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WORLD HEALTH ORGANIZATION REGIONAL OFFICE FOR SOUTH-EAST ASIA

SUMMARY DUTY TRAVEL REPORT

Submitted by
 Dr Myint Htwe (Name) GPE (Unit) 12 October 2001 (Date) SE ICP GPE 001 01 (Allotment number)

Places visited Male, Maldives **Dates** 28 September to 2 October 2001

Purpose/objectives of visit:
 (i) To conduct the national workshop on "Data management related to health morbidity and mortality within the framework of national health information system"
 (ii) To observe the functions of health information system at the atoll level and discuss with national authorities to strengthen the health information system

Brief account of activities undertaken:
 (i) The workshop was conducted (plenary discussion using two-way interactive modality and group work) by RA-GPE (please see attached programme), emphasizing the practical aspects of utilizing the data and issues to be considered in analyzing and making inference on the data, i.e., transforming data into information for use in evidence based decision making.
 Practical examples were also taken from the Maldives Health Annual Report 1999, so that subsequent improvement can be made in future annual reports.
 A complete set of technical papers for the workshop was prepared by GPE unit in SEARO and distributed to the participants for reference as well as for conducting similar courses in the country.
 Dr Ohn Kyaw, WR office, Maldives, ran the third day of the workshop.
 The workshop was attended by 31 atoll HIS staff, medical record officers and statistical officers from various hospitals, health centres, Department of public health and Ministry of Health.
 (ii) One atoll was visited and actual activities of HIS were observed. Discussions were made with the officials of Ministry of Health headed by the Director General of Public Health. Full technical report, as attached, will be forwarded to WR for necessary action and follow-up.
 (iii) WR office provided full support (logistics and administrative) in the conduct of the workshop.

Recommendations:
 (i) GPE unit will closely follow-up on the implementation of suggested strategies to strengthen HIS in the country.
 (ii) Full technical support will be given to the HIS unit of the Department of Public Health through ICP-II (2002-2003).

Specific recommendations for action (if any) by DPM/RD:
 None

Distribution: LCO / LIB / WR Maldives / Dr Ohn Kyaw (for follow-up) / SA-GPE

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**National Workshop on “Data management related to health morbidity and mortality within the framework of national health information system”
Male, Maldives, 1-3 October 2001**

26 September 2001

Programme of Work

Session	Day 1: October 1, 2001	Day 2: October 2, 2001	Day 3: October 3, 2001
Morning	<ul style="list-style-type: none"> ➤ Health Information System (HIS) basic framework ➤ Status SEAR in the context of HIS basic framework ➤ Checklist points to reveal HIS scenario in Maldives 	<ul style="list-style-type: none"> ➤ Interpretation of morbidity and mortality data ➤ Data interpretation pattern ➤ Characteristics of data quality ➤ Seasonal Indices (SI) ➤ Epidemiologic interpretation of data in annual reports and how these can be utilized for health programme management and planning – based on examples of Maldives Annual Report 1999 	<ul style="list-style-type: none"> ➤ Checklist points to review the status of hospital morbidity and mortality data ➤ Medical records and hospital statistics and its use in planning and management citing various hospital indicators
Lunch Break			
Afternoon	<ul style="list-style-type: none"> ➤ Line of thought to arrive at appropriate strategies to improve HIS in the country ➤ Group work on development of strategies to improve HIS in the country ➤ Plenary 	<ul style="list-style-type: none"> ➤ Group work on epidemiologic interpretation of morbidity and mortality rate (examples taken from other countries) 	<ul style="list-style-type: none"> ➤ Different types of data presentation

Health Information System in Maldives

Dr Myint Htwe, RA-GPE/SEARO

(Maldives: 28 September to 2 October 2001)

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1. Major Findings
2. Rationale for the Strategies
3. Strategies to Close the Gaps in Health Information System

Annex – 1: Review the Strengths and Weaknesses of the existing HIS

1. Major Findings (based on checklist questions attached as annex-1)

- ◆ The health information system (HIS) in Maldives appears to be **functioning** satisfactorily. The basic infrastructure and system management mechanism for HIS are already available. However, it may be necessary to modify and streamline it so that it is synchronous with priority activities of the health system in the country. As the HIS is already performing satisfactorily, it appears that the system should not be significantly disturbed. Instead, weak linkages should be strengthened, gaps be filled, overall functional activities of HIS be streamlined. Specific new activities may be added in a phase-wise manner to meet the current requirement of the health system.
- ◆ **Feedback** of information to the lower level was not the order of the day. Various mechanisms may be contemplated.
- ◆ The **data transmission system** as well as **linkages** between the HIS unit of DOH, HIS subsystems, and Medical Statistics unit may be reviewed and strengthened to effect changes in the overall HIS and then on the health care system.
- ◆ The **data collecting forms** were developed several years back may need to be reviewed to suit the current needs. It may also contain variables, which is not useful for planning and management purposes.
- ◆ **Software for data entry** for hospital information system of the hospitals needs to be reviewed and applied in all the hospitals in a phase-wise manner. To develop a comprehensive hospital system would be too expensive at this point in time. Tailor-made software may be developed after thorough discussion between the hospital management and the medical doctors of the hospital.
- ◆ The **utilization** of data emanating out of the HIS is minimal. The system for transforming data into information needs to be improved. Programmes and mechanisms to inculcate “information culture” are few and far between. The concerned staff usually considered that their duties have been fulfilled once they entered the data into the data registry book.
- ◆ The framework for **health profiles** is not available at the peripheral level. The uniformity of this framework is extremely important for ease of data compilation at the central level, comparative analysis of provincial health situations for appropriate resource allocation, and for many other purposes.

2. Rationale for the Strategies

HIS is the **lifeline** for the Ministry of Health to achieve its objectives. The ultimate aim of the HIS is to increase the utilization of information arising out of it. To achieve this, “**information culture**” should be developed at different levels of the health system. It cannot be achieved in one stroke but needs to be contemplated carefully and carried out in a phase-wise manner.

Within this context, the following recommendations are put forward for consideration as appropriate. The recommendations could be implemented **phase-wise** and for some **sequentially**. The proposed recommendations may even need to be modified as the inherent

connotations embedded in it are based only on the findings observed during the short visit. **Subsequent interactions** on the *modus operandi* of implementing the recommendations are called for between responsible staff from SEARO, WR office and the focal point for HIS in Maldives.

The recommendations given are action-oriented, easy to implement without drastically disturbing the already existing HIS in the country. To revamp the whole system will not be cost effective at this point in time given the current level of performance of HIS in the country. Due to time constraint, HIS subsystems (Epidemiological surveillance system, specific health programme reporting, administrative system, vital registration system) are not observed in detail.

3. Strategies to close the gaps

The strategies should not be viewed as *ad hoc* activities but rather as routine activities of the programme. The principle of "*information for action*" at all levels of the health system has been taken into consideration.

Strategies and its activities

- (a) Improving the **data transmission system** of HIS including data collecting forms and data quality.
 - ◆ Conducting short brainstorming sessions and focus group discussions between Director (HIS) and relevant staff of subsystems of HIS in the country. Data transmission system could be improved based on the agreed upon points.
- (b) Improving the **feedback mechanism** of HIS.
 - ◆ Establishing a built-in mechanism in the HIS unit of the Department of Health, e.g., "**one page summary situation analysis** or pointer situation on various aspects of health programmes and health situations in the country" could be produced as and when necessary. This is preferably to be put into the *executive information system*. The information could be extracted out of the routine HIS and its subsystems and also from study reports. The analysis need not be an elaborate one. The purpose is to serve like a wake up call for programme managers in improving their programmes.
- (c) Improving the **capacity of HIS and capability** of staff of HIS.
 - ◆ Conducting **in-service output oriented training** programmes on subjects related to HIS. The need will vary from place to place and from time to time. The detailed record of types of training given and the participant lists should be recorded for long-term planning as well as for consideration of career development of staff involved.
- (d) Improving the system for **transforming data into information** for making evidence-based decisions.

- ◆ Development of a **self-propelled system** to regularise transformation of data into information at different levels of HIS. Various mechanisms can be envisaged.
 - For example, **piggy back** on regular technical meetings or as part of some regular meetings, to review available data/information *vis-à-vis* current programme performance; a team of experts (epidemiologists, public health administrators, programme managers, regional health officers, key data gatherers) could be formed to deal with this. The outcome of the review would be a **one page action-oriented report**. A well-established mechanism should be in place so that the report could be reached to high-level decision makers at the central level.
 - Training workshop on how to **present data and how information can be extracted out** of the health profile should be conducted. (SEARO is preparing modules on data presentation and transforming data into information. SEARO will conduct inter-country training workshop in December 2001). Based on it, country specific training modules could be developed. It would then be uniformly used in training programmes in the country.
 - ◆ Development of **information culture** or *culture for utilizing information* emanating out of the HIS. It could be achieved through putting one agenda item on **‘Utilization of data arising out of the HIS in decision making...by citing practical examples’** in relevant WHO sponsored country level meetings for various subjects.
- (e) Improving the system for **monitoring the performance** of HIS in order that HIS becomes more responsive and user-friendly.
- ◆ Development of easy to apply **checklist for monitoring** the performance HIS including data quality at different levels of the health system. (SEARO is developing a checklist to be used in quickly assessing HIS in the countries. Once it is available, it can be applied in the countries after making appropriate changes to suit specific needs of the country).
 - ◆ Workshop to review **relevancy of data** emanating out of HIS to the needs (technical and management) of different health programmes.
- (f) Improving the overall **networking** system for information as a long term objective
- ◆ Development of **web based electronic data communication system** in the country in a phase-wise manner.

Review the strengths and weaknesses of the existing HIS

(Not all the questions are applicable to Maldives)

Quick assessment had been made on the following: data collection, data transmission, data processing and analysis, data presentation, and use of data in health planning and management. These aspects have been considered in light of organizational rules, management and resources. A full-fledged assessment was not made in view of time constraint and it is also technically not feasible at this point in time. The following short questions were applied to elicit the required information:

- ◆ Is there a ministerial policy on HIS? What is the frequency of reviewing the work of HIS?
- ◆ Overall organizational structure of the national HIS.
- ◆ Status of functional linkages (practicality, utility, feedback, specific responsibility, system review, etc) between sub systems of HIS
- ◆ Data collecting forms. Review and revision made or not.
- ◆ Whether the current data collecting forms are compact and well attuned to the data requirement of different levels of health care system. Last date of review and revision made.
- ◆ How are the reporting forms filled and by whom and whether these people have been regularly trained and oriented?
- ◆ System of flow of reporting forms and how these are being analysed and how the analysed information are being documented and how the documented information have been utilised by the decision makers and programme managers of different health care programmes.
- ◆ Are there data sieving or catching points in the data transmission system?
- ◆ How the data in the forms are being stored? Is the software used for storing and transmitting the data is user friendly or not?
- ◆ What are the overall resources of the HIS? How the human resources involved in HIS are being trained and what are the career ladder and future prospects?
- ◆ How the data are presented (profiles, fact sheet) at the lowest level of health care system and the level above it? As this is an action level, is there any special emphasis made to improve it to suit the changing requirement?
- ◆ Health profile format available or not. If available, how it was utilized?

- ◆ Is there a built in mechanism for checking the reliability of data and how it was done?
- ◆ Is there a mechanism or feedback from respective data transmission points to the level below?
- ◆ Is there a six-monthly or annual meeting to analyse and review the health situation (including hospital administration and disease pattern data) in an area?
- ◆ Is there a workshop on data analysis on the data emanating out of the data collection forms?
- ◆ How are data from private sector and NGOs are incorporated?
- ◆ How are survey data considered in light of the data coming out of the routine HIS?
- ◆ Review the medical school curriculum for HIS, medical record, ICD-10, etc.
- ◆ How is process of drawing National Health Plan? To be considered from the perspective of data utilization eg. Country Health Programming exercise.
- ◆ How the WHO and other health programmes are doing their planning? What is the mode of drawing PoA for country GPE projects? How is the role of HIS in the whole process?
- ◆ What is the role of HIS in budget allocation to different departments in the Ministry of Health?
- ◆ What is the overall role of HIS Director at the Department and at the Ministerial level? How are data and information available in the reports utilised for decision-making?
- ◆ What is the relationship between the format in which information is displayed (maps, action-oriented graphs, etc.) and its use in management decisions?

Date	Morning Session (0830–1230 hrs)		Afternoon Session (1400-1700 hrs)
Thursday 14 March 2002	7. Searching for evidence-based information (Ms Maimoona and Dr Myint Htwe) 8. Data presentation (Dr Abdul Bari Abdulla and Ms Maimoona)	Lunch Interval	9. Hospital statistical indicators and its use in planning and management of hospitals (Dr Abdul Samad Abdullah) Interactive discussion on further use of hospital indicators for planning and management of hospitals (Ms Maimoona and Dr Myint Htwe) Closing Session

- ◆ Tea/coffee breaks will be at 1000 hours in the morning and 1530 hours in the afternoon for 15 minutes each.
- ◆ All sessions are interactive.
- ◆ After each session, participants will be asked to discuss and give their views and share their experience on certain aspects of the presentations.
- ◆ After each presentation, there will be 15-20 minute-discussion session.

Resource persons:

National

Dr Abdul Bari Abdulla
Ms Maimoona Aboobakur

WHO

Dr Ei Kubota
Dr Ohn Kyaw
Dr Abdul Samad Abdullah
Dr Myint Htwe