Health Care Quality Indicators

HEALTH PROMOTION, PREVENTION AND PRIMARY CARE

Health Care Quality Indicators Experts Group meeting

Thursday 23 and Friday 24 October, 2008
To be held at the OECD Conference Centre, 2, rue André-Pascal, 16th arrondissement, Paris

Contact: Ian Brownwood, e-mail: ian.brownwood@oecd.org; tel: +33 1 45 24 94 75
NOTE BY THE SECRETARIAT

The following paper provides an overview of the key outcomes of the work on Health Promotion, Prevention and Primary Care in 2008 and the future plans for data collection and further indicator developments.

The Expert Group is invited to:

- **COMMENT** on the information provided in this paper.
- **ENDORSE** the proposed set of 9 potentially preventable admission indicators specified at Table 2 for pilot data collection through the HCQI Data Collection for 2008-09, and
- **ENDORSE** the proposed priorities for future indicator development within the HCQI project.
TABLE OF CONTENTS

NOTE BY THE SECRETARIAT .................................................................................................................. 2
INTRODUCTION....................................................................................................................................... 4
1. Scope of Indicator Development............................................................................................................. 4
2. Information System and Indicator Availability ....................................................................................... 5
3. Indicator Data Collection for 2008-09 .................................................................................................... 6
4. Priorities for Future Indicator Development ........................................................................................... 8
5. Future Meetings....................................................................................................................................... 8
ANNEX 1 ..................................................................................................................................................... 10
Background ............................................................................................................................................... 10
Summary Findings .................................................................................................................................... 12
Optional Additional Information............................................................................................................... 13
General Practice..................................................................................................................................... 13
Obstetrics and Midwifery .......................................................................................................................... 14
Women’s Children and Youth Community Health Services ................................................................. 14
Home and Community Care for the Elderly ............................................................................................. 15
Specific Ambulatory Care for Chronic Diseases ...................................................................................... 16
Pharmacies............................................................................................................................................. 16
Indicator Availability ................................................................................................................................ 17
Key Findings.......................................................................................................................................... 18
Proposed New Set of Chronic Care Indicators ...................................................................................... 19
Key Observations ..................................................................................................................................... 20

Tables

Table 1: Scope of Indicator Development on HPPPC ................................................................................ 5
Table 2: Proposed Set of Potentially Preventable Admissions Indicators ................................................... 7
Table 1a: Status of Responses ................................................................................................................... 11
Table 2a. Summary of Information System Availability by Priority Area .................................................. 12
Table 3a Summary of Information System Availability by Country ........................................................ 12
Table 4a. Potential for Indicator Development by Priority Area ............................................................... 17
Table 5a. Indicator Availability: At least 50% of Countries Either Currently Collect or Can Construct Indicator .......................................................................................................................... 18
Table 6a. Indicator Availability: Proposed New Set of Chronic Care Indicators ....................................... 19
INTRODUCTION

1. Within the HCQI project, Health Promotion, Prevention and Primary Care (HPPPC) are priorities areas for development of internationally comparable indicators. A decision was taken to consolidate these three areas within the overall work of the HCQI project in 2004, as the boundaries between the areas seemed difficult to draw.

2. In October 2007, the HCQI Expert Group endorsed a proposal to propose the establishment of a Health Promotion, Prevention and Primary Care Subgroup of experts to assist the OECD in progressing indicator development, with initial work focussed on a:

   - review of recent developments and current status of primary care information systems, and
   - further assessment of the feasibility of collecting comparable data for indicators relating to potentially preventable hospital admissions.

3. Indications of interest in a HPPPC Subgroup were subsequently requested in early 2008 and currently 18 countries have stated they wish to participate; Australia, Canada, Denmark, Finland, France, Hungary, Iceland, Germany, Netherlands, New Zealand, Norway, Portugal, Singapore, Slovak Republic, Sweden, Turkey, United Kingdom and the United States.

4. Experts from countries which have chosen to participate met in the Hague in the Netherlands on 30 May 2008. The main objectives of the meeting were to:

   - Review the existing indicator development work of the OECD related to health promotion, prevention and primary care,
   - Assess current international information system capacity and indicator developments, and
   - Identify opportunities and priorities for future indicator development.

5. The key outcomes and future plans for indicator development arising out of the discussions are presented in the following section of this paper.

1. Scope of Indicator Development

6. Clarification of the conceptualisation and scope of HPPPC indicator development is considered important given the need to ensure alignment with the established conceptual framework for the HCQI project and avoid any potential overlap with the work of other Subgroups of the HCQI project.

7. The initial scope of the work has been largely limited to the health promotion, prevention and primary care, diabetes care and cardiac care (secondary prevention) indicators proposed by the various expert panels previously convened through the HCQI project. It was decided that consideration of mental health care, patient safety and responsiveness will be put aside, given separate subgroups have already been established to consider ongoing indicator development in these areas.

8. Further, in alignment with the conceptual framework for the HCQI project, the consideration of quality of care indicators in relation to non health sector services and accessibility are also considered out of scope for the work.
9. Table One summarises the particular areas of current OECD indicator development considered to be either in-scope or out-of-scope in relation to the indicator development work on HPPPC.

<table>
<thead>
<tr>
<th>In Scope</th>
<th>Out of Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes Care</td>
<td>Mental Health</td>
</tr>
<tr>
<td>Cardiac Care</td>
<td>Patient Safety</td>
</tr>
<tr>
<td>Responsiveness/Patient Experiences</td>
<td>Non Health Sector Services</td>
</tr>
<tr>
<td>Accessibility</td>
<td></td>
</tr>
</tbody>
</table>

10. In 2004, the main conceptual decision taken by an expert panel on health promotion, prevention and primary care (OECD Health Technical Paper No 16) was to operationalise quality of care based on the function of the health care system rather than the service setting. This approach was adopted in recognition of the diversity that exists across health systems of OECD member countries, where similar care functions can be provided from different service settings and by different health professionals. Hence the expert panel focussed on indicators of care or activities without reference to who provided the care or where the care was provided.

11. Discussions at the meeting underlined the importance of bringing forward and applying this principle to the work on HPPPC, given the nature of national strategies currently in place across the member countries. For example, the International Network of Health Promoting Hospitals and Health Services initiated by the WHO aims to incorporate the vision, concepts, values and basic strategies of health promotion into the structures and cultures of health services, regardless of the setting or provider.

12. Consistent with this perspective, the conceptualisation of primary care extends beyond the provision of care by General Practitioners to include a variety of providers in both institutional and community settings.

13. For further consideration of these issues please refer to DELSA/HEA/HCQ/(2008)3.

2. Information System and Indicator Availability

14. To inform the initial deliberations on HPPPC, a survey of information system and data availability was undertaken in early 2008 to assess the current and emerging capacity of the 18 participating countries to calculate relevant indicators, including the proposed new set of indicators relating to the management of chronic conditions. For a copy of the questionnaire please refer to DELSA/HEA/HCQ/(2008)6.

15. Country representatives presented and discussed their country’s preliminary response to the questionnaire at the meeting and this proved to be a valuable exercise as it provided the participants with an opportunity to compare responses and appreciate a global view of data availability and system capacity across participating countries.

16. A short report has been prepared to summarise the responses and set out the key findings from the survey (refer to Annex 1). The key messages for the HCQI Expert Group include:

- Opportunities to develop additional internationally comparable HPPPC quality of care indicators are likely to currently exist, given the reported nature and availability of Obstetric and Midwifery, Pharmacy and General Practice data collections across countries responding to the questionnaire.
• Although data availability for just over a third of relevant indicators currently under consideration by the HCQI project appears to have improved over the past 3 years, still only 17 of the 56 indicators surveyed can be currently constructed from available data by the majority of countries responding to the questionnaire. It is noted that 11 of these 17 indicators have been recommended for inclusion in the HCQI and Health Data Collections for 2008-09, including a set of 9 potentially preventable admissions indicators.

• Reported levels of data availability for the proposed new set of quality of care indicators related to the management of chronic conditions is relatively low, apart from the subset of Potentially Preventable Admissions Indicators that are proposed for inclusion in the HCQI Data Collection for 2008-09.

• A number of the following indicators may warrant further consideration (in alignment with agreed indicator development priorities), given the number of countries reporting their current ability to calculate the indicators:

  • Physical Activity
  • Gonorrhoea/Chlamydia Rates
  • Abortion Rates
  • First Visit in First Trimester
  • Adolescent Immunisation
  • Cardiovascular Mortality in Patients with Diabetes

3. Indicator Data Collection for 2008-09

17. In line with the endorsed initial work program of the HPPPC, during the early months of 2008, the Secretariat undertook further assessment of the feasibility of collecting comparable data for indicators relating to potentially preventable hospital admissions\(^1\). Refer to DELSA/HEA/HCQ/(2008)4 for the report from the review.

18. The key findings of the review included:

• A significant number of member countries (8) already calculate and report potentially preventable admission indicators and, given the relative availability of hospital administrative data, the feasibility of calculating these indicators in other member countries is considered strong\(^2\).

• A significant degree of variability in indicator construction was observed across the 8 countries and that is broadly consistent with earlier findings of the HCQI project that identified variations

---

\(^1\) For the purposes of this assessment the terms potentially preventable admissions, ambulatory care sensitive conditions, avoidable admissions, avoidable events and potentially unnecessary admissions were used interchangeably.

\(^2\) This conclusion is consistent with findings of the questionnaire referred to in section 2 of this paper.
in indicator specification as a key factor in preventing the limited set of potentially preventable admission indicators (hypertension, uncontrolled diabetes, major amputation in diabetics) from being considered suitable for international comparison at that time.

- A number of potentially confounding factors (e.g. population age and sex profile) were identified for which risk adjustment could be warranted to improve the comparability of the indicators across health systems.

19. On the basis of these findings, the Secretariat presented the meeting in The Hague in May 2008 with a proposed set of nine potentially preventable admission indicators (refer to Table 2) for pilot data collection in 2008-09, including:

- technical definition of each indicator (based on the ICD9 codes used by the US Agency for Healthcare Research and Quality to specify their set of Prevention Quality Indicators), and
- specification of additional data and information to support further analysis of potential risk adjustment factors.

20. The meeting expressed broad in-principle support for the further development of the specified set of 9 potentially preventable admissions indicators with:

- All countries, with the possible exceptions of the Netherlands (data availability issues) and the UK (data available for England only), indicating that national calculation of the indicators is currently feasible.
- Seven countries indicating support for participating in a pilot data collection of the proposed indicators (i.e. Australia, Canada, Finland, Portugal, Singapore, Slovakia and Sweden).
- Six country representatives reporting that they were not in a position at the meeting to indicate whether or not their country would participate in a pilot data collection. They indicated they would need to consult further before providing a more definitive response to the OECD Secretariat (i.e. New Zealand, Germany, The Netherlands, Denmark, Norway and UK).

<table>
<thead>
<tr>
<th>Condition</th>
<th>Indicator (AHRQ Prevention Quality Indicator No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>Adult Asthma Admission Rate (PQI 15)</td>
</tr>
<tr>
<td>COPD</td>
<td>COPD Admission Rate (PQI 5)</td>
</tr>
<tr>
<td>CHF</td>
<td>CHF Admission Rate (PQI 8)</td>
</tr>
<tr>
<td>CAD</td>
<td>Angina without Procedure Admission Rate (PQI 13)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Diabetes Short-term Complications Admission Rate (PQI 1)</td>
</tr>
<tr>
<td></td>
<td>Diabetes Long-term Complications Admission Rate (PQI 3)</td>
</tr>
<tr>
<td></td>
<td>Uncontrolled Diabetes Admission Rate (PQI 14)</td>
</tr>
<tr>
<td></td>
<td>Rate of Lower-extremity Amputation among Patients with Diabetes (PQI 16)</td>
</tr>
<tr>
<td>Other</td>
<td>Hypertension Admission Rate (PQI 7)</td>
</tr>
</tbody>
</table>

21. Since the meeting in The Hague in May 2008, the Secretariat has:
• undertaken a detailed mapping exercise that enables the 9 indicators to be specified in both ICD 9 and ICD 10, and

• incorporated the 9 indicators into the proposed HCQI Data Collection for 2008-09, including specification of additional data and information to support further analysis of potential risk adjustment factors.

22. It is planned for the HCQI Data Collection for 2008-09 will be principally undertaken from November 2008 to March 2008 with consideration of the relevant data (including the nine potentially preventable admission indicators) by the countries participating in the HPPPC work in the second quarter of 2009.

4. Priorities for Future Indicator Development

23. Opportunities and priorities for future indicator development (other than those specified in Table 1) were considered during the meeting in May 2008, particularly during discussion of:

• A background paper prepared by the Secretariat (refer to DELSA/HEA/HCQ(2008)3) which identified a number of key gaps in the existing set of indicators including: curative functions of primary care, disability, cancer care, palliative care and perinatal care, and

• A review of primary care indicators relating to the management of chronic conditions undertaken by the Secretariat (refer DELSA/HEA/HCQ(2008)2) which put forward a proposed set of new indicators that would go some way to addressing key gaps relating to quality of chronic care.

24. It is proposed that the HPPPC indicator development priorities for 2009 include:

• Obstetrics and Midwifery
  Particular support was noted during the meeting for the development of indicators relating obstetrics. This support coupled with the indications from the survey that availability of Obstetrics and Midwifery collections across member countries is relatively strong, suggests this may be a fruitful focus area for further indicator development in the shorter term.

• Pharmaceuticals
  The reported nature and availability of Pharmacy and General Practice data collections across countries responding to the information system and indicator data availability questionnaire suggests that potential for meaningful indicator develop exists in these areas, particularly in relation to prescription drug utilisation.

• Other
  Participants at the meeting also expressed support for a broader focus on indicator development that moves beyond medical care to include dimensions of self management, education, empowerment of the patient and quality of life measurement. It is suggested that further consideration of indicator developments of this nature be undertaken during 2009, with a view to assessing the validity and feasibility of international data collection on related indicators.

5. Future Meetings

25. Provided the OECD process of approval for the formation of the HPPPC has been finalised, meetings of the Subgroup are tentatively planned for:
• May 2009 (by teleconference) to consider relevant indicator data and information resulting from the HCQI Data Collection for 2008-09, including potentially preventable indicator data, and

• September 2009 to consider the conceptualisation and progress on agreed priority indicator development areas.
ANNEX 1

OECD HEALTH CARE QUALITY INDICATORS PROJECT
HEALTH PROMOTION, PREVENTION AND PRIMARY CARE

REPORT ON THE HEALTH PROMOTION, PREVENTION AND PRIMARY CARE
INFORMATION SYSTEM AND DATA AVAILABILITY QUESTIONNAIRE.

Background

26. In October 2007 the OECD Health Care Quality Indicators Expert Group proposed that work be
done on developing quality of care indicators on Health Promotion, Prevention and Primary Care
(HPPPC). The initial work was to review the relevant existing indicators in member countries, building on
the work of a number of international expert panels commissioned by the OECD in 2004 to propose quality
of care indicators considered worthy of further consideration for international comparison in the following
priority areas:

- Cardiac Care
- Diabetes Care
- Health Promotion, Prevention and Primary Care
- Mental Health Care
- Patient Safety

27. The initial scope of the review on HPPPC was largely limited to the health promotion, prevention
and primary care, diabetes care and cardiac care (secondary prevention) indicators proposed by the expert
panels. It was decided that the work would put consideration of mental health care aside, given a separate
subgroup had already been established to consider ongoing mental health care indicator development.

28. To inform the initial deliberations, a survey of information system and data availability was
undertaken by the Secretariat in early 2008 to assess the current and emerging capacity of participating
countries to calculate relevant indicators.

29. The questionnaire for the survey comprised of two parts:

1. Identification of existing and emerging information systems useful for generating national health
promotion, prevention and primary care quality of care indicators in the following priority areas:

- General Practice
• Obstetrics and Midwifery
• Women’s, Children and Youth Community Health Services
• Home and Community Care for the Elderly
• Specific Ambulatory Care for Chronic Diseases
• Pharmacies
• Information Systems Under Development

2. Assessment of current availability of the health promotion, prevention and primary care quality of care indicators currently under consideration, including a new set of proposed indicators relating to the management of chronic diseases (refer to DELSA_HEA_HCQ(2008)2.doc)


31. The questionnaire was distributed to the 18 participating countries with a view to having the results discussed in a meeting in The Hague on 30 May, 2008. This proved to be a valuable exercise as it provided the meeting participants with an opportunity to compare responses and appreciate a global view of the data availability and system capacity across participating countries. The full record from the meeting on 30 May, 2008 provides additional coverage of the nature and content of the country responses to the questionnaire presented at the meeting.

32. Subsequent to the meeting on 30 May, the 18 participating countries were requested to provide a final response to the Secretariat to enable this summary report to be compiled. A summary of responses is provided in Table 1.

### Table 1a: Status of Responses

<table>
<thead>
<tr>
<th>Participating Countries</th>
<th>Attended Meeting 30 May</th>
<th>Survey Response Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Yes (by telephone)</td>
<td>Yes (draft)</td>
</tr>
<tr>
<td>Canada</td>
<td>Yes (by telephone)</td>
<td>Yes</td>
</tr>
<tr>
<td>Denmark</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Finland</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>France</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Hungary</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Iceland</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Germany</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Norway</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Portugal</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Singapore</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sweden</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Turkey</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Yes</td>
<td>Yes (for England only)</td>
</tr>
<tr>
<td>United States</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

33. An encouraging response rate was achieved with over 70% (13) of the countries providing a response by the specified deadline.
34. This report seeks to summarise the responses to the survey and set out the key findings in relation to:

1. Information system availability, and
2. Indicator data availability.

Summary Findings

Information System Availability

35. Part 1 of the questionnaire sought to assess the availability of information systems useful for calculating national health promotion, prevention and primary care quality of care indicators in a number of priority areas. A brief description of each relevant information system was requested from respondents along with additional (optional) information related to national representivity, the level of data available, coding systems, existing use for calculating quality of care indicators and links to other information systems.

36. A preliminary summary of information system availability in countries responding to the questionnaire is set out at Table 4. Although further validation and follow up is warranted in order to more fully assess the level of utility of each information system for specific indicator calculations, the current level of overall information system availability reported is encouraging, particularly in relation to general practice, obstetrics and midwifery and pharmacy information systems.

Table 2a. Summary of Information System Availability by Priority Area.

<table>
<thead>
<tr>
<th>Priority Area</th>
<th>Australia</th>
<th>Canada</th>
<th>Denmark</th>
<th>Finland</th>
<th>Netherlands</th>
<th>New Zealand</th>
<th>Norway</th>
<th>Portugal</th>
<th>Singapore</th>
<th>Slovak Republic</th>
<th>Sweden</th>
<th>Turkey</th>
<th>UK</th>
<th>Existing (E)</th>
<th>Development (D)</th>
<th>None Reported</th>
<th>Total</th>
</tr>
</thead>
</table>

(1) Based on responses to the section of the questionnaire relating to relevant information system developments currently underway in the respective countries.

37. The majority of responses (9) identified other related information system developments currently underway in their countries including. A summary of these developments is set out in Table 3.

Table 3a: Summary of Information System Developments by Country.

<table>
<thead>
<tr>
<th>Country</th>
<th>Initiative</th>
<th>Data Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Primary Health Care Indicators Project (PHCIP)</td>
<td>2008/09</td>
</tr>
<tr>
<td></td>
<td>Several population based surveys with limited linked health system data within</td>
<td></td>
</tr>
<tr>
<td></td>
<td>some regions. Voluntary PHC Reporting System Prototype that could provide the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>infrastructure, standards and reporting for a national database and which will</td>
<td></td>
</tr>
<tr>
<td></td>
<td>be used to create a Primary Care Surveillance Network that will collect data for</td>
<td></td>
</tr>
</tbody>
</table>

12
<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>Danish Health Care Quality Program&lt;br&gt;National program for quality development for publicly financed health care that provides standards and indicators for quality, including prevention, health promotion and patient education. <strong>DAK-E Project (General Practice)</strong>&lt;br&gt;General Practice information system that captures relevant data (ICPC coding) for quality of care monitoring, including indicators for diabetes, COPD and back pain.</td>
<td>2008</td>
</tr>
<tr>
<td>Finland</td>
<td>Primary Health Care Statistics&lt;br&gt;New national primary care information register with including patient identification and diagnosis data. The existing register only has in-patient care.</td>
<td>2009/10</td>
</tr>
<tr>
<td>New Zealand</td>
<td>National System Development Programme&lt;br&gt;Aims to improve the interaction of national payment, information and connectivity systems with the wider health and disability sectors, including primary health care.</td>
<td>2010</td>
</tr>
<tr>
<td>Portugal</td>
<td>National Health System User Card&lt;br&gt;Information system that links data from different levels of care and institutions and the anticipated development of a national health system user card that will provide access to personal clinical information.</td>
<td>2010</td>
</tr>
<tr>
<td>Singapore</td>
<td>GP Information System&lt;br&gt;Current coverage of 6 chronic conditions will be extended to other conditions in the future. <strong>Outpatient Data</strong>&lt;br&gt;Enhancement of hospital administrative databases to collect diagnosis and procedure codes in outpatient settings.</td>
<td>TBD</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>Module Information Technologies(S1)&lt;br&gt;Information infrastructure involving web based technology to network health care providers.</td>
<td>2010</td>
</tr>
<tr>
<td>Sweden</td>
<td>eHealth Strategy&lt;br&gt;Long term development of a national health information structure to form the basis regulating the content, form and structure of health related information and ongoing work on an interdisciplinary terminology (including SNOMED CT) to ensure harmonisation of national classifications, concepts and terms.</td>
<td>TBD</td>
</tr>
<tr>
<td>Turkey</td>
<td>Saglik-NET&lt;br&gt;National health system development that will enable central analysis and reporting of data from over 45 different data sets from 850 hospitals.</td>
<td>2008</td>
</tr>
</tbody>
</table>

**Optional Additional Information**

38. A detailed presentation of the responses to each of the information system priority areas is not provided in this report. Rather a summary of the reported characteristics of the information systems is presented in the following section along with brief comment on the potential of each priority area for further international indicator development.

**General Practice**

- Of the 13 countries responding to the questionnaire, 12 countries report the availability of a national or nationally representative General Practice information system, with both Finland and Turkey flagging that current developments are underway to improve coverage and scope of information systems in this area. While Canada does not presently have a national General Practice information system, work is currently underway to develop a nation primary care data collection to monitor chronic conditions.

- All but one of the countries (i.e. Denmark) with patient level data (6) report the availability of information systems based on nationally representative samples whereas countries with national
data (7) reported the availability of data at higher levels, commonly at the practice, service or facility level (4). These results suggest a trade-off may exist between the representativeness of data and the level of data in existing information systems in order to effectively manage the data burden.

- All countries, except Finland, report having coding systems in place for at least one category. Of the 12 countries with General Practice information systems, 7 countries have at least one diagnosis based classification in place with 3 countries using ICPC (Portugal and Finland intend to use ICPC in the future), 2 countries using IDC (Finland intends to use ICD in the future) and 2 countries using Read Codes.

- The majority of the countries (7) with General Practice information systems currently use their systems to calculate and report quality of care indicators.

- Only 2 of the 5 countries with patient level data report having links to admitted patient hospital services information systems.

39. 
Possible Implications: These findings suggest there may be real opportunities to develop international quality of care indicators for General Practice in the future. However, further consideration may need to be given to the nature and comparability of indicators drawn from information systems with different forms of representivity, levels of data and classification systems.

**Obstetrics and Midwifery**

- Of the 13 countries responding to the questionnaire, 12 countries report the availability of an Obstetrics and Midwifery information system with 11 of these countries reporting the availability of national data. Nearly 70% (8) of the information systems contain patient level data and all but one of the countries report that the information system covers prenatal care, delivery, postnatal care and neonatal care.

- All countries report having coding systems in place for at least one category. Of the 12 countries with Obstetrics and Midwifery information systems, 11 countries have a diagnosis based classification in place with 9 countries using a version of ICD.

- Over 80% (10) of the countries with Obstetrics and Midwifery information systems currently use their systems to calculate and report quality of care indicators.

- Only 5 countries (Denmark, Finland, Netherlands, New Zealand and Sweden) specifically report that their information system is linked to both hospital and community based services.

40. 
Possible Implications: These findings suggest there is likely to be real opportunities to develop international quality of care indicators for perinatal care in the future. For example, it is noted that over 60% of countries responding to Part 2 of the questionnaire indicate data availability for the ‘First Visit in the First Trimester’ indicator.

**Women’s Children and Youth Community Health Services**

- Of the 13 countries responding to the questionnaire, 9 countries report the availability of national data in at least one Women’s Children and Youth Community Health Services information system, with New Zealand, Singapore and Turkey indicating the availability of multiple systems.
However, only 1 country (Singapore) reports the availability of patient level data in at least one information system.

- It is noted that there are developments underway. For example, although a national registry or database does not exist to cover the range of mother and child (0-19 years) services in the Netherlands, the Dutch Inspectorate requested the public services to collect quality of care indicators in 2008.

- The target population of the information systems varied across countries in accordance with the specific nature of the database (e.g. immunisation, breast screenings, school health clinics, early childhood checks, mother and baby visits) and nationally recognised age limits for childhood. The ages range from 0-18 years (e.g. 0-5yrs in New Zealand and 0-18yrs in Singapore) for children and 15-69 years (e.g. 15-49 in Turkey and 40-69 in Singapore) for women.

- Just over half (5) the countries (New Zealand, Portugal, Slovak Republic, Sweden and Turkey) report the use of at least one coding system, with intervention, action or output based systems being the most prevalent across the countries (4).

- Less than 50% (4) of the countries with Women’s Children and Youth Community Health Services information systems currently use their systems to calculate and report quality of care indicators.

- Only 2 countries report having links to other information systems.

41. **Possible implications:** These findings suggest that although there is a range of relevant information systems in place at the national level, the potential to develop internationally comparable indicators of quality of care from such systems may be limited. It is unclear to what extent the data from these systems are comparable given the variation in the target patient population, relative low level of coding and possible variations where classifications are being used. Further, less than half the countries with information systems currently calculate and report quality or care indicators.

**Home and Community Care for the Elderly**

- Of the 10 countries that report the availability of an existing and/or developing Home and Community Care for the Elderly information system, 9 countries completed the optional data section of the questionnaire.

- Nearly 80% (7) of the countries with information systems report the availability of national data, with a little over a half (5) of the countries able to access data at the patient level.

- While 6 of the 9 countries report the use of a coding system, there was little consistency in the type of system being used and only Norway currently utilises a presenting problem (i.e. ICF) or diagnosis (i.e. ICPC) based classification.

- None of the countries with national systems in place report currently using their system to calculate and report quality of care indicators.

- None of the countries with national systems in place report having links to other information systems.
42. **Possible implications:** These findings suggest that although there is a range of relevant information systems in place or under development at the national level, the potential to develop internationally comparable indicators of quality of care from such systems is likely to be limited in the short term. However, the potential for such information systems to provide useful quality of care data for community dwelling elderly people with chronic conditions is evident. The further adoption and harmonisation of diagnoses classifications across these systems will be important in this regard.

**Specific Ambulatory Care for Chronic Diseases**

- Of the 13 countries responding to the questionnaire, 8 countries report the availability of at least one Specific Ambulatory Care for Chronic Diseases information system, with Sweden indicating the availability of multiple systems. All 8 countries report the availability of national or nationally representative data with five of these countries able to access this data at the patient level.

- Although the nature of the information systems vary quite markedly, there is a degree of commonality in the target populations and conditions, particularly diabetes:
  - Denmark – quality of hospital care data for acute surgery, COPD, diabetes, heart failure, hip fracture, lung cancer, schizophrenia and stroke.
  - Finland – social security database that collects diagnosis (including diabetes, coronary artery disease, asthma and COPD) to assess entitlement to medication reimbursement.
  - New Zealand – data from a program aimed at systematically screening patients for the risk and complications of diabetes.
  - Norway – national statistics linked to individual needs for care including housing, functional disability, diagnosis, health and social services and 24 hour care.
  - Portugal – national diabetes registry
  - Singapore – general practice information system that collects clinical indicator data for diabetes, hypertension, lipid disorders, stroke, asthma and COPD.
  - Sweden – national health quality registers for the care of diabetes, CHD, COL and heart failure.

- All countries report having coding systems in place for at least one category, with 6 of the 8 countries reporting the use of a diagnosis based classification.

- Over 50% (5) of the countries with national systems in place report currently using their system to calculate and report quality of care indicators.

- Half of the countries with national systems in place report having links to other information systems.

43. **Possible implications:** These findings suggest that although there is a range of relevant information systems in place or under development at the national level, the potential to develop internationally comparable indicators of quality of care from such systems is likely to be limited in the short term. Although the nature of the information systems vary quite markedly, the potential for such information systems to provide useful quality of care data for certain conditions (e.g. diabetes) may warrant further consideration.

**Pharmacies**

- Of the 10 countries that report having Pharmacy information systems, 9 countries provided the optional data. All but one of the reporting countries (8) have access to national data, with Canada
indicating that a national system is currently being developed. Nearly 80% (7) of the countries have access to patient level data.

- These information systems appear to contain, at a minimum, data on prescription pharmaceuticals and enable the volume and type of drugs to be monitored by such variables as age, sex and geographic region. In many instances (e.g. Australia, New Zealand, Netherlands and UK) the information systems appear to be administrative in nature and related to the country’s system of financing pharmaceuticals. As such these systems also contain cost/value data.

- Over Although all countries report having coding systems in place for at least one category, only the Slovak Republic and Turkey report that patient diagnosis is available in their national pharmacy information systems.

- Less than half (4) of the countries report the use of their systems to calculate and report quality of care indicators.

- Only 4 of the countries with national systems in place report having links to other information systems.

44. Possible implications: These findings suggest there may be real opportunities to develop international quality of care indicators for pharmaceuticals in the future, particularly in relation to utilisation of prescription drugs. However, the scope of indicators that could be developed from such systems warrants further consideration given the apparent paucity of related diagnosis and clinical care data. For example, it is noted that data availability for pharmaceutical related indicators reported in Part 2 of the questionnaire is relatively low (e.g. appropriate use of long-term control medication).

45. Table 4 seeks to summarise the level of potential of the various priority areas to develop internationally comparable indicators of quality of care, over the shorter term. The nature and level of availability of information systems reported through this survey indicates that further investigation of the potential for indicator development is warranted in the area of Obstetrics and Midwifery, Pharmacies and General Practice.

Table 4a. Potential for Indicator Development by Priority Area

<table>
<thead>
<tr>
<th>Priority Area</th>
<th>Indicator Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Practice</td>
<td>✔️ ✔️</td>
</tr>
<tr>
<td>Obstetrics and Midwifery</td>
<td>✔️ ✔️</td>
</tr>
<tr>
<td>Women's Children and Youth CHS</td>
<td>✔️</td>
</tr>
<tr>
<td>Home and Community Care for Elderly</td>
<td>✔️</td>
</tr>
<tr>
<td>Specific Ambulatory Care for Chronic Diseases</td>
<td>✔️</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>✔️ ✔️</td>
</tr>
</tbody>
</table>

Indicator Availability

46. Part 2 of the questionnaire sought an indication from respondents of the availability of 56 indicators currently under consideration by the OECD. The response options were:

- Indicator is currently collected

- Indicator could be constructed from available data
A variant of this indicator could be constructed

Data for this indicator might become available in the next three years (2009-11)

Unlikely to become available

47. The availability of the majority of these indicators (32) had been previously assessed in 2005 and hence the responses to the 2008 provided an opportunity to consider if data availability had improved or not over the 3 year interim period.

48. The complete set of responses to Part 2 is presented at Annex 1.

**Key Findings**

- The responses reveal that only 17 (30%) of the 56 indicators are either currently collected or can be constructed from available data by at least 50% of the responding countries. Refer to Table 2.
- There is no clear trend from a comparison of the responses in 2005 with those in 2008 that data availability for the 17 indicators has improved over the 3 year period.
- It is noted that 11 of the 17 indicators have been recommended for inclusion in the HCQI and Health Data Collections for 2008-09.
- Overall, availability has improved for 34% (11) of the 32 indicators assessed in 2005. However, only 4 of these indicators are currently available in the majority of countries responding to the questionnaire.

**Table 5a. Indicator Availability: At least 50% of Countries Either Currently Collect or Can Construct Indicator**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2005</th>
<th>2008</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Total</td>
</tr>
<tr>
<td>Physical activity</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Diabetes prevalence</td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Gonorrhoea/Chlamydia rates</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Abortion rates</td>
<td>10</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Congestive Heart Failure readmission rate</td>
<td>7</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>First visit in first trimester</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Hospitalisation for ambulatory-care sensitive conditions</td>
<td>8</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Hypertension admission rate</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Diabetes admission rate</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Immunisable conditions</td>
<td>9</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Adolescent immunisation</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Lower Extremity Amputations Rates</td>
<td>5</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Cardiovascular Mortality in Patients with Diabetes</td>
<td>5</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Avoidable hospitalizations for angina without procedures</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Avoidable hospitalizations for COPD</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Admissions for uncontrolled diabetes</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Admissions for short-term diabetic complications</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

49. A review of the validity and further investigation into the feasibility of developing internationally comparable indicators is warranted in relation to the remaining 6 indicators:

- Physical Activity
• Gonorrhoea/Chlamydia Rates
• Abortion Rates
• First Visit in First Trimester
• Adolescent Immunisation
• Cardiovascular Mortality in Patients with Diabetes

50. In addition, identification and consideration of the data sources used to calculate these indicators could generate opportunities for further related indicator development (e.g. perinatal data collections).

Proposed New Set of Chronic Care Indicators

51. As indicated previously, the survey also sought to establish a baseline understanding of the availability of indicator data for a new set of proposed indicators relating to the management of chronic diseases. These indicators were set out and discussed in a paper prepared by the Secretariat for the meeting in The Hague on 30 May 2008.

52. The results from the survey indicate that data availability for this set of indicators is likely to be low across OECD member countries, with only 4 (21%) of the 19 indicators currently available in the majority of countries responding to the questionnaire. Refer Table 3. It is noted that all the 4 indicators are potentially preventable admission indicators and have been recommended for inclusion in the HCQI Data Collection for 2008-09.

Table 6a. Indicator Availability: Proposed New Set of Chronic Care Indicators

<table>
<thead>
<tr>
<th>Condition</th>
<th>Indicator</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>Spirometry testing</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Appropriate use of long-term control medication</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>Prescription of rescue inhaler</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td>40%</td>
</tr>
<tr>
<td>CAD</td>
<td>LV function test after AMI</td>
<td>0</td>
<td>8</td>
<td>8</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Annual LDL screening</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Avoidable hospitalizations for angina without procedures</td>
<td>6</td>
<td>3</td>
<td>9</td>
<td>67%</td>
</tr>
<tr>
<td>CHF</td>
<td>LV EF measurement</td>
<td>0</td>
<td>8</td>
<td>8</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Warfarin with chronic or proxysmal AF</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>Blood pressure control</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>LDL/cholesterol control</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>33%</td>
</tr>
<tr>
<td>COPD</td>
<td>Spirometry testing</td>
<td>1</td>
<td>8</td>
<td>9</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Bronchodilator use</td>
<td>1</td>
<td>8</td>
<td>9</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Avoidable hospitalizations for COPD</td>
<td>5</td>
<td>3</td>
<td>8</td>
<td>63%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Daily ASA prophylaxis</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>ACEI/ARB for albuminuria</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>Estimated glomerular filtration rate</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>LDL/cholesterol control</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Admissions for uncontrolled diabetes</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Admissions for short-term diabetic complications</td>
<td>7</td>
<td>4</td>
<td>11</td>
<td>64%</td>
</tr>
</tbody>
</table>
Key Observations

53. The following key observations are drawn from the responses to the survey of information system and data availability undertaken by the Secretariat in 2008:

1. Opportunities to develop additional internationally comparable HPPPC quality of care indicators are likely to currently exist, given the reported nature and availability of Obstetric and Midwifery, Pharmacy and General Practice data collections across countries responding to the questionnaire.

2. Although data availability for just over a third of relevant indicators currently under consideration by the HCQI project appears to have improved over the past 3 years, still only 17 of the 56 indicators surveyed can be currently constructed from available data by the majority of countries responding to the questionnaire. It is noted that 11 of these 17 indicators have been recommended for inclusion in the HCQI and Health Data Collections for 2008-09, including a set of 9 potentially preventable admissions indicators.

3. Reported levels of data availability for the proposed new set of quality of care indicators related to the management of chronic conditions is relatively low, apart from the subset of Potentially Preventable Admissions Indicators that are proposed for inclusion in the HCQI Data Collection for 2008-09.

4. A number of the following indicators may warrant further consideration (in alignment with agreed indicator development priorities), given the number of countries reporting their current ability to calculate the indicators:
   - Physical Activity
   - Gonorrhoea/Chlamydia Rates
   - Abortion Rates
   - First Visit in First Trimester
   - Adolescent Immunisation
   - Cardiovascular Mortality in Patients with Diabetes