

Topic outline

This course provides a basic introduction to monitoring and evaluation concepts and how they apply to the field of human resources for health (HRH) to inform evidence-based planning and decision-making.

This course introduces terminology that has different definitions in various sources. It is more important to remember the concept that the definition seeks to convey than it is to remember a specific definition. As you go through this course, focus on the concepts.

1. Introduction to Monitoring & Evaluation (M&E)

In this section, you will be introduced to a set of basic terms and concepts in monitoring and evaluation and learn how they are applied to different evaluation questions and methods. You will also be introduced to some examples of [conceptual frameworks](#) for HRH topics.

Concepts:

- Evaluation, monitoring, and impact assessment
- [Conceptual frameworks](#)
- Results, indicators, and targets

Tasks:

- Discuss definitions of and differences between monitoring and evaluation
- Match indicators to their corresponding results

Lesson 1: Defining Monitoring and Evaluation and their Methods

Monitoring and Evaluation



Forum Questions

What is the difference between monitoring and evaluation? What adjectives describe monitoring? What adjectives describe evaluation?

Please post your responses on the [forum](#).

Adapted from MEASURE Evaluation (2007). *M&E Fundamentals: A Self-Guided Minicourse*.

Defining Monitoring

Monitoring tracks changes in program performance, including program inputs, activities, and outputs or key results over time.

Adapted from Measurement, Learning & Evaluation Project. *Measuring Success Toolkit*, 2012.

Defining Evaluation (Impact Assessment)

Evaluation (Impact assessment) is a systematic approach to attribute changes in specific outcomes to program activities

Adapted from Measurement, Learning & Evaluation Project. *Measuring Success Toolkit*, 2012.

Monitoring vs. Evaluation (Impact Assessment)

Think about the objective and what method is being used.

- Monitoring seeks to track changes associated with a given intervention, while not necessarily taking into account other factors that could be contributing to or influencing outcomes.

- Evaluation (impact assessment) seeks to determine cause and effect - the extent to which a given intervention resulted in an observed outcome (attribution) - while controlling for other factors associated with the observed outcome.
- Impact can be assessed if the methods used allow you to control and compare.

M&E Provides Answers

Monitoring	Evaluation (impact assessment)
Used for program management	Used for strategic planning and program design
Are we on the right track? Should we take a different road?	Did we get where we wanted to go? If yes, why? If not, why not?
Was the program implemented as planned?	Which program activities were more effective, and which were less effective?
How much does implementation vary from site to site?	Did the target population benefit from the program and at what cost? Can improved health outcomes be attributed to program efforts?
<u>Common data source</u> : Program-based data such as routine information systems (HMIS, HRIS) and facility/institutional assessments and surveys; qualitative research	<u>Common data source</u> : Population-based surveys and qualitative research
DESCRIBE	EXPLAIN PREDICT

Adapted from MEASURE Evaluation (2007). *M&E Fundamentals: A Self-Guided Minicourse*.

Overlap in Terminology Used in Program Evaluation (Video)

[Video](#)

[Transcript](#)

Lesson 2: Conceptual Frameworks

Defining Conceptual Frameworks

Based on empirical evidence, a [conceptual framework](#) is a group of concepts that are systematically defined and organized to explain and predict a sequence of anticipated results.

Conceptual Framework Definitions

input: resources invested in a program (e.g., technical assistance, computers, condoms or training)

process: activities carried out to achieve the program's objectives

output: immediate results achieved at the program level through the execution of activities

outcome (process or intermediate): set of short-term or intermediate results at the population level achieved by the program through the execution of activities

impact: long-term effects or results from the program

MEASURE Evaluation (2007). *M&E Fundamentals: A Self-Guided Minicourse*.

Example M&E Framework for HRH and Service Delivery (Video)

[Video](#)
[Transcript](#)

Conceptual Framework Definitions

- result: what is to be accomplished
 - example: facility-based deliveries conducted using active management of third stage of labor (AMTSL)
 - included in a [conceptual framework](#)
- indicator: measurement of a result
 - example: percentage of deliveries in health facilities conducted using AMTSL
 - included in a M&E plan
- target: level of measurable achievement of a result
 - example: 90% of deliveries in health facilities conducted using AMTSL
 - included in a M&E plan

Key Points

[Conceptual frameworks](#) are essential.

M&E should be involved from the beginning of proposal and program/project start-up.

Developing a [conceptual framework](#) guides proposal development, project design and associated M&E plans.

2. HRH Indicators

In this section, you will learn how to assess indicators – including HRH indicators – for key dimensions of data quality.

Concepts:

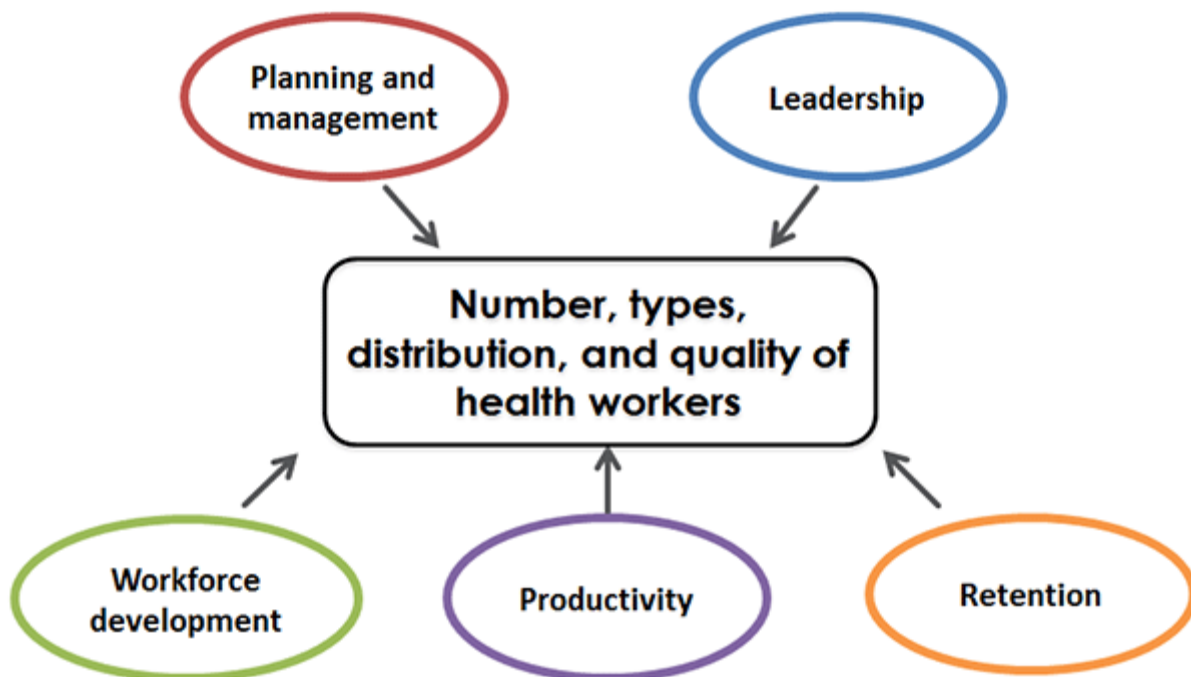
- Indicator data quality
- HRH indicators

Tasks:

- Discuss indicator data quality challenges
- Compare dimensions of data quality between pairs of HRH indicators

Lesson 1: Indicator Data Quality

Types of HRH Indicators



Choosing Indicators

Plenty of HRH indicators exist, but the challenge is to choose the best indicator for measurement.

Using established criteria will help you to determine what is a good indicator.

Forum Question

What are the challenges with the quality of the data used to generate indicators?

Please post your response to the [forum](#).

Dimensions of Indicator (Data) Quality

- validity
- reliability
- feasibility/practicality
 - data sources
 - timeliness
 - comprehensiveness
 - cost
- objectivity

Adapted from MEASURE Evaluation (2007). *M&E Fundamentals: A Self-Guided Minicourse*.

Validity

An indicator is valid if it measures what it is supposed to measure and has a close or at least defensible connection to the intervention.

Reliability

Reliability refers to the degree of random variability in the measurement of the indicator.

For example, assuming there is no real change in the result being measured, the same measurement process should provide the same data and indicator if the measurement process were repeated over and over again, whether by the same person or by different people.

Feasibility/Practicality

Feasibility and practicality mean that the data necessary to calculate indicators can be collected at a reasonable cost and in a timely way; data quality can be ensured; and trained personnel are available to collect and analyze the data.

Objectivity

An objective indicator has no ambiguity about what is being measured. It measures only one phenomenon at a time and is operationally precise (no ambiguity concerning what data are needed).

Key Point

Indicators are only as useful as the quality of their data.

Lesson 2: Indicator Data Quality: HRH Example

Health Worker Density Ratio

To see how the dimensions of data quality apply to standard HRH indicators, consider the widely used indicator: the health workforce density ratio.

For a given period of time:

$$\frac{\text{Total \# health workers in a country/geographic area}}{\text{Total population in the country/geographic area}}$$

Health Worker Density Ratio: Considerations

When calculating and using this indicator, consider:

What definitions of health worker are being used for the numerator? Have these changed for a given country over time? Are the definitions the same when comparing countries?

- Validity of the density ratio depends on what you're trying to measure and how you define "health worker."
- Standardizing definitions also boosts reliability.

What are the data sources for the numerator and denominator? What is the quality of these sources and the data generated (e.g., timely? comprehensive? reliable?)

- Numerator data can be gathered from regularly maintained human resources information system (HRIS), facility assessments, and special studies - however, the HRIS in many countries are incomplete and out-of-date, and assessments require additional resources, are not routine, and are not comprehensive.
- Denominator data are derived from a population census, which, at best, is undertaken once every ten years.
- Updated population projections are based on models that may vary in their assumptions and analytic methods.

Do the time periods defined for the numerator and denominator data correspond?

- Sources for the numerator and denominator data differ, and consequently the ratio may incorporate health worker data collected during a different time period than the population data, greatly compromising the validity of the measure.

Are there differences in data quality for the numerator and/or denominator when broken down by geographic location, sex, age, etc.?

- If the quality of the data for the numerator and denominator differ in significant ways according to variables (such as geographic location, sex, age, etc.), then any analysis of the indicator's differentials by these factors is compromised.
- Observed differences may be as much a function of differences in data quality as they are of real differences by characteristic.

HRH Indicator Data Quality

When choosing HRH indicators, carefully assess dimensions of data quality, given the context in which they will be used.

Sometimes there are trade-offs between the criteria (e.g., timely or comprehensive data may come at a very high cost).

Key Points

Indicators are means to an end, not an end themselves.

3. Using HRH Data

In this section, you will learn about how HRH data can be presented and interpreted in ways that help inform policies and programs.

Concepts:

- Presenting data
- Interpreting data

Lesson 1: HRH Data

Value of HRH Data

The value of an evaluation activity is in the use of its findings.

HRH data are not consistently and/or comprehensively collected due to lack of funding, systems and skills.

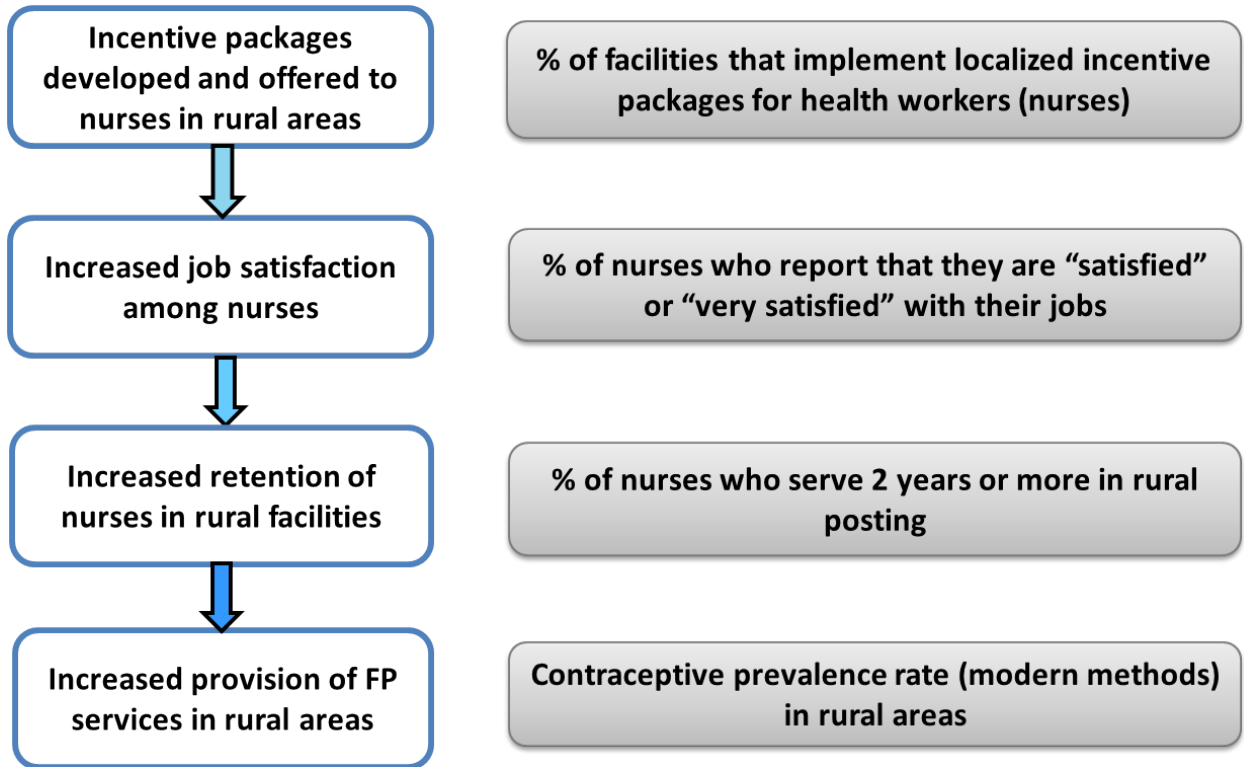
This makes it difficult to “prove” that HRH interventions are linked to outcomes or impact related to service quality/availability/use.

Yet implementers are often required to demonstrate such results by donors and other stakeholders.

Conceptual Frameworks

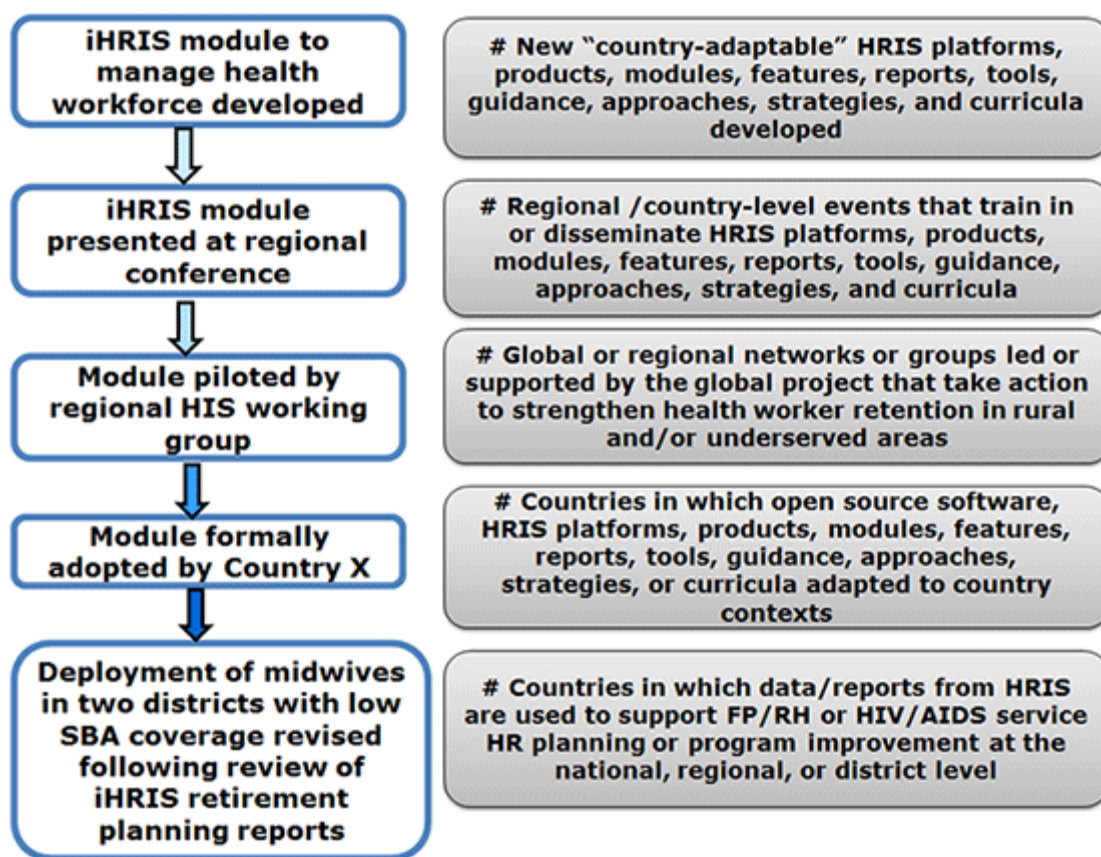
A [conceptual framework](#) and its associated indicators can demonstrate how HRH interventions contribute to service delivery and health outcomes.

Example: Retention and Service Delivery in a Country-Level Program



Note: The end result assumes that if nurses are not retained, their posts are more likely to be vacant and their respective facilities will be unable to provide certain family planning services

Example: HRIS and Service Delivery in a Global Project

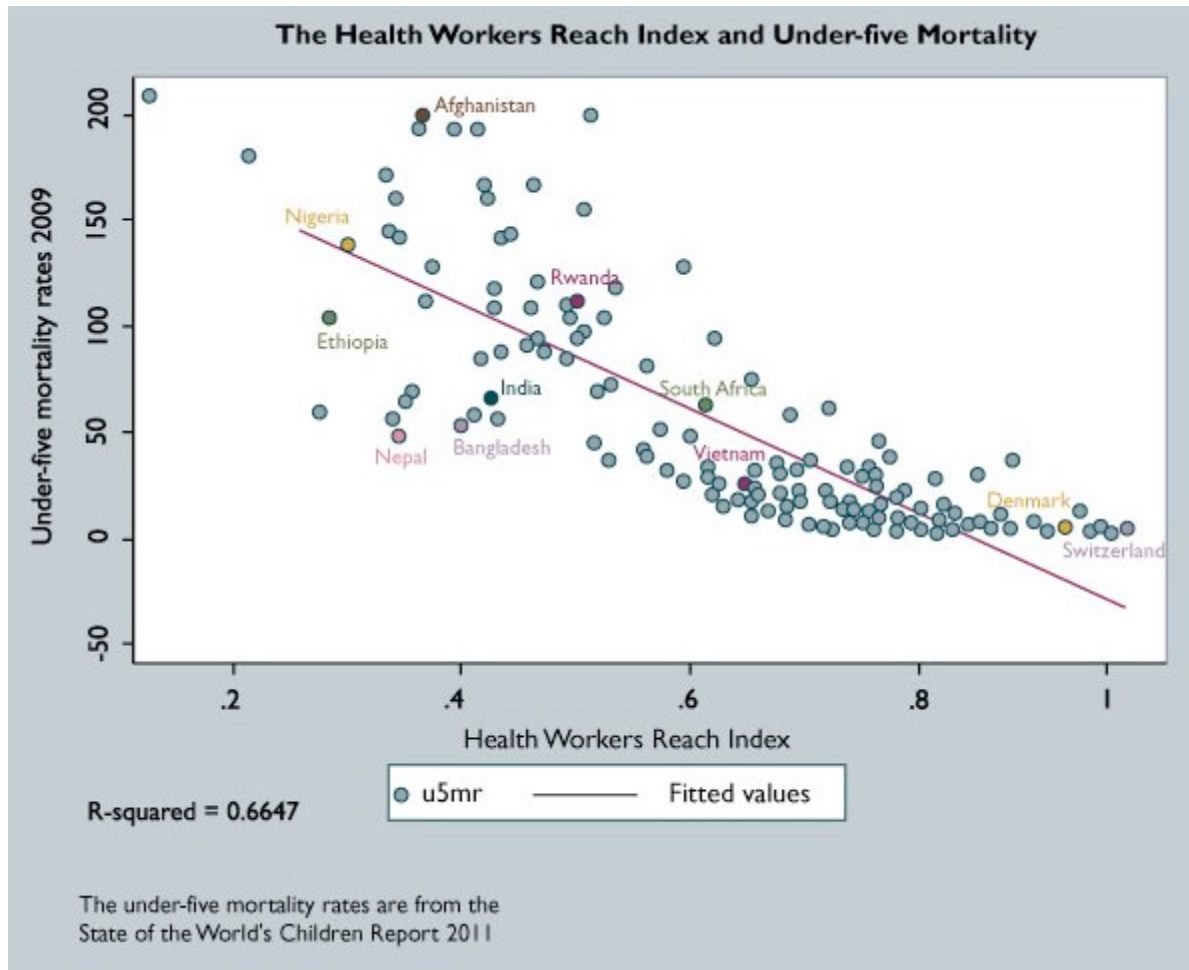


The human resources information system (iHRIS) referenced here is a suite of open-source, customizable software that supplies health sector leaders and managers with the information they need to assess health workforce problems, plan effective interventions and evaluate those interventions.

Data Analysis and Presentation

The presentation of data can also be used to demonstrate correlations between implementation of HRH interventions and changes in service delivery and/or health outcomes.

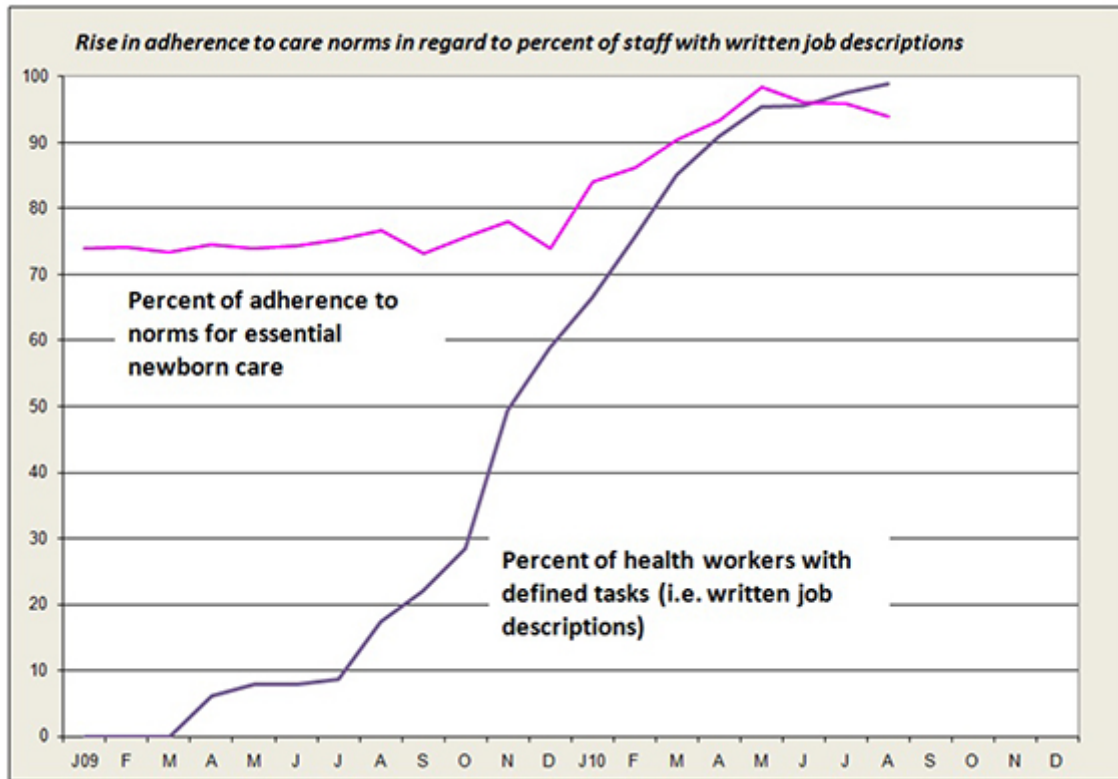
Graphical Example of HRH Data



Save the Children UK. A Global Picture of the Health Workers Reach Index (notes). August 2011.

Graphical Example of HRH Data

Note that this is only a descriptive example. This shows a possible association between two variables, not necessarily cause and effect.



Crigler, Lauren, Boucar, Maina, Wittcoff, Alison, Isenhower, Whitney, and Wuliji, Tana. *Aligning and Clarifying Health Worker Tasks to Improve Maternal Care in Niger: The Tahoua Region Human Resources Quality Improvement Collaborative*. Health Care Improvement Project, August 2011.

(Mis) Interpreting the Data

Example: A regional health office finds that 65% of clients receiving HIV/AIDS counseling and testing services are female, and 35% are male.

The regional health director interprets this finding as an indication that the program is reducing barriers for women in accessing counseling and testing services through voluntary counseling and testing (VCT) clinics.

What really happened: The majority of counseling and testing is occurring through prevention of mother-to-child transmission (PMTCT) services in antenatal care (ANC) settings.

Implications of Data Use

Increasing access to counseling and testing for women through the provision of PMTCT is an important outcome.

Women who test HIV-positive through VCT or PMTCT may suffer negative consequences, such as stigma, violence, and isolation, after disclosing their status.

Thus, when using data, program planners should consider how the program is progressing against targets, as well as possible unintended consequences or outcomes.

Key Point

Be careful not to over-interpret or misinterpret what the data "say."

4. Case Study

In this section, you will participate in a case study exercise applying the concepts covered in the previous sections to HRH examples. Using the discussion board forums and online tools, you will select indicators appropriate for the measurement of an HRH program.

Concepts:

- Health worker lifespan

Tasks:

- Case study: Applying indicators to the worker lifespan approach

Select a Case Study

For this exercise, you will be required to choose from one of three case studies and enter your responses on the forum to complete the activity.

Each case study looks at a different aspect of the health worker lifespan. You will be asked to select an indicator for the case study, using the [HRH Indicator Compendium](#), taking into account the criteria of data quality.

After you read the background definitions and the three case studies that follow, choose one of the case studies and add your thoughts to the corresponding forum. You may participate in more than one group if you are interested in doing so.

Background Definitions

worker lifespan: the stages when people enter (or re-enter) the workforce, the period of their lives when they are part of the workforce, and the point at which they make their exit from it

worker lifespan approach: producing, supporting the performance of, and retaining the workforce as both a worker and a systems approach to monitor the dynamics of the health labor market and the intervention strategies of each stage

producing (entry): preparing the workforce through strategic investments in education and through effective and ethical recruitment practices

supporting performance (active workforce): enhancing workforce availability, accessibility and performance through better human resources management in both the public and private sectors

retaining (exit): managing migration and attrition to reduce wasteful loss of human resources

Adapted from Dal Poz MR, Gupta N, Quain E, and Soucat ALB (eds). Handbook on Monitoring and Evaluation of HRH. World Health Organization, 2009.

Case Study: Producing

The Government of Country A has created a new cadre of health assistants to support clinical and lab functions. Schools are being accredited to implement and award diplomas for the new two-year training program.

Using the [CapacityPlus HRH Indicator Compendium](#) and the dimensions of data quality, determine the one indicator you would select to monitor this training program.

Post your response to the [forum](#).

Case Study: Supporting Performance

Country B's Health Sector Strategic Plan sets out several key strategies to strengthen HRH working conditions. Intervention areas include improving occupational safety and labor relations.

Using the [CapacityPlusHRH Indicator Compendium](#) and the dimensions of data quality, determine the one indicator you would select to monitor this training program.

Post your response to the [forum](#).

Case Study: Retaining

The Ministry of Health of Country C issues an HRH strategic plan that aims to improve effective recruitment and retention through strategies such as developing attractive compensation packages.

Using the [CapacityPlusHRH Indicator Compendium](#) and the dimensions of data quality, determine the one indicator you would select to monitor this training program.

Post your response to the [forum](#).