.3%) play a much more moderate role. There are, however, important variations in the composition of primary care spending between countries. General outpatient care reaches 12% or more of total health spending in Australia and Mexico. Consequently, this primary care component accounts for two-thirds (Australia) and three-quarters (Mexico) of all primary care spending. The situation is different in Latvia and Austria where general outpatient care constitutes only around 4% of overall health spending and less than 40% of primary care spending. In roughly a third of OECD countries, spending on dental care is the most important primary care spending category. It is particularly important in Estonia, Lithuania and Germany where it accounts for 7-8% of total health spending and roughly one in two primary care dollars.

3.3.2. “Primary care” as share of “basic care”

Relating spending on primary care to all ‘basic care’ displays the share of spending on ‘basic care’ that is spent in the most appropriate setting. This ratio could thus be interpreted as a kind of efficiency measure of primary care. Across the OECD, 81% of all basic care spending stems from care provision by ambulatory providers (Figure 6). This share ranges from above 90% in Lithuania, Spain, Poland, Latvia, Denmark and Germany to between two-thirds and half in Estonia, Canada and Switzerland. In the latter countries a significant share of basic services are delivered outside of the ambulatory sector. Focusing on the most important element of basic care services – generalist curative care – the same type of analysis highlights that 85% of all general services are provided by ambulatory care providers. This share stands at 100% in Denmark, Sweden and Norway but goes down to 60% or less in Iceland and Estonia and to less than 40% in Switzerland. In those countries, a substantial amount of generalist care is provided in hospitals – referring to either emergency visits or other consultations.
3.3.3. Financing of primary care/basic care

For an analysis of who is financing primary care, the aggregate ‘basic care’ needs to be used as a proxy since the JHAQ data submission – a set of two-dimensional tables – does not allow for a three-dimensional analysis. Across the OECD, costs for ‘basic care’ are covered to 64% by public schemes – either government schemes with automatic entitlement or compulsory health insurance schemes. Around 7% of those costs are borne by voluntary prepayment schemes such as voluntary health insurance and 28% of all primary care costs are paid for by households themselves (Figure 7). Public coverage for ‘basic care’ services is highest in Germany (83%), the Czech Republic (75%) and Luxembourg (74%) but stands at only around 50% in Switzerland and Hungary. Among the different components of ‘basic care’, public coverage for dental care is the least comprehensive in most countries.

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Figure 6. Share of spending delivered by ambulatory providers, 2016 or latest year


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11 Since primary care in this section is defined as combining several functions (HC) with ambulatory providers (HP3), a financing breakdown (HF) of this aggregate cannot be carried out. The analysis of the financing composition of the functions included in primary care across all provider is used as a proxy.
3.3.4. Primary care spending over time

48. Across the 22 OECD countries, primary care spending increased annually by around 2.9%, in real terms, between 2005 and 2016. This growth is higher than for inpatient care (2.4%) and pharmaceuticals (1.3%) but substantially below year-to-year growth for long-term care (3.8%). As with all other health spending components, annual growth rates for primary care were reduced during the years of the financial crisis (1.1% p.a.) but returned to higher growth since 2012 (2.7% p.a.) (Figure 8).

49. Overall, primary care spending grew at around the same rate as overall health spending in the last decade, with its share in current health spending only slightly up from 13.2% in 2005 to 13.6% in 2016. So, while many countries identified the strengthening of primary care as a policy priority in recent years and committed to boost investment in this area, this cannot be observed in the interpretation of spending data.

**Figure 8. Annual spending growth for different health components, in real terms, OECD average, 2005-2016**


**Figure 9. Annual growth in primary care spending, in real terms, selected OECD countries**

50. Figure 9 displays the annual growth in primary care spending for a selected number of OECD countries. While in Australia – the country with the highest share of primary care spending (18.4%) - growth rates were relatively high in recent years, they were only very moderate in Austria – a country with a very low overall share of primary care spending (10.5%). Here, annual growth rates remain between 0-2% per year in the last decade or so. In Spain, where health spending was heavily affected by the economic crisis, primary care spending was no exception: growth was negative in most years through the crisis but returned to strong positive growth since 2015. In Sweden, primary care spending stagnated until 2013 but recorded several moderately positive annual increases in subsequent years.
4. Summary and future possible directions of work

51. This document proposes three approaches to measure spending in the domain of primary care. Two of the three measures presented map costs for ‘basic services’ – with and without pharmaceuticals – from a service-only perspective. These definitions can hence also be applied by countries that have currently not yet fully implemented the three core dimensions of SHA. The third option uses expenditures for ‘basic services’ if provided by ambulatory providers as a proxy for “primary care spending” – this is the preferred option by the OECD Secretariat.

52. The choice of the types of services and providers included in the chosen approaches to measuring primary care was shaped by consultations with a range of primary care experts. Combinations of services and providers based on the SHA framework were included where a general consensus appears to exist. In some instances, this call may still be up for debate. One important area relates to long-term (home) care services due to their substantial spending implications in a number of countries.

53. Based on the proposed proxy measure for primary care, average spending across the OECD is around 14% of total spending ranging from 10-18%. This is close to the spending figures of the “narrow option” published in the 2016 document although the types of services included in the mapping have changed. It is also similar to estimates in a recent publication on primary care spending estimations focusing on the United States, although the methodology behind estimations differs (Koller and Khular, 2017).

54. It should be emphasised that the choice of categories used here to measure primary care spending has some limitations. First, the use of the SHA framework reduces the concept of primary care to a combination of activities and providers ignoring other important elements that constitute primary care, such as being patient-centred, comprehensive and coordinated. Another limitation is the binary decision as to whether a combination of service and provider (a HCxHP cell) is included or excluded from the mapping, thus not allowing for the possibility that certain elements of a service/provider combination may be related to primary care.

55. Apart from conceptual limitations, there are also data limitations: currently more than third of OECD countries lack data granularity to measure primary care spending within the proposed demarcation. Moreover, for those countries that fulfil the minimum data requirements comparability issues may exist for a number of reasons, for example the identification of the accurate provider for preventive services, or the method used to distinguish between general and specialist services.

56. The preliminary estimations presented in this document should be considered as a starting point. It highlights the extent of the analysis that is currently feasible using the existing JHAQ data submissions.

57. Future work could look into a more granular measure of primary care by analysing in more detail the composition of individual HCxHP cells.
This could be either to potentially include some services (or providers) of primary care spending from HCxHP cells currently not considered or to exclude some services (or providers) which should not be part of primary care for cells currently included\textsuperscript{12}. Using additional data beyond the JHAQ, it may be possible to identify the shares related to primary care spending for some individual HCxHP cells.

Related work could analyse whether it is possible to capture additional dimensions in each HCxHP cell in an attempt to refine the measure of primary care spending by going beyond services and providers. Such an analysis could look into, for example, what part of services within each cell can be considered as coordinated or first-contact care thus coming closer to the essence of the whole concept of primary care.

At any rate, any refinement work going beyond the existing data of the JHAQ would require significant country involvement.

58. In the meantime, the Secretariat would encourage OECD countries not included in the analysis to explore possibilities to distinguish between outpatient general care (HC131) and specialist care (HC133), which is the main reason why some countries are not included in the analysis presented here.

\textsuperscript{12} For example include spending for general care in dedicated primary care units in hospitals (HC131xHP1) or exclude advanced implant surgery (HC132xHP32) Another important area where additional analysis on a more granular level should be carried out is home-based long-term care (HC34)
5. Bibliography


OECD (forthcoming), Report on Primary care


Annex A.

59. The data included in Figure A.1 facilitates the assessment of the impact of applying different definitions of primary care in terms of spending. It also allows for sensitivity analyses in assessing possible alternatives. The value in each HCxHP cell in Figure 10 reflects the average share of this cell in current health expenditure across the 22 OECD countries meeting the minimum data requirements. Adding up the values in different cells considered in a definition of primary care hence gives the average primary care spending as a share of current health expenditure across OECD countries.

Figure A.1. Share of current health expenditure per HCxHP cell, OECD average

![Figure A.1](image)

**Note:** Value in cell reflect average share in CHE on average across 22 OECD countries.

**Source:** OECD Health Statistics 2018.

**Scenario 1: Original measure based on first round feedback**

60. Calculating primary care spending based on experts’ first round feedback (cells marked in dark green) yields an average of 31.1% of current health expenditure – of which 15.5% stem from prescribed pharmaceuticals and over-the-counter medicines. This leaves 15.6% of primary care spending without pharmaceuticals.
Scenario 2: Adjusted feedback based on second round feedback

61. As discussed in section 2.2, the follow-up discussion with experts led to an adjustment of the originally selected cells:

- Households (HP81) as providers of home-based curative (HC14) or rehabilitative care (HC24) will be dropped from a definition of primary care (which has virtually no spending implication);

- providers as preventive care (HP6) providing immunisation programmes (HC62) and epidemiological surveillance and risk and disease control programmes (HC65) will be dropped from a definition of primary care (which has very limited spending implication);

- while pharmaceuticals can be an important element of a comprehensive primary care treatment, spending on prescribed pharmaceuticals and over-the-counter medicines will be included in a complementary definition of primary care spending as suggested by experts;

- outpatient long-term care (HC33) and home-based long-term care (HC34) will be dropped based on the assumption that the majority of the spending refers to help with ADL outside of primary care teams - for these activities there appears to be less of a consensus whether they should be part of a definition of primary care. This decision has enormous spending implications. Long-term care provided by providers of home health services (HC34xHP35) alone represents 3% of current health expenditure on average and much more in the Scandinavian countries Denmark (14.6%), Norway (12.6%) and Sweden (7.8%) The decision to include or to exclude this particular cell has hence important consequences for the ranking of countries in primary care spending. As mentioned in section 2.2, there was a consensus among experts that long-term care (health) can be part of primary care spending if it refers to comprehensive care for chronic elderly patients and if it is provided by GPs or nurses within a primary care team. However, the extent to which help with ADLs (e.g. helping LTC dependent people to get out of bed, washing and feeding them – services frequently provided by caregivers without a nursing background) should be part of primary care was less clear. Typically, these services are only accessible after LTC assessment and hence do not really fulfill the criteria of being “first contact” care. Caregivers will also not be able to provide comprehensive or coordinated health care and the extent to which these services are integrated in the delivery of medical care is also unclear. Available data from Germany and the United Kingdom suggests that help with ADL accounts for the majority of spending included in cell HC34xHP35. Based on this assessment the removal of HC34xHP35 from a definition of primary care is proposed. On the other hand, certain LTC activities, such outpatient LTC (HC33), home-based LTC (HC34) or even inpatient LTC provided by medical practices (HP31) or ambulatory health care centres (HP34) could be considered for inclusion within primary care. However, this would have negligible spending implications and hence it is suggested to omit spending on long-term care (health) (HC3) from a measure of primary care spending for the moment. This would also avoid introducing comparability issues with long-term care spending into primary care spending figures.
Implementing these adjustments to the original set of selected variables would reduce primary care spending to around 12.4% of current health expenditure on average across the 22 OECD countries.

Scenario 3: Further adjustments based on plausibility

Building on the second round feedback, alternative scenarios could involve extending coverage to additional function and provider categories that could potentially account for particular primary care services not identified by experts.

- A more limited increase could involve the inclusion of preventive services in dental practices (HC6xHP32) and dental services and home-based curative care in ambulatory health care centres (HC132 and HC14 in HP34). Adding those cells would increase primary care spending slightly to 13.0% of total health expenditure on average.

- A more comprehensive increase could involve the inclusion of general outpatient care services and preventive services from other health care practitioners, such as offices of independent nurses, midwives or physiotherapists (HC131 and HC6 in HP33). Moreover, an attempt could be made to capture certain long-term care services where a relationship to primary care is more straightforward. This could refer to, for example, an inclusion of long-term care activities when provided by medical practices (HP31) or ambulatory health care centres (HP34). These long-term care services will more likely refer to more integrated medical or nursing care and not to help with ADL. If these services are included the share of primary care would again increase marginally to 13.8% of total spending.

- A pragmatic approach in operationalising the expert opinion is possibly a limitation of primary care spending from a functional perspective to general outpatient curative care (HC131), outpatient dental care (HC132), home-based curative care (HC14) and the preventive services HC61 to HC64 but extending the set of providers to include all ambulatory care providers (HP3). While such an extension of the set of providers dilutes slightly the differences in the nature of the providers it may be preferable from the point of view of data availability. Primary care spending demarcated in such a way would equate with 13.6% of current health expenditure very close to the alternative scenarios discussed above.