6th June 2011

Ministry of Health & Population

NHSSP

Consensus Building Workshop on Strengthening Health Management Information System (HMIS)

Report Outlining Workshop Findings, Recommendations for Government & NHSSP Support

Strengthening Health Systems-Improving Services

CONTENTS

ACRONYMS

ARS	Ayurveda Reporting System
CB-IMCI	Community Based Integrated Management of Childhood Illnesses
CB-NCP	Community Based Neonatal Care Programme
CBS	Central Bureau of Statistics
DHIB	District Health Information Bank
DIN	Drug Information Network
DoHS	Department of Health Services
EDCD	Epidemiology and Disease Control Division
EDP	External Development Partners
EOC	Emergency Obstetric Care
FHD	Family Health Division
FMIS	Financial Management Information System
GIS	Geographic Information System
GoN	Government of Nepal
HISS	Health Infrastructure Information System
HLCIT	High Level Commission for Information Technology
HMIS	Health Management Information System
HSIS	Health Sector Information System
HuRIS	Human Resource Information System
IT	Information Technology
LMIS	Logistic Management Information System
M&E	Monitoring & Evaluation
MD	Management Division
MDG	Millennium Development Goal
MIS	Management Information System
MoHP	Ministry of Health and Population
NASCII	Nepal National Standard Code for Information Inter-exchange
NCASC	National Centre for AIDS and STI Control
NGO	Non Government Organization
NHIC	National Health Information Centre
NHSP	Nepal Health Sector Program
NHSSP	Nepal Health Sector Support Programme
NHTC	National Health Training Centre
PLAMAHS	Planning and Management of Assets in Health Care System
PPICD	Policy Planning and International Cooperation Division
RF	Result Framework
STI	Sexually Transmitted Infection
TB	Tuberculosis
TIMS	Training Information Management System
TWC	Technical Working Committee

EXECUTIVE SUMMARY

The second Nepal Health Sector Programme (NHSP-2), 2010–2015, highlights the need to develop a specific monitoring and evaluation plan that includes more effective data analysis and utilisation at central and lower levels, as well as a common platform to strengthen accountability. A one-day consensus building workshop was held on 6th June 2011 to review how the national Health Management Information System (HMIS), one of nine management information systems within the health sector, can be strengthened to support this plan. This workshop was the first of many activities planned under the Nepal Health Sector Support Programme (NHSSP) to support the MoHP in strengthening and effectively using HMIS as a base for the planning and delivery of quality essential health care services. The workshop had five objectives:

1. To improve current understanding
2. To reach a consensus on the way forward
3. To agree the roles and responsibilities of different stakeholders
4. To enhance harmonisation among partners and stakeholders
5. To set up working groups to strengthen implementation.

Sixty participants from the Government of Nepal (GoN) and External Development Partners (EDP) attended the workshop, which was chaired by the Director of the Management Division and co-chaired by the Director, Policy Planning and International Cooperation Division, Ministry of Health and Population (MoHP), and the Health EDPs Co-chair. Facilitation was provided by the Chief and Section Officer from the MIS Section, who provided an overview of the current situation; encouraged participants to build a consensus on how best to strengthen HMIS in the future; and identified the actions required to achieve this.

The priority actions identified included establishing a Technical Working Committee (TWC) to oversee all future activities related to strengthening HMIS. It was also agreed that, given the clear need to coordinate Monitoring and Evaluation (M&E) activities within the MoHP it would be beneficial to establish a National Health Information Centre (NHIC), as set out in the Health Sector Information System (HSIS) National Strategy, and relocate the MIS section within this.

HMIS would be strengthened and better able to respond to the needs of NHSP-2 if the following concepts were successfully piloted and scaled up: data disaggregated by caste/ethnicity; facility level data available on a monthly basis; data collected for all facilities; data entered at district level; and a uniform coding system. The NHSP-2 Results Framework needs to be reviewed and revised, as do the HMIS tools and indicators, which have not been revisited in light of the needs of new programmes such as Community Based Integrated Management of Childhood Illness (CB-IMCI), maternity incentives and free health care. A thorough review of database and IT needs of HMIS is also required to ensure adequate systems are in place to enable hospitals to enter their own data electronically and the rest to be entered at the district, rather than central, level.

There are frequent reports of differences in data reporting between HMIS and other systems and between different levels within HMIS, for example between data reported by districts to Family Health Division related to Aama programme and the HMIS data. A mismatch assessment will be conducted to identify ways to improve the accuracy and timeliness of reporting of HMIS data.

The capacity to use data needs to be enhanced at all levels. A particular issue is the lateness of the Department of Health Services (DoHS) annual report, which is not usually published until 10-12 months after the completion of the fiscal year and often fails to provide the reader with a full interpretation of the findings.

1. BACKGROUND

The second Nepal Health Sector Programme (NHSP-2), 2010–2015, highlights the need to develop a specific monitoring and evaluation plan that includes:

- comprehensive analysis of evidence of progress
- improved means for tracking progress
- greater disaggregation of data
- more effective use of data at lower levels
- better central analytical capacity
- a common monitoring and review platform to strengthen accountability.

A consensus building workshop was held to assess how the Health Management Information System (HMIS) can be strengthened to support this plan. This workshop is the first of many activities the Nepal Health Sector Support Programme (NHSSP) has planned in order to support the Ministry of Health and Population (MoHP) to strengthen and effectively use HMIS as a basis for planning and delivery of quality essential health care services. HMIS is just one of nine Management Information Systems (MIS) within the health sector:

1. Health Management Information System (HMIS)
2. Logistic Management Information System (LMIS)
3. Financial Management Information System (FMIS)
4. Health Infrastructure Information System (HIIS)
5. Human Resource Information System (HuRIS)
6. Training Information Management System (TIMS)
7. Ayurveda Reporting System (ARS)
8. Planning and Management of Assets in Health Care System (PLAMAHS)
9. Drug Information Network (DIN)

HMIS was established in 1994, and since then has been largely supported by UNFPA. National Health Policy (NHP) 1991 and Second Long Term Health Plan (SLTHP) 1997 – 2017A recognised the need for a comprehensive health sector information system (HSIS) to achieve the health sector's objectives. The Health Sector Strategy: An Agenda for Change, 2002, therefore, proposed the establishment of HSIS, and this was one of the primary objectives for the NHSP-IP 2004-2009. The HSIS National Strategy was developed in 2005 with the following aims:

1. *Combine the existing MIS (except DIN[1]) into one integrated information system.*
   An integrated system simply refers to all MIS utilising a *uniform coding system*, thus enabling data from different systems to be linked, and for all MIS to feed in to a *District Health Information Bank (DHIB)*. An integrated approach is <u>not</u> about creating one overall data collection system.

2. *To provide comprehensive information from all health facilities.*
   HSIS aims to collect data from public health facilities, 'other'[2] public health facilities, private health facilities, and NGO health facilities.

[1] The Department of Drug Administration does not have offices in the districts, so it will continue with its current system at the central level as an interlinked component of the national health information system.

[2] 'Other' public include teaching, army and police hospitals.

3. *To generate disaggregated information by ethnicity / caste.*
   HSIS aims to produce data disaggregated by caste/ ethnicity. However, there are no plans to disaggregate by wealth.

4. *To generate data at all levels.*
   HSIS aims to generate data at all levels (facility, ilaka, district and central).

5. *To establish a District Health Information Bank (DHIB)*
   HSIS aims to establish a DHIB in each district. Data will then be entered in the districts and not in Kathmandu.

In 2008 some aspects of HSIS (namely a revised HMIS, and disaggregating HMIS data by caste/ethnicity) were piloted for one year in three districts (Lalitpur, Parsa and Rupandehi). Piloting was initially supported by UNFPA, however, they subsequently withdrew support and GoN continued with their own resources. The initial piloting was deemed unsuccessful and extended for an additional six months, but without fixing the identified problems. The Management Division (MD) is currently awaiting the findings of an independent review of the HSIS piloting outsourced to a private consultancy firm through FA, and hence HSIS was not discussed in detail at the workshop. However, the above components of the HSIS strategy were discussed as approaches to strengthening HMIS. Despite the on-going HSIS piloting including a breakdown of HMIS data by caste / ethnicity, in 2009-2010 UNICEF funded a piloting of HMIS data disaggregated by caste/ ethnicity in ten selected districts (not including HSIS pilot districts). Again this was unsuccessful and many districts either did not report regularly or did not report at all. A report of the piloting is yet to be submitted to UNICEF. The analysis of the social inclusion data from the ten pilot districts was outsourced to a private company. The data are currently being analysed and a report is expected in August 2011. The social inclusion monitoring is due to be scaled up to an additional 15 districts with GoN funding.

This report outlines the discussions from the workshop, and based on these discussions has highlighted the key recommendations for Government in regards to strengthening HMIS. It also outlines how NHSSP can potentially support this process.

OBJECTIVES

The workshop had five objectives:

- To improve current understanding
- To reach a consensus on the way forward
- To agree the roles and responsibilities of different stakeholders
- To enhance harmonisation of partners and stakeholders
- To set up working groups to strengthen implementation.

2. OVERVIEW

Sixty participants from the Government of Nepal (GoN) and External Development Partners (EDP) attended a one-day consensus building workshop held on 6th June 2011 at the National Health Training Centre (NHTC) Hall, Teku, Kathmandu, to discuss strengthening HMIS (see Annex 1 for list of invitees). The workshop was chaired by Dr Shambhu Sharan Tiwari, Director of Management Division. He highlighted the need to strengthen HMIS and develop a specific monitoring and evaluation plan as envisioned in NHSP-2. Dr Bal Krishna Suvedi, Director, Policy Planning and International Cooperation Division, MoHP, and Dr Bert A. Voetberg, Country Representative, World Bank (on behalf of the external development partners), co-chaired the meeting. Facilitation was provided by Mr Paban Ghimire, Deputy Director, MD/Chief, MIS Section and Mr Dhruba Raj Ghimire, Section Officer, MIS Section, Management Division (see Annex 2 for the workshop agenda). Following discussion of the current situation, the meeting built consensus on an achievable vision for HMIS and identified the actions required to fulfil this. A Technical Working Committee (TWC) will be formed to oversee the implementation of these action points. The composition of the TWC is presented in Annex 3. Where necessary the TWC will form sub-committees and bring in experts as required.

3. SUMMARY OF FINDINGS

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
STRATEGIC				
COORDINATED MONITORING AND EVALUATION (M&E) ACTVITES				
• NHSP2 mentions need to develop M&E Plan. • Different aspects of Monitoring and Evaluation (M&E) within MoHP, such as HMIS, often occur in isolation.	• HMIS is part of an overall M&E Plan/Strategy within MoHP.	• Develop M&E Plan and ensure co-ordination of all M&E activities within MoHP.	• Support development of M&E plan.	• Dec 2011
• National Health Information Centre (NHIC) included in HSIS National Strategy, some progress made in establishing.	• NHIC established and coordinates all M&E activities within MoHP.[3]	• Take necessary steps towards establishing NHIC as envisioned in HSIS National Strategy.	• Provide strategic support in regards to the formation and role of the NHIC	• Oct 2011 - June 2012
• HMIS is a key source of data for the NHSP-2 Result Framework (RF).	• HMIS aligned to the RF.	• Review RF, and identify how HMIS can meet the needs of the RF, and adapt RF if necessary.	• Review the RF and provide recommendations.	• Sept / Oct 2011
STRENGTHENING HMIS				
• Consensus building workshop held as a first step for NHSSP support to strengthening HMIS.	• Long term, continuous commitment by GoN and EDPs to strengthening HMIS.	• Establish TWC (see Annex 3). • TWC agree action plan for HMIS and meet regularly to review progress. • TWC form sub-committees and bring in experts as required. • Issues raised in workshop	• Assist with drafting TWC terms of reference. • Provide technical support to TWC. • Provide technical support to all sub-	• June 2011 • From July 2011 onwards • From July 2011

[3] As outlined in the HSIS National Strategy the scope of NHIC goes beyond MIS, covering all M&E within MoHP.

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
		addressed in the next AWPB and in the Management Division's Strategy.	committees.	onwards
LINKING MIS / UNIFORM CODING SYSTEM				
• Misunderstanding and unrealistic expectations regarding the concepts of HMIS and HSIS. HSIS strategy clearly states integration means linking systems by using a uniform coding system, not incorporating information from other MIS in HMIS. However, many misunderstand concept.	• Clear understanding by government and EDPs re concepts of HMIS, HSIS and uniform coding system. • HMIS does not duplicate data collected by other MIS or vital registration.	• Orient EDPs and government about the concepts and scope of HMIS, HSIS, uniform coding (e.g. meetings, workshops, publications) • Identify where there is duplication of data between HMIS and other MIS/ programmes and avoid duplication in the future.	• Provide clarity regarding the concepts to eliminate confusion among EDPs and GoN (e.g. presentations, briefing sheets) • Share areas of duplication identified during the mismatch assessment.	• Sept 2011 • Sept 2011
• Different MIS and programmes use different coding systems, and hence linking data from different systems is not feasible. • Some MIS are strong and others are weak. Many fear linking systems will weaken the stronger systems. • Epidemiology and Disease Control Division (EDCD) is developing a software to manage information. They seek coordination with HMIS. • Some progress has already been made by the High Level	• Uniform coding system developed. • MIS within MoHP function independently but are linked by a uniform coding system. • Other divisions/centres take responsibility for strengthening their own MIS, if necessary. • Uniform coding goes beyond MIS within MoHP, e.g. CBS, Survey Department, HLCIT	• Develop, pilot and scale up a uniform coding system. • Encourage all stakeholders to use uniform coding system • Encourage other MIS within MoHP to strengthen their systems where necessary. • Coordinate with others outside MoHP (e.g. Central Bureau of Statistics (CBS), Survey Department etc.), share learning, and encourage all to adopt a uniform coding system.	• Provide technical support to developing, piloting, and scaling up a uniform coding system. • Inform other stakeholders of the benefits of adopting a uniform coding system • Inform GoN of any strategic links or opportunities for shared learning identified during the mismatch assessment.	• Oct 2011 - Dec 2012 • Mid 2011 - June 2012 • July – Sept 2011

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
Commission for Information Technology (HLCIT): Nepal National Standard Code for Information Inter-exchange (NASCII); GIZ				
HSIS				
• HSIS has been piloted in three districts: initially for 12 months, and extended for an additional six months. • Piloting did not include everything set out in strategy document. • Currently a review of the piloting is in progress: report expected in 4-6 weeks. • Piloting of HSIS lacked commitment by higher level government officials and EDPs.	• The following concepts are piloted successfully and scaled up to strengthen HMIS, i.e.: - Data disaggregated by caste/ethnicity and gender - Facility level data available - Data collected for all facilities - Data entered at district level - All MIS linked by uniform coding system	• Review HSIS piloting and identify ways to implement these concepts successfully to strengthen HMIS. • Ensure future piloting and implementation receives full commitment from EDPs and government.	• Provide technical support to planning, piloting, implementing and scaling up concepts to strengthen HMIS.	• June 2011 onwards
TOOLS & INDICATORS				
• HMIS does not report on all indicators currently required by divisions, centres, programmes. This, along with concerns regarding the accuracy and untimely reporting of data, has given rise to vertical reporting systems (e.g. NCASC, TB) • HMIS has not been reviewed	• HMIS collects indicators required by divisions, centres, programmes. • HMIS reports accurate data on a timely basis. • No need for routine vertical reporting systems. • Data not generated by MIS generated through special studies and sample surveys.	• Review data needs of: - centres, divisions, and programmes - all levels (i.e. policy formation, programme planning, monitoring, evaluation, supervision, service delivery) - NHSP-2 RF, Second Long Term Health Plan, Periodic	• Technical support for reviewing data needs and revising indicators and tools.	• July - Oct 2011

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
in light of the needs of new programmes (CB-IMCI, CB-NCP, maternity incentives)		Dev. Plan, MDGs • Review what is collected by other MIS to avoid duplication. • Ascertain what should be collected under HMIS.		
• Different programmes request HMIS to modify recording and reporting tools in line with their needs and timescale. The database is not designed to easily manage these changes.	• HMIS have a mechanism to change recording and reporting tools and summary output tables.	• Develop user friendly tools that meet the needs of various programmes in coordination with divisions and centres. • Encourage all to be realistic regarding the frequency of tool changes and coordinate programmes to review changes at the same time.	• Technical support regarding developing a plan for reviewing and revising indicators and tools according to programme needs in the future to ensure coordination across programmes.	• Nov-Dec 2011
DISAGGREGATION				
• HMIS is not currently designed to report data disaggregated by caste/ethnicity • Health facilities record service data disaggregated by ethnicity but do not report disaggregated data • NHSP-2 Results Framework requires data disaggregated by caste/ethnicity. • Data disaggregated by caste/ethnicity has been piloted under HSIS in three districts. Health facilities revised registers to record	• HMIS report data disaggregated by caste/ ethnicity.	• Learn from the experiences of the HSIS and social inclusion piloting. • Agree what caste/ ethnicity categories to use and ensure all facilities use same categories in coordination with other divisions and centres. • Identify any necessary changes to: - tools/indicators - recording/reporting systems • Develop, pilot and scale up system to collect disaggregated data. • Orient staff on revised	• Review experience of HSIS and social inclusion piloting in regards to data disaggregated by caste/ ethnicity. • Provide advice regarding caste/ ethnicity groupings • Technical support for designing, piloting, implementing and scaling up an effective system to enable data to be disaggregated by caste/ ethnicity.	• Sept 2011 • Sept 2011 • Sept 2011-Dec 2012

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
ethnicity / caste, however, the 3 pilot districts did not analyse the register to report by ethnic/ caste groups on a monthly basis. • Social inclusion data, which includes data disaggregated by caste/ethnicity, has been piloted in ten districts.		system.		
• HMIS currently reports institutional mortality data at hospital level broken down by sex. It is not broken down by age, cause or below hospital level.	• Institutional mortality data from all levels, broken down by age, sex and cause.	• Assess the feasibility of generating institutional mortality data by age, sex and cause at all levels. In particular, focusing on improving reporting of neonatal, infant and child mortality as these rates continue to be high.	• Review the feasibility of generating institutional mortality data by age, sex and cause at all levels.	• Jan -June 2012 • July – Dec 2012
• HMIS reports inpatient morbidity data at hospital level broken down by age, and total deaths by sex, but not broken down by age and sex together.	• Institutional morbidity data from all levels, broken down by age, sex and cause.	• Assess the feasibility of generating institutional morbidity data by age, sex and cause at all levels.	• Review the feasibility of generating institutional morbidity data by age, sex and cause at all levels.	• Jan -June 2012
• HMIS does not disaggregate by wealth. Nor was this piloted under HSIS, or contained in the HSIS National Strategy. • There is sometimes	• No expectations for HMIS to disaggregate by wealth. It is too complex for facility recording.	• Ensure EDPs and government are aware that there are no plans to disaggregate HMIS data by wealth (e.g. through meetings, workshops, publications)	• Provide clarity in regards to the difficulty of disaggregating facility data by wealth and eliminate any expectations among EDPs and government (e.g. presentations, briefing sheets)	• Dec 2011

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
misunderstanding - disaggregation by wealth is planned for HMIS / being piloted under HSIS. • RF requires some indicators from HMIS to be disaggregated by wealth	• RF revised to reflect the fact that HMIS data will not be disaggregated by wealth and that this will only be obtained from periodic surveys – e.g. DHS.	• Review and revise RF to reflect this.	• Review RF and provide recommendations	• Sept / Oct 2011
REPORTING				
• Some facilities and districts fail to send reports on time. • Some facilities and districts fail to send complete reports. • Some facilities fail to send reports at all. • Many police, army, and teaching hospitals, as well as private/ NGO facilities do not report to HMIS.	• All facilities including public, other public, private and NGO facilities compliant with reporting.	• Gain a better understanding of which facilities are not reporting and why (review records and utilise statistical officers / assistants in 75 districts). • Ensure compliance from those not reporting. Coordinate with the registering agency to take necessary actions against non-compliance.	• Share any information from mismatch assessment about facility reporting status.	• July-Sept 2011
• HMIS lacks a complete list of private facilities operating in the country. • There is a guideline in place stipulating that all facilities report to HMIS, but enforcement of this is very weak. The Private Health Facility Regulation Act is in draft form.	• HMIS has a directory listing all facilities operating in the country • Private Health Facility Regulation Act is in place and if facilities are not compliant, guidelines/regulations are enforced.	• Prepare directory of all facilities and monitor their reporting status regularly. Statistical officers/ assistants in 75 districts can compile. It can be cross checked with agencies in Kathmandu and regions that	• Support the preparation of a template for the facility directory, and advise on a process for completing the profile	• Aug-Sept 2011

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
• Data from 40 sentinel sites is not reported in HMIS. EDCD manages the recording and reporting from sentinel sites, who report on eight selected diseases on a weekly basis.	• Data from all sentinel sites reported by HMIS.	register private facilities. • Coordinate with all concerned agencies, advocate for and work towards finalising the Private Health Facility Regulation Act.	• Provide technical advice regarding incorporating data from sentinel sites into HMIS.	• Jan -June 2012
• Outbreak data are not reported by HMIS. If outbreak data were to come from HMIS, as currently designed, it would be too late to respond. Given HMIS is a routine periodic system, it may not be best positioned to report outbreak data for emergency response – although it could potentially include outbreak data for future planning / preparedness.	• Outbreak data are reported to enable effective emergency response (HMIS may not be best placed to do this). Outbreak data are reported to enable effective future planning / preparedness (this may be feasible within HMIS).	• Coordinate with sentinel sites/EDCD and work towards incorporating these data in HMIS • Review best way to report outbreak data	• Provide technical advice regarding incorporating outbreak data into HMIS.	• Jan -June 2012
DATA QUALITY AND VERIFICATION				
• Many instances of mismatch in data reporting: - data recorded in facilities differ from data made public by HMIS - data in district annual reports differ from Department of Health Services (DoHS) annual report	• HMIS reports accurate data on a timely basis. • Limit duplication of data between HMIS and vertical programmes. • Consistency in data reporting where duplication does occur.	• Conduct mismatch assessment in collaboration with NHSSP and facilitate access to all necessary records and data. Act on recommendations.	• Conduct mismatch assessment in collaboration with Management Division to identify differences between HMIS data and other sources. Increase understanding as to why these are occurring and make recommendations for improving data quality and timely reporting.	• July – Aug 2011

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
- data in vertical programmes differ from HMIS - large differences in data reported from districts to Family Health Division (FHD) related to Aama programme and HMIS • Validation of HMIS data is a serious concern. The current data verification program within HMIS is ineffective. • Until HMIS is strengthened it will be difficult to convince agencies not to rely on vertical programmes. • For the last six months the National Centre for AIDS and STI Control (NCASC) has been using a software developed by Family Health International for data verification. It is user friendly for use at district level. Although it is expensive in its current form it may be possible to revise it to reduce the cost.	• Focus on strengthening HMIS, not establishing vertical reporting systems.	• Review current data verification and validation processes within HMIS. • Improve data utilisation at all levels, and in turn this will improve data quality. • Given that NCASC have developed an effective data verification software, GoN should review this and, if appropriate, make any necessary modifications and install it at the district level.	• Facilitate exchange sharing visits (in terms of data quality, utilisation and reporting) between good and bad performing facilities/ districts.	• Nov – Dec 2011
FACILITY LEVEL DATA				
• HMIS is not currently	• HMIS produce facility level	• Develop strategy for monthly	• Technical support for designing,	• Nov 2011- June

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
designed to produce facility level data. • Districts are supposed to maintain facility level data, but some of the districts only maintain Illaka level data. • Facility level data is needed to support local planning, design of facility level interventions, monitoring facility performance, supervision, and service delivery.	data on a monthly basis. • All districts maintain facility level data. • Facilities use data to plan and monitor their own activities.	facility level data reporting at district, region and the central level. Successfully pilot and scale up monthly facility level data. • Encourage and support facilities and districts to use facility level data during review and planning process.	piloting, implementing and scaling up an effective system to enable monthly facility level data reporting. • Technical support regarding data utilisation at lower levels	2012 • Nov 2011- June 2012
DATA UTILISATION				
• Role of HMIS is not only to generate data but also to facilitate its use.	• Data are published in a user-friendly format, on a timely basis and meet the needs of all levels (facility, Ilaka, district, region, centre, policy) • Capacity to use data enhanced at all levels.	• Orientation in data utilisation at all levels	• Strategic support to plan capacity enhancement in data utilisation at all levels.	• Jan -June 2012
• There are delays in publishing data, including the DoHS annual report. This is usually published around ten months after end of fiscal year. One of the key delays is that it is not published until after the national annual review, which takes place as	• DoHS Annual Report is published two to three months after end of fiscal year.	• Coordinate with MoHP, divisions and centres to identify ways to ensure data are published earlier, e.g. the annual report within 2-3 months after end of fiscal year.	• Strategic support to effectively plan for the preparation of the DoHS Annual Report to ensure timely publication.	• Jan -June 2012

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
late as Sept/Oct the latest FY report 2009/10 was published in July 2011. To publish the report sooner requires either publishing the annual report prior to the annual national review or bringing forward the national review. The latter is difficult given it happens only after the district and regional reviews, which in-turn only take place after completion of the fiscal year. • The DoHS annual report fails to fully interpret the data and offer explanations.	• Annual report includes interpretation of data and explanations for achieving/ not achieving targets.	• Orient programme managers and all involved in report preparation to ensure it is user friendly, includes adequate analysis and interpretation, and meets the needs of all levels	• Technical support to improve analysis and interpretation of data in annual report.	• Jan -June 2012
FEEDBACK				
• HMIS has a feedback system, but this is inadequate and ineffective. Software has been developed to generate feedback by the district, but it is not functioning. There is no systematic feedback mechanism. Verbal feedback is given sporadically during site visits.	• Routine feedback given, both positive and negative. • Frequent and supportive supervision visits. • Regular reviews at different levels. • Effective IT based feedback system from centre to RHD and D/PHO & Facility; RHD to D/PHO; D/PHO to facility; and facility to individuals involved	• Commit to strengthening the feedback system, fix current bottlenecks and provide frequent and adequate supervision.	• Review the current feedback system, identify bottlenecks, and recommend actions to improve feedback mechanisms	• Jan –June 2012

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
	in recording and reporting developed.			
DATABASE AND IT ISSUES				
• Most data entry undertaken at central level. SQL based database in use at central level and ACCESS at district level. Software inadequate and not user friendly. Some hospitals enter data, but no standardised database developed for this purpose. • No effective system for data storage, back-up, networking and data transfer. No linkage between systems. • Staff lack IT and database skills at all levels. • UNICEF willing to fund IT support. • Health GIS has been completed in 42 districts during the last two fiscal years and is planned to be completed in 15 additional districts.	• Hospitals enter own data. Remaining data entered at district level. • User friendly and competent software, with data quality control mechanisms. Easily modifiable system. Auto-generated summary results tables. • Functioning computers, computer maintenance, virus protection, technical support and security measures at all levels, where required. • Data stored at hospitals and districts and transmitted to central server. Effective system for data storage, back-up, networking and data transfer. • District and central level data accessible electronically for all, in line with the concept of DHIB and NHIC. • Health facility wise data integrated with GIS and used for monitoring and planning purpose.	• Develop strategy for entering data in hospitals / districts. • Coordinate with MoHP and external development partners to assess database and IT needs at all levels. Develop basic infrastructure for IT at different levels • Staff orientation and training	• Provide strategic advice for entering data in hospitals / districts. • Provide technical support to review database and IT needs at all levels.	• Oct 2011 – June 2012 • Oct 2011 – June 2012

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
HUMAN RESOURCES				
• Posts for statistical officers/ assistants exist in every district, but those in post often lack motivation and commitment, and are often unsupported (by district colleagues and those at central level). Some lack competency and understanding. • Long delays in filling vacant posts; many vacant posts at present, e.g. permanent IT position has remained vacant. • Irrational staff transfer • Retention of IT experts on GoN salary is difficult given the lucrative alternative options. Financial support from EDPs required for IT support. UNICEF willing to fund. • No uniform coding for human resources across MIS	• In regards to staffing at all levels, HMIS need to ensure they have: - Adequate number - Right skill mix - Competency - Motivation - Commitment - Support - Uniform coding system that includes HR codes	• Review existing staff structure and revise as necessary. • Ensure all staff receive adequate orientation and training. • Motivate, support and supervise all staff • Recruit a full time IT person for HMIS section/MD for two years, funded by UNICEF. to resolve the day to day IT problems. Recruit short term IT consultants on an as needed basis. • Develop human resource codes in uniform coding system.	• Strategic support for staff structure and support systems	• Nov – Dec 2011
BUDGET				
• Enough budget for regular programmes. • Need for additional support from EDPs to implement new	• Effective spending of GoN resources • Good coordination with EDPs and EDP efforts harmonised	• Ensure effective spending of GoN resources. • Coordinate with EDPs	• Facilitate EDP harmonisation	• June 2011 onwards

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
initiatives and specialist input, e.g. IT experts.				
INSTITUTIONAL CHALLENGES				
• MIS Section is currently located within the Management Division, DoHS. This position in the organogram restricts the ability of the section to coordinate with other centres/ divisions. NHIC approved but not established. • NHIPC meets sporadically • Lengthy procedures for recruitment of staff, printing of tools and manuals, and procurement have an adverse impact on effective implementation.	• NHIC established and MIS Section relocated to NHIC to enable greater prominence. NHIC co-ordinate all M&E activities within MoHP. • As a semi-autonomous centre NHIC can assume responsibility for recruiting staff, procurement; printing of tools and manuals etc.	• Discuss with all stakeholders the institutional challenges faced by HMIS and other MIS within MoHP; and advocate for the need to form NHIC and to relocate the MIS section. • Develop strategy for establishing a functioning NHIC • Ensure NHIPC meets frequently.	• Offer strategic support for the formation and role of the NHIC. • Provide technical support to the NHIPC	• Oct 2011 – June 2012 • June 2011 onwards
GOVERNANCE AND ACCOUNTABILITY				
• Limited accountability and poor governance. HMIS do not receive reports from all facilities. There is no accountability and HMIS do not have the power to	• Improved accountability at all levels in public, private and NGO sectors.	• Review existing policies, regulations and enforcement of these. • Prepare strategy to improve governance and accountability and orient staff at different	• Review existing policies and regulations and offer recommendations to improve accountability and governance.	• Nov-Dec 2011

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
make them comply due to lack of regulation. M&E positions have remained vacant in central, regional and district level offices. • Health Facility Regulation Act in draft version.	• Health Facility Regulation Act in place	levels in governance and accountability. Staff are supported, supervised and monitored regularly. • Review the draft Health Facility Regulation Act in coordination with all stakeholders, finalise and move ahead towards legal provisions at the earliest.		
EDP AND DONOR HARMONISATION				
• UNFPA supported HMIS piloting in 2 districts, scaling up and strengthening of HMIS, and piloting of HSIS, but withdrew support in 2009 (1994-2009). • USAID supported HMIS piloting in 2 districts, scaling up and strengthening of HMIS (1994-2001), and technical assistance (2007 to date). • UNICEF supported piloting of social inclusion in 10 districts (2009-2010) at the same time as disaggregation was being piloted in HSIS piloting. • WHO supported preparation of Nepal District Health	• Coordination between GoN and EDPs and among EDPs. • Continued commitment by EDPs to strengthen HMIS. • Learning from past efforts is reflected in future endeavours. • EDPs avoid funding duplication of efforts.	• Ensure EDP presence on TWC, TWC meets regularly, and all donors are aware of current activities and given plenty of notice regarding planned future activities related to HMIS.	• Observe donor involvement and draw attention to any duplication of efforts. • Facilitate EDP harmonisation through TWC..	• From June 2011 onwards • From June 2011 onwards

CURRENT SITUATION	DESIRED	RECOMMENDED ACTION FOR GOVERNMENT	SUPPORT OFFERRED BY NHSSP	TIMEFRAME
Profile, 2007; GIS mapping in 27 districts, 1st phase; GIS mapping in 15 districts, 2nd phase (2007 to date). • DFID funded District Health Strengthening Project (2001-2006); Nepal Safer Motherhood Project (1995-1999) and Support to the Safe Motherhood Programme (2000-2004) supported in EOC monitoring; and NHSSP (2010-2015) supports HMIS. • GTZ supported design, piloting and scale-up of HuRIC (earlier called HuRDIS) between 2001-2005, and studies on the linkages of MIS (2008-2009).				

4. PRIORITY ACTIONS

Formation of technical working committee to oversee strengthening of HMIS

The consensus building workshop was just the first stage of NHSSP support for strengthening HMIS. A Technical Working Committee (TWC) will be formed to oversee all future activities related to the strengthening process. To this end, a draft terms of reference has been developed and shared with HMIS officials, who are now in the process of obtaining formal approval for the committee.

Coordination of monitoring and evaluation activities within MoHP

There is a clear need to coordinate Monitoring and Evaluation (M&E) activities within the MoHP. It would be beneficial to establish a National Health Information Centre (NHIC), as set out in the HSIS National Strategy, and to relocate the MIS section within this. This would help to facilitate linkages between the nine MIS in MoHP, which is important for successful implementation of a uniform coding system. NHSSP will provide strategic support for the formation of the NHIC and development of its role. Furthermore, there is also a clear need to review and revise the NHSP-2 Results Framework. This could be done while developing an overarching NHSP2 M&E plan, whereby amendments to some Results Framework indicators and their data source can be done simultaneously to drafting other aspects of the plan. NHSSP can support this.

Concepts to strengthen HMIS are successfully piloted and scaled up

It would strengthen HMIS and enable it to better respond to the needs of NHSP-2 and programmes with MoHP if the following concepts were successfully piloted and scaled up:

- Data disaggregated by caste/ethnicity
- Facility level data available on a monthly basis
- Data collected for all facilities (with a health facility directory developed[4] and Health Facility Regulation Act in place as part of this process)
- Data entered at district level
- A uniform coding system

NHSSP will provide technical support for all of these activities.

Indicators and tools are reviewed and revised

HMIS has not been reviewed in light of the needs of new programmes such as Community Based Integrated Management of Childhood Illnesses (CB-IMCI), Community based Neonatal Care Programme (CB-NCP), Emergency Obstetric Care (EOC) monitoring, Aama programme and the free health care programme. HMIS indicators and tools need to be reviewed and revised to reflect current requirements of divisions, centres and programmes, and NHSSP will provide technical support for this.

[4] HMIS does not have a complete list of private health facilities. The reporting status of private facilities being computed in the DoHS Annual Report is based on those facilities which have once reported to the HMIS. Hence, there is an urgent need to compile a complete list of private facilities to have a denominator for computing the reporting status of private facilities and to know which facilities to target strengthening HMIS.

Review of database and IT issues

A thorough review of the database and IT needs of HMIS is required to ensure software is user-friendly; has data quality control mechanisms; is easy to modify; and summary tables are auto-generated. There is a need to ensure adequate IT systems are in place to enable hospitals to enter their own data electronically, while the rest is entered at district, rather than central, level. This will require functioning computers, computer maintenance, virus protection, technical support and security measures. Data will need to be stored at hospitals and districts and transmitted to the central server when internet access permits. This will require an effective system for data storage, back-up, networking and data transfer.

Mismatch assessment to identify ways to improve timeliness and accuracy of data collection

There are frequent reports of instances of mismatch in data reporting. Examples of this include data recorded in facilities differing from that made public by HMIS; data in the district annual report differing from the Department of Health services (DoHS) annual report; data in vertical programmes differing from HMIS; large differences between data reported from districts to Family Health Division (FHD) related to Aama programme and HMIS data. The objectives of the mismatch assessment are to:

- Assess the accuracy and timeliness of HMIS data reporting
- Identify where there is duplication of data collected by HMIS and other MIS/programmes
- Assess whether duplicated data differs, and if so, to understand why
- Identify and understand any differences in HMIS data reported at different levels (central, regional and district)
- Identify ways to improve the accuracy and timeliness of reporting of HMIS data.

Timely publication of HMIS data for the DoHS Annual Report

The DoHS annual report is not usually published until 10-12 months after the completion of the fiscal year, which undermines its usefulness. Delays are the result of the current system and order of activities, which entail 1) waiting for the national annual review, normally carried out late in the year; 2) receiving all necessary data from districts just before or during the review; 3) addressing data mismatch and identifying the correct data; and 4) obtaining programme specific information from the relevant divisions and centres. An alternative approach could be to finalise the data prior to the national review (steps 2, 3 and 4) and use the data published in the annual report as the basis of the review. Preparatory work, such as compiling information from the relevant divisions, centres and EDPs could also be undertaken prior to the national review and published immediately afterwards.

5. TIMEFRAME

	2011							2012		2013	
	June	Jul	Aug	Sept	Oct	Nov	Dec	Jan-June	July-Dec	Jan-June	July-Dec
TECHNICAL WORKING COMMITTEE											
Assist with drafting TWC terms of reference											
Provide technical support to TWC											
Provide technical support to sub-committees											
STRATEGIC											
Support development of M&E plan											
Review the RF and provide recommendations											
Provide strategic support to the formation and development of the role of the NHIC											
Provide technical support to the NHIPC											
UNIFORM CODING SYSTEM											
Provide clarity to EDPS and GoN regarding the concepts of uniform coding and HSIS											
Technical support to development of uniform coding system											
Technical support to piloting uniform coding system in HMIS											
Technical support to scaling up uniform coding system in HMIS											
Inform other stakeholders of the benefits of adopting a uniform coding system											
TOOLS AND INDICATORS											
Technical support for reviewing data needs											
Technical support for revising indicators and tools											
Technical support regarding development of a plan for reviewing and revising indicators and tools according to any future programme needs											

	2011							2012		2013	
	June	Jul	Aug	Sept	Oct	Nov	Dec	Jan-June	July-Dec	Jan-June	July-Dec
DATA DISAGGREGATED BY CASTE/ ETHNICITY											
Review experience of HSIS and social inclusion piloting regarding data disaggregated by caste/ ethnicity											
Provide advice regarding caste/ ethnicity groupings											
Technical support for designing an effective system to enable data to be disaggregated by caste/ ethnicity											
Technical support for piloting an effective system to enable data to be disaggregated by caste/ ethnicity											
Technical support for scaling up an effective system to enable data to be disaggregated by caste/ ethnicity											
MORTALITY & MORBIDITY DATA											
Review the feasibility of generating institutional mortality data by age, sex and cause.											
Review the feasibility of generating mortality data from the community.											
Review the feasibility of generating institutional morbidity data by age, sex and cause.											
DATA DISAGGREGATED BY WEALTH											
Provide clarity on the difficulty of disaggregating facility data by wealth and to eliminate any expectations among EDPs and government.											
DATA QUALITY											
Facilitate exchange sharing visits between facilities/ districts that are performing well and those that are not											
MISMATCH ASSESSMENT											
Conduct mismatch assessment											
Identify where duplication of HMIS exists											

	2011							2012		2013	
	June	Jul	Aug	Sept	Oct	Nov	Dec	Jan-June	July-Dec	Jan-June	July-Dec
Inform GoN of any strategic links or opportunities for shared learning identified during the mismatch assessment											
REPORTING											
Share any information from mismatch assessment about facility reporting status											
Support the preparation of a template for the facility directory, and advise on a process for completing the profile											
Provide technical advice regarding incorporation of data from sentinel sites into HMIS											
Provide technical advice regarding incorporating outbreak data into HMIS.											
FACILITY LEVEL DATA											
Technical support for designing, piloting, implementing and scaling up an effective system to enable monthly facility level data reporting											
Technical support for data utilisation at lower levels											
DATA UTILISATION											
Strategic support to plan capacity enhancement in data utilisation at all levels											
Strategic support to effectively plan for the preparation of the DoHS Annual Report to ensure timely publication											
Technical support to improve analysis and interpretation of data in annual report											
FEEDBACK											
Review the current feedback system, identify bottlenecks, and recommend actions to improve feedback mechanisms											

	2011							2012		2013	
	June	Jul	Aug	Sept	Oct	Nov	Dec	Jan-June	July-Dec	Jan-June	July-Dec
DATABASE AND IT ISSUES											
Provide strategic advice on entering data in hospitals/ districts											
Provide technical support for review of database and IT needs at all levels											
HUMAN RESOURCES											
Strategic support regarding staff structure and support systems											
GOVERNANCE AND ACCOUNTABILITY											
Review existing policies and regulations and offer recommendations to improve governance and accountability											
DONOR HARMONISATION											
Observe donor involvement and draw attention to any duplication of efforts											
Facilitate EDP harmonisation											

ANNEX 1: WORKSHOP ATTENDEES

SN	Name	Organisation	SN	Name	Organisation
1	Dr Bal Krishna Suvedi	PPICD, MoHP	31	Dr Muna Karna Thapa	Dept. of Ayurved
2	Dr Padam Bdr Chand	M&E Division, MoHP	32	Dr Pankaj Mehta	UNICEF
3	Padam Raj Bhatta	MoHP	33	Dr Sudhir Khanal	UNICEF
4	Ram Chandra Khanal	PPICD Division, MoHP	34	Dr Amit Bhandari	DFID
5	Hari Prasad Sharma	M&E Division, MoHP	35	Dr Bert A. Voetberg	World Bank
6	Ishwari Devi Shrestha	Curative Division, MoHP	36	Tekabe Belay	World Bank
7	Surendra Prasad Sigdel	MoHP	37	Ajay Tandon	World Bank
8	Dr Sambhu S Tiwari	MD, DoHS	38	Damber S Gurung	SDC/RHDP
9	Dr Naresh P KC	FHD, DoHS	39	Latika Pradhan	AusAID
10	Sudhira Acharya	FHD, DoHS	40	DeepaK Paudel	USAID
11	Hem Kala Lama	MD, DoHS	41	Leela Khanal	NFHP
12	Pavan Ghimire	HMIS,MD, DoHS	42	Heem S Shakya	NFHP
13	Dhruba Raj Ghimire	HMIS, MD, DoHS	43	Sujan Karki	NFHP
14	Deepak Dahal	HMIS, MD, DoHS	44	Dr Ravi Kafle	WHO
15	Surya Bahadur Khadka	HMIS, MD, DoHS	45	Dr Gunawana Setiadi	WHO
16	Gopal Adhikari	HMIS, MD, DoHS	46	Ashok Bhurtyal	WHO
17	Nav Raj Bhatta	HMIS, MD, DoHS	47	Dr AR V Mallik	WHO
18	Puspa Shrestha	HMIS, MD, DoHS	48	Dr Suraj M Shrestha	WHO / EDCD
19	Ambika P Neupane	HMIS, MD, DoHS	49	Rakesh Thakur	WHO / EDCD
20	Ram Hari Nepal	HMIS, MD, DoHS	50	Shankar Raj Pandey	Kfw/EDC
21	Dilli Raman Adhikari	NCASC	51	Jhabindra Bhandari	UNFPA
22	Sanjay Dahal	NCASC	52	Sudip Pokhrel	COMAT
23	Ganga Raj Aryal	NHEICC	53	Sushil C Lekhak	SAIPAL
24	Sitaram Ghimire	NTC, Thimi	54	Dr Laxmi Raj Pathak	NHSSP
25	Sandhya Rehal	NTC, Thimi	55	Ajit Pradhan	NHSSP
26	Damodar Khatri	NHEICC	56	Pradeep Poudel	NHSSP
27	Dr B R Khanal	EDCD, DoHS	57	Dr Ganga Shakya	NHSSP
28	Khagendra Bhandari	NHTC	58	Hom Nath Subedi	NHSSP
29	Dharmendra P Lekhak	NLASC	59	Bhuvanari Shrestha Jha	NHSSP
30	Vabha Rajbhandari	Dept. of Drug Administration	60	Khem Phurkuti	NHSSP

ANNEX 2: WORKSHOP AGENDA

Consensus Building Workshop:
Strengthening the Health Management Information System (HMIS)

Date: 6th June 2011, Monday
Time: 10:30 am to 4:00 pm
Venue: National Health Training Centre (NHTC), Training Hall, Teku, Kathmandu
Chair: Dr SS Tiwari, Director, Management Division

Time	Activity	Responsible person(s)
10:30 – 11:00	Registration and Tea	
11:00 – 11:10	Introduction of participants	Mr Paban Ghimire
11:10 – 11:15	Welcome remarks	Mr Paban Ghimire
11:15 – 11:25	Objectives and over view of the workshop	Dr SS Tiwari, Director, MD
11:25 – 12:00	Presentation on current status of HMIS followed by discussion	Mr Paban Ghimire
12:00 – 12:30	Moving Forward: Data quality (Presentation followed by discussion)	Mr Dhruba Ghimire
12:30 – 01:00	Moving Forward: IT Issues (Presentation followed by discussion) - Data processing, data base, and IT - Uniform coding system	
01:00 – 01:45	LUNCH	
01:45 – 02:30	Moving Forward: Addressing NHSP2 RF (Presentation followed by discussion) - Disaggregation of data - Monitoring targets of 2013 and 2015	Mr Paban Ghimire
02:30 – 03:00	Moving Forward: Organizational set up (Presentation followed by discussion) - Existing set up - Hospital information system - Bottlenecks - Solution	
03:00 – 03:15	Consensus on way forward	Mr Paban Ghimire
03:15 – 03:30	Formation of Technical Working Group	Dr SS Tiwari, Director, MD
03:30 – 04:00	Closing remarks	Dr YV Pradhan, DG, DoHS, Dr Sudha Sharma, Secretary, MoHP Dr SS Tiwari, Director, MD
04:00 – 04:15	TEA	

ANNEX 3: PROPOSED TECHNICAL WORKING COMMITTEE

Dr Shambhu S Tiwari	Director, MD, DoHS	Chair person
Representative	Curative Division, MoHP	Member
Representative	M&E Division, MoHP	Member
Representative	PPICD, MoHP	Member
Dr Shard Kumar Sharma	FHD, DoHS	Member
Mr Parasuram Shrestha	CHD, DoHS	Member
Mr Pranaya Upadhaya	EDCD, DoHS	Member
Mr Bharat Ban	NFHP	Member
Mr Heem S Shakya	NFHP	Member
Dr Amit Bhandari	DFID	Member
Mr Deepak Paudel	USAID	Member
Representative	World Bank	Member
Representative	WHO	Member
Mr Jhabindra Bhandari	UNFPA	Member
Dr Sudhir Khanal	UNICEF	Member
Representative	GIZ	Member
Ms Puja Pandhey	HKI	Member
Mr Dhruba Ghimire	Officer, MIS Section, MD, DoHS	Member
Mr Ajit Pradhan	M&E Strategic Adviser, NHSSP	Member
Mr Pradeep Poudel	M&E Implementation Adviser, NHSSP	Member
Mr Paban Ghimire	Chief, MIS Section, MD, DoHS	Member Secretary