

LEARNINGS FROM CAPACITY DEVELOPMENT WORKSHOPS: IMPROVING PERFORMANCE, ENSURING SUSTAINABILITY

A Report Submitted by

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Background

Uttar Pradesh has a comprehensive health data ecosystem. Various portals like HMIS, RCH, UPHMIS, e-Kavach, e-Shushrut, Manav Sampda, DVDMS, FP-LMIS, Nikshay, UPKSK, NCD portal help in identifying the gaps in the health system and thus assists the decision-making process. The Government of UP (GoUP) has been pertinent in constantly improving this data ecosystem. In collaboration with the Monitoring and Evaluation division of the National Health Mission, Uttar Pradesh, the Uttar Pradesh Technical Support Unit (UPTSU) planned a series of capacity development workshops for the state, division and district-level health officials to foster the analytical and data visualization skills among them. This was also envisaged as an important effort to promote institutional strengthening among the leadership responsible for important decision-making to improve health outcomes at different levels.

Rationale

Analytical prowess is key for efficient utilization of the available data. Capacity development workshops help in overcoming the shortcomings in this regard. For effective capacity development, preliminarily, UPTSU put its efforts into identifying the needs of the officers pertaining to data analysis and visualization. The assessment was done between October and December 2021 with DPMs, DDMs, and HMIS operators across the state. 10 domains were selected for the assessment (Table 1).

Table 1: Domains and Sub-domains of the tool

SN	Domain	Sub-domain
1.1	MS Excel - Basics	Shortcuts for various functions, Find and replace, Merging, Wrap, Insert row/column, Delete row/column, Sort, Filter, Freeze, Hide, conditional formatting, paste special (Transpose, value, formula)
1.2	MS Excel - Formula function	Addition/Subtraction/ Multiplication/Division, Percentage, Count of Cell/blank/zero
1.3	MS Excel - Advance function	Pivot table and its uses, VLOOKUP, IF functions
2	MS PowerPoint	Insert table, Insert Graph and edit, Insert Picture, Animation
3	Data Quality Analysis	Current Availability (Reporting), Completeness (Non-Blank and Non-zero), Correctness (Validation errors & correction), Consistency (Outliers & Trends)

4	QGIS	Creating Map using QGIS application
5	Portals /Application for data use	UPHMIS, New HMIS, RCH, FPLMIS, DVDMS, E-KAVACH, MANAV SAMPADA, UP KE SWASTHYA KENDRA, UPHEALTH DASHBOARD & BCPM MIS
6	Estimation calculation	Mid-year population, Estimated number of pregnant women, delivery, live birth & eligible couple
7	Program related analysis	ANC, Delivery, Postpartum care, FP, CD, NCD & Immunization
8	Enhance use of data	Preparation of Action plan & Decision Tracker Module
9	Google Form	Creating a google Spreadsheet, Analysing information on the google form
10	Key Priority Indicators	UP Health Dashboard Indicators, DPM Ranking Indicators, NITI Ayog Indicators

A self-assessment tool was used to assess the domains that were important to them and the level of skills they possess in each domain (on a scale of 0-10). There were 192 participants (ACMO RCH, DPM, ARO, DDM, HMIS operator) from 64 districts and 16 divisions who participated in the assessment. The analysis was based on 136 participants (DPM, DDM, and HMIS operators). The assessment revealed that officials valued MS Excel-Basics, MS Excel Formula functions, Data Quality analysis as the most important domains (9/10). Skillset was perceived as 5 or below in the domains of MS-Excel advance function, QGIS, Portals for data use, Estimation calculation, Enhance use of data, Google form and Key priority indicators (Table 2).

Table 2: Over all rating for importance and skill/practice for ten domains by DPMU staff

Sl.No	Domain	DPM		DDM		HMIS Operator		Overall	
		Importance	Skill/ Practice	Importance	Skill/ Practice	Importance	Skill/ Practice	Importance	Skill/ Practice
1.1	MS Excel - Basics	9	8	9	9	9	8	9	8
1.2	MS Excel - Formula function	8	6	9	8	9	7	9	7
1.3	MS Excel - Advance function	6	2	7	4	6	3	6	3
2	MS PowerPoint	9	6	8	6	8	6	8	6
3	Data Quality Analysis	9	6	8	6	9	6	9	6
4	QGIS	7	1	5	1	6	1	6	1
5	Portals /Application for data use	9	6	7	5	7	4	7	5
6	Estimation calculation	9	7	8	6	7	5	8	5
7	Program related analysis	9	6	8	6	8	6	8	6

8	Enhance use of data	8	5	8	5	7	3	8	5
9	Google Form	9	4	7	4	6	3	7	3
10	Key Priority Indicators	9	6	7	5	7	4	7	5

Based on this analysis, some of the key areas such as MS Excel, MS PowerPoint, portals /applications for data use, program-related analysis, google forms, key priority indicators, and QGIS were shortlisted for the capacity development program (Table 3).

Table 3: Shortlisted areas for the capacity development workshops

SN	Domain	Sub-domain topic	Overall rating - Importance	Overall rating - Practice/Skill	Preference
1	MS Excel	MS Excel - Advance function (Pivot table and its uses, VLOOK UP & IF functions)	9	3	*****
2	MS PowerPoint	MS PowerPoint (Adding new slide in the preparation, Insert table, Insert Graph and edit, Insert Picture, Animation)	9	6	****
3	Portals /Application for data use #	Other portals (FPLMIS, DVDMS, E-KAVACH, Manav Sampada & UP KE SWASTHYA KENDRA)	6	3	***
4	Program related analysis	Ante Natal Care (Registration, 1 st trimester, 4 ANC, 4HB)	9	7	****
		Delivery care (Intrapartum, Institutional delivery, Home delivery, Still birth)	9	7	
		Post-partum care (HBNC, 48 hours stay, etc)	9	7	
		Family planning (Spacing and Permanent method)	9	6	
		Immunization (Full Immunization, Dropout rate BCG to Penta3)	9	7	
		Communicable disease (TB, VBD including NTD, etc)	8	4	
		Non-communicable disease	7	4	

5	Google Form	Creating & using a google form	7	3	****
6	Key Priority Indicators	NITI Aayog Indicators	7	4	****
7	QGIS	Creating Map using QGIS application	6	1	***

The assessments helped in identifying the capacity-building needs of the health officials. This provided insights for selecting the areas for the capacity development workshops. The felt needs of the officials were critically analyzed before developing the modules for the workshop. This systematic approach for identifying the requirements exemplifies the relevance of the capacity development workshops.

Objectives and learning outcomes

The workshops were designed to meet the following objectives:

- Exposing participants to various analytical frameworks (which can be adopted to identify the program coverage gaps) and available datasets (routine and periodic) appropriate for analysis.
- Improving the data analysis and visualization skills using appropriate analytical tools.
- Identifying potential indicators that can be monitored beyond the current review and planning mechanism.

The learning outcomes of the workshops were-

- Understanding different portals, available data elements and the process of extracting data for program monitoring
- Understanding critical approaches to develop a data analysis plan to monitor output and outcomes
- Learning process of preparing raw data into an analytical dataset form
- Gaining skills in building pivot tables and utilize filters
- Familiarizing with better data visualization

Methodology

UPTSU took a lead in conceptualising the workshop methodology, training sessions, and developing the modules. Both M&E division, NHM and UPTSU together finalised the training contents and modules. The workshop adopted following methodology:

- The workshops were designed for 3 days with a mix of theoretical and hands-on practice sessions.
- The capacity-development workshop was conducted in different batches. Training was conducted at the state and division levels to ensure the participation of different cadre of staff.
- Each batch comprised of 40-45 participants with a mix of senior officers (GM, DGM, Director, Joint Director) and mid/junior level consultants, program coordinators and data analysts etc.
- On the first day, participants were exposed to an analysis framework, survey methodologies and different data sources. The second day mainly focused on hands-on practices with data extraction from government portals and analysis using Excel and QGIS. During this period, the participants were also asked to work on a selected topic as a part of group work. On the third day, each group presented their findings using the skills gained during the workshop.
- To ensure continuity in the learning, a WhatsApp group is formed wherein questions will be posted for the participants to analyze the data and come up with programmatic solutions.
- The training of state and divisional officials was organized through the approved budget in the PIP, whereas the district officials' trainings (organized at the division) were supported by UPTSU.

The capacity development workshops covered following participants:

State-level	Division/district-level
<ul style="list-style-type: none"> • General Managers • Dy General Managers • State level consultants • State program coordinators • Program nodals from DGMH and DGFW (Director, JD) • Assistant Research officers • Data analyst/person at DGMH/DGFW • Divisional Program Manager (from division) • Divisional M&E Officers 	<ul style="list-style-type: none"> • Additional Director • Divisional M&E Assistants • Divisional Consultants (FPLMIS, Quality Assurance & Urban health) • Additional CMO (RCH) (from district) • Additional CMO (FP) (from district) • District Program Manager (from district) • HMIS operator/DDM (from district) • District MH Consultants and FPLMIS Managers

Status

The workshops began in the month of February 2023 at the state level. Four workshops were conducted at the state level, whereas nine sessions at the division level in which officials from

divisions and districts participated. These workshops spanned until the month of May 2023. Details of the participants and dates are provided in table 4 and table 5.

Table 4: Participants in the capacity development workshop at the state

Batch number	Period	Level	Total participants	Designations										
				Director/ AD	JD	GM	DGM	Data person (Coordinator/ Consultant/ DEO/ Assistant)	Program officer	Program manager	Other (State nodal officer/ Technical officer/ARO/ finance officer)	Div. PM	Div. M&E Officer (NHM)	Div. M&E Specialist (UPTSU)
1	01-03 Feb 23	State	41	0	3	5	6	25	1	1	0			
2	07-09 Feb 23	State	42	0	2	4	6	23	3	1	3			
3	20-22 Feb 23	State	47	0								14	16	17
4	01-03 Mar 23	State	40	4	11		2	13	1	1	8			
Total			170	4	16	9	14	61	5	3	11	14	16	17

Table 5: Participants in the capacity development workshop at divisions

Batch number	Period	Level	Divisions	Total participants	Designation											
					District							Division				
					ACMO RCH	DPM	MH consultant	DFPLM NHM	DDM	HMS operator	Other	Div M&E Assistant	Div. Consultant - FPLMIS	Div. Consultant - Quality including assistant	Div. Consultant - Program Health	Div. UHC
1	27 Feb-01 Mar 23	Division	Meerut & Sharapur	57	9	9	7	0	6	7	14	1	2	0	1	1
2	17-19 Apr 2023	Division	Kanpur & Jhansi	56	4	6	7	0	6	7	19	0	1	2	2	2
3	22-24 Apr 2023	Division	Varanasi & Mirzapur	47	6	5	6	0	6	5	13	1	1	1	1	2
4	27-29 Apr 2023	Division	Ayodhya & Gonda	50	7	8	6	0	5	9	10	1	1	1	0	2
5	27-29 Apr 2023	Division	Agra & Aligarh	54	7	8	6	0	8	8	9	1	1	2	2	2
6	01-03 May 2023	Division	Chitrakoot & Lucknow	57	8	8	7	7	8	10	4	1	1	1	0	2
7	01-03 May 2023	Division	Bareilly & Moradabad	65	8	9	8	6	7	9	11	1	2	1	1	2
8	15-17 May 2023	Division	Prayagraj & Azamgarh	46	5	5	5	5	5	7	6	1	2	2	1	2
9	17-19 May 2023	Division	Gorakhpur & Basti	60	4	7	6	5	5	7	17	1	1	3	2	2
Total				492	58	65	58	23	56	69	103	8	12	13	10	17

Achievements

With good acceptance among the participants, the capacity development activities have been successful. The participants were vocal about various aspects of the training program. Achievements can be measured in four different aspects:

Reactions

The training session evoked a great response from the participants. The participants mentioned how effective each module was. When feedbacks were collected about different modules, they were complimentary of every session. The sessions were conducted in such a manner, welcoming doubts and opinions. The room for opening themselves without

inhibitions brought out honest opinions even stretching to self-criticism. They made honest opinions accepting that they had few shortcomings (M&E related), which had been cleared through the sessions. A participant noted: ***“We did not know how to develop maps for presentations. Mapping helps to present the issues to MOs or non-technical personnel effectively. The sessions helped us with the same”.***

Learnings

The participants were vocal about how the workshop helped them with understanding major survey designs and its role in analysis and decision making. An official commented: ***“We are using survey data for a long time but today we got clarity on the applicability of NFHS and SRS data at different levels. Now we know what to review and how to review using survey data along with routine data.”***

There were positive responses across the cadres about the modules pertaining to various portals. Participants mentioned how the workshop widened the horizons beyond portals like HMIS. ***“We were only dependent on HMIS earlier. We got to know about multiple data sources and their utility such as UPkSK, DVDMS, FPLMIS, MANTRA, BCPM MIS etc. for better analysis and decision making”***, a participant noted.

The participants were highly appreciative of the sessions on excel and power point. Participants acknowledged:

“It was helpful in learning new tools/functions in excel and PowerPoint which will help us in making presentation/data analysis quicker and more effective.”

“Analysis and presentation skills were mostly missing with us as it is mainly done by M&E. This three days’ workshop helps us in minimizing this gap and now we will also be able to analyse data and understand the gaps”

Behaviours

Applying the knowledge (in their work) is an important aspect for marking the success of any capacity development workshop. Apparently, it is difficult to assess the same at this moment of time. Also, the post-tests are always expected to give better result. So we measured the attitude towards utilizing the knowledge which still points out towards expected behaviour change. Speaking on how the process of planning will be improved, a participant added: ***“We have been working on planning. But from now on we can do it more systematically”.*** The participants were not only promising to use the learnings but also work on revising the same themselves. ***“We should practice what we learned; we should meet in groups once in three months”***, added a participant.

Results

One of the key parameter for a success of a training activity can be the participation. The capacity development activities, spread over many sessions across the state and districts levels had a very large participation. **647 participants were expected across the surveys while 662 attended the training. Of the 662 participants, 621 attended three days of the training (96%).**

Another important aspect that can be reflective of the involvement and skill development (of the participants) is the scale of participants who could develop the presentations (part of the training). There were 65 groups (5 groups in each batch) in total. 11% of them did not need any support for developing the presentations. **77% needed only moderate support** while only 12% required high support.

Table 6: Level of support for group presentations

Support	Number of groups (65)	Percentage (%)
Independently*	7	11
Moderate support**	50	77
High support***	8	12

*Group presentation developed **independently** - group developed the presentation without taking active support of the moderator

Group presentation developed **with moderate support -moderator also performed some analysis or downloaded data in the support or helped in chart or GIS map preparation.

***Group presentation developed **with high support**- moderator did most of the work for the presentation

The participants provided positive feedback about the training contents, methodology, and learning environment. Ratings were collected from the participants on a scale of 1 to 5. Feedback on different segments like portal content, excel and data visualization, training skill, and learning climate were collected. The participants were very positive about all aspects of the workshop.



When enquired to rate each module on a scale of 1-5, every module was rated above 4

While collecting the feedback, it was enquired how much they wanted to attend future sessions. **More than three-fourths (76%) of the participants expressed willingness for the same.**

Way Forward

The UPTSU has been instrumental in their efforts for strengthening the data ecosystem. With the constant support from the Government of UP, UPTSU have been able to bring about tangible advancements. As a part of institutional strengthening, UPTSU organized the workshops for capacity development across the state. The workshops could successfully cater to the needs of the officials. The UPTSU has received suggestions like the need for a refresher training annually and including more features of excel, google spreadsheet forms in the workshop. Participants suggested inclusion of FAMS portals and more dashboards in the workshops. Streamlining the data based review system at commissioner meetings and facility based review systems was another important feedback from the sessions. The UPTSU looks forward to more meaningful collaborations with the Government and improve the future workshops reflecting on the needs of the officials.

Some glimpses from the workshops

Img 1: Inauguration of the workshop by Principal Secretary (Health) and ED-UPTSU



Img 2: Training session at the state level workshop



Img 3: Group work presentation by participants



Img 4: Session on data quality lead by GM M&E



Img 5: Certificate distribution by Principal Secretary (Health) and Additional Mission Director (NHM)



Img 6: Certificate distribution by Mission Director (NHM)

