



District Health Management Information System (DHMIS)

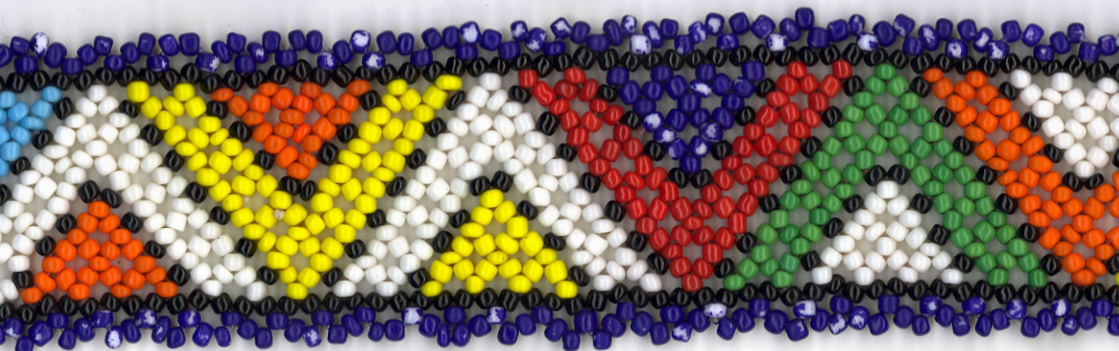
Standard Operating Procedures: Provincial Level

December 2013



health

Department:
Health
REPUBLIC OF SOUTH AFRICA



A Long and Healthy Life for All South Africans



FOREWORD BY THE DIRECTOR GENERAL

In July 2011, I approved the District Health Management Systems (DHMIS) policy for South Africa, which is aimed at ensuring uniformity in the implementation of the DHMIS across the country. I also indicated then, that a need exist for the development of Standard operating Procedures (SOPs), to guide the implementation of the policy.

These Standard Operating Procedures aim to clarify the responsibilities and procedures for effective management of aggregated routine health services.

These Standard Operating Procedures (SOPs) provide standardized procedures to:

- Provide health information coordination and leadership
- Select and review indicators in routine health information systems
- Ensure effective data/information management
- Manage data analysis and information products
- Enhance data dissemination and use

These SOPs for provinces present basic and practical steps to be followed by provincial health information management personnel, programme/line managers and clinic supervisors at provincial level to ensure that data is appropriately handled and used to improve service delivery at local level, prior to submission to next level of the health system, within the specified time frames.

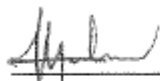
The long-term vision of the National DoH is the creation of a national integrated patient-based information system, which will require implementation of electronic systems for data management at all levels of the health system. This will eliminate most of the challenges that emanate from manual data management systems, including discrepancies. Notwithstanding this, the need for policies and SOPs will exist in an environment of automation and electronic systems.

All Provincial managers in the public health sector should ensure implementation of these SOPs. They must be assisted in this role by information officers from National DoH.

I wish to acknowledge the pivotal role of the Health Information Task Team of the National NDoH, which I established in August 2010, effectively facilitating and coordinating the development of these SOPs. This team consist of officials from the Health Information Monitoring and Evaluation (HIMME) Cluster of the National DoH; Provincial Department of Health, our development partners, as well as no-governmental organisation(NGOs) working in the health sector.

The immense technical support provided by John Snow, Inc. (JSI), MEASURE Evaluation Strategic Information for South Africa (SIFSA) project, Health Information Systems Programme (HISP) and the Health Systems Trust (HST) is acknowledged with gratitude.

I anticipate major improvements in the quality of DHIS data as a result of effective use of these SOPs.



MS. MATSOSO
DIRECTOR GENERAL
NATIONAL DEPARTMENT OF HEALTH
DATE: 12/12/2013

LIST OF ABBREVIATIONS

AG	Auditor-General
ART	Antiretroviral Therapy
CHC	Community Health Centre
DG	Director-General
DHER	District Health Expenditure Review
DHIS	District Health Information System
DHMIS	District Health Management Information System
DHP	District Health Plan
DoH	Department of Health
ETR	Electronic Tuberculosis Register
HIS	Health Information System
HOD	Head of Department
ICT	Information and Communication Technology
IT	Information Technology
M&E	Monitoring and Evaluation
NDoH	National Department of Health
NHISSA	National Health Information Systems Committee of South Africa
NIDS	National Indicator Data Set
OPD	Outpatient Department
PHC	Primary Health Care
PIDS	Provincial Indicator Data Set
PQRS	Provincial Quarterly Reporting System
QRS	Quarterly Reporting System
SOP	Standard Operating Procedure

DEFINITIONS

TERMINOLOGY	OPERATIONAL DEFINITION
Accuracy	Also known as validity. Data is measured against a referenced source and found to be correct. Accurate data minimize error (e.g. transcription error) to a point of being negligible
Baseline	Description of the status quo, usually statistically stated, that provides a point of comparison for future performance
Benchmarks	'Estimated targets'. A benchmark refers to a reference point or standard (the performance achieved in the recent past by other comparable organisations in similar circumstances) against which performance or achievements can be assessed. A benchmark should be the minimum standard that should be aimed for.
Completeness	Data are present and usable and represent the complete list of eligible sources and not just a fraction of it
Confidentiality	Assurance that data will not be disclosed inappropriately and treated with appropriate levels of security
Data collation	The process where data for a data element from various service points are added together. It is very important to ensure that during this process the responsible person add the data correctly together and avoid arithmetic errors
Data input forms	This refers to the final form which will be used to enter the data into the relevant database
Data sign off	Data sign off refers to the process where the person with the required authority agree to the correctness and validity of the data and commits him or herself to submit data in accordance with data flow guidelines
Indicator	A quantitative or qualitative variable that provides a simple and reliable measurement of one aspect of performance, achievement or change in a program or project
Integrity	System used to generate data is protected from deliberate bias or manipulation or loss of

TERMINOLOGY	OPERATIONAL DEFINITION
Interim Targets	Short term steps that must be reached along the way to meet the goals, objectives and final targets (also called milestones).
Line manager	A person with direct managerial responsibility (in a vertical line) for a particular employee focusing on administration of the activities that contribute to specific outputs of an organisation
Precision	Data has sufficient detail and is free as far as possible of error in terms of under and/or over reporting
Reliability	Data generated by an information system is based on protocols and procedures that do not change according to who is using them or how often they are used. Data is measured and collected consistently
Service point	Reporting units within a facility e.g. consultation rooms, services within facility (OrgU6)
Source point	Facility level e.g. hospital, PHC clinic, delivery facility (OrgU5 levels)
Targets	Targets state the desired level of performance that has to be achieved.
Timeliness	Data and information is available on time for meeting budgeting, monitoring, decision making and reporting requirements
Users of data	Stakeholders who are authorised to access and use data in DHIS for monitoring, evaluation, research and reporting purposes
Validity	All reported performance against pre-determined objectives is adequately supported by documentation and did occur. Data element/indicator clearly, directly and completely measure what it intends to measure

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1 INTRODUCTION

1.1 Purpose

These Standard Operating Procedures (SOPs) provide standardized procedures to:

- provide health information coordination and leadership
- select and review indicators in routine health information systems
- ensure effective data/information management
- manage data analysis and information products
- enhance data dissemination and use

1.2 Scope

These SOPs are mandatory and shall be implemented by all employees and contractors when engaging in health information related activities at Provincial Department of Health level. These SOPs must be used in conjunction with the following:

- DHMIS Policy 2011
- National Indicator Dataset (NIDS)
- Reference Documents as listed in Section 8

1.3 Training

The Health Information Management component is responsible for ensuring that team members who follow these procedures understand the SOP's objectives and other inter-related activities.

Ensure that team members sign that they have read and understand these SOPs.

1.4 Background

In terms of the National Health Act (Act 61 of 2003) the DoH is required to facilitate and coordinate the establishment, implementation and maintenance of health information systems at all levels. The District Health Management Information System (DHMIS) Policy 2011 defines the requirements and expectations to provide comprehensive, timely, reliable and good quality routine evidence for tracking and improving health service delivery. The strategic objectives of the policy are to strengthen monitoring and evaluation (M&E) **through standardization of data management activities** and to **clarify the main roles and responsibilities at each level for each category of staff to optimize completeness, quality, use, ownership, security and integrity of data.**

In 2000 the District Health Information System (DHIS) was adopted as the official South African routine health information system for managing aggregated routine health service based information. These SOPs aim to clarify the responsibilities and procedures for effective management of aggregated routine health service.

2 HEALTH INFORMATION COORDINATION AND LEADERSHIP

2.1 Responsibility

Management of routine health information must reflect that it is a vital component of the overall DHMIS within the Department and that it is a shared information source for all components in the department as well as for other departments and agencies like Treasury, Stats-SA and the Auditor General.

The responsibility for the routine health information system at every administrative level must therefore reside with the top manager (i.e. accounting officer) who also has primary responsibility for the *data* in the system.

2.2 Ownership and Management

2.1.1 Overall ownership of the DHIS in the provincial health departments resides with the Head of Department, who will be responsible for authorising the main aspects of the system such as the Provincial Indicator Data Set (PIDS), targets and establishing the technical team (Health Information System unit) responsible for the daily management of the system.

2.1.2 The Head of Department is also responsible for:

- Mobilising core human and material resources to improve information management and enhance monitoring of health sector performance in the province
- Ensuring stable and coordinated relationships with development partners needed to support the strategies and goals of the DHIS and the provincial government for synergy and avoidance of fragmentation
- Establishing a core technical/managerial team located within the appropriate unit to be responsible for the management of the DHIS. This unit must provide a service to all relevant programmes within the provincial department and will be added in phased approach according to HR procedures. This team must comprise of:
 - o Information officer
 - o Health information officer
 - o Monitoring and Evaluation Manager
 - o Database Manager
 - o Statistician/Demographer/Bio-statistician
 - o Epidemiologist
 - o GIS expert with health sector experience
 - o DHIS help-desk staff
- Ensuring that information system utilisation and strengthening of information systems forms an integrated part of the performance agreements of all managers at provincial level.
- Ensuring that the provincial department promotes accountability and transparency by providing provincial legislatures, district and municipal councils and the public with timely, accessible and accurate performance information, routinely but also on an ad-hoc basis.

- Ensuring that progress in DHIS and trends in data/information in priority areas are standing items in management meetings at least once every quarter and that reports from such meetings are submitted to the office of the Head of Department
- Ensuring that the province functions in line with NDOH policies, guidelines, norms and standards in respect of routine data.

2.3 Governance

2.3.1 The National Health Act (Act 61 of 2003) requires each Member of the Executive Council for Health to establish a provincial committee to:

- Establish, maintain, facilitate and implement health information systems at Provincial and Local levels
- Contribute to the creation of a comprehensive national health information system as outlined in section 74 of the Act

A senior officer of the provincial DoH shall be designated by the Member of the Executive Council to chair the meetings of the provincial committee.

Step	Action
1	PROVINCIAL HEALTH INFORMATION SYSTEMS COMMITTEE
1.1	PHIS Committee membership may comprise of officials responsible for Health Information, Monitoring and Evaluation, Research, Epidemiology, District Management and Primary Health Care, IT and Strategic Planning section in the Provincial Department of Health. Other Departments, Non-Governmental Organisations (NGOs) and development partners working in partnership with the health sector may be invited on an ad hoc basis
1.2	The Provincial Health Information Systems Committee shall meet at least once every quarter
1.3	Where required the committee must guide the development of provincial policies and regulations to govern information at provincial and local levels
1.4	Ensure standardised implementation of new DHIS versions and builds at all reporting levels within the province to prevent any instability and errors associated with new build releases
1.5	Monitor DHMIS policy implementation and NIDS implementation and receive progress reports from districts
1.6	Recommend revisions to the PIDS and other datasets used in the provincial health sector to the Head of Department

3 INDICATORS

3.1 Responsibility

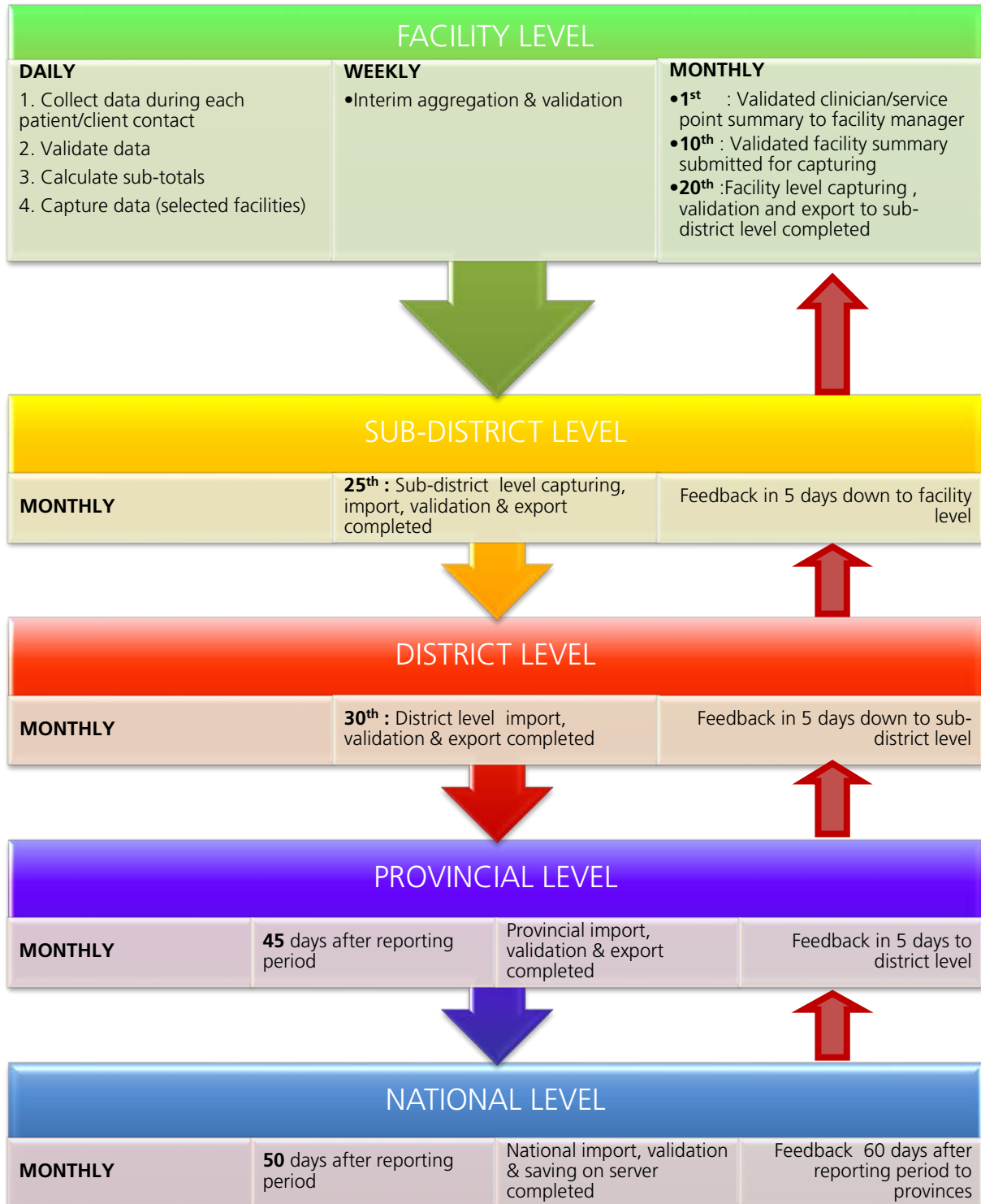
- 3.1.1 The Head of Department is the final authority on the Provincial Indicator Data Set (PIDS). All changes to the PIDS shall be signed off by the Head of Department.
- 3.1.2 Indicators included in PIDS must address priority needs of the Province not provided for by the NIDS.
- 3.1.3 All data collected in the province must have a specific purpose in calculating the PIDS indicators that measure how well a program is performing or signal the need for corrective action.
- 3.1.4 Points of reference are needed for each indicator as these are always measured in relation to a baseline and a target.

Step	Action
1	INDICATOR SELECTION
1.1	Select a minimum number of essential indicators for routine health information on the basis of priority health problems relevant to the province where evidence can be used to monitor and evaluate disease incidence, health service delivery and implementation of policies and guidelines and to manage health care services where NIDS indicators do not address these adequately
1.2	Set provincial targets for these additional indicators
1.3	Clearly define the data elements which forms the numerator and denominator for each indicator according to the standard template of NDoH
1.4	Process of reviewing and selecting PIDS must be finalised by end of November
1.5	Provide training on data collection tools, data element and indicator definitions to staff expected to collect data before the end of the financial year Data collection tools must adhere to the following minimum standards: • All registers should be printed pre-numbered on the cover page and all pages must be numbered • All pages in the registers must make provision for the name and surname, signature of the completor/s or compiler and the verifier and dates (dd/mm/yyyy) on which it was verified • Monthly input forms must also make provision for the name and surname, signature of the completor/s and verifier and dates (dd/mm/yyyy) of completion and verification

	• Advise facility managers that manual pre-numbering must be done on any available registers in case registers were supplied to facilities which were not pre-numbered • Manual provision should be made by facility manager for name and surname, signature of compiler and verifier and dates in register if it does not have that
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4 DATA/INFORMATION MANAGEMENT

This data flow diagram provides the timelines to ensure that the 45 day deadlines for routine data submission to NDoH is met.



4.1 Responsibility

4.1.1 Health Information Officer Responsibilities

Health information officers at provincial level are responsible for the import and further management of DHIS data.

4.1.2 Procedure: Health Information Officer

Note: Information officers must spend 100% of their time on the data/information-related activities stipulated below.

Step	Action
1	DATA/INFORMATION MANAGEMENT
	Data collation
1.1	Provide leadership, training, mentoring, support and feedback to districts and selected facilities that report directly to provinces, e.g. tertiary hospitals, to optimise data quality and use of data
1.2	Keep data submission logs for monitoring adherence to reporting timeframes and identification of bottlenecks for remedial action
1.3	Import DHIS files from districts on the relevant d-date according to the data flow diagram. Keep submission log to monitor adherence to reporting timeframes and identification of bottlenecks • Check whether all DHIS datasets have been received and follow up outstanding export files • Import data from electronic patient based systems such as ETR.net and Tier.net if not done at lower levels and identify and address discrepancies
1.4	Conduct import validations Follow up, monitor and keep dated record of all activities Pay attention to detail when updating existing records, accepting new records and matching records
1.5	Obtain sign-off from Head of Department for data to be exported to National level
1.6	Export DHIS data on relevant d-date according to the data flow diagram to National level and to Data Mart and refresh pivot tables
1.7	Avail pivot tables to relevant line and program managers by means of hard copies, emails or intranet

1.8	Analyse DHIS data and provide feedback: Monthly informal feedback within 5 days after the export date to districts and line and program managers in provincial office on data quality Quarterly feedback on data quality (emphasising timeliness and completeness) and program performance for dissemination to lower reporting levels and line and program managers with recommendations on how to optimise data quality Annual feedback on facilities with unstable data and by implication unstable service delivery for remedial action
1.9	Provide HIS related leadership, guidance, capacity building, mentoring and support to district Health Information System staff as well as line and program managers through the following: • Identify health information system, data quality, monitoring and reporting skills needs and build capacity • Conduct at least two visits per district per year to do spot checks on aspects such as data quality and implementation of policies and guidelines • Disseminate updated data files (CDs or other agreed upon methods) to district levels • Disseminate HIS related policies, guidelines, NIDS and other priority HIS documents to districts • Monitor implementation of policies and guidelines together with line and program managers • Coordinate and monitor data quality assessments and cleaning activities • Provide line and program managers with data for planning, presentations and reports (information officers should not be expected to compile plans, presentations and reports – this is the responsibility of line and program managers) • Support process of verifying facility names, types, coordinates and follow up with relevant managers and ensure that all facilities closed during the year are also closed in the DHIS
1.10	Facilitate Provincial Indicator Data Set (PIDS) review process
1.11	Ensure that processes are followed to prepare facilities for audit of performance Facilitate entry meetings with Auditor General (AG) before annual performance audits Support audited facilities to meet recommendations from AG

4.1.3 Line and Program Manager Responsibilities

Line and program managers must use DHIS data for evidence based decision making to optimise health program and health care system performance, for monitoring and evaluating performance against the province's annual performance plan and for reporting purposes.

4.1.4 Procedure: Line Managers

Step	Action
1	Ensure that sufficient resources are available for routine health information management according to national guidelines
2	Ensure that data management, monitoring and reporting is included in performance contracts and job descriptions of managers at provincial and district level
3	Ensure that training is provided on data elements, data quality assessment and data use to all managers
4	Verify and sign-off data on time prior to its submission to next level according to the data flow diagram
5	Conduct spot checks to identify data quality and program challenges at provincial and district levels by means of monthly desktop reviews and quarterly visits
6	Convene quarterly performance reviews and compile reports on data quality and performance at district level. Implement remedial actions to address shortcomings in collaboration with information staff
7	Use DHIS data for development of legislated plans and monitoring performance
8	Participate in NIDS and PIDS reviews

4.1.5 Procedure: Program Managers

In addition to the procedures expected from Line Managers, Program Managers must:

Step	Action
1	Participate in process of aligning program specific NIDS with international and national priorities and indicators

2	Provide leadership, guidance and support with development of building capacity around program specific NIDS
3	Compile program specific inputs for reports
4	Participate in pre-submission validation of data processes
5	Participate in process of developing PIDS

5 DATA ANALYSIS AND INFORMATION PRODUCTS

5.1 Responsibility

5.1.1 The Head of Department is responsible to:

- Provide a standardised quality report for each quarter (disaggregated by district) listing number of gaps, unverified outliers, validation rule violations and proposed plan indicating success and timelines on how shortcomings will be addressed for each reporting period.
- Establish a structured monitoring and evaluation (M&E) system at all levels.
- Provide a standardised performance report detailing successes and challenges and plans to improve performance with set timelines and targets for each quarter.

5.1.2 The Provincial Department of Health must:

- Implement the DHIS web pivot reporting system to ensure access for provincial and district managers to all DHIS data over the departmental intranet.
- Avail pivot table files and standard reports for offline analysis and interpretation by provincial and district managers.

5.2 Procedure

Step	Action
1	DATA ANALYSIS
1.1	Conduct assessments to analyse program performance and data quality
1.2	Prepare standardised quality reports for data quality and program performance and share with provincial and district line and program managers on a quarterly basis
1.3	Compile and share pivot table files with provincial and district line and program managers on a monthly basis
1.4	Ensure that personnel involved in health information at provincial and district level are capacitated on new indicator data sets and how data will be collected
1.5	Conduct support visits on a quarterly basis to the districts regarding health information

6 DATA DISSEMINATION AND USE

6.1 Responsibility

- 6.1.1 Line, program, information and M&E managers must use DHIS data for evidence based decision making to optimise:
- Public health/health care status of populations
 - Health program and health care system performance
 - Data quality
 - Developing, reporting, monitoring and evaluation of all legislated plans in the health sector
- 6.1.2 Development of remedial interventions to improve service delivery
-

6.2 Procedure

Step	Action
1	DATA DISSEMINATION AND USE
1.1	Review data collected in province at least on a quarterly basis
1.2	Develop, review and report on Annual Performance Plan with data from DHIS
1.3	Develop remedial action plans to improve service delivery where inadequate performance has been identified
1.4	Assess performance of line and program managers on data quality improvement and use of data

7 RESOURCES REQUIRED FOR HEALTH INFORMATION MANAGEMENT

7.1 Responsibility

The national aim is to have computers and competent data capturers at each facility to be phased in. Until all facilities are computerised, well managed and monitored, paper-based data collection, collation and dissemination systems must be maintained in the most effective and efficient way.

The DHMIS policy specifies health information resource-related roles and responsibilities for provincial Department of Health. These resources include data collection tools, staff, hardware, software and helpdesks which are crucial to provide the required comprehensive, timely, reliable and good quality evidence for tracking and improving health service delivery.

7.1.1 Procedure:

Step	Action
1	DATA MANAGEMENT TOOLS The following basic tools and equipment are needed for effective routine information management:
1.1	Data collection and collation tools to be used at facility level to manage facility data to be captured into the DHIS monthly. • Mainly DHIS-generated data collection and collation tools are used for managing facility data to be captured into the DHIS monthly. Depending on the type of facility, available resources and services provided at individual facilities, DHIS-generated data collection and collation tools include: - o Reception Headcount Tick sheets - o Tick Sheet with space for a patient record number to link with individual patient records for supporting high quality integrated, comprehensive patient care, follow-up, data verification and auditing - o Summary forms to collate data from the Tick Sheets on a daily, weekly and monthly basis - o Data Input forms to provide for sign-off on data by facility manager and district/sub-district for capturing into DHIS
1.2	A standardised and rationalised data element and indicator set (NIDS) must be provided to districts and sub-districts
1.3	Basic tools required: • Stationery such pens, rulers, carbon paper, calculators and staplers • Filing cabinets, files and an effective filing system • Telephones and fax machines

1.4	Priority documents relevant to level such as: • National Health Act • Strategic Plan / Annual Performance Plan/District Health Plan • DHMIS Policy • DHIS Standard Operating Procedures • NIDS and PIDS with standardised data element and Indicator definitions • Core Standards • PHC Supervisory Manual
2	HARDWARE REQUIRED Requirements are similar for all levels of health care system, with provincial level needing higher level equipment to manage the larger amount of data: • Computers meeting national requirements • Servers at national and provincial levels • Tools for backup meeting national requirements • Colour printer (preferably A3 from district level upwards) • Flatbed scanner • Digital projector
2.1	ICT Units in the provincial DoH are responsible for recommending computer specifications, acquisition of hardware. The DHIS software should meet national requirements (in development) but, until these are available the following basic requirements serve as guidelines for effective DHIS management (http://www.hispkerala.org/latest_downloads/ (District HardSoftware).The specifications (dated 22 Aug 2012) for facility, sub-district and district levels for desktops PCs are: • CPU: 3rd Generation Intel i5 3.2-3.5 GHz CPU w/6MB cache OR 3rd Generation Intel i3 2.5-3.3 GHz CPU w/6-8MB Cache and 1333-1600MHz bus • Memory: 6 GB 1333-1600 MHz RAM (note: requires Windows 7/8 64 bits) • Monitor: 20-24" LCD monitor • Graphics Card: 1-2GB card with DVI port • Hard Drive: 256GB Solid State Drive plus 256GB-512GB SATA drive • Floppy Drive: 3.5inch 1.44MB diskette drive (still useful for backward compatibility) • DVD-RW& CD writer/rewriter: 16X DVD+/-RW drives • USB thumb drive: Recommended for users transferring data often – preferably 8-16GB (if transferring <i>large</i> amount of data, use external USB 2.0 mobile 120-250GB disk).
2.2	Provincial/District teams, information officers and people involved with on- the- job- training, need notebooks to be able to move around to different venues easily to demonstrate the use of databases and to easily extract information during meetings. Interactive use of the database requires a powerful notebook and these staff should be able to connect to their emails and the internet in the field to optimise continuity and the quality of their work Specifications for notebook PCs are: • CPU: 3rd Generation Intel i7 2.5-3.7GHz CPU w/3-12MB cache and 1333/1600 MHz bus • Memory: 6-16 GB RAM • Screen: 15.6"-17.3 display panel, preferably with HD (1920x1080) resolution. Please

	<i>note that it is next to impossible to find 14" display with sufficient resolution to run DHIS properly.</i> • Graphics Card: 1-2GB Graphics Card • Hard Drive: 256 GB Solid State Drive, combined with a 256-512GB SATA disk for users requiring large storage space • DVD-RW+/CD-RW: 8x Double layer DVD writing, CD writer • VGA port or HDMI-to-VGA adapter: Ensure that relevant adapter is available for external VGA port required by most older digital projectors • External USB flash or drive: Recommended for users transferring data often – preferably 16GB and/or an external USB 3.0 500GB-1TB mobile disk. • Docking station: Users working mostly in their office and only require a notebook for the occasional travel or meeting, should consider using a docking station and a larger screen only if the notebook support 1920x1080 (HD) resolutions. A second external LED monitor can then either be used as a replacement display or as a secondary / extended display
3	E-MAIL, INTRANET AND INTERNET ACCESS All DHIS software users have the right to access to e-mail, intranet and internet. Infrastructure must be sufficiently reliable and provide bandwidth to be used for all aspects of DHIS operation
4	SOFTWARE The DHIS software should meet national requirement (in development) but, until the national requirements are available the following basic requirements serve as guidelines for effective DHIS management (http://www.hispkerala.org/latest_downloads/ (District HardSoftware)). • Operating System: Microsoft Windows 7 Pro 64 bits • Application Software: MS Office 2010/2013 Professional (bundled or extra), or use 2003 with SP3 or 2007 with SP-2 if available through bulk licensing. <i>NB: Office 2010 or the upcoming Office 2013 must be installed as a 32-bits version even under Win 7/8 64 bits.</i> • Additional Software: File compression utility (e.g. the free 7-zip) • Anti-virus software <i>For daily capturing on DHIS the following must be in place:</i> The latest service packs for different versions of MS Office and Windows are installed on the user computer. The latest service pack as at 23 October 2012 is: • Windows XP latest Service pack is 3 • Windows 7 latest service pack is 1 • MS Office 2003 latest service pack is 3 • MS Office 2007 latest service pack is 3 • MS Office 2010 latest service pack is 1 The latest version of DHIS must be downloaded on the user computer

5	STAFF KNOWLEDGE AND SKILLS The Provincial Head of Departments and District Health Managers are responsible for: • establishing core teams at their respective levels for management of DHIS data • establishing posts for DHMIS staff as part of staff structures and fill key positions • developing human resource plan for health information systems • developing human resource development plans to ensure that personnel is developing required knowledge and skills
5.1	All information management and monitoring and evaluation staff, supervisors, line and program managers need relevant levels of knowledge and skills in: • Data collection and collation, standards and correct use of tools • Data validation and optimising of data quality (paper-based and electronic) • DHIS software (data capturers & information officers / managers) as guided by the DHIS Software Manual • Data capturing • Use of DHIS validation tools • Extraction of DHIS data (reports and pivot tables) on data quality and health program performance • Data analysis and interpretation with the emphasis initially on the use of DHIS pivot tables, drawing conclusions and making evidence-based recommendations and management decisions • Presentation of data by means of graphs, tables and narrative reports • Provision of user-friendly data and information feedback to lower levels on data quality and program performance on d-dates • Records management – paper and electronic • Interpretation and use of data/information for optimising data quality, monitoring, evaluation, reporting and evidence-based decision-making aimed at reducing morbidity and mortality • Capacity building – training, facilitation, mentoring and support (includes supervision) • Leadership and management
6	Establish Help-desks to assist with key DHIS issues

8 Reference Documents

Individuals using this procedure should become familiar with the following documents:

- 8.1 DHMIS Policy, National Department of Health, 2011.
- 8.2 National Health Act (Act 61 of 2003): Commencement Section 53 of the National Health Act, 2003.
- 8.3 PHC Supervisory Manual, National Department of Health, October 2009
- 8.4 Promotion of Access to Information Act (Act 2 of 2000): GN 585, Government Gazette 26332, 14 May 2004.
- 8.5 Public Audit Act of 2004 (Act 25 of 2004): Government Gazette Vol 474, Cape Town, 20 December 2004 No. 27121.
- 8.6 Public Finance Management Act (Act 1 of 1999): Public Finance Management Amendment Act (Act No. 29 of 1999).
- 8.7 Statistics Act (Act 6 of 1999): Government Gazette Vol. 406, Cape Town 21 April 1999. No. 19957.
- 8.8 Treasury Regulations: Government Gazette, Vol. 500, Pretoria, 20 February 2008, No. 29644.



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