Human Resources for Health 2030 | JANUARY 2021

Facilitator Manual:

Utilizing Health Workforce Training Data to Make Decisions

Introduction by Executive Director of INS

Let me start by thanking Our God for the Grace and Spirit provided upon the technical team members, who through their efforts were able to develop training module Utilizing Data for Making Decisions and deliver a pilot training for INS Managers and Trainers in October 2020.

This training is intended to respond to the Government of Timor-Leste request for technical assistance to help address the inequities in the health system and sustain a fit-for-purpose, fit-to-practice health workforce to effectively respond to current and emerging health issues and improve the Timorese population's health. As we know, health workforce challenges in Timor Leste range from insufficient quantity, skill mix, and distribution of qualified health workers to limited financial support to sustain HRH, and low performance and motivation-- which results in inequitable access to quality services by the Timorese people. The underlying factors contributing to these HRH challenges are the limited completeness and quality of HRH data, as well as the limited capacity of managers to use HRH data for evidence-informed decision-making.

To address these issues, the HRH2030 Program has taken a two-part approach by working with us to establish and implement a Training Management Information System, to improve the availability of quality of data—and-- improve the capacity of our team members on use of training data to make decisions. I have attended the training myself and I find that the training is really useful. It walks you through in both a theoretical and hands-on manner how to identify health workforce challenges and subsequently training needs to respond to these challenges; stakeholder engagement in the collection and sharing of training data; how to analyze this training data; use of training data to make decisions and most importantly, taking action. Throughout the training, we will learn how the Training Management Information System can be used to carry out these key steps in the decision making process. The knowledge and skills we gain from this training support the development of a culture of data use within the INS, ultimately, contributing to improvements in the availability of quality health services in Timor Leste.

This Manual will assist facilitators to properly send the same messages that this training intends to share. I therefore encourage INS Trainers who are responsible for delivering data use training to start utilizing this manual to guide their training, plan, and monitor training progress.

The INS acknowledge and appreciates USAID's HRH2030 Program, implemented by Chemonics International for the technical and financial assistance provided thus far.

Dili, January 20, 2021

(Domingas da Costa Pereira, Lic. Ec)
Executive Director and President of Directive Council, INS

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January 2021

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Cover photos feature participants of the Data Use Training. Courtesy of HRH2030.

DISCLAIMER

This material is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of cooperative agreement no. AID-OAA-A-15-00046 (2015-2020). The contents are the responsibility of Chemonics International and do not necessarily reflect the views of USAID or the United States Government."

Introduction

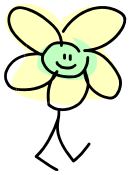
The purpose of this Facilitator Guide is to assist anyone with the responsibility for providing data use training to INS managers, INS trainers, and anyone with the responsibility for managing INS training data. The Guide is divided into two sections: Facilitator Guide and Training Activity Resources.

The Guide follows each session of the training program. There are six sessions.

Each stage is accompanied by a PowerPoint slide, an introduction, key information and usually an activity.

Icons and symbols

Icons and symbols are used throughout this Trainer's Guide to provide you with a quick visual reference to explain the nature of a learning activity.

ICON	MEANING
	Advice for trainer
	Discussion point
	Important to know
	Case study
	Definition
	Activity

Overview of the Training

The training will run for three consecutive days starting from 8.30am to 5.30pm with 1.5 hours lunch break. On the first day, participants will be introduced with basic understanding on health workforce issues and the role of data in decision making, identification of health workforce training data needs and common data quality issues, and engagement of stakeholder in the collection and sharing of data. Participants will gain hands on practice with improvement with data quality, be introduced to a stakeholders' engagement tools that help identify stakeholders, define their roles and resources, as well as map information flows. The participants will also be introduced to a case study which will be used throughout the training.

Day two will cover the development of basic skills in analysis and conducting calculations in training data, develop and understanding of how determinants and barriers to use of data and establish an understanding and importance of feedback loops. To help with data analysis, a practical activity for basic data analysis using excel will also be offered. Participants will also develop action plans to addressing barriers to data use and discuss feedback loops in Timor Leste. Participants will continue applying learnings from the day to their case study.

On the third day, stakeholders will deep dive into linking data to action. Participants will apply learnings from this session to the case study and later conduct a full presentation on the case study for feedback from the group.

On the final day, a session on introducing the training management information system (TMIS) will also be presented. This will cover a review of the system, discussion on report and analysis needs from TMIS to promote further development of the system and a discussion on sustainability of the system for the long run.

Session summary

Session One: Health Workforce Challenges and Use of Training Data to Make Decisions

- Session Objectives:
  - Understand common health workforce challenges globally and in Timor Leste
  - Raise awareness of the importance of using health workforce training data to inform decisions
  - Understand the importance of improving data-informed decision making to optimize the health workforce

- Session Overview: This session will focus on improving participant knowledge on health workforce challenges and how training data can be used to make decisions and take action on these challenges. An overview to data use for decision making will be provided, and the decision-making cycle will be introduced.

Session Two: Determining Training Data Needs

- Session Objectives:
  - Understand what health workforce training data is and the importance of these data to respond to health workforce challenges
  - Understand the difference between good vs bad quality training data and strengthen the ability to manage these data

- Session Overview: This session will focus on explaining what constitutes health worker training data and what are attributes of high-quality data. Specifically, the session will dive into the difference between good and bad quality data, understand attributes to data quality, data quality challenges, and measures for data quality control and assurance. At the end of the session, there will be a hands-on activity where participants will be asked to review health worker training data for quality.

Session Three: Engaging stakeholders in collecting and sharing of training data

- Session Objectives:
  - Identify key stakeholders and understand how to engage these stakeholders to make strategic decisions on health worker training
  - Identify opportunities for improving production and use of training data
  - Identify points where analysis & data could support INS planning and decision making

- Session Overview: This session will start of by defining the concept of stakeholders, data users and data producers. Then, it will explain the importance of involving stakeholders throughout the data use in decision-

making cycle. This session will also discuss information use flows. At the end of the session, participants will have to complete a stakeholder analysis matrix for them to understand, who the stakeholders are, the decisions they make, information they need, and the best way to present those information. Participants will also be asked to map information flows to better understanding the link between data and the end-users.

Session Four: Analyze Training Data to Respond to Challenges

- Session Objectives:
  - Turn raw data into useful information
  - Provide answers to questions being asked, by using basic data analysis using excel

- Session Overview: This session will focus on key concepts in data analysis by reviewing the most common data analysis terms and techniques used for descriptive data analysis and provide examples for doing some analysis with health worker training data. This includes calculating average, median, ratio, proportions, percentage, rate, and to name a few. Participants will also be required to demonstrate practical knowledge in basic data analysis by completing a given activity.

Session Five: Data for Use of Training Data to Make Decisions

- Session Objectives:
  - Identify opportunities for improving use of training
  - Identify opportunities for feedback mechanisms
  - Identify points where analysis & training data could support INS planning and decision making
  - Highlight the determinants of use training data
  - Understand potential barriers and solutions to use of training data

- Session Overview: This session will explain the context of decision making, data demand and use, the role of TMIS in decision making, and how to strengthen the decision-making process. It will also explore ways how to increase the use of data, working toward building a culture of data use. It will further share strategies for overcoming barriers to data use ensuring that health-related data are being used to make decisions at all levels. Participants will also learn strategies for using data in program management, implementation, and decision-making.

Session Six: Provide feedback and take action

- Session Objectives:
  - Identify opportunities for feedback mechanisms
  - Understand how to link analysis of training data with taking action

- Session Overview: This session will review key factors in effectively developing and using feedback loops and how to turn data into action. To assist understanding of this session, a small group activity will be included to discuss framework for linking data with action.

Other Sessions

- **Case Study:** Participants will be assigned to different groups and provided with a Case Study scenario that they will use each day of the training to apply learnings from the sessions of the day. At the end of the training, participants will present their Case Study under the themes of each session.
- **TMIS Demo:** This discussion will allow participants to apply their learnings throughout the training to understand better effective use of the TMIS. The will discussion focus on reviewing the TMIS functionality, defining the reports and analysis needs from TMIS to guide further development of TMIS and touch on TMIS sustainability.
- **Evaluation of the TMIS Data Use Training:** The evaluation will allow facilitators to understand how the TMIS data use training has affected the way the participants treat HRH training data in the future. In the session, participants will be distributed with some questionnaire to evaluate the process and the training for Data use.

Day 1

Opening Session

Time: 1 hour
Materials Needed:
- PowerPoint

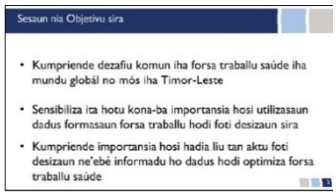
Flow Process:
- Welcome and opening remarks from INS Director, USAID Mission Director
- Review objectives of the training
- Coffee Break
- Move locations
    - Identify who can bring a laptop for Session 2 and the Case Study
- In new location:
    - Overview of the agenda

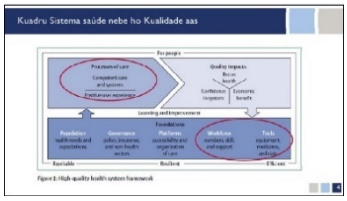
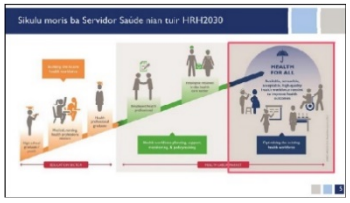
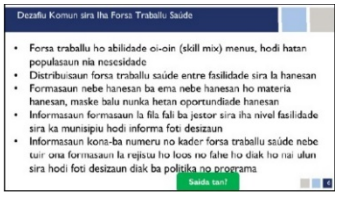
Session 1: Health Workforce Challenges and Use of Training Data to Make Decisions

Session 1: Health Workforce Challenges and Use of Training Data to Make Decisions		Time
Preparation	Ensure that you have the following: 1. Attendance List 2. Data projector 3. Data screen 4. Flipchart and markers 5. Youtube link for "Imagine" clip pre-load for easy access. 6. Tables and chairs are organised so that participants can work in small groups without having to rearrange the furniture themselves 7. Print off and organise activities	5 minutes
Before commencing	Consider the following: • The more talking that the facilitator does the less learning takes place. • Learning is the responsibility of participants. Provide the opportunity for participants to learn in small groups and by themselves.	
House keeping and introduction	*Slide 1 – Introduction* Leave this slide up while you go through the following items: • Welcome participants • State your name and role	25 minutes

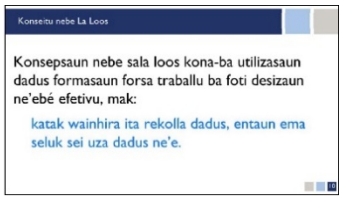
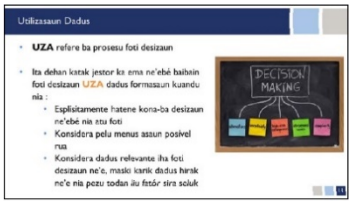
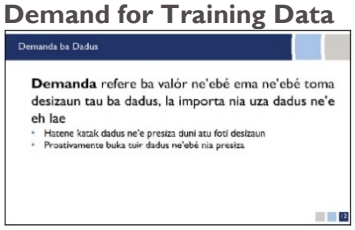
Session 1: Health Workforce Challenges and Use of Training Data to Make Decisions		Time

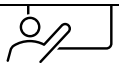
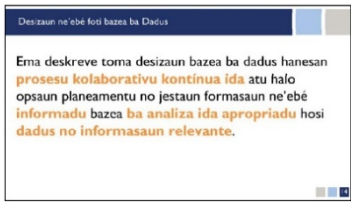
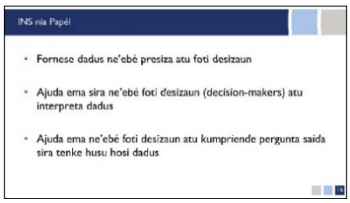
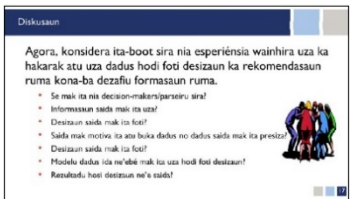
Expectations	• State your expectations of participants including:
	  ○ Actively participate in training
	  ○ Feel free to express your options and views
	  ○ Everyone has the right to be listened to
	  ○ Ensure that mobile phones do not disrupt the class.	

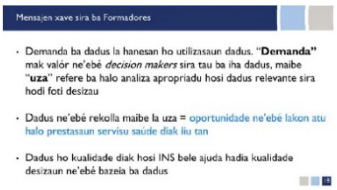
Attendance register	Ensure that the Participant Register is signed.	
	Say that you will be using adult centred training methods. This is different from lecture-based training. Adult training methods are interactive. We respect that you already have a lot of experience and this program is an opportunity for you to share your views. As a trainer I will be doing 20% of the work and you will be doing 80% of the work.	
Training Resources	Explain that we will be using the: • Powerpoint presentations, • Activities: Discussions groups, brainstorming, • Case Studies	
Course Objectives	*Slide 2 – Objective* Say; The course is structured so that there are six Sessions. The objectives of the first session are to: 1. Understand common health workforce challenges globally and in Timor Leste 2. Raise awareness of the importance of using health workforce training data to inform decisions 3. Understand the importance of improving data-informed decision-making to optimize the health workforce Key issues and questions to be covered, including: 1. Common health challenges in Timor-Leste 2. The difference between Demand for data and Use of data. 3. How collected data can improve the quality of health services	
		
Video "Imagine"	*Slide 3 – Video "Imagine* Note: this is just supposed to get people excited about the use of data to support health workers. Play video – if possible 3:13 seconds • Have the participants reflect: • How did this video make you feel? • For me, it reminds me of why we do the work that we do. Everyday, even though it is not always obvious, the work being done by all of you at the INS is supporting health workers with the proper training… which then supports the availability of quality of health services in the communities they serve.	

Session 1: Health Workforce Challenges and Use of Training Data to Make Decisions		Time
High-quality health system framework 	*Slide 4 – High-quality health system framework* Say: • Here is a framework for a high-quality health system from the WHO. We understand that ultimately, health systems must be equitable, resilient and efficient for people. • But where does this put the INS? • The INS, through in-service training, can support the workforce to better utilization the tools available to them to improve the processes of care to ensure competency care. • And this ultimately results in quality impacts of better health and overall, confidence in the health system	
HRH2030 Health Worker Life Cycle 	*Slide 5 – HRH2030 Health Worker Life Cycle* Say: • Now, let's focus on the overall lifecycle of health worker: Building, Managing and Optimizing. • When we are talking about a health worker, we are not just referring to them as providers of a service, but them as professionals and how we can better support them to provide high quality health services, ensuring health for all. • When we are talking about in service training, we are truly focusing on optimizing of health workforce. The right in-service training for the right people in the right place will lead to an available, accessible, high quality health workforce needed to improve health outcomes. • AS we have seen in the previous slides, optimization of the health workforce through training will improve both: health worker capacity to provide quality services, and the overall performance of the health system.	
Common Health Workforce Challenges 	*Slide 6: Common Health Workforce Challenges* Note: You may ask the participants to spell out the common health workforce challenges instead of presenting to them. The whole point is to raise their awareness of problems and how these can be assessed and fixed.	

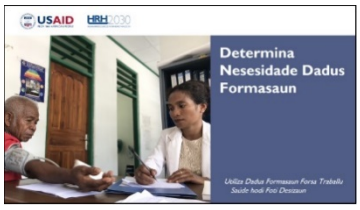
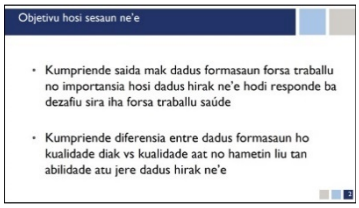
Session 1: Health Workforce Challenges and Use of Training Data to Make Decisions		Time
How can we use training data to solve health workforce challenges? 	*Slide 7: How can we use training data to solve health workforce challenges?* Note: Explain that by using training data to make decisions, we can overcome all the health workforce challenges and therefore we can improve the availability of quality health services	
What is Decision Making? 	*Slide 8 – What is Decision Making?* Ask the participants how they define decision-making? let them think of a specific objective that needs to be achieved. What alternatives are there? How to best make a decision using these alternatives? Decision making is the process of choosing from among various alternatives using information in light of a given objective.	
Why Address Use of Training for Decision Making? 	*Slide 9 – Why Address Use of Training for Decision Making?* So much training data is collected… but is it used? The picture above may look familiar to many of you. In today's environment, many health professionals have become overwhelmed with collecting and using data related to services they deliver. In some contexts, data requirements from government and donors have grown exponentially, to the point where some providers and implementing partners have pages and pages of forms to fill in daily. Rarely are data used to monitor programs and make decisions beyond individual patient care. This is a huge lost opportunity because data is critical to the program improvement and decision-making process.	
A misconception	*Slide 10 – A misconception* Read the slide. "A major misconception about effective use of health workforce training data in decision making is that if you gather data then people will use it."	

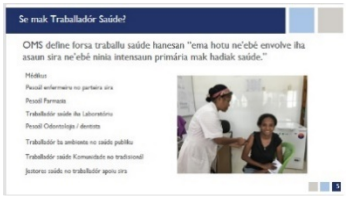
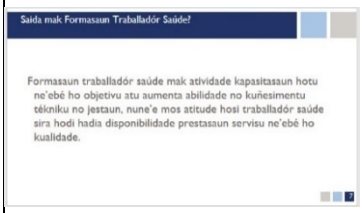
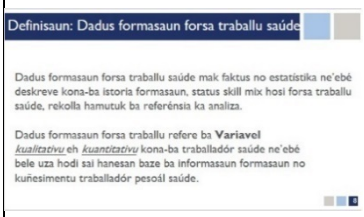
Session 1: Health Workforce Challenges and Use of Training Data to Make Decisions		Time
 **Use of Training Data**  **Demand for Training Data**  **We can use training data to…** 	Ask the participant: Do you agree or disagree with this statement? One of the reasons behind this is that health sector leaders lack a **process** for analyzing reports and information, getting it to the right decision-makers at the right time and planning for resources to act on the information the data contains… This process is data utilization! *Slide 11 – Use of Training Data* There are two main components behind data utilization – data use and data demand. Let's talk about **USE** **Use** refers to the decision-making process We say the decision-maker **uses training** data if he/she: • Is explicitly aware of the decision to be made • Considers at least two possible courses of action Considers relevant data in making the decision, even if the data is outweighed by other factors *Slide 12 – Demand for Training Data* Now let's talk about data demand. Demand refers to the value the decision-maker places on the data, whether or not he/she actually uses the data. We say the decision-maker demands data if he/she… • Knows what data is needed to make the decision • Proactively seeks out the data he/she needs *Slide 13 – We can use training data to:* *NOTE to facilitator*: Have the participants suggest responses. After three to four participants speak, thank the participants for noting their responses and experiences. Then, show the answers by clicking to reveal them. In summary, we can use information to…? • Inform policies and plans • Raise additional resources • Strengthen programs and improve results	

Session 1: Health Workforce Challenges and Use of Training Data to Make Decisions		Time
	• Ensure accountability and reporting • Improve quality of services provided • Contribute to global lessons learned	
Data Driven Decision Making 	*Slide 14 – Data Driven Decision Making* Data-driven decision making has been described as **an on-going collaborative process** for making **informed** training planning and management **choices** based on **appropriate analysis** of relevant training data and **information**. In other words, use of the data is • the analysis, • synthesis, • interpretation, • and review of data as part of a decision-making process, regardless of the source of data.	
Decision Making Cycle 	*Slide 15 - Decision Making Cycle* NOTE to facilitator: the sessions for this training is divided according to the stages in each cycle. Click to reveal each step that leads to the ultimate objective: **Improved availability of quality health services** Briefly explain these steps as they will be covered separately throughout the training.	
The Role of the INS  	*Slide 16 - The Role of the INS* NOTE to Facilitator: You can click and reveal to explain each role in the presentation, or you can ask participants to brainstorm, before showing them what is on the slides. The role of INS in terms of data use for decision making are as follows: • Provide the data needed to make decisions • Help decision-makers interpret data • Help decision-makers understand what kinds of questions they should ask from the data What else?	
Discussion 	*Slide 17 – Discussion* This activity is for the participants to reflect on their experience in using data to make decision. *NOTE to facilitator*: Encourage participants to share their experiences with the group.	5 minutes

Session 1: Health Workforce Challenges and Use of Training Data to Make Decisions		Time
	Now that we have talked about the importance of using data and information in health decision making, let us bring the discussion down to a more personal level. Ask the participants who would like to share with the group how they use data and information in their job? Record the participant responses on a flip chart. Be sure to highlight that organizations can use information beyond reporting or producing reports. Use the following questions to guide: • Who were the decision-makers/stakeholders? • What information was used? • What decision was made? • What prompted the data use undertaking? • What was the decision taken? • What types of data were used to make the decision? • What was the outcome of the decision?	
	Record the participant responses on a flip chart. Be sure to highlight that organizations can use information beyond reporting or producing reports.	
Key Message to Trainers  	*Slide 18 – Key Message to Trainers* Explain: • Demand for data is not the same as Use the data. Demand is the value decision makers places on the data, while use refers to making appropriate analysis of the relevant data to make decision • Data collected but not used = lost opportunities for improving quality of health services • Good quality data from INS can help improving data-informed decision making	5 minutes
Closing: End of Session 1 	*Slide 19 – Closing: End of Session 1* TOFF (Thank, Objective, Feedback, Future) Method: - Thank the participant for their participation - Ask a few review questions to determine if you have achieved the objectives of this session - Ask participants for feedback, if there is any - Describe the upcoming session, how it is linked to this session. **END OF SESSION 1**	5 minutes
COFFEE BREAK		15 minutes

Session 2: Determining Training Data Needs

Session 2: Determining Training Data Needs		Time
Preparation 	Ensure that you have the following: 1. Attendance List 2. Powerpoint 3. Activity handouts 4. Historical Data set in Microsoft Excel 5. Min. 4 Laptop for 4 different groups for the data quality review 6. Data projector and data screen 7. Flipchart papers 8. Print off and organise activities	2 mins
Determining Training Data Needs 	*Slide 1 - Determining Training Data Needs* Leave this slide up while you say: We have just identified Common Health Workforce Challenges in Timor-Leste. The next step is to determine training data needs to overcome these challenges	20 mins
Session Objectives 	*Slide 2 - Session Objectives* • Understand what health workforce training data is and the importance of these data to respond to health workforce challenges • Understand the difference between good vs bad quality training data and strengthen the ability to manage these data	
Decision Making Cycle 	*Slide 3- Decision Making Cycle* We are familiar now with the decision-making cycle. On the first session we have discussed the first stage. Click on the slide to show animation that highlights the focus of this session, that is determining training data needs. Note: explain that this session is divided to two parts: health workforce training data, and training data quality assessment and management	
Part I: Health Workforce 	*Slide 4 – Part I: Health Workforce Training Data* Say: We are going to discuss the first part health workforce training data where we learn about the sources and types of health workforce training data.	

Session 2: Determining Training Data Needs		Time
Who is a Health Worker?  	*Slide 5 - Who is a Health Worker?* The WHO defines the health workforce as "all people engaged in actions whose primary intent is to enhance health." Members of the health workforce may include: • Physicians • Nursing and midwifery personnel • Pharmacy personnel • Laboratory health workers • Dentistry personnel • Environmental and public health workers • Community and traditional health workers	
What is the Health Workforce? 	*Slide 6 - What is the Health Workforce?* The health workforce in any given geographical area comprises health workers from a variety of sectors: • The public sector (inclusive of all public-sector institutions such as health workers in the education system, military, police, prisons, etc.) • Faith-based • Private-for-profit • Semiprivate • Health training institutions • Nongovernmental, or not-for-profit organizations	
What is Health Worker Training?  	*Slide 7 - What is Health Worker Training?* Health worker training is capacity building activities to improve technical and managerial skill and knowledge, as well as the behavior of health workers to improve the availability of quality health services.	
Definitions: Health Workforce Training Data  	*Slide 8 - Definitions: Health Workforce Training Data* Health workforce training data are facts and statistics describing the training history and skill mix status of the health workforce, collected together for reference or analysis. Workforce training data refers to the *qualitative* or *quantitative* **variables** on health workers from which health worker training information and knowledge is derived.	

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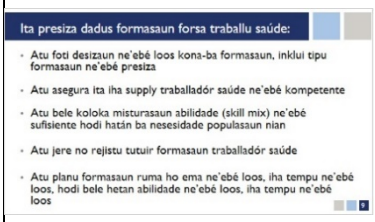
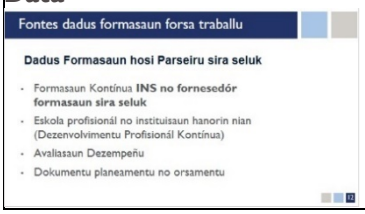
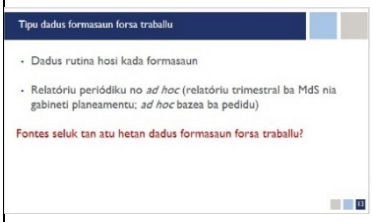
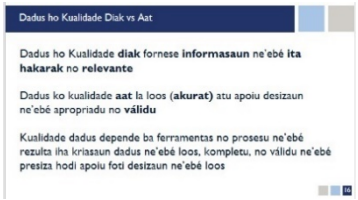
	Let's break this down First of all, "variable" in this definition means "information." NOTE to Facilitator: stimulate the discussion by asking the following questions: 1. Can anyone give us an example of qualitative data? 2. What about quantitative? Then, briefly resume before continuing with next slides	
Health Workforce Training Data is Needed for.. 	*Slide 9 - Health Workforce Training Data is Needed…* NOTE TO Facilitator: this slide provides an overview of how health worker data is used – and why it is needed. Overall, it is needed for the following reasons: • To make sound decisions about training, including the types of training needed • To ensure a qualified supply of health workers • To deploy the appropriate skills mix to meet population health needs • To manage and track health worker trainings • To plan trainings with the right people, in the right places, to gain the right skills, at the right time	
TMIS Data Points 	*Slide 10 – TMIS Data Points* Click on the slide and briefly explain TMIS data point is divided to 2 categories: training and Participants or health workers You can also ask, if there are any other data points that they want to see in TMIS	
Sources of Workforce Training Data 	*Slide 11 - Sources of Workforce Training Data* The are two major sources of Workforce training data: from health worker themselves and from other stakeholders. In this slide we are discussing examples where we can obtain health workers training data. a. Application Documents: CV, application letters/forms, copies of professional certificates, professional references b. Existing Personnel Records: promotion letters, transfer letters, training records	
Sources of Workforce Training Data 	*Slide 12 - Sources of Workforce Training Data (continue)* We can also find health workers training data from other stakeholders, for example • In-service training of health professionals, **INS and other training providers**	

Session 2: Determining Training Data Needs		Time
	• Professional schools and teaching institutes (continuing professional development) • Performance evaluations • Planning and budget documents	
Types of Workforce Training Data 	*Slide 13 - Types of Workforce Training Data* Training data can be • Routine data from each training • Periodic and ad hoc reporting (quarterly reports to MOH and planning office; ad hoc based on request) Facilitator can ask the participants: What other sources of workforce training data do you know of?	
Discussion 	*Slide 14 - Discussion* Facilitator can ask the following questions to stimulate discussion: • What has been your experience in collecting and storing training data manually? • What are the challenges? What are the successes? • What are the top three things you would change? • How will the TMIS help you through this change?	8 mins
Training data quality assessment and management 	*Slide 15 – Part II: Training data quality assessment and management* We have learnt about health workforce training data specifically the sources and types of health workforce training data. Now we are moving on to the second part training data quality assessment and management	
Good vs Bad Quality Data 	*Slide 16 - Good vs Bad Quality Data* We evaluate data every day, for each decision we make, even though we may not realize it. When deciding whether to go to the beach this weekend, what are some sources of data you would consider? Your friends, the sky, the weather channel, etc. Data quality includes the tools and processes that result in the creation of correct, complete, and valid data that are required to support sound decision-making. **Good** quality data provide the **relevant** or **intended information**	25 mins

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  5 Attributes of Quality Data **Relevance** **Accuracy** 	**Poor** quality data are **not accurate** enough to support appropriate and **valid decision-making** Data quality relies on tools and processes that result in the creation of correct, complete, and valid data required to support sound decision-making. *Slide 17 - 5 Attributes of Quality Data* Click on the slide and reveal the attributes one by one. Briefly explain each of them, as the next slides will cover them in more detail. These are the 5 attributes of quality data; we'll dig into each one a little bit... ▪ **Relevance:** appropriate data being collected ▪ **Accuracy:** data was recorded correctly ▪ **Completeness:** all relevant data was recorded ▪ **Timeliness:** data is kept up to date ▪ **Consistency:** data agrees with itself *Slide 18 - Relevance* Click on the slide and explain the definition of relevance. Relevance refers to **the value** contributed by these data, characterized by the degree to which **the data** help to make decisions. • **Important Example:** Collecting the **names** of health workers' **children** is not relevant to any health worker training planning **decisions**. • **Data Tip:** Consider the decisions that will be made with the data before it is collected. *Slide 19 – Accuracy* Data are **recorded correctly** and are **free of errors** (whether intentional or unintended) • **Important Example:** If the information from a health worker's identification card provides the source data, **errors in transcribing** this data, **such as a misspelling,** can affect **all future reports** generated from the system regarding that health worker. • **Data Tip:** Using standard preset names of occupations and positions will avoid adding unnecessary "unique" data from errors and variation of names.	

Data accuracy is critical and requires that all persons involved with checking and decoding source documents ensure that data are correctly recorded.

Completeness

Slide 20 - Completeness

Training management information system needs to be fed with **all data** needed to support generation of required reports.

- **Important Example** if a MHO manager needs to **assess the competency** levels of her/his workforce, and **only the** attendance list of training where the individual's name is included is available, then how can the MHO manager **intelligently comment** on the health worker's competency level?
- **Data Tip:** When entering data into TMIS, ensure that all fields are captured, for example not only attendance but pre/post-training test scores, to better understand not only if a health worker attended a training, but if they improved their knowledge and/or skills.

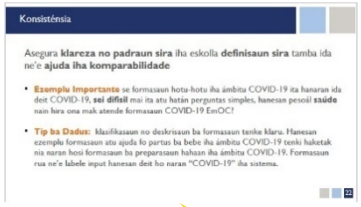
Timeliness

Slide 21 – Timeliness

Data are **kept up to date**
If a municipality does **not** send information **on time**, and a report is generated, it **may project a false image** to the users of these reports.

- **Important Example:** If health workforce data on new training are **not updated** regularly, the report on actual number of trained health workers generated from the TMIS may lead to **inappropriate selection** of participants for a training, potentially contributing to inequitable distribution of health workers trained.
- **Data Tip:** Every training activity needs to be updated regularly, for example, data should be updated in the TMIS 2 days after the training at the latest.

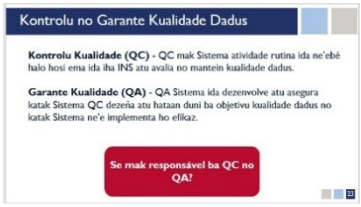
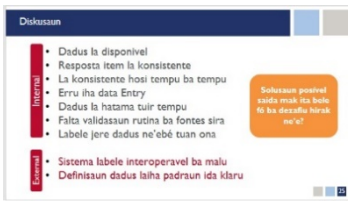
Consistency

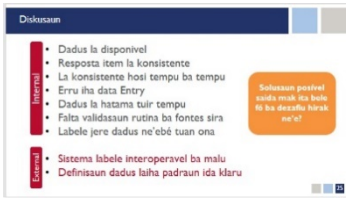
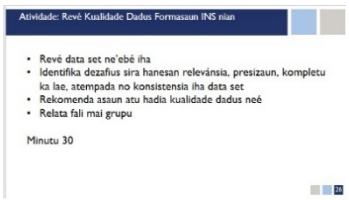


Slide 22 - Consistency

Ensure **clarity and standards** in the choice of **definitions** as they **aid in comparability**

- **Important Example** if one training is called COVID-19 and another is COVID-19 EmOC, while both may be COVID-19 training, it becomes **difficult to answer** simple questions, such as **how many health workers** attended a clinical COVID-19 training?
- **Data Tip:** the classification and the description of the training should be clear. For example, training on handling delivery of baby in the context of COVID-19 should be distinguished from training on food preparation in the

Session 2: Determining Training Data Needs		Time
	context of COVID-19. Both training should not be input as "COVID-19" training.	
Data Quality Control and Assurance  	*Slide 23 - Data Quality Control and Assurance* *Say:* In order to make sure that we are collecting and maintaining good data, we must put into place quality control measures and a system for quality assurance. **Quality Control (QC)** - QC is a system of routine technical activities to be conducted by a someone in the INS to assess and maintain the quality of the datasets. **Quality Assurance (QA)** - QA is a system developed to ensure that the QC system is designed to meet the data quality objectives and that it is implemented effectively. Before moving on to the next slide, ask the participant who in their respective office is responsible for carrying out QC and QA?	
Data Quality Challenges  	*Slide 24 - Data Quality Challenges* Say: We have thought up some common data quality challenges but would like to first hear from you. What are some data quality challenges you face in your day to day? After 3 or 4 participants provide answers, you can reveal the content your slide. Data quality challenges is classified in two: 1. **Internal**: a. **Unavailability of data**: Data required did not exist or were not readily accessible with several offices taking the approach of "just fill something in" to satisfy distant data collectors, thus creating errors. b. **Inconsistent item response:** Not all data providers report the same data elements. Collected staff reports for the different district reveal discrepancies and differences in the way districts collected and submitted data to MoPS. This reporting of different types of information from different sources created gaps in data reports, became the source of duplicate information and errors in macro-level data aggregation. c. **Inconsistency over time**: The same data element is calculated, defined, and/or reported differently from year to year. Longitudinal inconsistency creates the potential for inaccurate analysis of trends over time d. **Data Entry Errors**: Inaccurate data are entered into a data collection instrument. Errors in reporting information	

Session 2: Determining Training Data Needs		Time
	can occur at any point in the process - from the individual HR data collection form to the District's report to MoH e. **Lack of timeliness**: Data are reported too late. Late reporting can jeopardize the completeness of macro-level reporting and the thoroughness of vetting which leads to late reporting, poor data quality, and delayed implementation of program improvement efforts f. **Lack of validation routines at sources**: g. **Inability to cope with ageing data** contribute to data quality problems h. **Lack of validation routines at sources** causes data quality problems **2. External** **a.** **System non-interoperability** Data collected in one system cannot be electronically transmittable to other systems. Re-inputting the same data in multiple systems consumes resources and increases the potential for data entry errors and data redundancy. **b.** **Non-standardized data definitions**. The lack of standard naming convention means that various data providers use different definitions for the same elements. Passed on to the district or MoH level, non-comparable data are aggregated inappropriately to produce inaccurate results. **c.** **Inability to cope with ageing data**	
Discussion  	*Slide 25 – Discussion* Recognizing data quality challenges in the previous slide, facilitator open the discussion by asking "**What are some possible solutions to these data quality challenges?"** Participant may go to each challenge and ask what possible solution for this specific challenge	5 mins
Activity: Data Quality Review of INS Training Data 	*Slide 26 - Activity: Data Quality Review of INS Training Data* Facilitator breaks the participants into group of fives depending on the number of participants. Then, for each group, facilitator hands out: • "Session 2 Activity 1: Data Quality Review of INS Training Data"; and • Provide copies of historical data set in USB for participants to use in laptop	20 mins

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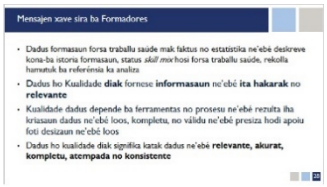
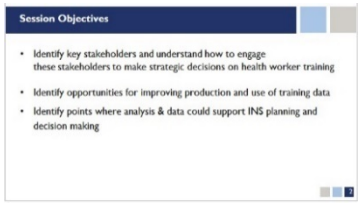
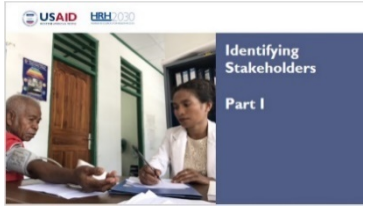
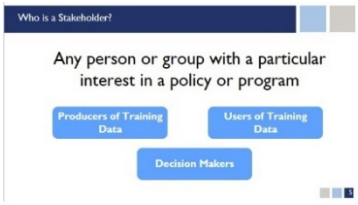
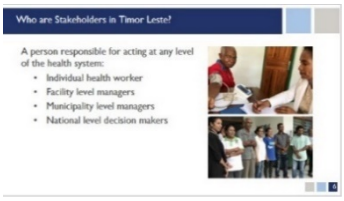
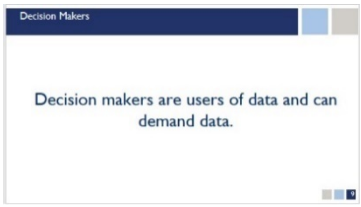
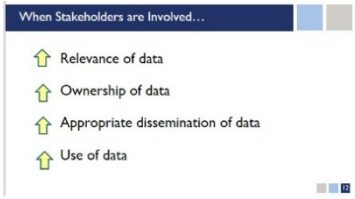
	NOTE: although participants have a copy of the instruction, it is better for facilitator to read out the instruction and explain the tasks.
	
	Instructions for participants
	• Select a reporter.
	• Review the data set in excel as a group documenting data quality issues that you see in the data considering the following attributes:
	  ○ Relevance: appropriate data being collected
	  ○ Accuracy: data was recorded correctly
	  ○ Completeness: all relevant data was recorded
	  ○ Timeliness: data is kept up to date
	  ○ Consistency: data agrees with itself
	• Recommend actions to take to improve the quality of the data.	

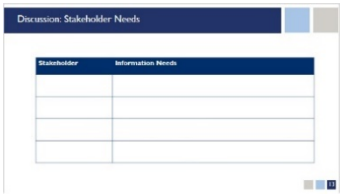
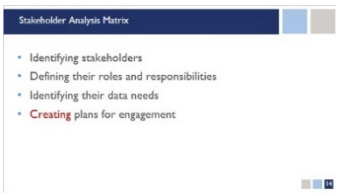
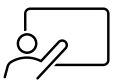
Report Back 	*Slide 27- Report Back* The reporter from each group are requested to present the result of their group discussion. Notice any minor issues that are sometimes not obvious but matters for the quality of the data.	15 mins
Key Messages for Trainers 	Slide 28 - Key Messages for Trainers Read: • Health workforce training data are facts and statistics describing the training history and skill mix status of the health workforce, collected together for reference or analysis • **Good** quality data provide the **relevant** or **intended information,** while **Poor** quality data are **not accurate** enough to support appropriate and **valid decision-making** • Data quality relies on tools and processes that result in the creation of correct, complete, and valid data required to support sound decision-making • Good quality data means data that is **relevant, accurate, complete, timely and consistent**	5 mins
Closing 	*Slide 29 – Closing: End of Session 2* TOFF Method Facilitator does the following: - Ask few review questions to determine whether you have achieved the objectives of this session - Ask them for feedback, if there is any - Let them know the upcoming session, how it is linked to this session. **END OF SESSION 2**	5 mins
LUNCH BREAK		1 hr 30 min

Session 3: Engaging Stakeholders in collecting and sharing of training data

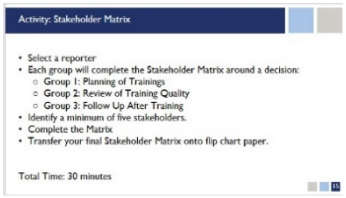
Session 3: Engaging Stakeholders in collecting and sharing of training data		Time
Preparation 	Ensure that you have the following: • Attendance List • Powerpoint • Activity handouts: • Stakeholder Identification and Analysis Matrix • Mapping Information Use Flows • Historical Data set in Microsoft Excel • Data projector and data screen • Flipchart papers • Print off and organise activities	2 minutes
Engaging Stakeholders in Collecting and Sharing of training data 	*Slide 1 – Engaging Stakeholders in Collecting and Sharing of training data* Leave this slide up while you say: We have just identified Common Health Workforce Challenges in Timor-Leste and determining health training data needs. The next step is to engage with stakeholders in collecting and sharing of training data	28 mins
Session Objectives 	*Slide 2 – Session Objectives* • Identify key stakeholders and understand how to engage these stakeholders to make strategic decisions on health worker training • Identify opportunities for improving production and use of training data • Identify points where analysis & data could support INS planning and decision making	
Decision Making Cycle 	*Slide 3 – Decision Making Cycle* We are familiar now with the decision-making cycle. We have already discussed the first and second stage. Now we move to the third stage. Click on the slide to show animation that highlights the focus of this session, that is engaging stakeholders in collecting and sharing of training data. Note: explain that this session is divided to two parts: Identifying Stakeholders, and Understanding Information Use Flows	
Part 1: Identifying Stakeholders 	*Slide 4 – Part 1: Identifying Stakeholders* Leave this slide up while you say: Before engaging with stakeholders, first we need to know which stakeholders we need to involve. How do they relevant to our work. Let's discuss about identifying stakeholders	

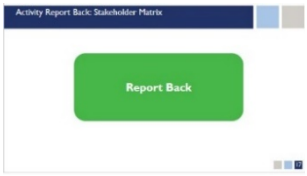
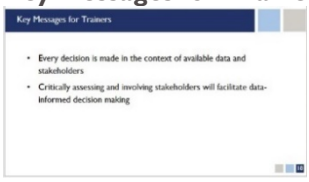
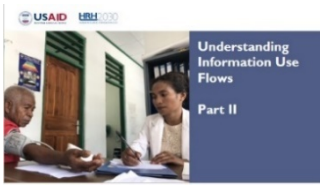
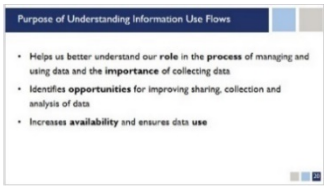
Session 3: Engaging Stakeholders in collecting and sharing of training data		Time
Who is a Stakeholder?  	*Slide 5 – Who is a Stakeholder?* You can start off by asking volunteers, "can someone provide us with the definition of a stakeholder?" Leave for 3 or 4 volunteers before reveal what you have on your screen. A **stakeholder** is anyone who has a "stake" or interest in your program. The definition we're using today, which is quite simple, is "any person or group with a particular interest in a policy or program." They can be **Producers of Training Data, user of training data or decision makers**	
Who are Stakeholders in Timor Leste?  	*Slide 6 – Who are Stakeholders in Timor-Leste?* As we define earlier that stakeholder is any person of group with a particular interest in a policy or program, in Timor-Leste, we have this group at different level. For example: • Individual health worker: at a lower level an individual health worker decides whether he needs a training or not • Facility level managers: may decide staff in his facility requires certain training course or refresher training • Municipality level managers • National level decision makers	
Stakeholders are… 	*Slide 7 – Stakeholders are…* For health sector in Timor-Leste, our stakeholders would be: • Policymakers • Funding agencies such as WHO, UNICEF, USAID • Providers and Implementers: St. John of God, etc. • Civil society • Researchers • Government agencies (Ministries) • Development partners • Training Institutions (i.e. Universities) NOTE: when explaining each of the above, ensure provide examples	
Stakeholders also include… 	*Slide 8 – Stakeholders also include…* Do not click on the slide. Let the group brainstorm by asking: "For those of us here today, who are our stakeholders?" Let the discussion goes, then show the slide. Our beneficiaries are: • Minister of Health • Vice Ministers • INS Executive Director • HR Directorate in MoH	

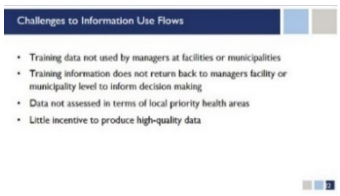
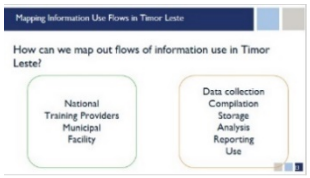
Session 3: Engaging Stakeholders in collecting and sharing of training data		Time
  Decision Makers  **Engaging with Stakeholders** **Different Stakeholders…** **When Stakeholders are Involved…**  	• Quality Cabinet • Municipality Health Officers • Referral Hospitals • Health Centers • Beneficiaries *Slide 9 – Decision Makers* Decision makers are users of data and can demand data. We often do *not* think of the beneficiaries of health programs as stakeholders. The people that our programs and services strive to serve also make decisions… They make decisions about seeking services and continuing to seek care based on many things, including the quality of the care they receive. It is vital to consider these stakeholders when designing and implementing any program or service. *Slide 10 – Engaging with Stakeholders* Say: Different people need information for different kinds of decisions, Therefore, we need to engage **in dialogue** with stakeholders to fully understand: • What decisions they make • What information they need • the best way to present that information *Slide 11 – Different Stakeholders…* It is important to recognize that different stakeholders will affect the data-informed decision-making process in different ways. This is because different stakeholders …. • View activities from different perspectives • Have different degrees of understanding • Need and want different information • Need information at different levels of complexity • Have different intensities of interest • Have different roles in the decision-making process *Slide 12 – When Stakeholders are Involved…* You may say: By ensuring stakeholder involvement in the data use process, you can tailor data collection to the specific needs of your stakeholders, thus **increasing the relevance of the data** to their work. This **builds ownership of data**, so that when data-informed decisions are made, the necessary buy-in already exists to move the decision forward.	

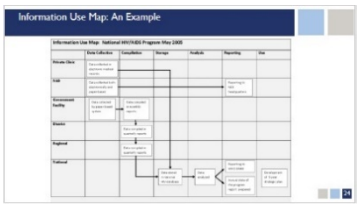
Session 3: Engaging Stakeholders in collecting and sharing of training data		Time
	Stakeholder involvement strengthens the information cycle – they are 'in the know' – which contributes to a **heightened dissemination of data.** When data is relevant to stakeholders, they feel a sense of **ownership** and the dissemination of data is increased. All of this results in increased the use of data, typically also resulting in decisions that strengthen and improve programs and policies.	
Discussion: Stakeholder Needs 	Slide 13 - Discussion: Stakeholder Needs Facilitators leads the discussion by asking questions. You may need volunteers to come forward to write the name of the stakeholders and their needs on the flipchart in front of the room. Say: Let's discuss the types and levels of stakeholders that exist in the context of health programs and the information needs they have. Can anyone think of other decision makers? (EXAMPLES: CLIENTS, CLINICIANS) • Policymakers • Funding agencies • Providers and Implementers • Civil society • Researchers • Government agencies • Development partners • Training Institutions (i.e. Universities) • Minister of Health • Vice Ministers • INS Executive Director • HR Directorate in MoH • Quality Cabinet • Municipality Health Officers • Referral Hospitals • Health Centers • Beneficiaries	
Stakeholder Analysis Matrix 	*Slide 14 - Stakeholder Analysis Matrix* Say: Now that we have discussed the importance of involving stakeholders, let's discuss how to ensure appropriate stakeholder involvement in HRH data use activities. For this workshop we have consolidated two tools, developed by MEASURE Evaluation – the Stakeholder Analysis Matrix and Stakeholder Engagement Plan. These tools help us to systematically and formally assess our stakeholders in order to ensure that they are getting the data that they need to make decisions. This tool helps to identify individuals	
		

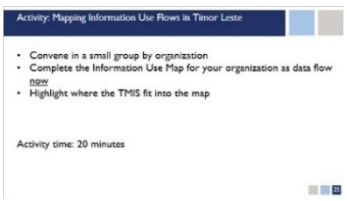
Session 3: Engaging Stakeholders in collecting and sharing of training data		Time
	and groups that are stakeholders in a data-use activity, either as contributors, influencers, or beneficiaries. It provides a framework for assessing the interests, knowledge, positions, alliances, resources, power, and importance of various stakeholders. Who will resist the initiative? Who will support it? What are their reasons? The tool helps to assess which stakeholders to include in the process by determining the relative priority of stakeholders. Which stakeholders have the highest priority? Now that we've talked about *who* your stakeholders are, it is important to think about *how* to engage them in your activity. Remember to plan to engage stakeholders throughout the activity, not just at the beginning or end. On the program side at either the national or subnational levels, one can engage users and producers in many ways. Examples include opportunities at quarterly meetings, either for interpretation of program or TMIS data. For our sector, the involvement is usually at the national level but still involves both users and producers. Often opportunities center around national indicators or data systems. Here we've listed a few ideas, but can you think of others? *NOTE to facilitator*: Ask participants to brainstorm other ways of engaging stakeholders.	

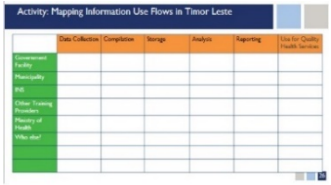
Activity: Stakeholder Matrix
 	
 
 	
Stakeholder Analysis Matrix
 	
	Slide 15 - Activity: Stakeholder Matrix
	
	Facilitator assists with the group formation.
	
	Have the participants form in 3 groups, then hands out the activity sheet, "Session 3, Activity 1: Stakeholder Identification and Analysis Matrix"
	Although they have the instruction sheet, it is helpful to read out the instruction aloud.
	Instructions:
	• Select a reporter
	• Each group will complete the Stakeholder Matrix around a decision:
	  • Group 1: Planning of Trainings
	  • Group 2: Review of Training Quality
	  • Group 3: Follow Up After Training
	• Identify a minimum of five stakeholders.
	• Complete the Matrix
	• Transfer your final Stakeholder Matrix onto flip chart paper.
	
	Slide 16 - Stakeholder Analysis Matrix
	
	Pass out matrices for group work and ask them to finalize their work. They may use laptop or flipchart to complete the task.
		15 mins

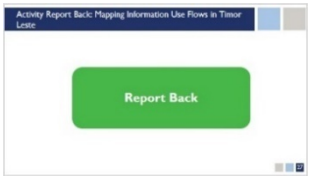
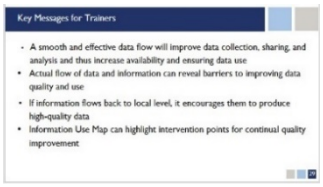
Session 3: Engaging Stakeholders in collecting and sharing of training data		Time
Activity Report Back: Stakeholder Matrix 	*Slide 17 - Activity Report Back: Stakeholder Matrix* After the group discussion provide time to each group to present their answers. Listen to their presentation and note down any relevant questions for discussions	10 mins
Key Messages for Trainers 	*Slide 18 - Key Messages for Trainers* Before we move on to the small group activity, let's review the key messages of this session. They include: *NOTE to facilitator*: Read slide and then ask if there are any clarifying questions on the material covered in this session.	5 mins
Understanding Information Use Flows 	*Slide 19 - Understanding Information Use Flows* Leave this slide up while you say: After identifying the stakeholders we need to engage and what their information needs are, now let's try to understand information use flows with these stakeholders	30 mins
Purpose of Understanding Information Use Flows 	*Slide 20 - Purpose of Understanding Information Use Flows* The simple process of graphically charting information flow, using such formats as an Information Use Map, helps participants better understand their role in the greater health information system—and the importance of collecting data in the first place. When people can see the value, they become more committed to consistent, sustainable, high-quality data collection and regular analysis of those data. Charting the flow of data and information will allow us to identify opportunities for improving data collection and analysis, increase availability, and ensure data use. We can graphically represent the flow of data and information at any level.	
Information Use in Timor Leste: Levels and Stakeholders 	*Slide 21 - Information Use in Timor Leste: Levels and Stakeholders* Show the matrix of information use in Timor-Leste. Then ask them, "are these the different roles of using HW training information in Timor Leste?" Listen to their responses as they may differ from what is in the slide.	

Session 3: Engaging Stakeholders in collecting and sharing of training data		Time
Challenges to Information Use Flows 	*Slide 22 - Challenges to Information Use Flows* Why is this not the case? Why do data and information often not flow as they should? The scenarios listed on this slide are typical: ***Facilitator to make an example for each.*** **Local data are not being used locally.** Often, data are tallied and reported up the levels, but rarely are analyzed and used to support mid-course corrections at the level at which they were generated. In many situations, data could be used to investigate trends over time, compare different areas, set priorities and goals for future years, compare progress against defined goals, and advocate for funding or policies. **Higher-level information does not return to the local level.** Consider the example of a family planning clinic at which data reveal a declining trend in use of oral contraception. The providers knew that women complained about the side effects, but they did not know how much the overall contraception rates were being affected. The district and regional officers knew contraception rates were declining but did not know why. There was a need to bring these information sources and stakeholders together. **Local data are not assessed in broad context.** For example, suppose 10 percent of the population in the region is expected to receive a service, and one district is only reaching 2 percent. Obviously, there is a large service coverage gap in this district—but the facilities and the district office would not necessarily know it because they may not be aware of how their service delivery rates compare to regional objectives. There is **little incentive to produce high-quality data**. People involved in local-level data collection efforts often do not see the purpose in collecting the data. They have a difficult time appreciating their role in the larger context of the health information chain and, as a result, spend less energy in collecting the data and paying attention to detail. Since there is such a large amount of money and effort being devoted to collecting data and reporting in health information systems, it only makes sense to maximize the impact of those data for real-world benefit. This is where the Information Use Map is so valuable.	
Mapping Information Use Flows in Timor Leste 	*Slide 23 - Mapping Information Use Flows in Timor Leste* Say: Let's take a moment to discuss how information flows through the INS. *NOTE to facilitator*: Encourage participants to contribute to the question in plenary. Record the participant responses on a flip chart.	

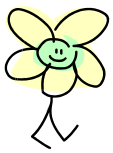
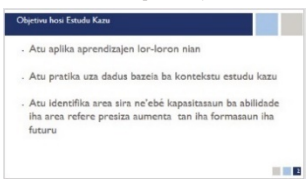
Session 3: Engaging Stakeholders in collecting and sharing of training data		Time
Information Use Map: An Example  	*Slide 24 - Information Use Map: An Example* NOTE to facilitator: Provide handout of map to participants. Here is a snapshot of the Information Use Map, an example from other country. The rows represent the different actors in the health system that collect and use data. It starts with private clinics, NGOs, government facilities, regions, and finally the national level. Data are collected at the first three levels and then passed to the last two levels for use. The columns represent the process that data go through from collection to compilation, storage, analysis, reporting, and use. The map shows where data from the different data collection points pass through the stages of collection to use. When information flow is mapped visually, deficiencies quickly become apparent. The large, empty expanses of the chart tell the story. In this map, it is clear that insights from high-level reports are not shared back with lower levels, and information is being used only to file reports, not to support evidence-based decisions for program improvements.	

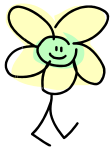
Activity: Mapping Information Use Flows in Timor Leste
 
 	
	Slide 25 - Activity: Mapping Information Use Flows in Timor Leste
	
	Facilitator divide participants into a small group by organization. Hand out activity instruction "Session 3 Activity 2: Mapping Information Use Flows". Then, ask the groups to:
	• Complete the Information Use Map for your organization as data flow now
	• Review the map and discuss among your group how the flow of information could be improved. Make modifications to the map in another color to illustrate an improved flow of information.
	  ○ How else could data be analyzed?
	  ○ Are there opportunities for feedback mechanisms?
	  ○ Are data being used by all stakeholders?
	  ○ What are gaps and opportunities for using information?
	  ○ What are the opportunities for additional feedback mechanisms?
	  ○ What are points at which analysis & data could support programmatic decision making?
	• Highlight where the TMIS fit into the map
		15 mins

Activity: Mapping Information Use Flows in Timor Leste  	*Slide 26 - Activity: Mapping Information Use Flows in Timor Leste* Facilitator asks participants to use this format to discuss their results NOTE to facilitator: During the discussion, facilitator takes time to go around the groups and check if there is anything needs to be clarified. Observing participants directly is also good for encouraging full participation of team members in the discussion	

Session 3: Engaging Stakeholders in collecting and sharing of training data		Time
Report Back 	*Slide 27 – Report Back* Give chances to reporters to present the result of their respective group's discussion. Let's take a moment to discuss how information use flows through in Timor-Leste. Encourage participants to contribute to the question in plenary.	10 mins
Information Use Map: An Example Continued 	*Slide 28 - Information Use Map: An Example Continued* Say: Now that you have had some experience in discussing how information flows in your work settings, let's review the Information Use Map tool—this can be used to map information flow formally and ultimately link available data with decisions that need to be made. Here is an example to help you. Then, Facilitator go through the map, notice the link and explain how that works.	5 mins
Key Messages for Trainers 	*Slide 29 - Key* Messages for Trainers *NOTE to facilitator*: Read slide and then ask if there are any clarifying questions on the material covered in this session. Before we move on to the next activity, let's review the key messages of this session. They include: • A smooth and effective data flow will improve data collection, sharing, and analysis and thus increase availability and ensuring data use • Actual flow of data and information can reveal barriers to improving data quality and use ○ If information flows back to local level, it encourages them to produce high-quality data • Information Use Map can highlight intervention points for continual quality improvement	3 mins
Closing: End of Session 	Slide 30 - *Closing: End of Session 3* NOTE to Facilitator: - Thank the participant for their participation - Ask few review questions if you have achieved the objectives of this session - Ask them for feedback if there is any - Let them know the upcoming session, how it is linked to this session. **END OF SESSION 3**	5 mins
COFFEE BREAK		20 Mins

Study Case Phase 1

Study Case: Phase1		Time
Preparation	Ensure that you have the following: 1. Data projector 2. Data screen 3. 3 laptops, one for each group 4. Print outs of "Case Study Hand Out Instructions" 5. Print outs of: a. Case Study 1 b. Case Study 2 c. Case Study 3 6. Powerpoints slide: a. Case Study Instruction Daily Slides, for facilitator b. Case Study_Slide Template for Participant Use, for participant to solve their case 7. Historical Data set for a minimum of 4 years history 8. Flipchart and markers	5 minutes
Study Cases – Briefing 	*Slide 1 – Study Cases* NOTE: Presentation from "Case Study Instruction Daily Slides " Faciltitators start off the session by providing brief explanation of the study cases and how it benefits the participants. Explain to them that they will be divided to 3 groups and each group will be given a study case with guiding questions in three phases, one phase for each day. First phase requires participants to identify data needs, challenges, and planning to mitigate challenges. Phase 2 participants will be asked to review data quality, identify stakeholders, and map information flows based on the data set and stakeholder target groups provided. On the last phase, participants are required to present the result of their discussions. This session will focus on the first stage NOTE: remind participants not to misplace the study case, as they still need them for the next 2 days discussion	10 mins
Case Study Objectives 	*Slide 2 - Case Study Objectives* Put up the slides and read out the objectives and briefly add additional information if necessary • To apply daily learnings • To practice using data based on the case study context • To identify areas where further skills building is needed to enhance the training in the future	

Study Case: Phase1		Time
Reminder: Decision Making Cycle 	*Slide 3 - Reminder: Decision Making Cycle* Put up the slide and explain that the study cases that we develop is to work on issues surrounding the steps within the cycles. Every topic they learn each day is should be applied in the study case	
Case Study Day 1 Instructions 	*Slide 4 - Case Study Day 1 Instructions* Have the participants divided into three groups and each group select a documenter Distribute the handouts: 1. Case study 1, 2, and 3 to respective groups 2. Case Study Hand Out Instructions and inform them to solve only Day 1 problem 3. Provide a copy of "Case Study_Slide Template for Participant Use" into participants laptop Then, ask the groups to review their respective case study and document the following: 1. Begin by summarizing your mission so all group members understand what your case is trying to achieve 2. As part of engaging IPs in achieving the mission, identify the health workforce challenges that will be addressed by the training. 3. Identify the data needs to develop and monitor the implementation plan. 4. Review the data set provided and document any data quality issues, make recommendations to improve the quality of the data. 5. Determine the stakeholders, both local and international, that will need to be engaged to achieve this mission. 6. Map the information use flows for these stakeholders based on how these stakeholders need to use the data achieve this mission.	40 mins
 		
Recap – Closing	*Recap - Closing* Once the discussion is completed, facilitator ask participant to cease the group discussion and quickly do a recap for the day. Remind them again, that they will continue the study case discussion on the next day and they will have to present on the third day. You can use the following guiding questions for recap: - What do you learn today?	15 mins

Study Case: Phase1		Time
	- What topics you can apply in your current work? - Any feedback or comment for our session today? - What worked with the study case? - What should be changed to make it better? Once finished, - Thank the participant for their participation - Let them know the sessions for the following day and how they are linked to today's session. **End of Study Case Phase 1**	
END OF DAY 1		

Day 2

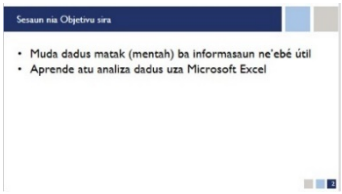
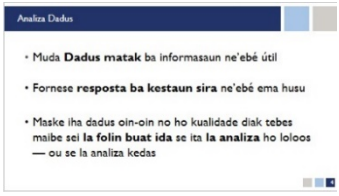
Opening Session

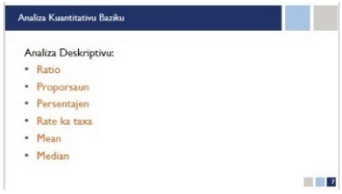
Time:
Materials Needed:
- PowerPoint "Day 2_Introduction Slides"

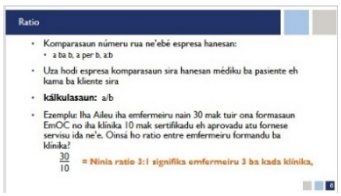
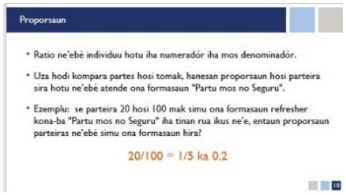
Flow Process:
- Put up the welcome side and welcome participants
- Review learnings of Day 1
- Review Decision-Making Cycle, reminding participants that on Day 1, we have completed steps 1 – 3, today we will complete the remaining steps
- Overview of the agenda for today

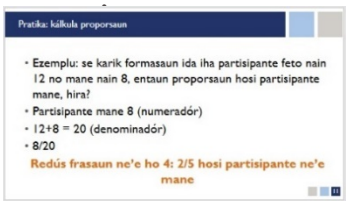
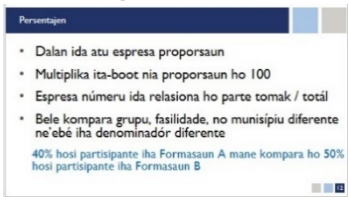
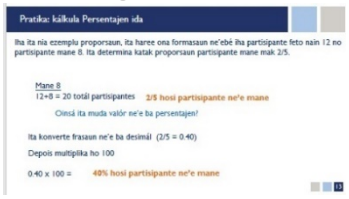
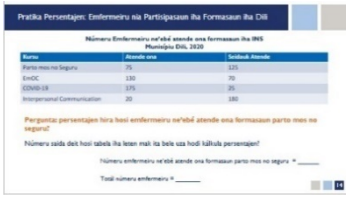
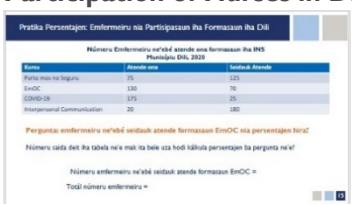
Session 4: Analyze Training Data to Respond to Issues

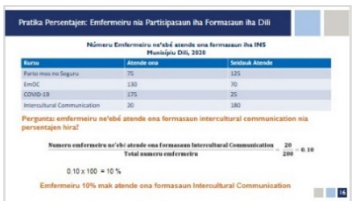
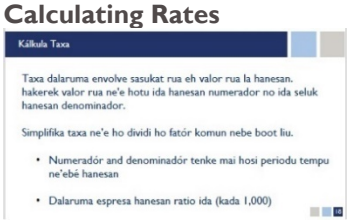
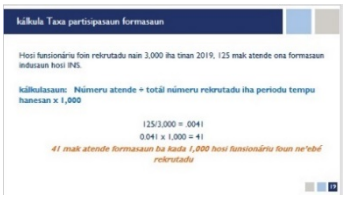
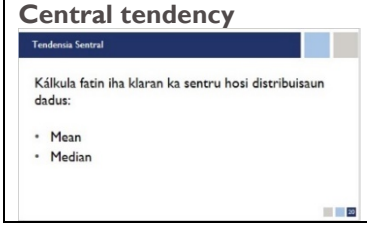
Session 4: Analyze Training Data to Respond to Issues		Time
Preparation	Ensure that you have the following: 1. Attendance List 2. Data projector 3. Data screen 4. Flipchart and markers 5. Activity Hand-out "4_Basic Data Analysis_English" 6. Tables and chairs are organised so that participants can work in small groups without having to rearrange the furniture themselves	2 minutes
Review of Day 1	Facilitator welcomes participants and start off by checking participants understanding on Day 1 topics. This can be done by randomly asking volunteers to answer questions or express what they remember about yesterday's topics.	30 mins

Session 4: Analyze Training Data to Respond to Issues		Time
Analyze Training Data to Respond to Issues 	*Slide 1 - Analyze Training Data to Respond to Issues* Continuing the Decision-making cycle, today we move on to the session 4, Analyze Training Data to Respond to Issues	40 mins
Session Objectives 	*Slide 2 - Session Objectives* Briefly explain to the participants the objective of this session. It is to: • Turn raw data into useful information • Learn to analyze data using Excel Let them know that we will have some practice doing basic calculations and analysis.	
Decision Making Cycle 	*Slide 3 - Decision Making Cycle* We are by now very familiar with the decision-making cycle. We have already discussed the first three stages. Now we are moving on to the fourth stage. Click on the slide to show animation that highlights the focus of this session, that is Analyze Training Data to Respond to Issues Note: explain that we will learn basic calculation and analysis using Microsoft Excel.	
Data Analysis  	*Slide 4 - Data Analysis* Explain the reason why we need to do data analysis • Turns **raw data** into **useful information** • Provides **answers to questions** being asked • Even the greatest amount and best quality data **mean nothing** if not properly **analyzed**—or if not analyzed at all NOTE: It is important to note that, while the terms data and information often are used interchangeably, there is a distinction. *Data* refers to raw, unprocessed numbers, measurements, or text.	

Session 4: Analyze Training Data to Respond to Issues		Time
	Information refers to data that are processed, organized, structured, or presented in a specific context. The process of transforming data into information is data analysis. The purpose of data analysis is to answer research questions or questions about a program or service. Data needs to be analyzed in order to be useful.	
Data Analysis 	*Slide 5 - Data Analysis* Say: Data analysis does not necessarily mean using a complicated computer analysis package. It means taking the data that you collect and looking at them in the context of the questions that you need to answer. For example, if you need to know whether your program is meeting its objectives, or if it's on track – you would look at your program targets and compare them to the actual program performance. This is analysis. Later, we will take this one step further and talk about interpretation (e.g., through analysis, you find that your program achieved only 10% of its target; now you have to figure out *why*).	
Quantitative Data 	*Slide 6 - Quantitative Data* Quantitative data, often referred to as numerical data, answers the "what" or "how much" about a program or service. There are two types of quantitative data: categorical data and numerical data. Both types of data can be easily counted and measured. Categorical data are usually generated though multiple-choice questions or other questions with defined answer choices. The responses to these questions can be easily categorized and counted. Numerical data are created by questions that ask for a number response such as a count, age, or date. Both types of quantitative data can be analyzed using the descriptive analyses we present in the following slides.	
Basic Quantitative Analyses 	*Slide 7 – Basic Quantitative Analyses* This slide lists the basic statistical terms used in data analysis that we will cover in this session. The basic statistical analyses presented in this presentation are descriptive analyses because they do not infer causality, which we will come back to at the end of the presentation. Our focus in today's training is on: • Ratio	

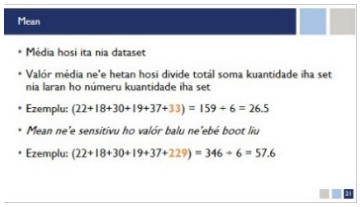
Session 4: Analyze Training Data to Respond to Issues		Time
	• Proportion • Percentage • Rate • Mean • Median	
Ratio  	*Slide 8 - Ratio* A ratio is a comparison of two numbers and is expressed as "a to b" or "a per b." In the health sector, we commonly use ratios to look at the number of clinicians to patients, or beds to clients. A ratio is a comparison of two numbers. To calculate a ratio, divide the first item you are looking at by the second. So, if you were to say that there are 3 staff per clinic, the ratio is expressed numerically as 3:1. It is not the same as saying 1 to 3 or 1:3. The order of the numbers matters. Note the example here, where we see in In Aileu there are 30 nurses trained in EmOC and 10 clinics certified to provide these services. To find the ratio of nurses to clinics we divide 30 by 10 and come up with 3, or 3 nurses per clinic or 3:1.	
Practice: Calculating Ratios 	*Slide 9 - Practice: Calculating Ratios* Now let's try one together. Let's say that In Dili Municipality, there are 100 nurses and 20 clinics. What is the nurse-to-clinic ratio? You divide 100, which is the number of nurses, by 20, which is the number of clinics to get 5. Therefore, the ratio of nurses to clinics is 5:1. 4 nurses per clinic.	
Proportion  	*Slide 10 - Proportion* A proportion is a ratio in which all individuals included in the numerator must also be included in the denominator. We frequently use a proportion to compare part of the whole, such as proportion of all clients who stop taking their drugs. For example: If only 20 of 100 midwives have received a refresher training on "Partu mos no Seguru" in the last two years, then the proportion of midwives that have received a refresher training is 20/100 = 1/5 or 0.2	

Session 4: Analyze Training Data to Respond to Issues		Time
Practice: Calculating  	Slide 11 - Practice: Calculating proportions Let's try another one. If a training has 12 female participants and 8 male participants, then what is the proportion of male participants Add males to females to get the total number of participants. That is, 12+8 = 20, so you have eight-twentieths that are male. But then you reduce this proportion (multiple of 4) to two-fifths. Two out of five or 0.4 clients are male. Or simply: • 8 male Participants (numerator) • 12+8 = 20 (denominator) • 8/20 = 2/5 = 0.4 Two out of five or 0.4 clients are male	
Percentage 	*Session 12 - Percentage* A percentage is a way to express a proportion multiplied by 100. It expresses a number in relation to the whole. We can use it to compare different groups, facilities, municipalities that may have different denominators	
Practice: Calculating a Percentage 	*Slide 13 - Practice: Calculating a Percentage* Using the previous example, we saw that two-fifths of the participants are male. To make this a percentage, we convert the fraction to a decimal (2/5 = 0.40) and then multiply by 100 (0.40 x 100 = 40%). A percentage allows us to express a quantity relative to another quantity. It allows us to compare different groups, facilities, or countries that may have different denominators – it represents a fraction of 100.	
Percentage Practice: Training Participation of Nurses in Dili 	*Slide 14 - Percentage Practice: Training Participation of Nurses in Dili* To calculate this percentage you need the number of nurses already attended training in parto mos no seguru and the total number of nurses. In this example: 75/200 = 0.37 Then multiply by 100, you get 37%	
Percentage Practice: Training Participation of Nurses in Dili 	*Slide 15 - Percentage Practice: Training Participation of Nurses in Dili* To calculate this percentage you need the number of nurses who have not attended EmOC training and the total number of nurses. In this example: 70/200 = 0.35 Then multiply by 100, you get 35%	

Session 4: Analyze Training Data to Respond to Issues		Time
Percentage Practice: Training Participation of Nurses in Dili 	*Slide 16 - Percentage Practice: Training Participation of Nurses in Dili* To calculate this percentage you need the number of nurses already attended interpersonal communication training and the total number of nurses In this example: 20/200 = 0.10 Then multiply by 100, you get 10%	
Rate 	*Slide 17 - Rate* A rate is used to compare two quantities from the same time period. It is used to express the frequency of an event happening over a certain time period such as maternal mortality rate. The numerator and denominator must be from the same time period. Rates are often expressed as a ratio with the second number being per 1,000.	
Calculating Rates 	*Slide 18 - Calculating Rates* Rate usually involves two different units of measurement. Write down both measurements, one as numerator and the other as denominator Simplify the rate by dividing each number by the greatest common factor. • Numerator and denominator must be from same time period • Often expressed as a ratio (per 1,000)	
Calculating Training Rate  	Slide 19 - Calculating Training Rate Let's look specifically at training rate, for example of all 3,000 newly recruited health workers recruited in 2019, 125 attended induction training provided by INS. To calculate, we divide those who attended training by the number of total newly recruited in the same year. Then, we multiply by 1,000. Calculation: # training attendants ÷ total newly recruited health workers in the same time period x 1,000	
Central tendency 	*Slide 20 - Central tendency* Now let's talk about central tendency. The most commonly investigated characteristic of a collection of data (or dataset) is its center, or the point around which the observations tend to cluster. Measures of central tendency	

measure the middle or center of a distribution of data. We will discuss the mean and the median.

Mean



Slide 21 – Mean

The mean is the most frequently used measure to look at the central values of a dataset. It is often referred to as the average.

The mean takes into consideration the magnitude of every value, which makes it sensitive to extreme values. If there are data in the dataset with extreme values – extremely low or high compared to most other values in the dataset – the mean may not be the most accurate method to use in assessing the point around which the observations tend to cluster.

Use the mean when the data are normally distributed (symmetric).

To calculate the mean, you add up all your figures and divide by the total number of figures. Like in the example here. If your dataset included the values 22, 18, 30, 19, 37, 33, then you would start by adding all of these values together. 22+18+30+19+37+33 = 159. You then divide this sum by the number of values (6). So 159/6= 26.5. 26.5 is the mean of this dataset.

NOTE: The mean is sensitive to extreme values

- Example: (22+18+30+19+37+**229**) = 346 ÷ 6 = 57.6

Assume you are a manager and the above example is the number of participants of training for certain period of months. Let's say the last number is supposed to be 29 instead of 229.

When you get a report that the average number of participants attending training during the last six months is 57.6, while you know by heart that your institution have never received training participants more than 40 within this 6 months period. It is the time to question the value. Something is not right.

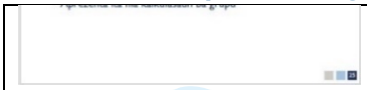
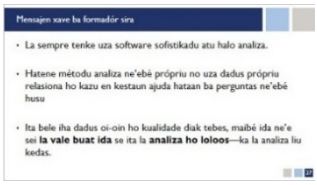
Calculating the Mean

Slide 22 - Calculating the Mean

Let's do one together. Can you calculate the average number of participants who attended an INS training in INS per month? On this slide, you see the total number of participants per month from January through June.

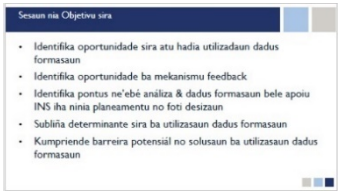
You add them together and get 231; then divide by 6 (the number of months) and you get 38.5 (231÷ 6). So, the average number of clients counseled per month is 38.5.

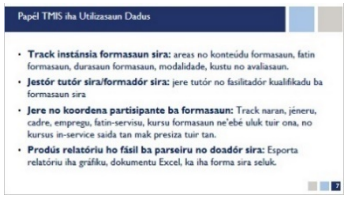
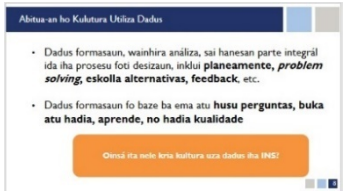
Session 4: Analyze Training Data to Respond to Issues		Time
Median 	*Slide 23 – Median* The median is another measurement of central tendency, but it is <u>not</u> as sensitive to extreme values as the mean because it takes into consideration the ordering and relative magnitude of the values. We therefore use the median when data are not symmetric or skewed. If a list of values is ranked from smallest to largest, then half of the values are greater than or equal to the median and the other half are less than or equal to it. To calculate a median, place the numbers in order from smallest to largest. When there is an odd number of values, the median is the middle value. For example, the Post training result of 5 participants are 18, 20, 22, 23, 25? The median of these results is = 22 When there is an even number of values, the median is the average of the two mid-point values. Example: the Post training result of 4 participants are 18, 22, 23, 25? The median of these results is = (22+23) /2 = 22.5 Remember: **with the median, you have to rank (or order) the figures before you can calculate it.**	
Calculating the Median 	*Slide 24 - Calculating the Median* Let's do this one together. Can you find the median number of participants from these five municipalities? Here we have an odd number of municipalities, so we re-order the numbers (smallest to largest) and select the middle number = 67. How about if we have an even number and Alleu Municipality is not included? In this case, we re-order the numbers from smallest to largest, add the 2 middle figures (67+134), and divide by 2 to get 100.5.	
COFFEE BREAK		**20 min**
Activity: Basic Data Analysis	*Slide 25 - Activity: Basic Data Analysis* Facilitator breaks the participants into group of fives depending on the number of participants. Then, for each group, facilitator hands out: "Session 4, Activity 1: Basic Data Analysis.	20 mins

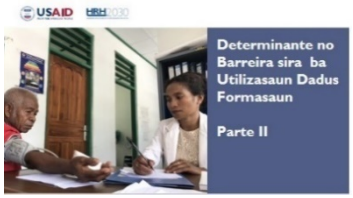
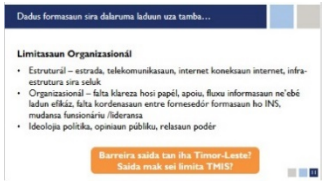
Session 4: Analyze Training Data to Respond to Issues		Time
 **Activity Report Back: Basic Data Analysis** **Key Messages for Trainers**  **Closing: End of Session 1** 	Provide them also with flipchart papers and markers to do their calculations. NOTE: although participants have a copy of the instruction, it is better for facilitator to read out the instruction and explain the tasks. *Slide 26 - Activity Report Back: Basic Data Analysis* The reporter from each group are requested to present the result of their group discussion. Notice any mistake in the calculations presented by the groups. Discuss how they come up with their results and show their calculation, if needed. To wrap up the presentation of results, ask them, "**What analysis would they like to see from a TMIS?"** Note their answer as input for the TMIS development and update *Slide 27 - Key Messages for Trainers* Before we move on to the small group activity, let's review the key messages of this session. • We don't always have to use software package to do analysis. • Knowing the proper analysis method and using the proper data in light of the questions help answers to questions being asked • Even the greatest amount and best quality data **mean nothing** if not properly **analyzed**—or if not analyzed at all Slide 28 - *Closing: End of Session 4* Before closing the session: - Thank the participant for their participation - Ask few review questions to determine if you have achieved the objectives of this session - Ask them for feedback, if there is any - Let them know the upcoming session, how it is linked to this session.	15 mins 5 mins 5 mins
COFEE BREAK		1hr 30 mins

Session 5: Use of Data to Make Decisions

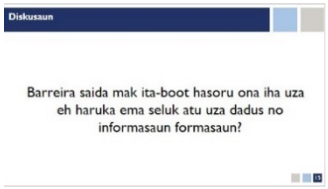
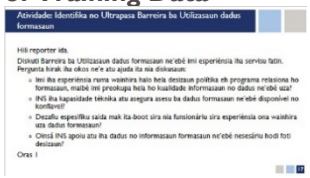
Session 5: Use of Data to Make Decisions		Time

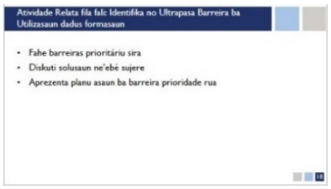
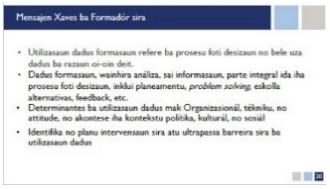
Session 5: Use of Data to Make Decisions		Time
Preparation	Ensure that you have the following: 1. Attendance List 2. Data projector 3. Data screen 4. Flipchart and markers 5. Activity Hand-out "5_Action Plan for Addressing Barriers to Using Training Data" 6. Tables and chairs are organised so that participants can work in small groups without having to rearrange the furniture themselves	5 minutes
Use of Training Data to Make Decisions 	*Slide 1 - Use of Training Data to Make Decisions* Leave this slide up while you say: We have just learnt how to do basic analysis of the data, making data more meaningful. Now it is time to use that data to make decisions. However, in using the data there are few determinants and barriers for us to consider.	35 mins
Session Objectives 	*Slide 2 - Session Objectives* Leave the slide up while reading out the session objectives. Make any necessary comment before moving on. • Identify opportunities for improving use of training • Identify opportunities for feedback mechanisms • Identify points where analysis & training data could support INS planning and decision making • Highlight the determinants of use training data • Understand potential barriers and solutions to use of training data	
Decision Making Cycle 	*Slide 3- Decision Making Cycle* By this time, we are very familiar with the decision-making cycle. We have discussed the previous 4 phases. Now we move on to phase 5 that is Use of Data to Make Decisions. Click on the slide to show animation that highlights the focus of this session, that is determining training data needs. NOTE: explain that this session is divided to two parts: one is reminder on the concept of data use and the other part is about determinants and barriers to data use.	
Reminder on Key Concepts on Use of Training Data 	*Slide 4 - Reminder on Key Concepts on Use of Training Data* Say: Before discussing about the determinants and barriers to data use, first let us review the key concepts of data use.	

Session 5: Use of Data to Make Decisions		Time
Use of Training Data 	*Slide 5 – Use of Training Data* There are two main components behind data utilization – data use and data demand. Let's review again about **USE** **Use** refers to the decision-making process We say the decision-maker **uses training** data if he/she: • Is explicitly aware of the decision to be made • Considers at least two possible courses of action Considers relevant data in making the decision, even if the data is outweighed by other factors	
We can use training data to… 	*Slide 6 - We can use training data to…* *NOTE to facilitator*: Have the participants suggest responses. After three to four participants speak, thank the participants for sharing their responses and experiences. Then, show the answers by clicking to reveal them. In summary, we can use information to… • Inform policies and plans • Raise additional resources • Strengthen programs and improve results • Ensure accountability and reporting • Improve quality of services provided • Contribute to global lessons learned	
Role of TMIS in Data Use 	*Slide 7 - Role of TMIS in Data Use* Facilitator reads out the role of the TMIS on the slide. NOTE: Not only that TMIS will automatize the process, but it ensures the data is available and up to date for making data-driven decisions.	
Working Toward a Culture of Data Use 	*Slide 8 - Working Toward a Culture of Data Use* Successful feedback contributes to what is known as the information culture. When information becomes available, it is more likely to be used. When information is shared and used, it: · Becomes an integral part of decision-making processes, including planning, problem solving, choosing alternatives, and giving or receiving feedback. · Empowers people to ask questions, seek improvement, learn, and improve the quality of programs.	

Session 5: Use of Data to Make Decisions		Time
Determinants and Barriers to Use of Training Data 	*Slide 9 - Determinants and Barriers to Use of Training Data* In Session 2, we are going to discuss the determinants of data use and the potential barriers that affect them.	
Determinants of Use 	*Slide 10 - Determinants of Use* Say: As we are all well aware, the data demand and use cycle does not always function as outlined in the previous slide. There are many factors that affect data use. Let's consider why this happens. Here you see the three main determinants of data use. We define 'determinant' as a determining or **causal element** or factor directly linked to data use. The three determinants highlighted are—Organizational, Technical, and Behavioral. • Organizational determinants—these determinants relate to the organizational context that supports data collection, availability, and use, such as the identified procedures and the roles and responsibilities of those that collect, analyze, disseminate, and use data. • Technical determinants—refer to the technical aspects of data collection processes and tools, such as the data collection processes, methods, and forms. • Last, Behavioral determinants refer to the behavior of individuals who produce and use data. This would cover their skills, attitudes, values, and motivation. All three of these areas affect data use in decision making. Let's take a more in-depth look at each of these determinants.	
Why training data are often underutilized 	*Slide 11 - Why Training data are often underutilized – Organizational Constraint* Let's discuss the first constraint why training data are often underutilized. Organizational constraints include: • Structural – roads, telecommunications, internet connectivity, other infrastructure • Organizational – lack of clarity of roles, support, ineffective flow of information, lack of coordination between training providers and INS, staff/leadership changes	

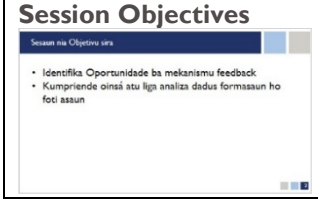
Session 5: Use of Data to Make Decisions		Time
	• Political ideology, public opinion, power relationships After explaining this part, ask the participants, are there any other organizational constraints for Timor-Leste? Ask also, What constraints for TMIS?	
Why Training data are often underutilized – Technical Constraint 	*Slide 12 - Why Training data are often underutilized – Technical Constraint* The second constraint is technical. This incudes: • Technical skills • Availability of information systems and technology (i.e. computers) • Design of information system • Definition of indicators • Lack of data quality assurance protocols and arbitrariness of data After explaining this part, ask the participants, are there any other technical constraints for Timor-Leste? Ask also, What constraints for TMIS?	
Why Training data are often underutilized – Behavioral Constraint 	*Slide 13 - Why Training data are often underutilized – Behavioral Constraint* Apart from organizational and technical, another constraint is Behavioral. They include • Decision-maker and other staff personal attitudes • Staff motivation • Skills and understanding on how to use data • Lack of "data culture" • Competing priorities Question for reflection: - Are there any other organizational constraints for Timor-Leste? - What constraints for TMIS?	
Determinants of Data Use 	*Slide 14 – Determinants of Data Use* Say: In addition to organizational, technical, and behavioral determinants, we also need to consider that the political, cultural, and social contexts are important determinants of data demand and information use, because decision making, sharing of information, and data collection and reporting all occur within these contexts. It is important to address all these areas when developing a strategy to improve data use. Ideally, a full assessment of the routine health information system would be conducted to identify strengths and weaknesses in these areas, such as the	

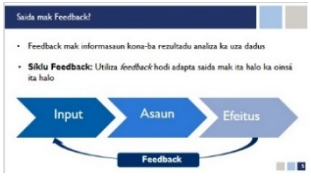
Session 5: Use of Data to Make Decisions		Time
 Discussion  **Discussion continue** 	PRISM assessment developed by MEASURE Evaluation. However, a rapid assessment also can be conducted. Later in the session, we will review a tool that assists in identifying barriers to data use in conjunction with building capacity to use data. *Slide 15 - Discussion* Facilitator read the question from the slide for the participants. Ask participants to answer. To record this answer, facilitator may need to write on the flipchart or laptop. Keep the discussion going until everyone understand the concept before moving on to the activity on the next slide. *Slide 16 – Discussion continue* Continue from the previous slide, introduce the table. ○ Ask participants: what barriers have you faced to using or getting others to use training data and information? ○ Then, walk through the barriers to data use table using ONE example – Encourage active participation from the participants and have them think about their real-life experience.	5 mins 25 mins
LUNCH BREAK		**IHR 30 Min**
Activity: Identifying and Overcoming Barriers to Use of Training Data  	*Slide 17 - Activity: Identifying and Overcoming Barriers to Use of Training Data* Facilitator divides the participants into groups of five depending on the number of participants. Then, for each group, facilitator hands out: • "Session 5 Activity: Action Plan for Addressing Barriers to Using Training Data"; and • Flipchart and markers, if they prefer to use them instead of laptop NOTE: although participants have a copy of the instruction, it is better for facilitator to read out the instruction and explain the tasks.	20 mins

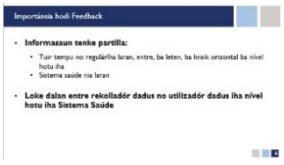
Session 5: Use of Data to Make Decisions		Time
Activity Report Back: Identifying and Overcoming Barriers to Use of Training  	*Slide 18 - Activity Report Back: Identifying and Overcoming Barriers to Use of Training* *NOTE to facilitator:* Read slide. The reporter from each group are requested to present the result of their group discussion, at least 10 – 15 minutes In their presentation, make sure they include • Solutions for the barriers • Most importantly, action plan for these barriers Notice any major barriers identified that have been discussed earlier in the previous slides. Encourage the plenary to ask questions and suggest alternative possible solutions to overcome the identified barriers.	25 mins
Reflections & Conclusions: Strengthening the Decision-making Process 	*Slide 19 - Reflections & Conclusions: Strengthening the Decision-making Process* Read and explain the slide In summary, we can strengthen the decision-making process by: • Involving new data use counterparts and stakeholders. We need to involve potential users of the data from the outset to ensure that the information we are producing can be used. • We also need to understand service delivery realities on the ground so as to understand the decisions being made routinely and how they can be influenced by evidence-based information. By understanding the intended audiences and what is important to them and their programs and ensuring that people are seeing the value in their reporting of data, we also will help to ensure on-time reporting as well as better-quality data. • It's important to note that we may require data beyond traditional baseline and reporting indicators. Often this information is insufficient to make specific program design, planning, management, and operations decisions.	8 mins
Key Messages for Trainers  	*Slide 20 - Key Messages for Trainers* *NOTE to facilitator*: Read slide and solicit questions on the material covered. • Use of training data refers to the decision-making process and data can be used for a variety of reasons. • Training data, when analyzed becomes information, an integral part of decision-making processes, including planning, problem solving, choosing alternatives, feedback, etc.	4 mins

Session 5: Use of Data to Make Decisions		Time
Closing: End of Session 5 	• Determinants of data use are technical, behavioral, and organizational and occurs within political, cultural, and social contexts • Identify and plan interventions to overcome barriers to data use Slide 21 - *Closing: End of Session 5* Before closing the session: - Thank the participant for their participation - Ask few review questions to determine if you have achieved the objectives of this session - Ask them for feedback, if there is any - Let them know the upcoming session, how it is linked to this session. **END OF SESSION 5**	3 mins
ICE-BREAKER		

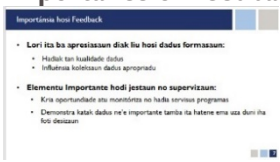
Session 6: Take action and continue demand for data, Part 1: Provide feedback and take action

Session 6: Take action and continue demand for data, Part 1: Provide feedback and take action		Time
Preparation	Ensure that you have the following: 1. Data projector 2. Data screen 3. Flipchart and markers 4. Tables and chairs are organised so that participants can work in small groups without having to rearrange the furniture themselves	2 mins
Provide feedback and take action 	*Slide 1 - Provide feedback and take action* Leave this slide up while you say: We have reched the last stage of the decision-making cycle, that is take action and continue demand for data. Our demand for data does not stop after we make decision. Demand for data should be a continuous process to strengthen, modify changes, re-allign priorities and programs.	23 mins
Session Objectives 	*Slide 2 - Session Objectives* Briefly explain to the participant the objective of this session. • Identify opportunities for feedback mechanisms • Understand how to link analysis of training data with taking action	

Session 6: Take action and continue demand for data, Part 1: Provide feedback and take action		Time
Decision Making Cycle 	*Slide 3 - Decision Making Cycle* Say: We are on the last step of the decision-making cycle Facilitator to click on the slide to show animation that highlights the focus of this session, that is provide feedback and take action NOTE: explain that this session is divided to two parts: creating a Feedback Loop, and Linking Training Data to Action	
Creating a Feedback Loop 	*Slide 4 - Creating a Feedback Loop* Say: In this final session, we are going to discuss how to link the data we have with our programmatic questions and the decisions we need to make. But first let's discuss feedback loop with partners and stakeholders.	
What is Feedback?  	*Slide 5 - What is Feedback?* As we know, data collection requires the efforts of many individuals within an organization, several organizations and facilities, different levels of government, and community members. The resulting information should be shared just as widely. Once data are analyzed, however, the information often is not made available or accessible to stakeholders who need it for decision making. Feedback ensures that those who collected the data benefit from the collection as much as those requesting the data. Also, information needs to be shared regularly and in a timely manner so that a 'culture of information use' is supported. The sharing – or feedback – of information needs to be done '**up**' the information hierarchy (from the facility to the district to the province to the national level) but also **within** a facility, district, and province. Sharing **among** the other providers and management and **between** facilities, districts, and provinces is equally important. Finally, it needs to be shared **down** the information hierarchy – from the national level to the province – to the district and facility. Feedback is an essential part of the data producer and data user relationship. Without feedback, neither is able to fulfill their role fully. The sharing of data from the data collectors to the data users and then back again also helps to pave a path between data collectors and users at all levels of the health system.	

Importance of Feedback
 
	Slide 6 - Importance of Feedback
	
	NOTE to Facilitator: explain the importance of feedback
	• Information needs to be shared:
	  • At timely and regular intervals
	  • Within, between, up, down and across all levels of the health system	

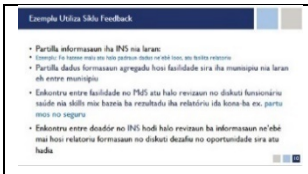
Session 6: Take action and continue demand for data, Part 1: Provide feedback and take action		Time
	• Paves a path between data collectors and users at all levels of the health system	

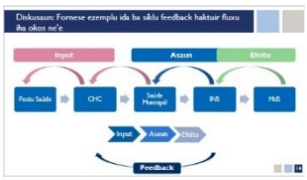
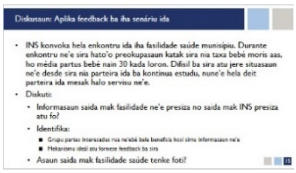
Importance of Feedback
 
	Slide 7 – Importance of Feedback
	
	Say:
	Having a proper feedback mechanism also
	• **Leads to greater appreciation of training data:**
	  • Improved data quality
	  • Influences collection of appropriate data
	• **Important element of management and supervision:**
	  • Creates opportunity to monitor & improve program services
	  • Demonstrates that data is important because it is being used in decision making	

Feedback Loop in Timor Leste 	*Slide 8 - Feedback Loop in Timor Leste* Click on the slide to reveal the steps. Explain that the data flows from facility level to municipality. From municipality the data is compiled and sent to National level. Feedback on the other hand happen within, between, up, down and across all levels of the health system NOTE to facilitator: Check with participants if that's how it is in their organization.	

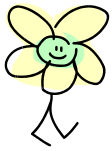
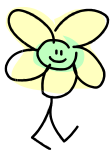
Variety of Feedback Formats
 	
	Slide 9 - Variety of Feedback Formats
	
	Explain that feedback can be presented in many different ways, such as…
	• **Narratives**
	  • Regular reports, summaries, bulleted items, graphs, charts
	• **In-person discussion**
	  • One-on-one
	  • Staff meetings, municipality meetings
	• **Presentations**
	• **Supervision visits**
	
	NOTE to facilitator: Read slide.
	Let's take a closer look at narratives. Most countries/programs/facilities have a type of narrative through which to share data.	

Examples of Utilizing a Feedback Loop	*Slide 10 - Examples of Utilizing a Feedback Loop* *NOTE to facilitator*: Read slide and then ask the group to provide examples of feedback they either have given or received.	

Session 6: Take action and continue demand for data, Part 1: Provide feedback and take action		Time
 	Ask them, "what are some other examples of feedback?"	
Potential barriers to providing feedback 	*Slide 11 - Potential barriers to providing feedback* Explain: While sharing information and providing feedback is critical to a provider's job, there are barriers that may inhibit the ability to do so. They include: • Hierarchy – All providers report to a facility manager, a doctor, or a program manager. Providing feedback on clinic performance traditionally is seen as a clinic manager's job. Others may feel that they are stepping out of place if they take on this responsibility. While it is true that traditionally it is a manager's responsibility to provide feedback, other health professionals can facilitate this process. By regularly monitoring, analyzing, interpreting, and presenting data, the manager's access to necessary information is heightened. Through discussion with clinic supervisors, a shared responsibility can be established. • In some settings, staff are dedicated to data capture and data compilation for reporting purposes. In this case, data users or providers can work with data officers to clarify indicators, answer data queries, suggest specific analyses that the provider needs for monitoring service delivery, interpret findings, and communicate data. • In some settings, there may be restrictions on sharing confidential information, requiring approval to distribute data outside of the facility. In these cases, a solution can be discussed with clinic management. • Last, a lack of knowledge of what information stakeholders need can limit feedback efforts. Discussions with colleagues, managers, and the community can facilitate this.	
When developing a feedback mechanism, consider… 	*Slide 12 - When developing a feedback mechanism, consider…* In the service delivery setting, you may be called upon to work with others in the facility to develop a feedback mechanism. In this case, there are issues to consider that will improve the usefulness of the mechanism. They include: • Consider the data being shared. What is the best way to summarize and present them? • Consider who – or which stakeholders – will benefit from the information being shared. Is it your fellow providers? Facility management? District leadership? The recipients of the information will affect how you package it. • What is the best format for your information? Will your feedback be written or verbal? Will it be a formal or informal feedback system?	

Session 6: Take action and continue demand for data, Part 1: Provide feedback and take action		Time
Use of feedback **Discussion: Provide an example of feedback loop following this flow**  **Discussion: Applying feedback to a scenario**  	• Consider the forum in which the feedback will be presented. Will it be presented at facility meetings? At district health management team meetings? • How often will the feedback be provided? Weekly? Monthly? Quarterly? • Consider how the information will move to the next level. For example, program managers always should review data before they send them up to the next level. • Last, document the process for implementing and maintaining the feedback mechanism so that it will be standardized and shared with others. *Slide 13 - Use of feedback* Read from the slides: Once feedback is provided, it should be used to take action: ○ To improve the quality of a training ○ To improve the selection of health workers for a training ○ To inform the Municipal Health Office's training request ○ To improve follow up after training by supervisors *Slide 14 - Discussion: Provide an example of feedback loop following this flow* Ask participant to provide an example of feedback loop following the flow on the slide. Note down if the loop is different from the slide and make changes to the existing slide. *Slide 15 - Discussion: Applying feedback to a scenario* NOTE to facilitator: Encourage the group to contribute to the questions in the slide. The total group discussion should take no more than 20 minutes. Then, review these key points: • Sharing information within, between, up, and down the health system/project/organization is essential to data use • Address barriers to feedback • Create a formal feedback mechanism • Feedback should be: timely, regular, constructive, descriptive, helpful, and collaborative **END OF SESSION 6 PART 1**	15 mins
COFFEE BREAK		**20 mins**

Study Case Phase 2

Study Case: Phase 2		Time
Preparation	Ensure that you have the following: 1. Data projector 2. Data screen 3. Flipchart and markers 4. Powerpoints slide: a. Case Study Instruction Daily Slides, for facilitator b. Case Study Day 2 Handout: Basic Data Analysis Guide Ensure the participants still have the following: ○ 3 laptops, one for each group ○ Print out of "Case Study Hand Out Instructions" ○ Print outs of: ➢ Case Study 1 ➢ Case Study 2 ➢ Case Study 3 ○ Case Study_Slide Template for Participant Use, for participant to solve their case ○ Historical Data set for a minimum of 4 years history	2 minutes
Study Cases – Briefing 	*Slide 1 – Study Cases* NOTE: Presentation from "Case Study Instruction Daily Slides " Present the Case Study Instructions Daily Slides. Inform them that they can complete any leftover points from Day 1 and let them know they will be presenting their entire case studies tomorrow (Day 3). Remind participants to refer to their Day 1 handouts: ○ Case Study ○ Case Study Instructions ○ Case Study Data Set	3 mins
Case Study Day 2 Instructions 	*Slide 5 - Case Study Day 2 Instructions* Have the participants sit according to their respsctive groups. Distribute handout "Case Study Day 2 Handout: Basic Data Analysis Guide" to assist with data analysis Building on Day 1, the participants are to conduct the following using the same case study conduct the following: a. Using the guide that will be provided, conduct basic analysis using your data set. b. Based on the stakeholders identified in Day 1, identify the potential barriers to use of data that could affect your ability to achieve the mission. Complete the table. c. Recommend feedback loops in relation to your mission.	1hr 10mins
Recap – Closing	*Recap - Closing*	

Study Case: Phase 2		Time
	Once the discussion is completed and time is up, facilitator ask participant to cease the group discussion and quickly do a recap for the day. You can use the following guiding questions for recap: 1. What do you learn today? 2. What topics you can apply in your current work? 3. Any feedback or comment for our session today? 4. What worked with the study case? 5. What should be changed to make it better? Once finished, a. Thank the participant for their participation b. Let them know the sessions for the following day and how they are linked to today's session. **END OF STUDY CASE PHASE 2**	15 mins
END OF DAY 2		

Day 3

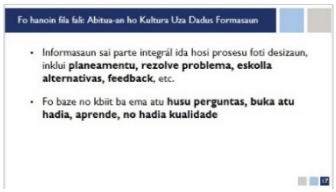
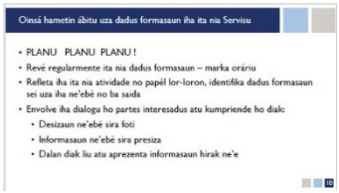
Opening Session

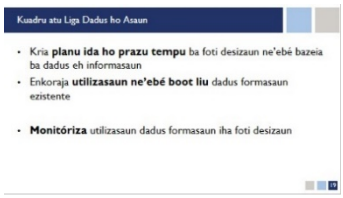
Time:
Materials Needed:
- PowerPoint "Day 2_Introduction Slides"

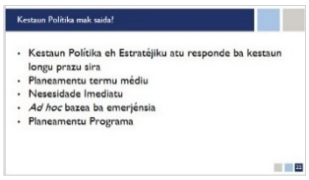
Flow Process:
- Put up the welcome side and welcome participants
- Review learnings of Day 2
- Review Decision-Making Cycle, reminding participants that on Day 1 and 2, we have completed step 1 – 5 and step 6 part 1. Today we will discuss step 6 part 2. The remaining time for today is for discussion and group presentations
- Overview of the agenda for today

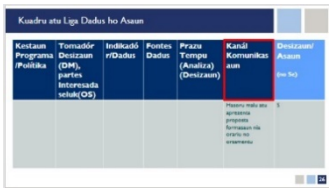
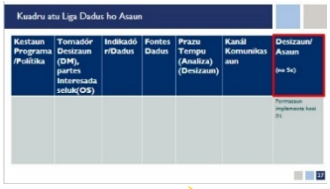
Session 6: Take action and continue demand for data, Part 2: Linking Training Data to Action

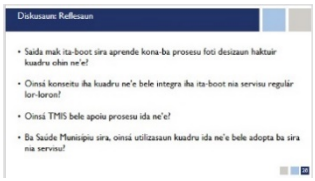
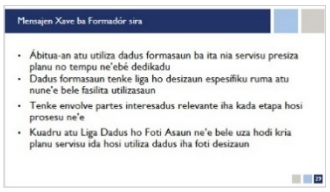
Session 4: Take action and continue demand for data, Part 2: Linking Training Data to Action		Time
Preparation	Ensure that you have the following: 1. Attendance List 2. Data projector 3. Data screen 4. Flipchart and markers 5. Tables and chairs are organised so that participants can work in small groups without having to rearrange the furniture themselves	5 minutes
Review Day 2	Facilitator welcome participants and start off by checking participants understanding on Day 2 topics. This can be done	30 mins

Session 4: Take action and continue demand for data, Part 2: Linking Training Data to Action		Time
	by randomly asking volunteers to answer questions or express what they remember about yesterday's topics.	
Part 11: Linking Training Data to Action 	*Slide 16 – Part 11: Linking Training Data to Action* *(Continue from yesterday's presentation)* Continuing the Decision-making cycle, today we move on to the session 4, Analyze Training Data to Respond to Issues Say, In this final session, we are going to discuss how to link the data we have with our programmatic questions and the decisions we need to make.	55 mins
Reminder: Working Toward a Culture of Use of Training 	*Slide 17 - Reminder: Working Toward a Culture of Use of Training* NOTE to facilitator: Successful feedback contributes to what is known as the information culture. When information becomes available, it is more likely to be used. When information is shared and used, it: · Becomes an integral part of decision-making processes, including planning, problem solving, choosing alternatives, and giving or receiving feedback. · Empowers people to ask questions, seek improvement, learn, and improve the quality of programs.	
Building Use of Training Data into Your Work 	*Slide 18 - Building Use of Training Data into Your Work* NOTE to facilitator: In the previous sessions, we discussed many of the concepts and tools that can facilitate data use in your setting. Now let's discuss the practical aspect of data use. How can you manage to build data use into your work? How do you ensure that data use becomes part and parcel of your day-to-day duties? The answer is to PLAN for it. PLAN PLAN PLAN! MEASURE Evaluation has developed a simple tool that assists users in identifying decisions and programmatic questions faced in day-to-day work. These may be decisions and questions around: • program monitoring, planning, and improvement • advocacy needs • program management or operations issues The Framework helps you to link the decisions and questions with data and then creates a time-bound plan for decision making. It is also critical to involve others in your work because the best decisions are made with stakeholder involvement. You need to understand: • decisions others make • information they need • the best way to present that information	

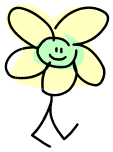
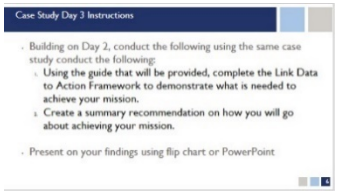
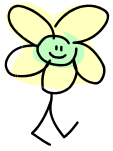
Session 4: Take action and continue demand for data, Part 2: Linking Training Data to Action		Time
Framework for Linking Data with Action  	In the next few slides, I will orient you to the Framework for Linking Data with Action. *Slide 19 - Framework for Linking Data with Action* NOTE to facilitator: The Framework for Linking Data with Action is a management tool—a combination of template and process—that serves three key purposes: 1. **Creates a time-bound plan for data-informed decision making** by setting dates by which data should be reviewed in relation to key programmatic questions and upcoming decisions. 2. **Encourages greater use of existing information** by identifying existing data resources and linking that information with the programmatic questions that need answers to support evidence-based decision making. Last, it provides you with a data-informed decision-making 'record' so that you can— **3) Monitor the use of information in decision making—** Provides a timeline for conducting analyses and making decisions.	
Framework for Linking Data with Action 	*Slide 20 - Framework for Linking Data with Action* Facilitator explains that, on the slide there is a template for the Framework for Linking Data with Action. Say: In just a few minutes, you will practice using the Framework. But before you do that, I'd like to spend a few minutes showing you how to use it.	
Framework for Linking Data with Action 	*Slide 21 - Framework for Linking Data with Action* Say: Let's talk first about the first two columns – the Decision/Action and the Program/Policy columns. What would someone put in the first column – the Decision/Action column? *NOTE to facilitator*: For slides with red circles, it is important to orient participants as to which columns you are explaining. You can animate the red circles in this presentation to assist with this. As an example, our policy questions is training of all midwives in COVID-19 IPC measures during delivery Ask participants, how will the INS roll out training of midwives on COVID-19 IPC?	

Session 4: Take action and continue demand for data, Part 2: Linking Training Data to Action		Time
What is the policy question?  Kestaun Politika mak saida! • Kestaun Politika eh Estratéjiku atu responde ba kestaun longu prazu sira • Planeamentu termu médiu • Nesesidade Imediatu • *Ad hoc* bazea ba emerjénsia • Planeamentu Programa	*Slide 22 - What is the policy question?* Before we continue, let's try to understand what the policy questions is. It could be: • Strategic policy question to respond to long term issues • Medium term planning • Immediate needs • Ad hoc based on emergencies • Program planning	
Framework for Linking Data with Action Kuadru atu Liga Dadus ho Asaun Kestaun Programa /Politika | Tomadór Desizaun (DM), partes Interesada seluk(OS) | Indikadór/Dadus | Fontes Dadus | Prazu Tempu (Analiza) (Desizaun) | Kanál Komunikasaun | Desizaun/ Asaun DM- MS OS- MHO 	*Slide 23 - Framework for Linking Data with Action* *NOTE to facilitator*: Click mouse to reveal animation. Let's use our example earlier, the policy questions is training of all midwives in COVID-19 IPC measures during delivery. Let's consider key stakeholders who would be interested in these questions. This information is entered in column 2. If the answers to the questions support a programmatic change, who would be the person to lead that change? In our case, it would be the Ministry of Health. Note the designation 'DM' before the name. This indicates the individual who is the true decision maker; that is, the individual who has the responsibility to make a programmatic change. Also note that other stakeholders are listed in this column as 'OS' – other stakeholders, those who would be interested in the answers to the programmatic questions and the decisions made, and who would be affected by a programmatic change to training of all midwives in COVID-19 IPC measures during delivery. In our case it could be St. John of God, MHO, Marie Stopes, USAID, etc. DM refers to Decision-maker and OS refers to other stakeholders *NOTE to facilitator:* Click mouse for animation to appear.	
Framework for Linking Data with Action Kuadru atu Liga Dadus ho Asaun Kestaun Programa /Politika | Tomadór Desizaun (DM), partes Interesada seluk(OS) | Indikadór/Dadus | Fontes Dadus | Prazu Tempu (Analiza) (Desizaun) | Kanál Komunikasaun | Desizaun/ Asaun	*Slide 24 - Framework for Linking Data with Action* *NOTE to facilitator*: Click mouse to reveal animation. Now let's look at the next two columns, Indicator/Data and Data Source. In these two columns, you link your decision with data. So, looking back at our example, we need to answer the following questions. *(next slide)* a. Are we reaching training targets? b. Do we have sufficient trainers? c. What is the trainer-to-midwives ratio? To answer these questions, you will need specific data from, so you indicate that in the appropriate column. In the	

Session 4: Take action and continue demand for data, Part 2: Linking Training Data to Action	Time
  Framework for Linking Data with Action **Framework for Linking Data with Action**  **Framework for Linking Data with Action**  	Indicator/Data column (to the left), you specify the indicator. For our case, the indicators would be: a. # of midwives b. Facility name c. Geographic location d. Training history e. ANC f. COVID-19 cases *Slide 25 - Framework for Linking Data with Action* *NOTE to facilitator*: Click mouse to reveal animation. Next, you fill in the timeline column, which is where you indicate when you will complete your analysis and communicate it to the appropriate stakeholders. In this column, you also can indicate when you need to make your decision and take the action. In this column, you indicate the date by which you need to answer the question and make the decision. This column helps you set dates for incorporating data use into your job. Note that in this example that there are multiple dates entered. The question in which the provider is interested is one that requires regular monitoring. Because of this, the provider will review data every three months to determine if the facility is meeting the programmatic targets and if there are sufficient commodities to support program activities. *Slide 26 - Framework for Linking Data with Action* *NOTE to facilitator*: Click mouse to reveal animation. In this column, you indicate how you will inform the decision maker and other stakeholders of the data-informed decision. When completing this column, think back to our session on feedback. What mechanism or format will you use to inform others? In the case of our example, perhaps we can organize a meeting to present a proposed training schedule and budget Slide 27 - *Framework for Linking Data with Action* *NOTE to facilitator*: Click mouse to reveal animation. Last, you will fill in the decision column. In our example, the decision would be training implemented by the INS **It is important to note that this tool can be applied in different ways, depending on the needs of the user. If the decision is known and clear, the users will start with column 1 first and work their way across the matrix to the right.**	

Session 4: Take action and continue demand for data, Part 2: Linking Training Data to Action		Time
Discussion: Reflection  	*Slide 28 - Discussion: Reflection* *NOTE to facilitator*: Click mouse to reveal the questions. Walk through step by step the framework provided, have participants build on the examples. After you walk through the example, conduct the following discussion: ▪ What did we learn about the decision-making process by following this framework? ▪ How can the concepts of the framework be integrated into our regular work? ▪ How will the TMIS support this process? ▪ For the Municipal Health Offices, how could use of this framework be adopted?	
Key Messages for Trainers  	*Slide 29 - Key Messages for Trainers* Before we end this presentation, let's review the key messages of this session. Note to Facilitator: click on the slide to reveal the messages: • Building use of training into your work takes planning and dedicated time • Training data should be linked to specific decisions so as to facilitate use • Relevant stakeholders should be involved in each step of the process • The Framework for Linking Data with Action can be used to create an actionable plan for using data in decision making	
Closing: End of Session 6 	*Slide 30 - Closing: End of Session 6* Facilitator does the following: - Ask few review questions to determine if you have achieved the objectives of this session - Ask them for feedback, if there is any - Let them know the upcoming session, how it is linked to this session. **END OF SESSION 6**	
COFFEE BREAK		**20 mins**

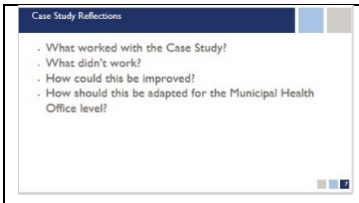
Study Case Phase 3

Study Case: Phase 2		Time
Preparation 	Ensure that you have the following: 1. Data projector 2. Data screen 3. Flipchart and markers 4. Powerpoints slide: a. Case Study Instruction Daily Slides, for facilitator b. Handout: Case Study Handout: Linking Data to Action Framework Ensure the participants still have the following: ○ 3 laptops, one for each group ○ Print out of "Case Study Hand Out Instructions" ○ Print outs of: ➢ Case Study 1 ➢ Case Study 2 ➢ Case Study 3 ○ Case Study_Slide Template for Participant Use, for participant to solve their case	5 minutes
Study Cases – Briefing 	*Slide 1 – Study Cases* NOTE: Presentation from "Case Study Instruction Daily Slides " Present the Case Study Instructions Daily Slides. Inform them that they can complete any leftover points from Day 2 and let them know they will be presenting their entire case studies after lunch. Remind participants to refer to their Day 1 handouts: ○ Case Study ○ Case Study Instructions	40 mins
Case Study Day 3 Instructions  	*Slide 6 - Case Study Day 2 Instructions* Have the participants sit according to their respective groups. Distribute the handout "Case Study Handout: Linking Data to Action Framework" to assist them filling out the framework. Building on Day 1 and day 2, the participants are to conduct the following using the same case study: • Review your Case Study and the past two days of work. • Using what you have completed the last two days complete the table: ○ Identify the program or policy question(s) based on your mission	

Study Case: Phase 2		Time
	○ Document the decision makers and other stakeholders needed to address these questions and achieve the mission ○ Identify the indicators and data needs, as well as the data sources needed ○ Define the timelines for analysis and decisions to take action to achieve the mission ○ Determine how the analysis and decisions will be communicated ○ Describe the final decisions or actions that are needed to take place to achieve your mission. Once completed, they either transfer the completed framework to a flip chat or the PowerPoint template provided. They will have to prepare to finalize the case study ready to present after lunch.	
LUNCH BREAK		**1hr 30 mins**

Case Study Presentations

Case Studies Presentation		Time
Preparation	Ensure that you have the following: 1. Data projector 2. Data screen	5 minutes
Presentations 	*Presentation from the first two groups* Using the template "Case Study_Slide Template for Participant Use" provided by the Facilitator, participants take turn to present their answers. Each group should have at least 1 hour in total for presenting their work. Encourage discussion and reflection on how to apply this in the future.	2hr 40 mins
	Coffee Break within the presentations	20 mins
Case Study Reflections 	*Slide 7 Case Study Reflections* NOTE: Presentation from "Case Study Instruction Daily Slides " Once complete, facilitator lead the case study reflections, by asking the following questions: ▪ What worked with the Case Study? ▪ What didn't work?	30 mins

Case Studies Presentation		Time
	▪ How could this be improved? ▪ How should this be adapted for the Municipal Health Office level? Note down any major feedback and ideas for improvement. **END OF CASE STUDY PRESENTATION**	

Training Evaluation

Training Evaluation		Time
Preparation 	Ensure that you have the following: 1. Training Evaluation Form *Process Flow:* Hand out training evaluation form. Provide the participants some time to complete the form. Inform the participants to leave the form anonymous Facilitator may provide a box or folder in a corner or specific place in the room far away from the facilitator for the participants to submit their completed form. Once everyone submits, the facilitator collects the completed form. **END OF DAY 3**	30 minutes

Annex I: Agenda for Training

Utilizing Health Workforce Training Data for Decision Making

Day 1		
Time	**Topic**	**Methodology**
8:30-9:00	**Welcome and Opening Remarks** • **INS Executive Director** • **USAID Mission Director**	Speakers
9:00-9:15	**Housekeeping and Expectations**	Speakers
9:15-10:00	**Session 1: Health Workforce Challenges and Use of Training Data to Make Decisions**	
	• Understanding health workforce challenges	Presentation
	• Use of training data to make decisions	
10:00-10:15	**Coffee Break**	
10:15-11:15	**Session 2: Determining Training Data Needs**	
	• Health Workforce Training Data	Presentation
	• Data quality assessment and management	
11:15-12:00	**Activity:** Data Quality Review	Activity, Group work
12:00-1:30	**Lunch**	
1:30-2:00	**Session 3: Engaging stakeholders in collecting and sharing of training data**	
	• Identifying Stakeholders	Presentation
2:00-2:30	**Activity:** Stakeholder Identification and Analysis Matrix	Activity, Group work
2:30-3:00	**Session 3 continued: Engaging stakeholders in the collection and sharing of training data**	
	Understanding information use flows	Presentation
3:00-3:30	**Activity:** Mapping Information Use Flows	Activity, Group work
3:30-3:50	**Coffee Break**	
3:50-4:45	**Case Study Phase 1** • Assignment of groups and presentation of the cases • Group work to identify of health workforce challenges, data needs, potential data quality issues, stakeholders and information use flows	Case Study
4:45-5:00	**Recap/Closing**	Group Discussion

Day 2		
Time	**Topic**	**Methodology**
8:30-9:00	**Opening and Review of Day 1**	Speakers
9:00-9:45	**Session 4: Analyze Training Data to Respond to Challenges**	
	• Understanding basic data analysis and calculations	Presentation
9:45-10:05	**Coffee Break**	
10:05-10:50	**Activity**: Basic Data Analysis Worksheet	Activity, Group work
10:50-11:30	**Session 5: Use of Training Data to Make Decisions**	
	• Reminder on Key Concepts on Use of Training Data	Presentation
	• Determinants and Barriers to Use of Training Data	
11:30-12:00	**Activity:** Action Plan for Addressing Barriers to Use of Training Data	Activity, Group work
12:00-1:30	**Lunch**	
1:30-2:30	**Activity continued:** Identifying and Overcoming Barriers to Use of Training Data	Activity, Group work
2:30-3:10	**Session 6: Provide feedback and take action**	
	• Creating a Feedback Loop	Presentation
3:10-3:30	**Coffee Break**	
3:30-4:45	**Case Study Phase 2:** • Provide data set and stakeholder target group to accompany the cases • Group work to continue Day 1 assignment and conduct basic analysis, identify barriers to data use, and identify feedback loops	Case Study
4:45-5:00	**Recap/Closing**	Speakers

Day 3		
Time	**Topic**	**Methodology**
8:30-9:00	**Opening and Review of Day 2**	Speakers
9:00-10:00	**Session 6: Explaining Analysis and Taking Action**	
	• Linking data to action	Presentation
10:00-10:15	**Coffee Break**	
10:15-12:00	**Case Study Phase 3:** • Group work to continue Day 1 and Day 2 and apply linking data to action framework to case study • Finalizing presentations	Case Study
12:00-1:30	**Lunch**	
1:30-3:00	**Case Study Presentations**	Presentations by participants
3:00-3:20	**Coffee Break**	
3:20-4:00	**Case Study Presentations Continued**	Presentations by participants
4:00-4:30	**Discussion on adapting training for MHO**	Speakers
4:30-5:00	**Evaluation of Training**	Evaluation

Day 4		
Time	**Topic**	**Methodology**
8:30-9:00	**Opening and Review of Day 3**	Speakers
9:00-9:30	**Training Management Information System (TMIS) Demo**	Demo of TMIS
9:30-10:30	**Review of TMIS Forms and Fields**	Demo of TMIS
10:30-10:45	**Coffee Break**	
10:45-11:45	**Discussion:** Enhancing the functionality and sustainability of TMIS • Report and analysis need from TMIS to promote further development of the system • TMIS sustainability	Guided Discussion
11:45-12:00	**Review, Wrap Up & Next Steps**	Guided Discussion
12:00	**Lunch & Adjourn Training**	

Annex II: Terms of Reference for Training

Utilizing Health Workforce Training Data for Decision Making

Background

The Government of Timor-Leste (GoTL) has requested USAID's technical assistance to help address the inequities in the health system and sustain a fit-for-purpose, fit-to-practice health workforce to effectively respond to current and emerging health issues and improve the Timorese population's health. Human resources for health (HRH) challenges include insufficient quantity, skill mix, and distribution of qualified health workers—which results in inequitable access to quality services— as well as limited financial support to sustain HRH, and low performance and motivation. Additional challenges include: human resources (HR) planning, management and administration capacity (including clarity on job descriptions); variations in clinical care practices and knowledge among health care workers trained in different countries under different systems; quality of pre-service and in-service training; language barriers between health care workers, and between health care workers and patients; and poor working conditions, including infrastructure and support. The underlying factors contributing to these HRH challenges are the limited completeness and quality of HRH training data, as well as the limited capacity of mid-level managers to use HRH training and other health systems data for evidence-informed decision-making. To address the issues noted above, USAID's Human Resources for Health in 2030 (HRH2030) Program will work with INS to establish and implement a more dynamic, interoperable Training Management Information System (TMIS) and improve the capacity of INS team members on use of HRH training data for decision-making.

In support of this capacity building, HRH2030 will conduct a four-day training on utilization of health workforce training data for decision making training of trainers for INS managers. The training will use a problem-based, hands-on approach to train the INS on how to identify health workforce challenges and subsequently training needs to respond to these challenges; stakeholder engagement in the collection and sharing of training data; how to analyze this training data; use of training data to make decisions and most importantly, taking action. Throughout the training, you will learn how the Training Management Information System can be used to carry out these key steps in the decision-making process.

Objectives of the Training

The overall objective of the training is to develop participants capacity to use HRH training data to make decisions and take action to improve the availability of quality health services. More specifically it is hoped that the training will result in:

- Enhanced managerial competency of participants on use of training data to take action
- Improved ability to conduct data analytics and ensure the data is presentable for making strategic decisions.
- Increased availability of high-quality training data.
- Improved ability to engage stakeholders in collection and sharing of data, and in the provision of feedback.
- Increased understanding of how to leverage the Training Management Information System in the data use process.
- Improved knowledge and training skills of participants on use of data for decision making and action for future trainings.

Overview of the Training

The training will run for three consecutive days starting from 8.30am to 5.30pm with 1.5 hours lunch break. On the first day, participants will be introduced with basic understanding on health workforce issues and the role of data in decision making, identification of health workforce training data needs and common data quality issues, and engagement of stakeholder in the collection and sharing of data. Participants will gain hands on practice with improvement with data quality, be introduced to a stakeholders' engagement tools that help identify stakeholders, define their roles and resources, as well as map information flows. The participants will also be introduced to a case study which will be used throughout the training.

Day two will cover the development of basic skills in analysis and conducting calculations in training data, develop and understanding of how determinants and barriers to use of data and establish an understanding and importance of feedback loops. To help with data analysis, a practical activity for basic data analysis using excel will also be offered. Participants will also develop action plans to addressing barriers to data use and discuss feedback loops in Timor Leste. Participants will continue applying learnings from the day to their case study.

On the third day, stakeholders will deep dive into linking data to action. Participants will apply learnings from this session to the case study and later conduct a full presentation on the case study for feedback from the group.

On the final day, a session on introducing the training management information system (TMIS) will also be presented. This will cover a review of the system, discussion on report and analysis needs from TMIS to promote further development of the system and a discussion on sustainability of the system for the long run.

Session Descriptions

Session One: Health Workforce Challenges and Use of Training Data to Make Decisions

- Session Objectives:
    - Understand common health workforce challenges globally and in Timor Leste
    - Raise awareness of the importance of using health workforce training data to inform decisions
    - Understand the importance of improving data-informed decision making to optimize the health workforce

- Session Overview: This session will focus on improving participant knowledge on health workforce challenges and how training data can be used to make decisions and take action on these challenges. An overview to data use for decision making will be provided, and the decision-making cycle will be introduced.

Session Two: Determining Training Data Needs

- Session Objectives:
    - Understand what health workforce training data is and the importance of these data to respond to health workforce challenges
    - Understand the difference between good vs bad quality training data and strengthen the ability to manage these data

- Session Overview: This session will focus on explaining what constitutes health worker training data and what are attributes of high-quality data. Specifically, the session will dive into the difference between good and bad quality data, understand attributes to data quality, data quality challenges, and measures for data quality control and assurance. At the end of the session, there will be a hands-on activity where participants will be asked to review health worker training data for quality.

Session Three: Engaging stakeholders in collecting and sharing of training data

- Session Objectives:
    - Identify key stakeholders and understand how to engage these stakeholders to make strategic decisions on health worker training
    - Identify opportunities for improving production and use of training data
    - Identify points where analysis & data could support INS planning and decision making

- Session Overview: This session will start of by defining the concept of stakeholders, data users and data producers. Then, it will explain the importance of involving stakeholders throughout the data use in decision-making cycle. This session will also discuss information use flows. At the end of the session, participants will have to complete a stakeholder analysis matrix for them to understand, who the stakeholders are, the decisions they make, information they need, and the best way to present those information. Participants will also be asked to map information flows to better understanding the link between data and the end-users.

Session Four: Analyze Training Data to Respond to Challenges

- Session Objectives:
    - Turn raw data into useful information
    - Provide answers to questions being asked, by using basic data analysis using excel

- Session Overview: This session will focus on key concepts in data analysis by reviewing the most common data analysis terms and techniques used for descriptive data analysis and provide examples for doing some analysis with health worker training data. This includes calculating average, median, ratio, proportions, percentage, rate, and to name a few. Participants will also be required to demonstrate practical knowledge in basic data analysis by completing a given activity.

Session Five: Data for Use of Training Data to Make Decisions

- Session Objectives:
    - Identify opportunities for improving use of training

- Identify opportunities for feedback mechanisms
- Identify points where analysis & training data could support INS planning and decision making
- Highlight the determinants of use training data
- Understand potential barriers and solutions to use of training data

- Session Overview: This session will explain the context of decision making, data demand and use, the role of TMIS in decision making, and how to strengthen the decision-making process. It will also explore ways how to increase the use of data, working toward building a culture of data use. It will further share strategies for overcoming barriers to data use ensuring that health-related data are being used to make decisions at all levels. Participants will also learn strategies for using data in program management, implementation, and decision-making.

Session Six: Provide feedback and take action

- Session Objectives:
  - Identify opportunities for feedback mechanisms
  - Understand how to link analysis of training data with taking action

- Session Overview: This session will review key factors in effectively developing and using feedback loops and how to turn data into action. To assist understanding of this session, a small group activity will be included to discuss framework for linking data with action.

Other Sessions

- **Case Study:** Participants will be assigned to different groups and provided with a Case Study scenario that they will use each day of the training to apply learnings from the sessions of the day. At the end of the training, participants will present their Case Study under the themes of each session.
- **TMIS Demo:** This discussion will allow participants to apply their learnings throughout the training to understand better effective use of the TMIS. The will discussion focus on reviewing the TMIS functionality, defining the reports and analysis needs from TMIS to guide further development of TMIS and touch on TMIS sustainability.
- **Evaluation of the TMIS Data Use Training:** The evaluation will allow facilitators to understand how the TMIS data use training has affected the way the participants treat HRH training data in the future. In the session, participants will be distributed with some questionnaire to evaluate the process and the training for Data use.

Methodology & Materials

The training will be an instructor led in person training that includes lectures, group discussions and activities, role playing and hands on "practice" through the use of a case study.

Materials developed will include technical PowerPoint presentations, and worksheets and a calculator for activities and the case study. Participants will also need pen and paper for taking notes, as well as access to a laptop for the case study.

Participants

Participants for the training of trainers will be totaling 25 consist of:

- INS Managers and Trainers,
- MOH HR Director