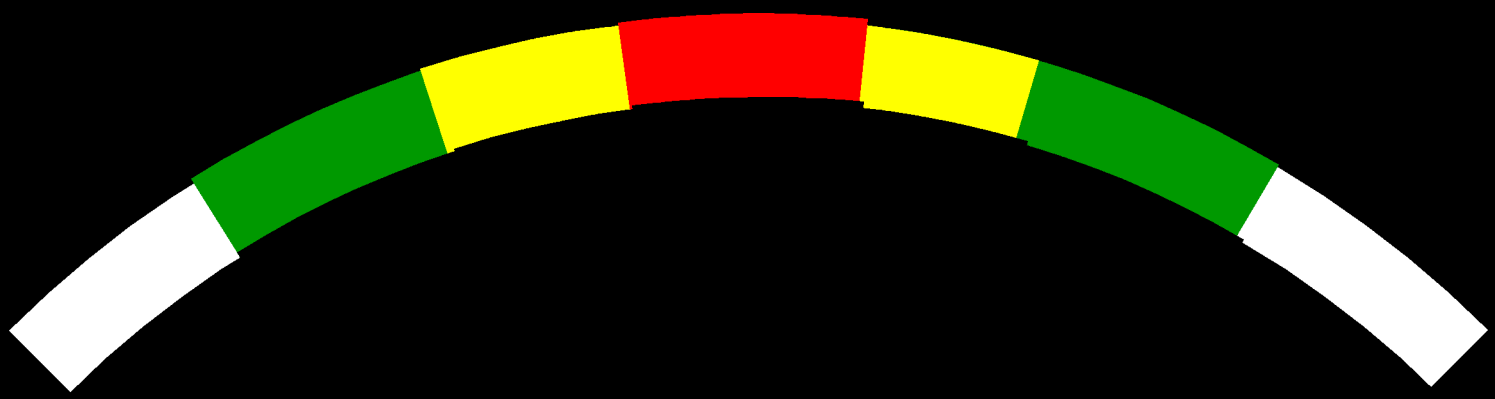

Rapid Assessment of Health Management Information Systems: Experiences from Bhutan

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Management Sciences for Health

Overview:

- Context: HMIS & Evaluation
- HMIS assessment framework
- Assessment process
- Sample results
- Conclusions

Context:

- Monitoring & Evaluation efforts often face a dilemma when obtaining data:
  - routine health service data are often available but of questionable quality
  - collecting primary data is costly
- Concerns about cost and sustainability of large scale surveys have resulted in renewed interest in strengthening national HMIS
- The HMIS rapid assessment approach is designed to evaluate the effectiveness of an HMIS

Objectives of an HMIS Assessment:

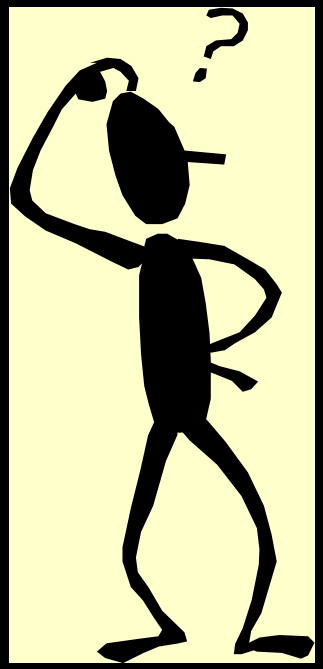
- To provide **quantitative and qualitative measures of the current performance of a health management information system** in order to identify functional problems which can then be used to guide the design of improvements to:
  - data recording & reporting
  - data analysis, presentation, and communications
  - the use of health data for decision-making and action

Experience from 2 countries:

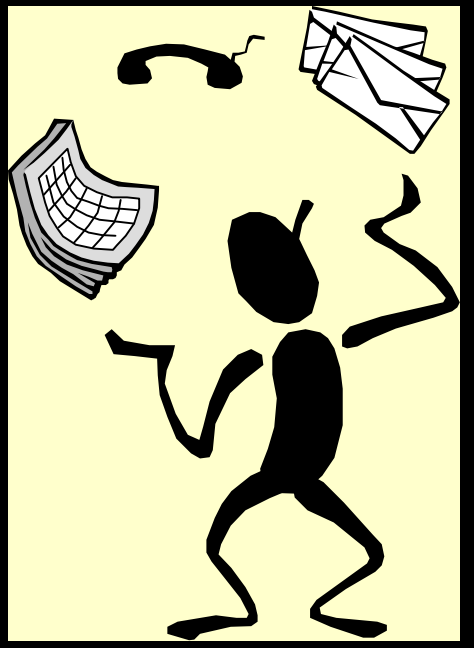
- Bhutan (2000):
  - Kingdom in North of India with <1 million population
  - Assessment was part of national HMIS enhancement efforts (Danida funded)
- Guinea (1999):
  - West African nation of 7.5 million
  - Assessment was primarily to result in enhancement to FP/RH MIS through integration with the HMIS (USAID funded)

Methodology:

The rapid assessment looks at:



Knowledge & Attitudes



Practice

+ Resources

HMIS Assessment Framework:

A. **Data Management**

	Collection	Processing	Use
Knowledge			
Practice			

B. **Resources** (material, human, financial)

* Recording/reporting formats available & appropriate?
* Personnel trained?
* Equipment for data analysis available & functional?

C. **Organisation**

* Data flows efficient?
* Data & information accessible?
* Time & effort required reasonable?
* Documentation exists & up to date?

D. **Attitudes**

* Individual complaints with system in general?
* Suggestions for improvement?

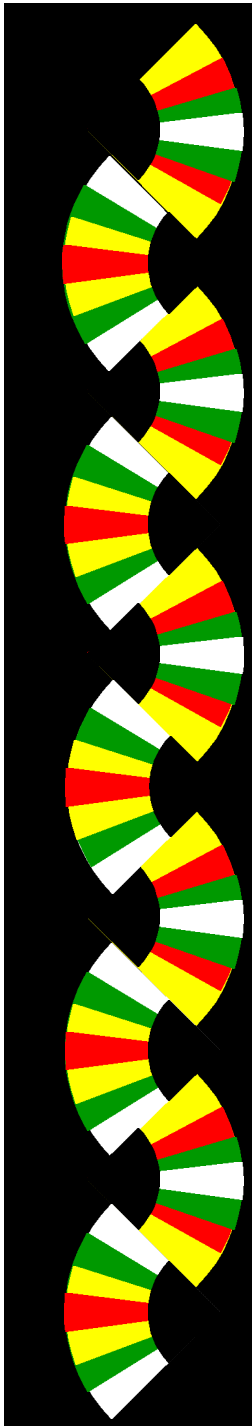
Assessment approach:

- Highly participative: HMIS task force members determined assessment topics and conducted most of the survey
- Emphasized the health center (BHU) and District Health Office levels
- Mix of quantitative and qualitative data collected
- Focussed upon use of indicators related to:
  - the health problems, services and resources selected during a workshop on essential health indicators and
  - key functions identified during a district level information needs assessment.

Steps in conducting HMIS Assessment:

- Establish assessment task force
- List perceived problems with existing HMIS
- Map and select HMIS sub-systems to assess
- Select sample: ‘district cluster’ approach
- Select key indicators to evaluate knowledge/use
- Develop SDP questionnaire modules - adapt for higher levels
- Pre-test and revise questionnaires
- Conduct assessment w/immediate local feedback
- Analyze results in analysis round table forum

Scope: Sub-systems reviewed



Surveillance

- AFP zero reporting
- IDD salt surveillance
- National Health Survey

Routine Service Reporting

- **Morbidity & Mortality reporting**
- **MCH services reporting**
- TB, Leprosy, Malaria, IUD
- Lab reporting

Administrative

- Human resource mgmt.
- **Drug supply logistics**
- Training/IEC information
- Planning & budgeting
- Financial accounting/imprest
- **Vaccine /cold chain monitoring**

Civil Registration

- **Household/village survey**

Convenience sampling in 'district clusters':

District	BHU	DHSO	Hospital	Total
Bumthang	2			2
Chukha	1	1		2
Haa	1	1	1	3
Paro	1	1	1	3
Punakha	2	1	1	4
Trongsa	2	1	1	4
Tsirang	2	1		3
Wangdi Phodrang	1	1		2
Total	12	7	4	23

Bhutan Districts visited

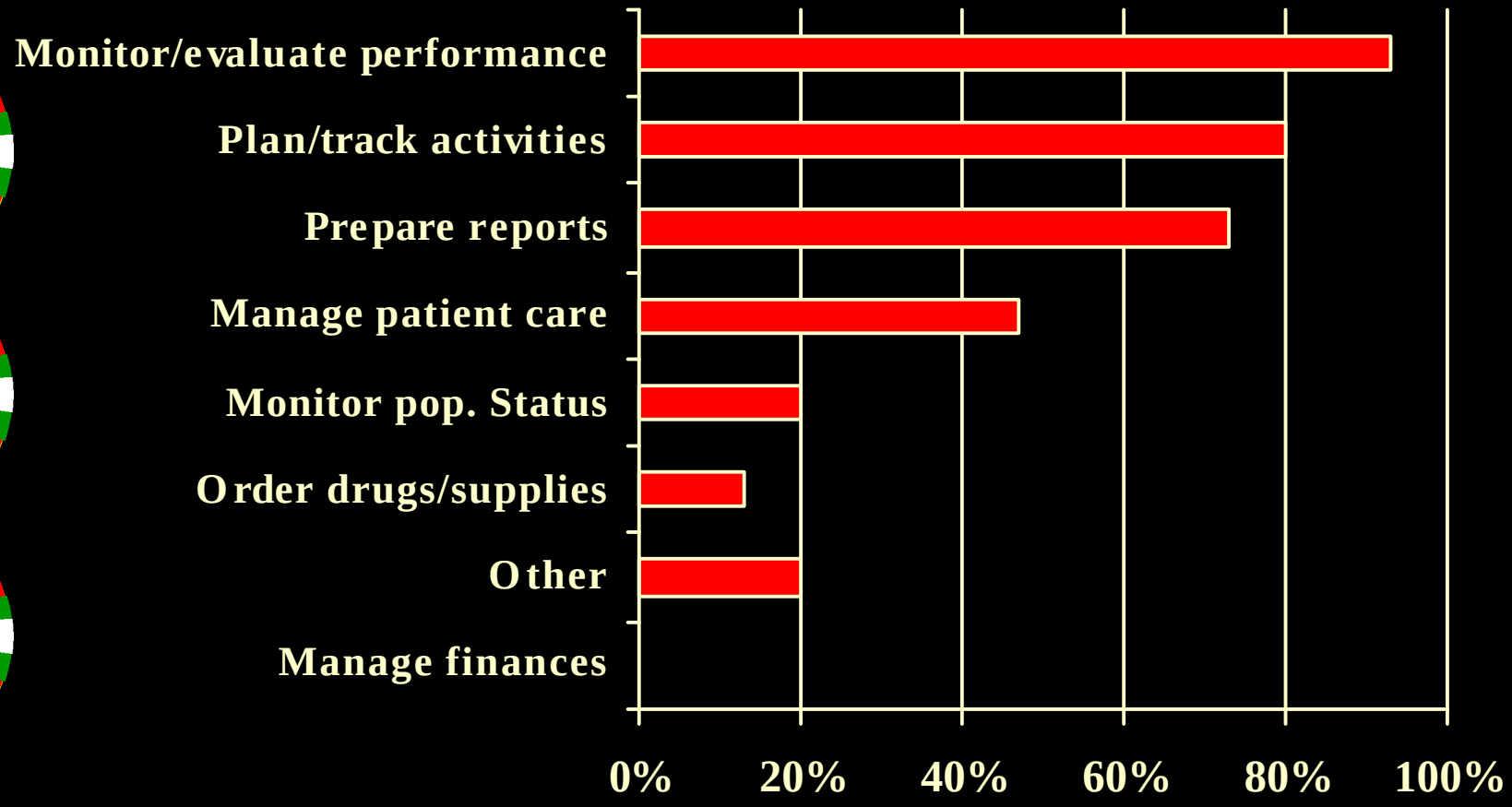
Typical Basic Health Unit (BHU)

Typical District Health Office

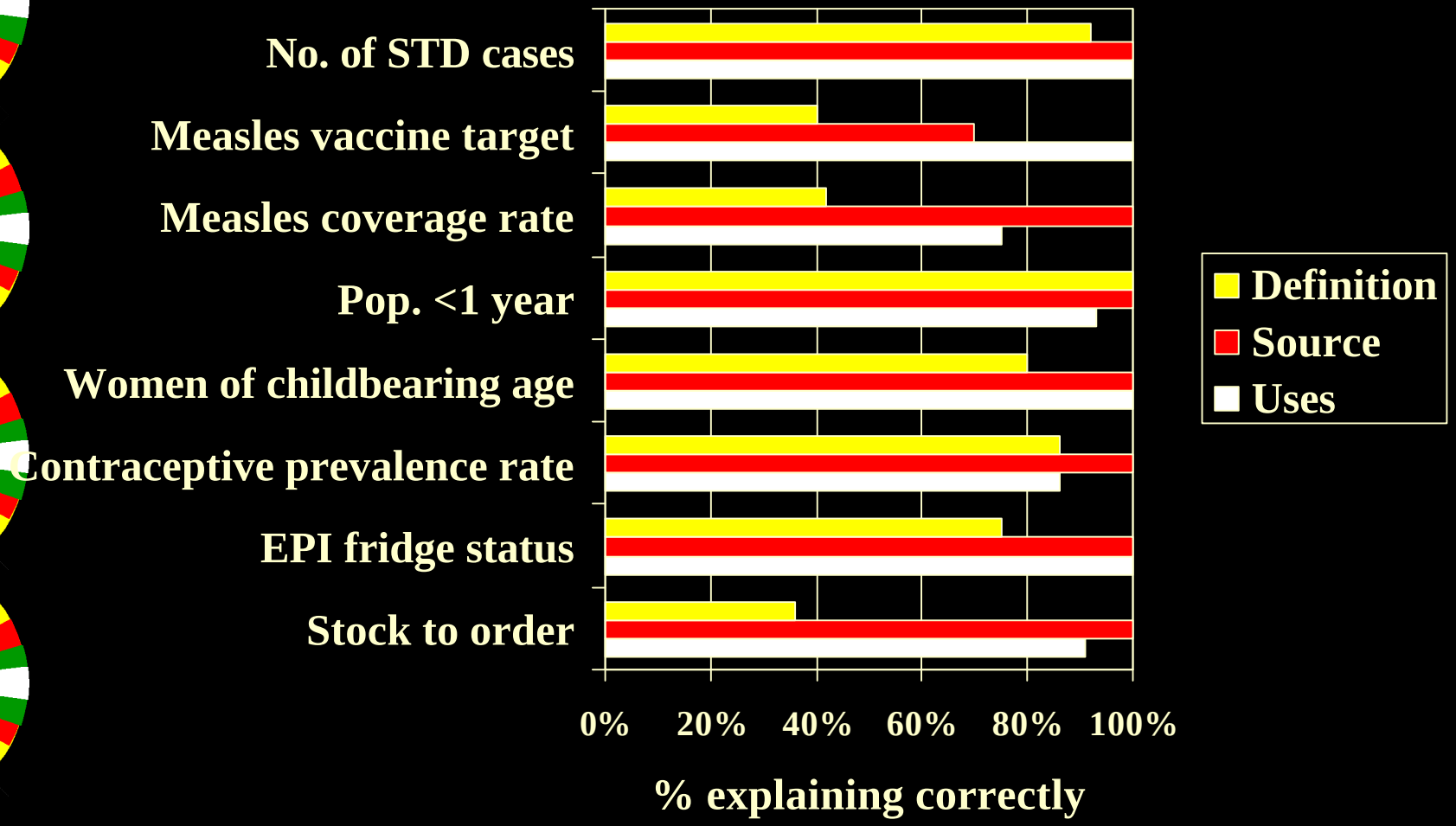
Typical Bhutanese medical team

Knowledge: General use of information

« How can you use the information you collect? »

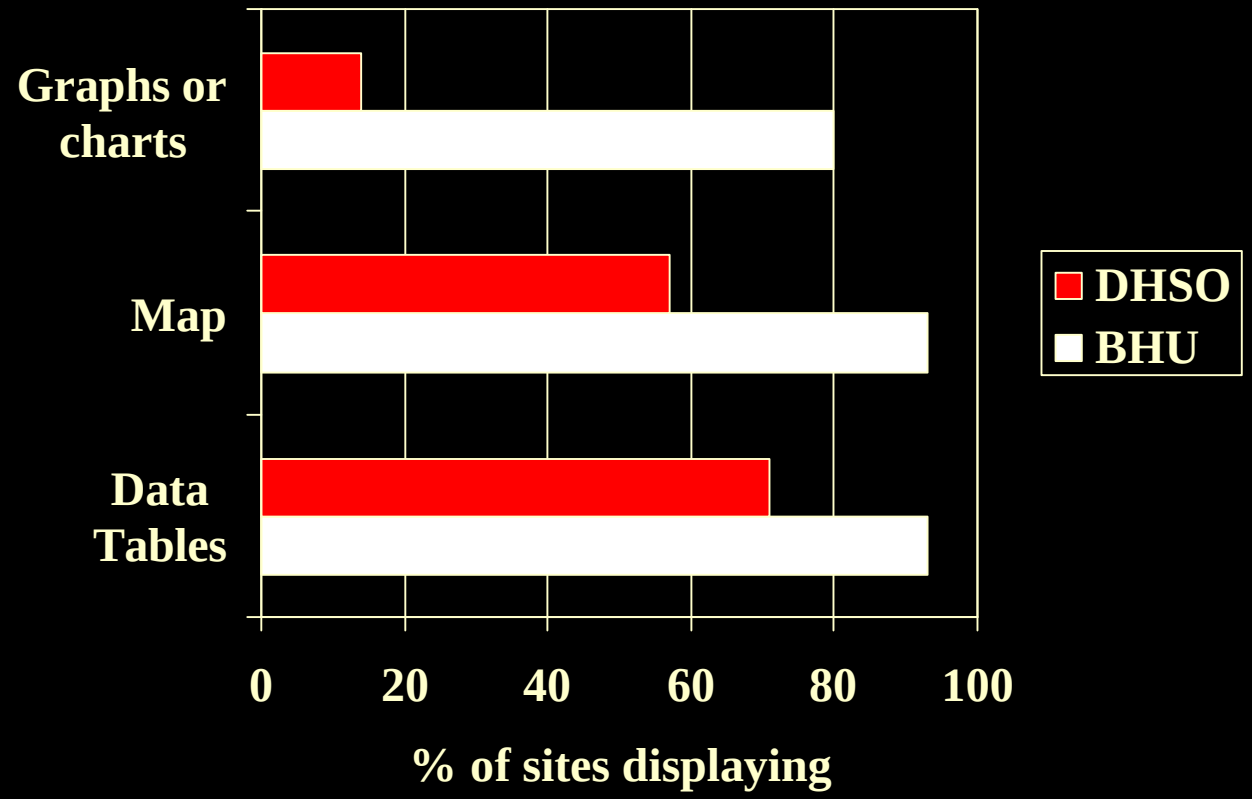


Knowledge: Definition & use of indicators



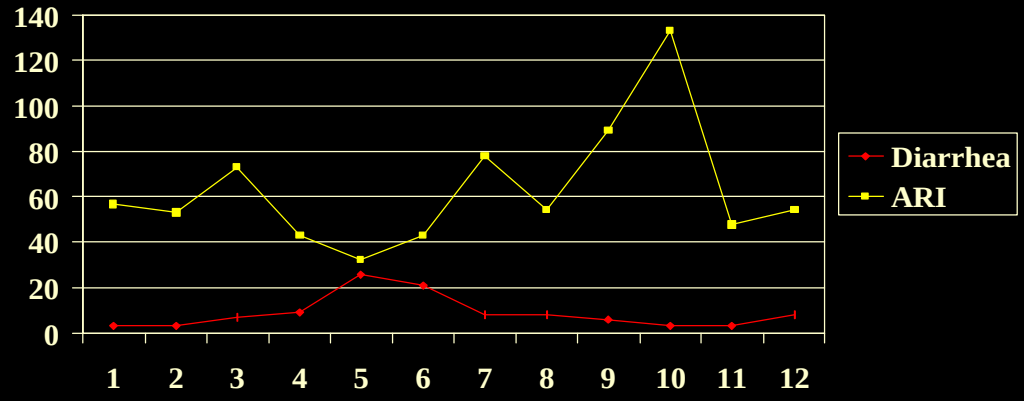
Use:
Data Presentation at BHU level

Use:
Data presentation on display

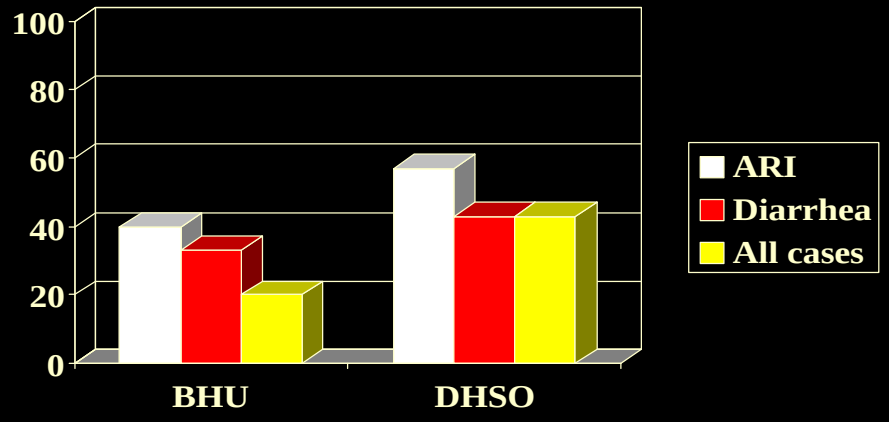


Use:
Awareness of disease trends

Selected trends from 1 BHU

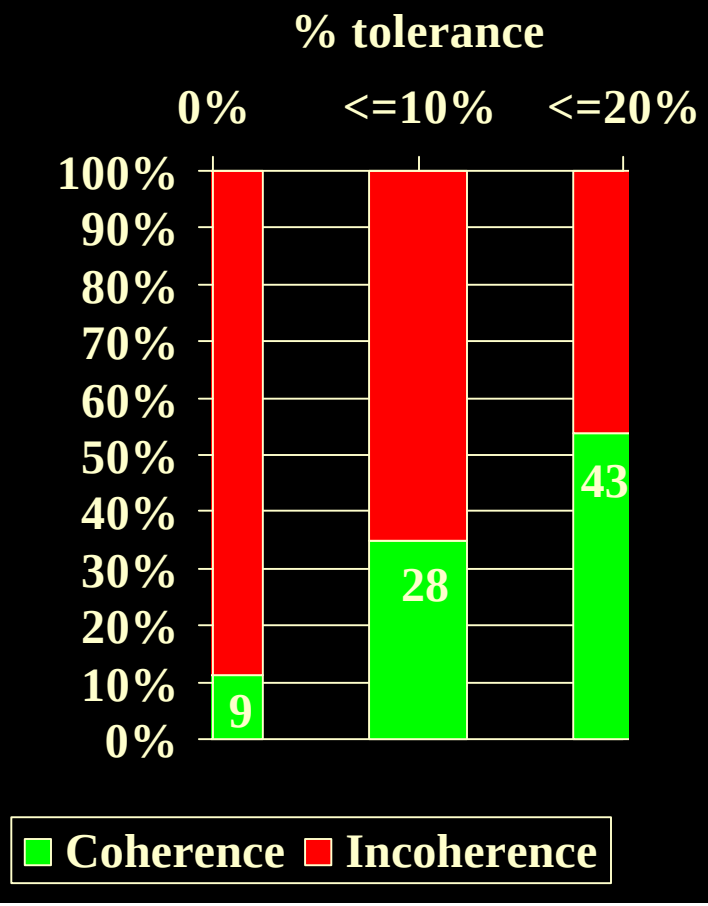


% of Sites Describing Trends Accurately



Practice: Data quality (Bhutan)

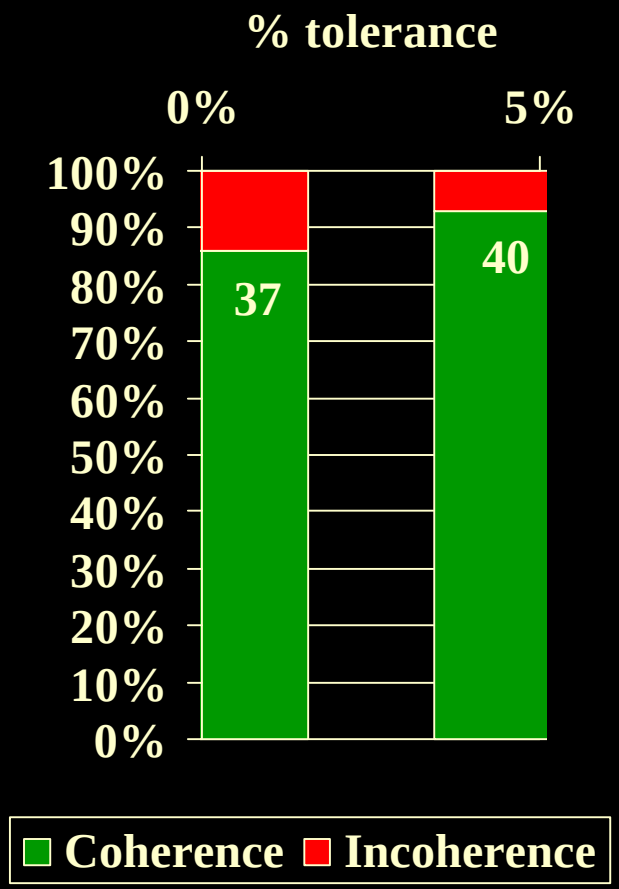
Coherence between the data recorded in registers and that reported by BHUs and Hospitals.



- Of 80 figures audited only 11% were exactly correct
- If you tolerate a 20% margin of error, the error rate begins to go below 50%.

Data Quality (Guinea)

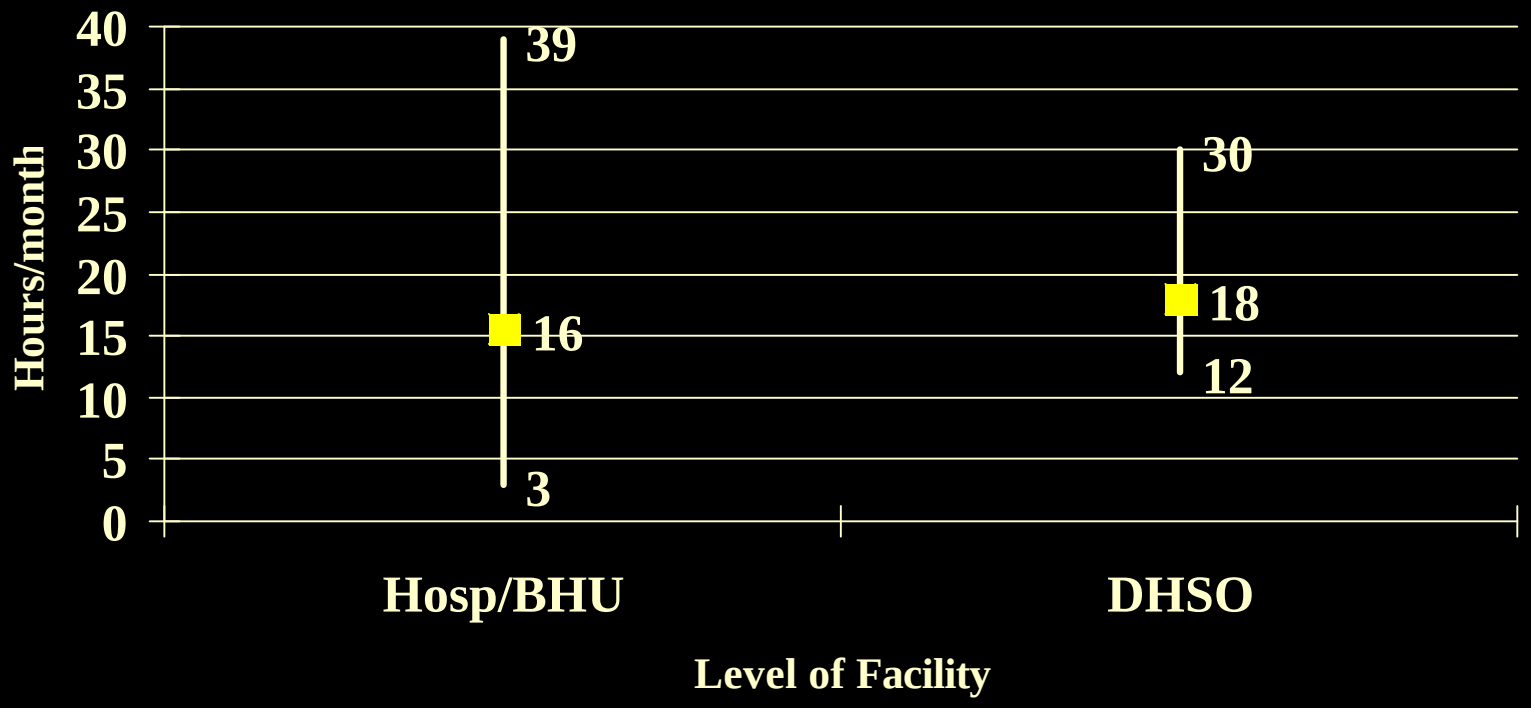
Coherence between data recorded in registers and that reported by health centers.



- Of 43 data elements audited, 86% were exactly correct
- If you tolerate a 5% margin of error, only 3 observations out of 43 were inaccurate.

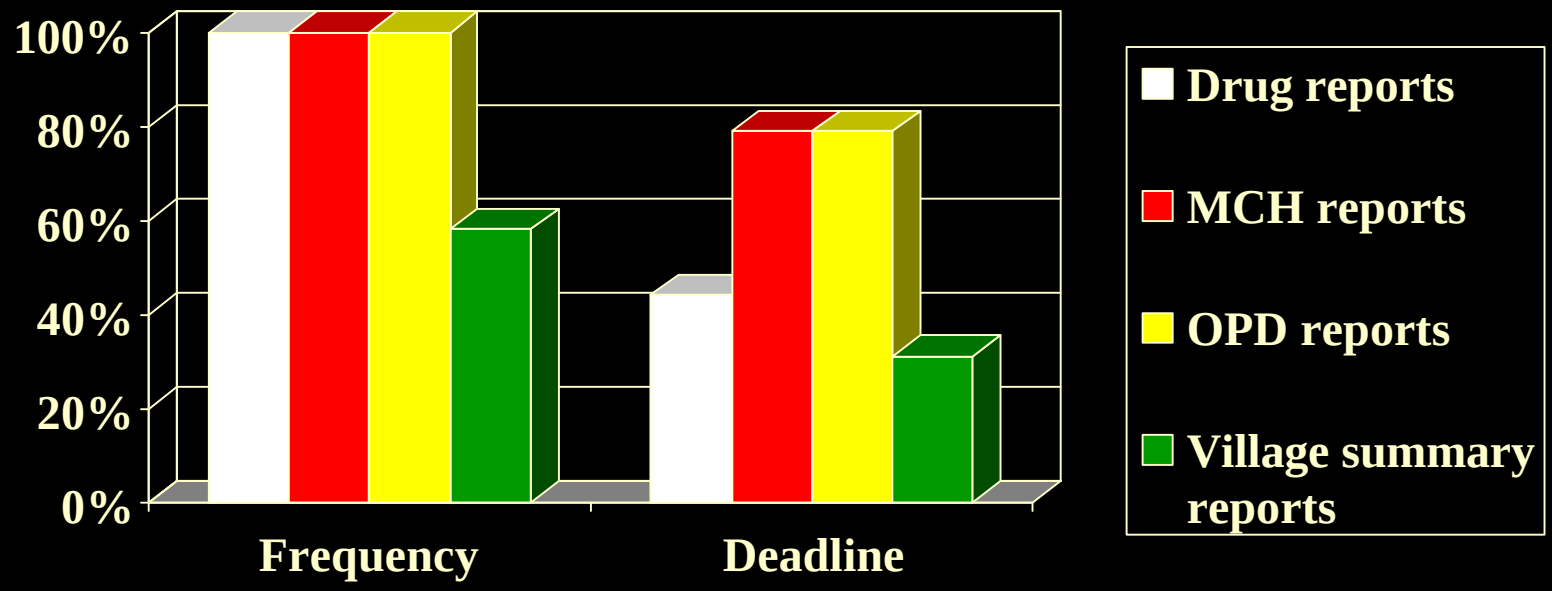
Practice:
Time spent on HIS reporting

« How much time do you spend each month preparing your reports? »

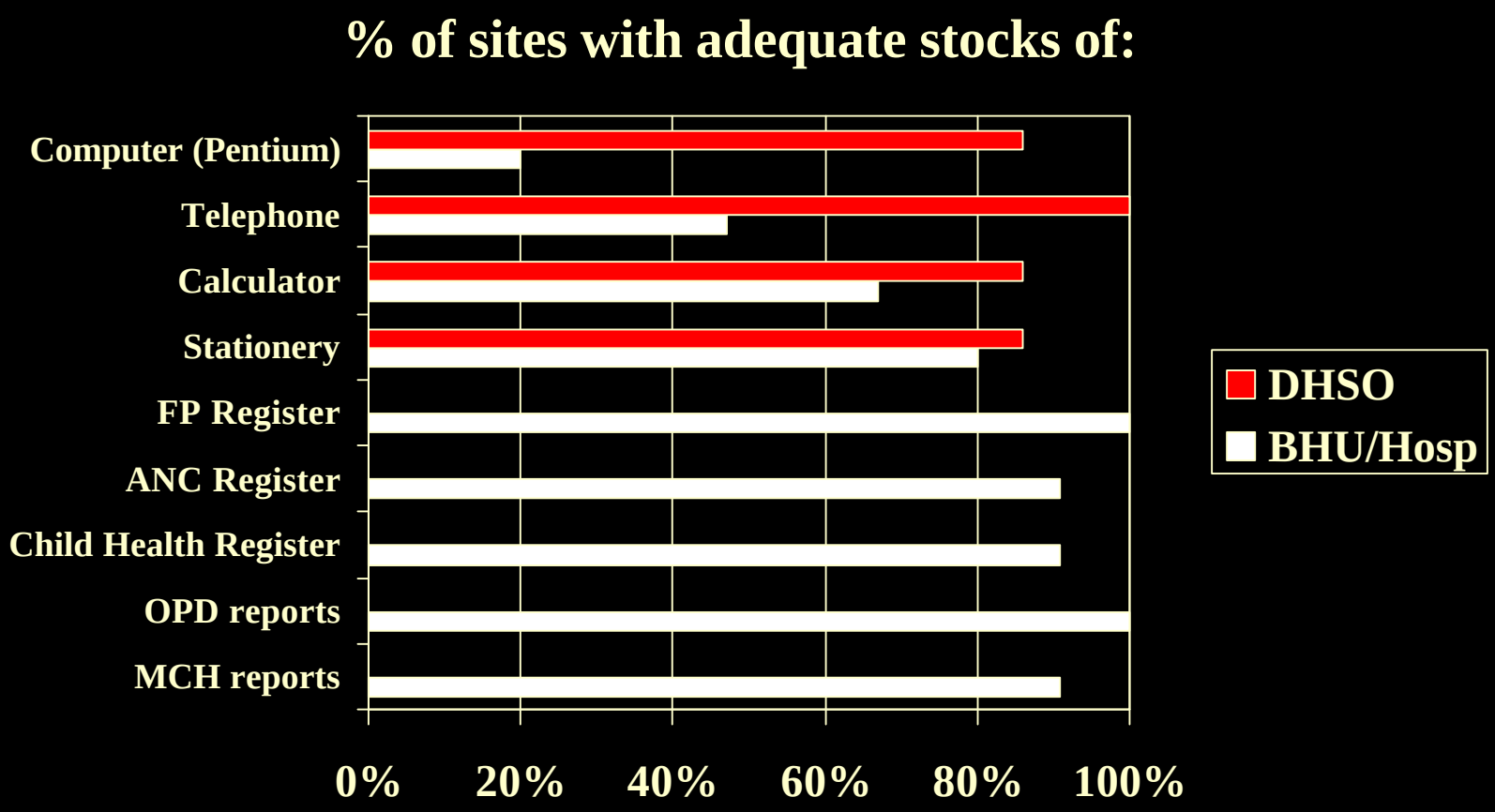


Practice: Report transmission

% of sites correctly stating reporting frequency and deadlines



Availability of HMIS resources:



Data analysis: roundtable format

Conclusions:

- HMIS Rapid Assessment is an important early step in HMIS enhancement efforts
- Participative process builds ownership of conclusions and develops data collection & analysis skills
- Certain rapid assessment procedures can be incorporated into routine supervision
- Indicator selection before rapid assessment helps to focus ‘use of data’ assessment on the important indicators - but is less practical if those indicators are not yet being collected.