Competency in Using District Health Information System(DHIS2) among Health Workers in Nepal

Gayatri Budha Magar[1], Binita Kumari Paudel[1] Mallika Shrestha[1]

Affiliation

[1] Department of Public Health, School of Health Sciences, Purbanchal University, Nepal

OUTLINE OF THE PRESENTATION

- Background and objectives
- Methodology
- Results
- Conclusion
- Takeaway message

BACKGROUND AND OBJECTIVES

Health system → Six core building blocks

(An analytical framework used by WHO)

↓

Health Information System (HIS)

↓

Useful in different levels of health system

For Decision-making, Planning, Implementation, Evaluation and policy formulation (Salentine, 2019).

BACKGROUND AND OBJECTIVES

- Numerous study suggest that a high-performing health information system needs to be strengthened in LMICs. (Jørn Braa, 2012)
- DHIS is a free, flexible and open-source platform for generating high-quality health data that can be used and communicated to the right people at the right time in the right format within resource–limited countries (Braa, et al., 2010; Nguyen, 2015).

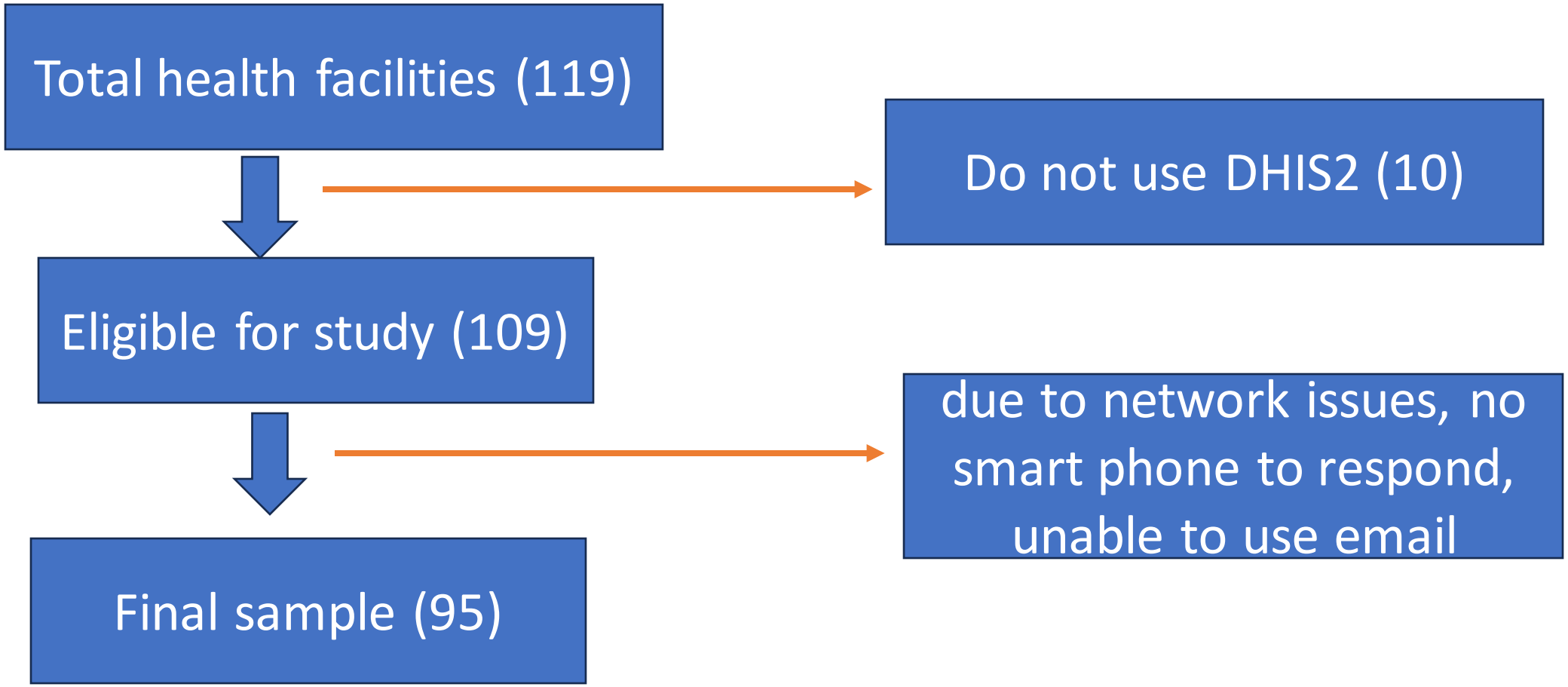
BACKGROUND AND OBJECTIVES

- Nepal introduced District Health Information System (DHIS2) in 2016 to support existing health management information systems and to improve data quality and its utilization.
- But research identify that health human resources are not fully capable of using all the features of DHIS2 and HMIS (Dahal, 2019).
- Competency in human resource is one of the core components of DHIS2.
- Therefore, this study aims to assess the core competency in DHIS2 operation among health workers of Dang district, Nepal.

METHODOLOGY: Data source and study area

- This presentation is prepared based on **part of quantitative data** obtained from **convergent parallel mixed-methods design** conducted to assess the perceived usefulness, competency and associated factors in using DHIS2.
- This presentation focuses only on competency on using DHIS2 among health workers working in dang district of Nepal.
- All the government health facilities (119) situated in Dang district were considered as study population. One health worker who is mainly designated in handling DHIS2 from each health facilities were selected as respondents.

METHODOLOGY: Population and Sample



One Hospital, two Primary Health Care Center, 33 Health Post, 25 Urban Health Center, 9 community Health Unit and 25 Basic Health Service Center

METHODOLOGY: Data collection

- **Data Collection tool:** The assessment of respondents' competencies was done through self-rated questions web-based questionnaire

- **Data Collection process:** sent the link to the designated health worker via email then follow up by phone contact.

Designated health worker is the person who is assigned to work on DHIS2 that included the statistician, medical officer, health assistant, sr/staff nurse, public health officer, health information manager of the hospital, and senior AHW/ANM by the profession.

- Data was extracted in Excel then SPSS (trial version 28; IBM Corporation) was used for data analysis.

RESULTS

Sociodemographic Characteristics	Frequency	Percent
Sex		
Male	65	68.4
Female	30	31.6
Age		
20-34	41	43.2
35-49	38	40.0
≥50	16	16.8
Work experience		
5 years	17	17.9
6-10 years	36	37.9
>10 years	42	44.2

RESULTS

Sociodemographic Characteristics	Frequency	Percent
Level of education		
TSLC	32	33.7
Diploma	30	31.6
Graduate	16	16.8
Post Graduate	17	17.9
Level of Jobs		
4^{th}	27	28.4
5^{th}	15	15.8
6^{th}	52	54.7
7^{th}	1	1.1

RESULTS

Sociodemographic Characteristics	Frequency	Percent
Types of job		
Permanent	73	76.8
Temporary	22	23.2
Type of health worker		
Paramedics	87	91.6
Nursing	8	8.4

RESULTS: Access to the DHIS2 and training in data analysis

Characteristics	Frequency	Percent
Do you have a user account to access the DHIS2?		
Yes	95	100
Have you received training on DHIS2 data analysis?		
No	20	21.1
Yes	75	78.9

RESULTS: Self-rated level of computer skills among Health Workers

Items	None n (%)	Basic n (%)	Average n (%)	Advanced n(%)	Mean
I have the capability of basic computer operations.	8(8.4)	66(69.5)	20(21.1)	1(1.1)	2.15
I have the capability of file management (create, open, save, etc.)	15(15.8)	57(60)	23(24.2)	0	2.08
I have the capability of working on Spreadsheets.	39(41.1)	42(44.2)	14(14.7)	0	1.74

RESULTS: Self-rated level of computer skills among Health Workers

Items	None n (%)	Basic n (%)	Average n (%)	Advanced n(%)	Mean
I have the capability for PowerPoint presentations	21(22.1)	56(58.9)	17(17.9)	1(1.1)	1.98
I have the capacity to do Internet surfing and search.	14(14.7)	57(60)	21(22.1)	3(3.2)	2.14
I have the capacity for Email communication.	11(11.6)	59(62.1)	22(23.2)	3(3.2)	2.18
I have the capacity for DHIS2 use.	9(9.5)	60(63.2)	21(22.1)	5(5.3)	2.23

RESULTS: Self-rated competency to use DHIS2 modules and data

Statements	High n(%)	Moderate n(%)	Low n(%)	Mean
I am capable of navigating through the DHIS2	67 (70.5)	19(20)	9(9. 5)	2.61
I am capable of entering data into the DHIS2	95 (100)	0	0	3
I am capable of doing data validation in the DHIS2	82 (86.3)	10(10.5)	3(3.2)	2.83
I am capable of analyzing data in the DHIS2 and producing visualizations	64 (67.4)	20(21.1)	11 (11.6)	2.56

RESULTS: Self-rated competency to use DHIS2 modules and data

Statements	High n(%)	Moderate n(%)	Low n(%)	Mean
I am capable of using DHIS2 data for reporting	95 (100)	0	0	3
I am capable of using DHIS2 data for planning	62(65.3)	16(16.8)	17(17.9)	2.47
I am capable of using DHIS2 data to provide feedback	61 (64.2)	15(15.8)	19(20)	2.44
I am capable of using DHIS2 data for policy decisions	54 (56.8)	20(21.1)	21(22.1)	2.35

CONCLUSION

- About one out of four health facility still do not have trained health worker on DHIS2.
- The health workers who are trained and using DHIS2 do not feel competent.
- Refreshment training and onsite coaching is recommended.

TAKEAWAY MESSAGE

- How people become competent and show the confidence in using social medias without any deliberate training sessions?
- Let’s brainstorm on how we can create similar scenario in professional computer program like DHIS2.

You are Welcome for Questions and Suggestions

Presenter Information

Binita Kumari Paudel, MPH, PHD

Associate Professor of Pubic Health

Purbanchal University

Research interest: risk factors of NCDs, health system research