

HRIS PMP Indicators

#	Category	Performance Indicator	Precise Definition of and Justification for Indicator	Calculation of Indicator	Target	Data Source	Frequency	Responsible Party
1	Systems	Ratio of number of national or sub-national interoperable HRIS to number of national or sub-national standalone ("silo") HRIS	"Interoperable" HRIS databases are systems that communicate with multiple heterogeneous HRIS and appear as a single homogenous entity. "Standalone" HRIS refers to a system being self-contained or not interlinked to other HRIS ("silo"). The reason to measure the ratio is to promote interoperability.	Number of national or sub-national interoperable HRIS divided by the number of national or sub-national standalone ("silo") HRIS	Higher than 1 (more interoperable HRIS than standalone HRIS)	MOH, HMIS	Annually	HRIS Manager
2	Systems	Percentage of geographical sub-level (districts/provinces) HRIS subsystems connecting or linking to centralized (national) HRIS	"Connecting" or "linking" implies that a system is put in place that synchronizes data between the district/provincial level and the central level, essentially integrating the systems. Calculating the percentage of districts/provinces that are connected to the central system provides insight into the extent to which the system is a true "national" system.	Number of geographical sub-level (districts/provinces) HRIS subsystems connecting or linking to centralized (national) HRIS / Total number of sub-levels (district/provinces) in the country	0.8	MOH, HMIS	Quarterly	HRIS Manager

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3	Systems	Number of other subsystems incorporated into the comprehensive HRIS to which the HRIS is automatically linked	Linkages to other HRIS indicate usability and strength of the system. A well-linked system forges collaboration and innovative data use. <i>Automatic</i> means digitally, or without the interference of manual hard copies, signatures or postal deliveries.	Count	At least 2: Payroll and HMIS	MOH, HMIS	Semi-annually	HRIS Manager
4	Systems	Percentage of system uptime (in hours)	Number of hours a system is "up" (applications running and functioning) is an indication of its stability and reliability. The indicator measures the percentage of hours per week that the system is online or running on average, based on a 24-hour period. Not being "up" can be caused by outage, performance degradation, incomplete functionality or other reasons. Sometimes a slow system can be classified as an "outage," even though it's actually an application or network problem and not an OS or hardware problem.	(Number of hours per week that the system is online or running / 168) * 100	0.9	Funder, MOH, Finance	Quarterly	IT Manager

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5	Systems	Dollars spent on system development	<i>System development</i> is defined as systems analysis and design (feasibility study, general design, use cases, prototyping, detail design, functional and nonfunctional specifications); user signoff on design; programming (design, coding, testing, documentation); implementation (training, conversion, installation); and/or activities that measure user acceptance of new design (usability studies).		Actual dollar figure is country-specific. Target is to observe a decline in dollars spent to minimal level.	Funder, MOH, Finance	Quarterly	
6	Systems	Dollars spent on data demand and information use technical support	<i>Data demand and information use (DDIU)</i> is defined as interventions that increase local demand for information and promote or facilitate its use, which are critical to improving the effectiveness and sustainability of the system. Fostering evidence-based decision making is the primary function of a HRIS. DDIU also includes promoting transparency in the decision-making process and motivating accountability of health decisions.		Actual dollar figure is country-specific. Target is to observe a decline in dollars spent to minimal level.	Funder, MOH, Finance	Quarterly	

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7	Systems	Dollars spent on system maintenance	<p><i>System maintenance</i> is defined as: (1) hardware maintenance, or the testing and cleaning of equipment; (2) information system maintenance, or the routine updating of master files, such as adding and deleting employees; (3) software or program maintenance, or the updating of applications to meet changing requirements, such as adding new functions and changing data formats; this includes fixing bugs and adapting software to new hardware devices; (4) disk or file maintenance, or the periodic reorganizing of disk files that have become fragmented due to continuous updating.</p>		Actual dollar figure is country-specific. Target is steady-state.	Funder, MOH, Finance	Quarterly	

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8	Systems	Frequency with which system is incrementally backed up	Backups should be made regularly as part of a recovery strategy to protect data against the possibility of loss in the event of a hardware or software failure. An <i>incremental backup</i> is a backup method where multiple backups are kept (not just the latest one). These backups will be incremental if each original piece of backed-up information is stored only once and successive backups only contain the information that changed since a previous backup.		Daily		Quarterly	

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9	Systems	Frequency with which system is fully backed up	Backups should be taken regularly as part of a recovery strategy to protect data against the possibility of loss in the event of a hardware or software failure. In information technology, <i>backup</i> refers to making copies of data so that these additional copies may be used to restore the original after a data-loss event. These copies are typically called <i>backups</i> . Backups are useful primarily for two purposes: to restore a state following a disaster (called <i>disaster recovery</i>), and to restore small numbers of files after they have been accidentally deleted or corrupted.		Monthly		Quarterly	
10	Security	Percentage of the organization's information system budget devoted to HRIS information security	This indicator strategically ensures an environment of comprehensive security and accountability for personnel data. Further, it provides resources necessary to properly secure agency information and HR information systems.	(HR Information security budget / Total information security budget) * 100		Office of budget	Annually	HRIS Manager, HRH Financial Officer, Chief Information Officer

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11	Security	Number of information security incidents within timeframe per applicable incident category	How many incidents were reported during the period? Possible categories: unauthorized access; denial of service; malicious code; improper usage; scans/probes/attempted access; under investigation.	For each category a frequency count of total number of reported incidents		Incident database, audit logs, incident tracking database (if available)	Monthly	Chief Information Officer
12	Security	Percentage of remote access points used to gain unauthorized access	Restrict information system access to individuals and machines that are identifiable, known, credible and authorized.	(Number of remote access points used to gain unauthorized access / total number of remote access points used) * 100		Incident database, audit logs, network diagrams	Monthly	Chief Information Officer
13	Security	Average frequency of audit records analyzed for inappropriate activity	Create, protect and retain information system audit records to the extent needed to enable the monitoring, investigation and analysis of unauthorized, unlawful or inappropriate activity. Logging needs to be activated on the system, and the organization should clarify its definition of evidence for "inappropriate activity."	Average frequency of inappropriate activity / total activity	High frequency	Audit log reports	Monthly	Chief Information Officer

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14	Security	Percentage of HRIS users who have authorized access to the HRIS after they sign a statement saying they understand the rules and behavior of the HRIS	The goal of this indicator is to encourage, develop, document, implement and periodically update security plans for organizational information systems and confidential data that describe the security and confidentiality controls in place or planned for information systems and the rules of behavior for individuals accessing these systems, including the confidential nature of HR data.	(Number of users who are granted system access after signing rules of behavior / total number of users with system access) * 100	1	Repositories of signed rules of behavior	Quarterly	HRIS Manager
15	Data	Return rate of HRIS data collection updates	The <i>return rate</i> refers to the number of data collection tools that are returned from the field and entered into the HRIS database to update the existing information. A low return rate is an indication of problems with data collection and can affect the quality of the HRIS.	The % of districts or data collection points returning data collection forms "completely"	1	HRIS data manager records	Quarterly	HRIS Manager
16	Data	Number of individual HR records entered into the HRIS database	Records entered into HRIS database(s) will provide an indication of the completeness and usefulness of the database and its significance. <i>Individual records</i> means that an effort is made to not double-count individuals.	Count of individual frequencies	Country-specific: relative to the total number of medical professionals	HRIS	Quarterly	HRIS Data Entry Manager

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17	Data	Estimated percentage of health professionals represented in the dataset (data completeness) (by cadre)	The percentage of individual records entered relative to the total number of health professionals, as best determined, indicates data completeness. The reference population can be obtained from recent surveys or cross-checking the HRIS with similar systems. It is possible that no valid reference is available. In this case, a sampling of a district or zone can be used to estimate the completeness of the database.	For each cadre: Number of health workers listed in the database / Estimated total number of health workers	1	HRIS, surveys	Quarterly	HRIS Manager

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18	Data	Number of updates (or changes) made in the HRIS after verifications of records during registration and /or licensing of a health worker	This indicator is a proxy for data accuracy. There is often a process in place when a health worker is in contact with the health system where the existing health worker data is verified. The aim is to monitor the number of changes made as a result of this process. Over time, the number of verifications should decline as the database matures and becomes increasingly valid. At the same time, environmental or contextual issues can influence the number of changes in the health workforce. This indicator will illustrate the relative stability of the HR content.	Count	Unknown	Verification logs	Quarterly	HRIS Data Entry Manager
19	Data	Percentage of data entered accurately into the HRIS	A routine random sample contrasting data accuracy between the HRIS and any existing paper-based information system to assess data accuracy. This can occur as part of the standard quality-control process.	% of data judged accurate during quality control checks	1		Quarterly	
20	Data	Frequency of data updates	The frequency of data updates indicates the quality of the system.	Frequency count of the number of update in the period	Monthly		Quarterly	

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21	SLG	Number of key stakeholder positions regularly involved in HRIS development and planning	The stakeholder leadership approach suggests that a committee of stakeholders dedicated to guiding HRIS development and management provides sustainability to the system. "Ongoing" membership positions refers to SLG members who have participated in the group for <i>more than one</i> meeting.	Frequency count	10	SLG meeting minutes	Quarterly	SLG Secretary
22	SLG	Frequency of SLG meetings in which 60% of the quorum attended	This is an indicator of the commitment of the SLG in making decisions. The quorum is needed in order to be able to make decisions.	Frequency count	10	SLG meeting minutes	Quarterly	SLG Secretary

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23	SLG	Percentage of policy and management questions asked by the SLG for which HRIS data is made routinely available.	<i>Routinely available</i> means that regular reports are created or the data are made accessible to SLG members in a relatively short period of time.	Number of policy and management questions asked by the SLG for which HRIS data is made routinely available / Total number of clearly identifiable and mutually exclusive policy and management questions	10	SLG meeting minutes	Quarterly	SLG Secretary
24	HR	Number of health-relevant personnel trained on the use of the HRIS	Training on HRIS usage is crucial for keeping the system running. Training can include a focus on management, data entry, data collection, data collation, database development or report generation. This number can be lower than the number of users who have received the authority to access the system.	Cumulative across monitoring periods: we count those who are trained and those who leave	Country-specific	SLG meeting minutes	Quarterly	SLG Secretary
25	HR	Number of staff responsible for HRIS data entry	This is to track the adequacy of staffing levels to manage the HRIS on an ongoing basis.	Frequency count	1	HR records	Semi-annually	HRIS Manager

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26	HR	Number of staff qualified for HRIS database maintenance and development	This is to track the adequacy of staffing levels to manage the HRIS on an ongoing basis.	Frequency count	1	HR records	Semi-annually	HRIS Manager
27	HR	Number of staff responsible for HRIS data management and reporting creation	This is to track the adequacy of staffing levels to manage the HRIS on an ongoing basis.	Frequency count	1	HR records	Semi-annually	HRIS Manager
28	Usage	Number of times the HRIS has been accessed	Automated counts of users accessing the HRIS for information.	Frequency count		HRIS use log	Monthly	HRIS Manager

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29	Usage	Percentage of central-level senior health management staff having direct access to an operational HRIS to obtain HRH information	<p><i>Direct access</i> means that health management staff have computer-enabled access (with password protection) to the data in their office or close to their office. Senior staff include:</p> <ul style="list-style-type: none"> • HMIS managers • Health Statistics Unit (statisticians) • Payroll Unit • HR Unit (Principal Personnel Officer, HR Unit Senior Manager, HR Unit Record Officer) • Undersecretary/Director General or Principal Secretary • Chief Nursing Officer • Planning Unit (health planner) • Registrars from professional councils (such as the Nursing Council) 	Percentage of central-level senior health management staff having direct access to an operational HRIS to obtain HRH information / Total number of central-level senior health management staff	1	MOH, key informants	Monthly	HRIS Manager

#	Category	Performance Indicator	Precise Definition of and Justification for Indicator	Calculation of Indicator	Target	Data Source	Frequency	Responsible Party
30	Usage	Percentage of district-level senior health management staff having direct access to an operational HRIS to obtain HRH information	<p><i>Direct access</i> means that health management staff have computer-enabled access (with password protection) to the data in their office or close to their office. Senior staff include:</p> <ul style="list-style-type: none"> • HMIS managers • Health Statistics Unit (statisticians) • Payroll unit • HR Unit (Principal Personnel Officer, HR Unit Senior Manager, HR Unit Record Officer) • Undersecretary/Director General or Principal Secretary • Chief Nursing Officer • Planning Unit (health planner) • Registrars from professional councils (such as the Nursing Council) 	Percentage of district-level senior health management staff having direct access to an operational HRIS to obtain HRH information / Total number of district-level senior health management staff	1	MOH, key informants	Monthly	HRIS Manager

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31	Usage	Total number of different HR reports generated by the HRIS at the central level	<i>Generated</i> means created for the specific purpose of data analysis. A report includes, but is not limited to, printing the data or transferring the data to be included as a table, appendix or other type of reference in a reporting document. A report can also include an external communication for media, public relations or otherwise significant audience. To be "different," a report needs to have unique content and not be an exact copy of a previous report.	Frequency count		HRIS use log	Monthly	HRIS Manager
32	Usage	Total number of different HR reports generated by the HRIS at the district/province level	<i>Generated</i> means created for the specific purpose of data analysis. A report includes, but is not limited to, printing the data or transferring the data to be included as a table, appendix or other type of reference in a reporting document. A report can also include an external communication for media, public relations or otherwise significant audience. To be "different," a report needs to have unique content and not be an exact copy of a previous report.	Frequency count		HRIS use log	Monthly	HRIS Manager

#	Category	Performance Indicator	Precise Definition of and Justification for Indicator	Calculation of Indicator	Target	Data Source	Frequency	Responsible Party
33	Usage	Number of central-level HRIS reports that are used to improve health management	<i>Health management</i> is the act of getting people together to accomplish desired health goals. Health management comprises planning, organizing, staffing, leading or directing and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a health outcome. Resourcing encompasses the deployment and manipulation of financial, technological, natural and human resources. Health management can include (but not be limited to) managers involved in managing finance, government relations, HRIS, marketing and public affairs, material management (purchasing of equipment and supplies), medical staff relations, nursing administration, patient care services and planning and development.	Frequency count		HRIS use log	Monthly	HRIS Manager

#	Category	Performance Indicator	Precise Definition of and Justification for Indicator	Calculation of Indicator	Target	Data Source	Frequency	Responsible Party
34	Usage	Number of district/province-level HRIS reports that are used to improve health management	<i>Health management</i> is the act of getting people together to accomplish desired health goals. Health management comprises planning, organizing, staffing, leading or directing and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a health outcome. Resourcing encompasses the deployment and manipulation of financial, technological, natural and human resources. Health management can include (but not be limited to) managers involved in managing finance, government relations, HRIS, marketing and public affairs, material management (purchasing of equipment and supplies), medical staff relations, nursing administration, patient care services and planning and development.	Frequency count		HRIS use log	Monthly	HRIS Manager

#	Category	Performance Indicator	Precise Definition of and Justification for Indicator	Calculation of Indicator	Target	Data Source	Frequency	Responsible Party
35	Usage	Number of central-level HRIS reports that are used for decisions on program design and improvements	<i>Program design</i> is the process of creating relevant services to address the specific needs of targeted populations. These services include assistance in understanding the entire scope of public health programming from design to implementation.	Frequency count		HRIS use log	Monthly	HRIS Manager
36	Usage	Number of district/province-level HRIS reports that are used for decisions on program design and improvements	<i>Program design</i> is the process of creating relevant services to address the specific needs of targeted populations. These services include assistance in understanding the entire scope of public health programming from design to implementation.	Frequency count		HRIS use log	Monthly	HRIS Manager
37	Usage	Number of central-level HRIS reports that are used for policy and decision making	<i>Decision-making</i> can be regarded as an outcome of mental processes (cognitive process) leading to the selection of a course of action among several alternatives. Every decision-making process produces a final choice. The output can be an action or an opinion of choice.	Frequency count		HRIS use log	Monthly	HRIS Manager

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38	Usage	Number of district/ province-level HRIS reports that are used for policy and decision-making	<i>Decision-making</i> can be regarded as an outcome of mental processes (cognitive process) leading to the selection of a course of action among several alternatives. Every decision-making process produces a final choice. The output can be an action or an opinion of choice.	Frequency count		HRIS use log	Monthly	HRIS Manager