World Health Organization, Western Pacific Region Nursing and Midwifery Minimum Data Set of HRH Indicators
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PROGRESS REPORT TO WHO, OCTOBER 2006

1.   Introduction

This paper has been produced as the second output (Product 2) for the World Health Organisation (WHO) Western Pacific Region (WPR), under the Agreement for Proposal of Work (APW) Project on Nursing and Midwifery Minimum Data Set for Human Resources for Health (HRH) Indicators (WHO WPR HRH - IMS Project).

This Project between UTS, WHO headquarters and selected regions, partners and countries, builds on and extends earlier WPRO work carried out with Ms Chieko Sakamoto on the development and design of nursing/midwifery information systems and other data gathering tools, as well as existing preliminary modules focused on the development and application of nursing and midwifery information systems. The provision of a minimum data set is required to analyse supply, requirements and adequacy in a profession-based workforce planning process (AHWOC 2003). The projects aim is to establish a Nursing and Midwifery *Minimum Data Set* for HRH indicators which allow standardization and monitoring which is implementable across the varying health systems in the region.

The project process is staged as follows:

Phase1
- Broad brush mapping exercise will be carried out to review the literature and relevant reports, global databases. Production of Product 1 (completed).

Phase 2
- Establish a Stakeholder Group via teleconference and email.
- Consult with Stakeholder Group to produce a set of draft core domains and indicators and outline for guidelines.
- Carry out a broad consultation by email and face to face to test and review draft core domains and indicators with peers, key stakeholders at international and regional: WHO CC Conference (Glasgow 2006), and South Pacific Nurses Forum, South Pacific Chief Nurses Alliance (Samoa 2006).
- Seek input and consensus of definitions, domains, indicators and outline of guidelines/fact sheets at Western Pacific and South East Asian Regional Regulatory Meeting in September November (Wellington, NZ 2006).

Phase 3
- Produce a set of relevant regional HRH - IMS domains, indicators and guidelines/fact sheets following mapping, collaboration and consultation of project.
- All definitions, domains and indicators need to be aligned, where possible, with global databases, and build on previous work.

This paper provides an overview of progress made in Phase 2 on implementing the methodology and deliverables.

PHASE 1

Completed:

Literature review and plan and timeline for the project was submitted in April 2006 (Product 1)**.** The information contained in the submitted document includes the first draft of the core domains and indicators (see Phase 2 below for outline of further development) which were drafted to support analysis of:
- trend data on past graduates from nurse education programs;
- recruitment and retention rates in different fields of employment (public sector, private sector etc);
- active personnel- age profile, demographic data etc;
- educational institute capacities in terms of intakes, pass rates and outputs;
- future retention and retirement rates.

The project team was convened and consists of the following personnel:
Professor Jill White;
Professor Mary Chiarella;
Professor Jim Buchan;
Michele Rumsey, Executive Officer.

The following WHO staff are involved as project advisers:
Kathy Fritsch WPRO Regional Adviser in Nursing;
Prakin Suchaxaya, SEARO Regional Adviser, Nursing & Midwifery;
Eziekel Nukuro WPRO Regional Adviser, HRH;
Dr. YC Chong, WPRO Regional Adviser Health Information;
Dr Thushara Fernando, STP-HRH.

PHASE 2

1.   Establish a Stakeholder Group

A group of Core Partners was established in May 2006, with the remit of obtaining agreement on types of data needed to make informed decisions about Human Resources for Health within the regions. The Group membership provides demographic representation of a range of perspectives including government, policy, regulation, education, workforce, employment, funding, information technology, management and researchers.

The group consists of the following individuals:

IMS-HRH Core partners
Ms Pele Stowers - Samoa
Ms Rigieta Nadakuitavuki - Fiji
Mrs Neti Herman - Cook Islands
Madam Yanhong Guo - China
Dr Wichit Srisuphan - Thailand
Dr Josefina Tuazon - Philippines
Dr Marilyn Lorenzo - Philippines

The remit of the group is to:
- To advise on and contribute to the development of Products 2 & 3.
- Agree on types of data needed to make informed decisions about HRH within the regions with reference to other existing work in this field and to advise on the strengths and weaknesses of different approaches;
- To ensure that the selection of indicators is pragmatic and informative but minimizes the data-gathering burden of the countries;
- To approve the final selection of indicators following consensus sessions at various fora (described below);
- To contribute to the development of the fact sheets/guidelines including providing advice on data definitions and data sources;
- To conduct a needs analysis and rate the types of data collected and; individual/organisational involvement required to develop a minimum data set to inform decisions about Human Resources for Health.

Following the needs analysis in which the Core Partners were asked to rate important types of data that would be required in a minimum data set to inform decisions about Human Resources for Health, a draft set of priority domains, definitions, indicators and an outline for guidelines/fact sheets was circulated to the Core Partners, selected partners and countries.

Initial feedback on a draft set of domains; definitions, indicators and an outline for guidelines/fact sheets was then undertaken by email-based consultation throughout the region to relevant partners and countries.

A broader Reference Group has also been established as an expert advisory group to ensure that the work reflects and builds on broader developments within the area of HRH minimum datasets. This group consists of the following individuals:

IMS-HRH Reference Group
Ms Ang Beng Choo – Chief Nurse, Singapore
Ms Judy Glackin Margaret Rimmer – New Zealand
Mark Jones Chief Nurse of New Zealand
Annett Huntington - President Nursing Council of New Zealand
Mrs Mary Roroi – PNG
Ms Margaret Banks Ms Margaret Lyons Director – Australia
Dr Christine Duffield – Centre for Health Services Management faculty of Nursing, Midwifery and Health & Faculty of Business University of Technology Sydney

Dr Linda O' Brien-Pallas - Faculty of Nursing University of Toronto, Canada

This group attended the Wellington meeting and provided comments and suggestions on the domains and indicators.

2.   Consult with Core Partners and Reference Group to produce a set of draft core domains and indicators and outline for guidelines

The initial template of core domains and indicators (see Table 2 below) extended earlier WPRO work on the development and design of nursing/midwifery information systems and models carried out by Ms Chieko Sakamoto. The list of key data items was drafted following discussion within the project team and WHO WPRO staff and was also based on findings from the literature review (AHWOC 2003, N^{3}ET 2005, Murphy & O'Brien-Pallas 2004, AIHW 2003, AIHW 2005).   The minimum data set indicators are intended to be consistent with global labour force definitions and other HRH databases, rather than re-invent the wheel. The ones included in the draft list are those that are ideally recommended for HRH analysis and which can contribute to the most meaningful analyses (Diallo et al., 2003).

The list reflected the key priority domains for which it was more likely than not that data may be available across this complex and diverse region, and which would provide sensitive indicators for regional resources planning. It was also important to identify those domains for which financial resources may be most likely to be mobilised for data collection, particularly in smaller countries with limited resources. This list was then presented to the Stakeholder Group for further input and then circulated at and presented at various meetings for broader consultation (see below).

The Core Partners then met via teleconference on 27th/28th July and provided feedback on the draft domains and indicators and the fact sheets which are being developed to provide guidelines for countries on the implementation of the IMS-HRH project.

The Core Partners, Project Team and Reference Group have worked to ensure that the project produces a *minimum* data set which can be refined throughout the project to ensure the data collected in the future is on a need to know basis.

The group's main comments were that:
- It is important that data from both private and public sectors are collected;
- Projections for retirement is possible for those countries which have a policy on compulsory retirement age.
- At country level, the organization/individual that should be involved in implementing, maintaining and disseminating the minimum data set should be:
  Organization   -   Human Resource Unit, Ministry of Health
  Individuals   -   Divisional Directors
                            HR Officer, Departmental, Sectional/ Island Managers
- The focus should be on getting the most out of the existing health workforce than increasing the number. This involves examining those factors which determine/influence work performance.

3.   Carry out a broad consultation by email and face to face to test and review draft core domains and indicators with peers, key stakeholders at international and regional: meetings

A second phase of additional face-to-face consultation on a revised draft was then undertaken through presentations and discussion groups at relevant international and regional meetings:

- WHO Collaborating Centre – Resourcing Global Health Conference Glasgow June 7-9th 2006;

- South Pacific Chief Nurses Alliance Meeting and South Pacific Nursing Forum Samoa September 6-8th 2006;

- WP/SEAR Regional Regulatory Meeting Nursing Regional Meeting, New Zealand September 18th-20th 2006

4.   Seek input and consensus of definitions, domains, indicators and outline of guidelines/fact sheets at Western Pacific and South East Asian Regional Regulatory Meeting, September 2006.

The reviewed definitions, domains, indicators and outline guidelines/fact sheets were then presented for further feedback, testing and development at the biennial Western Pacific South East Asian Nursing and Midwifery Regulatory Authorities Meeting in September 18th –20th 2006. This meeting had nursing and midwifery representation from across the WP/SEAR. This was important as attendees represented an important group of potential users of the minimum data set and the Meeting provided a valuable forum for identifying gaps, refining and obtaining agreement on the core domains/indicators.

At this meeting Professor Jim Buchan and Professor Jill White presented an overview of the project, within the context of broader drivers and dynamics of global human resources for health.

In addition, the Project Team ran concurrent sessions to test and discuss the relevance of the proposed HRH indicators. The concurrent sessions were divided into country groups with similar demographics and regulatory systems in order to test the relevance of the data set in large and small countries. The aim of the concurrent sessions were to validate the priority information needs, HRH indicators, key data elements and guidelines / fact sheets required for effective HRH management within the regions. The countries were divided as follows:

Group A (Facilitator: Mary Chiarella)	Group B (Facilitator: Jim Buchan)	Group C (Facilitator: Michele Rumsey)
Australia	Sri Lanka	Bhutan
New Zealand	Laos	Cook Islands
Singapore	Nepal	Fiji
Thailand	Indonesia	PNG

Taiwan	Cambodia	Samoa
	Malaysia	Tonga
		Tuvalu
		Vanuatu
		Kiribati

General feedback and a recurring comment from all the groups was that positive outcomes will happen with early engagement and consultation and sensitising key stakeholders in advance of the benefits of the project. Information exchange at all stages is also essential. Also important is to pilot the project within a range of countries with different systems. This will enable any major problems to be addressed prior to full roll-out. Privacy issues and differences in legislation between countries were flagged as potential hindrances to data collection and interpretation of results that should be resolved at an early stage of implementation.

The collated output from the discussion groups is shown in Tables 1 and 2 below.

Table 1: Challenges and Strategies associated with IMS-HRH project as identified at WPR/SEAR Regulator's Meeting, September 2006, New Zealand	
Challenges	**Strategies**
Resource implications (country level costs and personnel) required for data collection	WHO needs to recognise that different countries have different levels of data gathering capacity. This may limit the data collection parameters in some countries.
Collection, ownership and management of data: how? who? where? access? purpose? security? updating?	All must be agreed by key contact in each country and WHO and must also be underpinned by agreed policy guidelines on ownership and access. WHO to advise on systems for retrieval, collation and analysis. WHO to work with stakeholders at country level to identify and implement effective systems.
Raising awareness of importance of data collection and use	WHO to identify main contact in Ministry of Health in each participating country and contact them regarding this project. At country level, the organization/individual involved in implementing, maintaining and disseminating the MDS should be: Human Resource Unit, Ministry of health; Divisional Directors; or HR Officers . CNO must be committed to project. Regulators could store information. These users then need to write to the main likely users of data to raise awareness in their regions and sensitise to the benefits of this project (should include policy makers, planners, professionals, researchers, educators, regulators, government departments)
Quality assurance of reliability and	Requires local supervision and quality checking at

accuracy of data collected	central point. Engaging and educating stakeholders and those involved in collecting data.
The availability of high-quality data may be restricted in some countries	Acknowledging that this may be the case
Time taken to collect data (particularly in large decentralised systems) Decentralised/autonomous/fragmented systems in some countries Lack of co-ordination of data and not knowing location of data sources	Recognizing that same timelines may not be realistic for all countries depending on how data organised and how easily accessible or not it is Pilot needed to test systems before going 'live'
Varying technical expertise of those responsible for collection, analysis and interpretation	Training in information retrieval, data collection, analysis and interpretation needed Pilot needed Clear definitions of what should be collected need to be provided and why data is collected. Clear description of terms such as rural, remote, urban Clear guidelines on how to establish system locally Ensure feedback of analysis and results to maintain 'buy-in' WHO to work with stakeholders at country level to identify training needs and implement appropriate training.
Cross-country comparison – how?	WHO to consider issues and advise

Table 2: Proposed Nursing and Midwifery IMS – HRH Core Domains and Indicators Feedback from groups at NZ meeting, September 2006		
Domains	**Indicators**	**Feedback from groups**
Demographics	Country Population (headcount, age, gender) Population distribution (categorised by rural, remote, urban)	All countries said they could provide information on this indicator
Current numbers of registered/ licensed Professionals	Current number of professionals (stock) Current number employed Personnel by age group	All countries said they could provide 'Stock' requires further definition: who, what? Differentiate between active and reserves; those who are work ready and not work ready and exclude those who have died (although may still be listed on some regulatory registers). Entry to practice qualifications

	Gender mix	Differentiate between nurses, midwives and other categories of nurse.
	Qualifications (including licence/registration)	Include current numbers authorised to practice. Define licensed vs registered
Workforce Participation	Number of hours worked in an average week (tabulated with age and sex)	All can provide, but not realistic to tabulate by age and sex for some countries and also need to include full and part-time
	Job Classification (broad description of roles and levels within organisations)	
	Principal clinical practice (described by principal practice, client group; field primary area of responsibility)	Some countries will be able to; other's uncertain.
	Principal role of health professional (management, clinical, education, research)	Some countries will be able to; other's uncertain.
Workforce Distribution	Type of employment (public; private; NGO etc)	Possible for some countries to provide information on this indicator
	Geographic location of employment (rural, remote, urban)	Possible for some. Need to define, remote, rural, urban
	Number and type of services in geographic location	Some countries can; others uncertain if able to (define geographic location)
Workforce Additions	Education and training (number of students, age, sex, f/t, p/t, number of graduates, number of expected completions, number of student providers)	Additional indicator suggested: 'locals returning from overseas'
	Migration (number of individuals joining workforce from overseas)	Some countries said they could provide information on this indicator
	Workforce re-entry (number of people re-entering workforce)	All countries said data available. Breakdown by people re-entering workforce by locals or nationals is useful.
Workforce Losses	Retirements	Most countries
	Deaths	Most countries

	Migration	Some countries could provide information on this indicator, others are unable to obtain the information
	Wastage (individuals leaving the profession or number of unknowns)	Not available in all countries. Include those who left workforce who are married.

The information above is presented as collated as there were no meaningful differences between the feedback offered by each of the three groups (however, information is available stratified by country groups). The main issues identified were similar across groups. However, it appears that for some countries it is easier than others to collect the required data on indicators. The smaller, less resource-rich countries felt that much of the data could be fairly easily obtained and collated and were more aware of workforce movements and trends in their countries than the more complex federated countries with more fragmented and decentralized systems of recording information. The larger countries were more concerned about issues associated with data ownership, data storage and security issues.

The domains and indicators have been subject to several consultations over the last few months. The input received from various groups has resulted in the following set to go forward for final refinement.

Fact sheets/Guidelines

Areas to be covered in the Fact sheets/Guidelines were nominated by the Core Partners and Discussion Groups. Participants were asked to nominate the guidelines required to explain the importance of HRH data and the 'how to' issues. The most important information requested from both groups was

- An outline of the aims of Human Resources for Health.

- An explanation of how minimum data sets contribute to health workforce planning, registration, analysis and research reporting.

- How to establish a working committee or taskforce for implementing HRH-IMS in-country.

- An outline of the methods for identifying and agreeing on local indicators (that is adapting the IMS-HRD template for local conditions).

- Suggestions on the smooth operation of data collection and tabulation.

- Information on who is responsible for co-ordinating the project; who is the main WHO/Project team member contact; who owns the data; who is responsible for updating; how the data will be secured and likely privacy issues.

- Specific examples of how the data will be used.

- Information on the domains/indicators, rationale for selection and associated definitions and data sources.

Suggestions and clarifications obtained from the NZ Meeting included:

- The title should be changed to 'guidelines'.

- A rationale should be included about why information under 'domains and indicators' is being collected.

- Further definitions are required, eg., license/registration; rural, remote, urban; 'geographical location' etc.

- There needs to be clarification of the languages the guidelines/fact-sheets are to be produced in.

- There should be information on who will have access to the data; store it; secure it; ensure privacy; manage it; and update it.

- The main users of the data should be listed (suggest policy-makers, planners, professionals, educators, regulators, researchers and government departments).

- Information on cross-country comparisons should be provided.

- Advice on how to minimise duplication of effort (especially in larger countries).

- Information on how the project will be resourced (costs and personnel).

- Advice on how to overcome difficulties of decentralised or fragmented systems (could be 'trouble-shooting' section).

- Technical expertise required for collecting, storing, managing, analyzing.

- Information on how analysis and results will be fed-back.

- Time-period(s) of data collection.

- How to maintain and update. Whose responsibility.

5. Final Analysis

All the collected data from regional stakeholders, experts, selected partners, countries and face-to-face consultations at regional meetings is being collated and incorporated into the products (domains/indicators and fact sheet/guidelines). A set of regional HRH - IMS domains, indicators and guidelines/fact sheets will be finalised – Product 3.
This will include rationale for and data source (data elements) of each domain/indicator.

6.   Next Steps

Given the diverse countries that the minimum data set will cover, in terms of size and configuration of health services, it will not be possible to capture the required data in one template that will meet all the policy-related requirements of each country. However, once finalised, individual countries and organisations can adopt the minimum data set and associated guidelines. The use of standard definitions will ensure consistency – allowing jurisdictions to develop their own more detailed and country specific data sets, which build on the core minimum data, and which will permit regional comparison and standardization.

For full implementation and operational utility, the WHO WPR HRH – IMS Project would require proof of concept to test the validity of the study. In-country pilots would be carried out in e.g. two countries will different demographics. Further funding would be required for this pilot study.

Domains and indicators to go forward:

7.   Key Dates and Deliverables

Project Planning Meetings	February 21-22nd 2006
Meetings with HRH – IMS Expert- Linda O'Brien -Pallas	March 7th 2006
Product 1 Completed	March 31st 2006
WHO/WPR UTS Teleconference	April 11th 2006
Establish Stakeholder Groups	April 20th 2006
Stakeholder Group Communication	May 12th 2006
Consult on draft domains, indicators and guidelines	May 20th 2006
Presentation to WHO CC Network Conference Glasgow	June 7-9th 2006
[Proposed: American Pacific Nurse Leaders Council -APNLC Marshall Islands]	June 19th 2006
Stakeholder Group Communication	July 28th 2006
	August 21st 2006
Product 2 Draft	
Presentations and consultations at regional meetings in Samoa	September 6-8th 2006

Presentation and consensus workshops WP/SEAR Regulatory Meeting Wellington NZ	September 18-20th 2006
Analysis of disseminated information peer and expert feed back and consensus workshops	October 2nd 2006
Further feedback from HRH – IMS Experts- e.g. Linda O'Brien – Pallas, Christine Duffield	
Stakeholder Group Communication	October 2006
	November 2006

Product 3 Draft

Presentation at Nursing and Midwifery Stakeholders Meeting with Global Advisory Committee, Geneva	November 13th –17th 2006

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