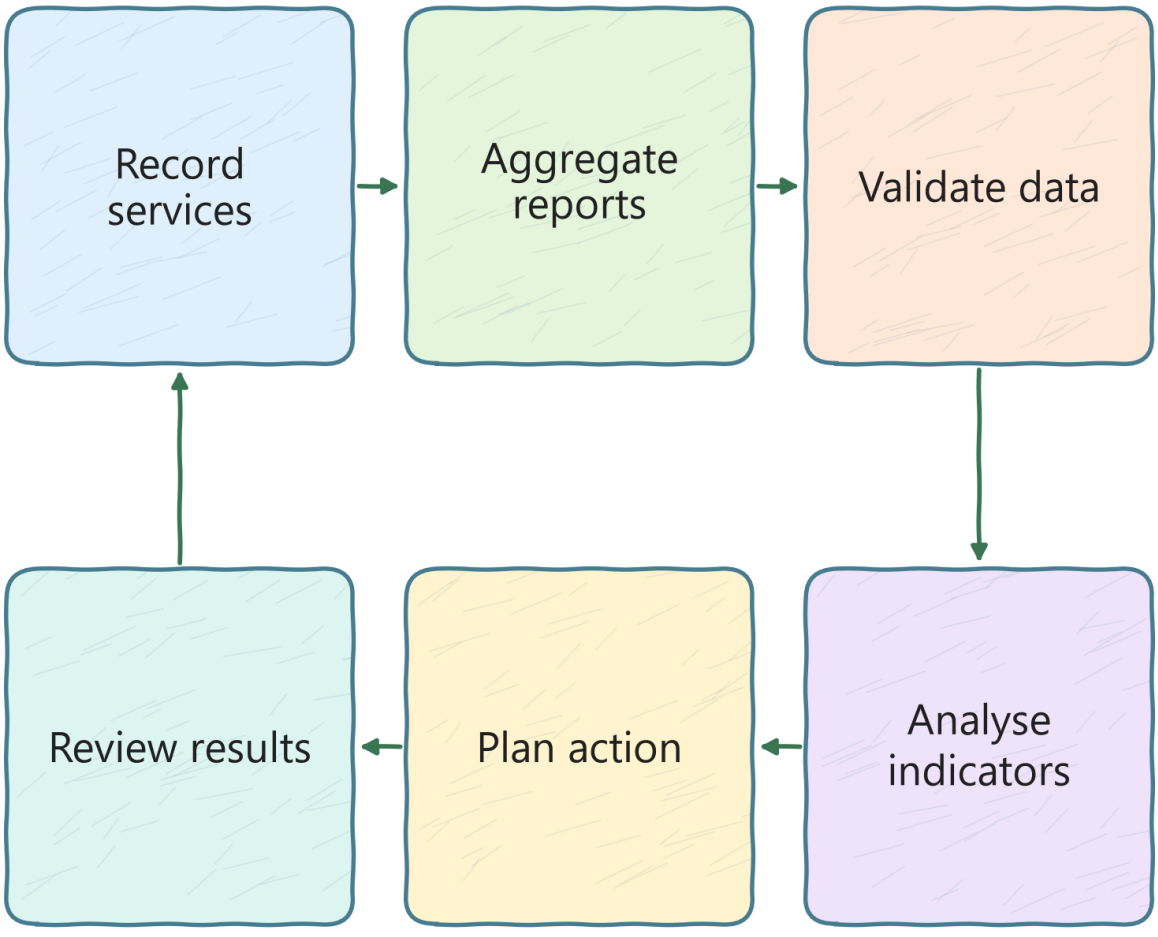
Community Health Nursing II — Unit 8: Health Management Information System (HMIS)

Health Management Information System

Definition

- A **Health Management Information System**, or **HMIS**, is an organised system for collecting, processing, analysing and using health-service information for management decisions.
- It connects information from service delivery points with planning, supervision and evaluation.
- A useful system returns information to the people providing care rather than functioning only as a channel for sending totals upwards.



From health records to action

Purposes

- HMIS helps identify service needs, monitor coverage and detect gaps in access or quality.
- It supports allocation of staff, medicines, equipment and outreach activities.
- It enables managers to compare performance across time and locations when definitions and denominators are consistent.

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- It provides evidence for corrective action, accountability and evaluation of health programmes.

Data and Information

- **Data** are individual observations or recorded facts, such as the number of antenatal visits completed.
- **Information** is data organised and interpreted so that it answers a useful question.
- A monthly count becomes more useful when compared with the number of women due for the service and the reasons for missed visits.

Main Components

1. People and Responsibilities

- Health workers, clinicians, data staff and managers collect, check, interpret and act on information.
- Clear responsibilities prevent missing reports, duplicated entries and uncertainty about who should correct an error.

2. Data Sources and Definitions

- Registers, individual records, laboratory systems and outreach reports supply the data.
- Standard definitions explain what each item includes, excludes and counts as a completed service.

3. Tools and Technology

- Paper forms, computers, connectivity and approved software support recording and reporting.
- A digital system still needs trained users, secure access, maintenance and a plan for interruptions.

4. Analysis and Feedback

- Summaries, indicators and review meetings turn records into management information.
- Feedback should identify both achievements and practical actions required to correct gaps.

Data Elements and Indicators

Data Elements

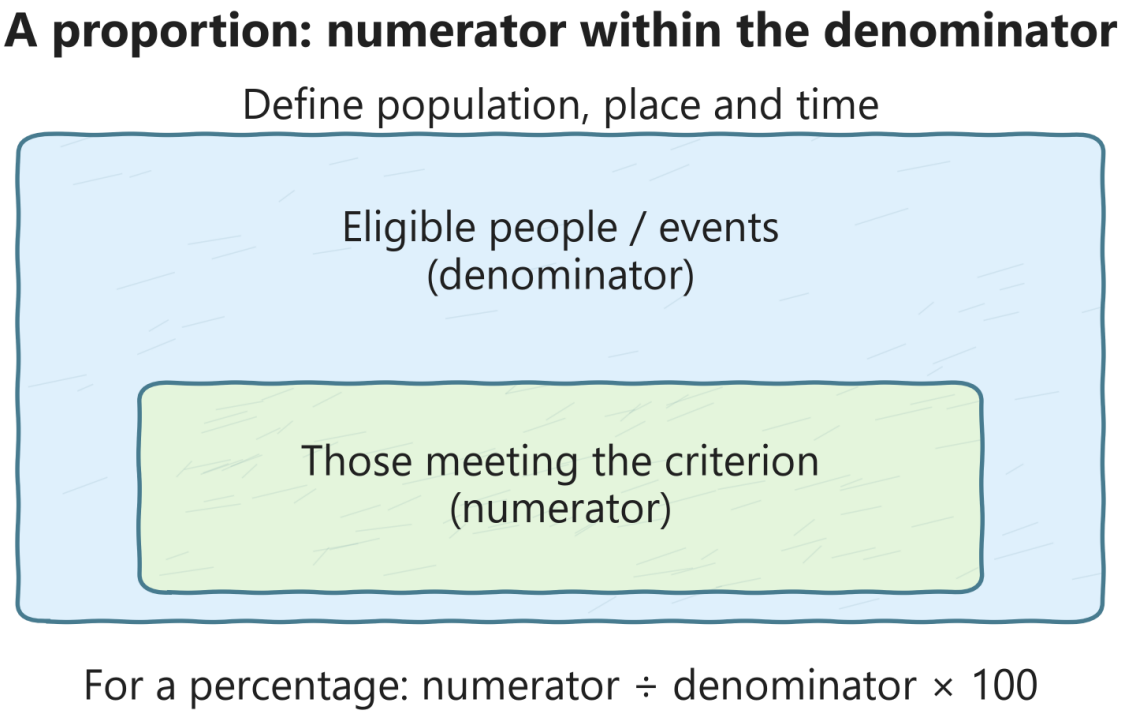
- A **data element** is a specific item collected in the system, such as live births or antenatal registrations during a reporting period.
- Its definition must specify the event, eligible population, date and unit of counting.
- Counting visits is different from counting unique people because one person may attend several times.

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- Record age, sex, locality or other disaggregation only as required and with appropriate privacy safeguards.

Indicators

- An **indicator** is a defined measure used to assess a health condition, service or programme.
- A useful indicator has a clear definition, purpose, unit, reporting period and data source.
- An indicator may be a simple count, so not every indicator needs a denominator.
- For a calculated measure, specify the numerator, denominator and multiplier required by its definition.
- In a **proportion**, the numerator is part of the denominator, such as vaccinated eligible children divided by all eligible children.
- A **ratio** can compare different quantities, such as maternal deaths with live births, and its numerator need not be a subset of its denominator.
- Use consistent population and period definitions for the chosen measure before comparing results.



Numerator and denominator of a proportion

Types of Indicators

1. Input Indicators

- Input indicators describe resources available for services, such as trained staff, functioning equipment or medicine stocks.
- A sanctioned post is different from a filled post and from a staff member actually available for duty.

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2. Process Indicators

- Process indicators describe whether planned activities or essential steps are carried out.
- Examples include completion of supervisory visits or correct temperature monitoring of vaccine storage.

3. Output Indicators

- Output indicators describe services directly delivered, such as the number of eligible people screened or vaccinated.
- High activity counts do not by themselves prove good quality or improved health.

4. Outcome Indicators

- Outcome indicators describe changes in health status, behaviour or service performance that follow care or programme activity.
- Improved treatment completion is an example when it is measured using a consistent definition and cohort.

5. Impact Indicators

- Impact indicators describe broader or longer-term changes, such as reduction in mortality or disability.
- Many social and health factors influence impact, so attributing a change to one programme requires care.

Recording and Reporting

Recording

- **Recording** documents individual services, observations and events at the point where they occur.
- Enter information promptly, legibly and accurately using the approved register or electronic record.
- Include the date, identification required for care, service provided and responsible worker's authentication.
- Correct errors transparently through the authorised process without erasing the history of the entry.

Reporting

- **Reporting** communicates selected information from records in the prescribed format and time period.
- Aggregate reports summarise activity, while individual tracking systems support follow-up of particular beneficiaries.

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- A total should be traceable to the source records from which it was calculated.
- Do not substitute estimated numbers for missing records without clearly authorised and documented estimation methods.

Reporting Sequence

1. Collect at the Service Point

- Record services in the appropriate outpatient, maternal, child, immunisation, laboratory or programme register.
- Use the same definitions in outreach and facility records so that consolidation is meaningful.

2. Consolidate and Verify

- Add the required entries for the reporting period and check for duplicate counting.
- Compare related totals, such as the number receiving a service and the number eligible for that service.

3. Submit on Time

- Submit the report through the designated facility and administrative channels using the current reporting calendar.
- Confirm successful electronic submission or receipt rather than assuming that an attempted upload was completed.

4. Review and Give Feedback

- Discuss unusual values, missed targets and service gaps with the team.
- Record corrective actions, responsible persons and the date for checking progress.

Common Formats

- Individual case records and beneficiary cards support continuity of care.
- Registers provide an ongoing record of defined services or events.
- Tally sheets assist counting during a session but should be reconciled with the required source record.
- Monthly summaries and programme reports combine the required information for management review.
- Emergency notifications and surveillance alerts follow their own prompt reporting pathway rather than waiting for monthly submission.

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