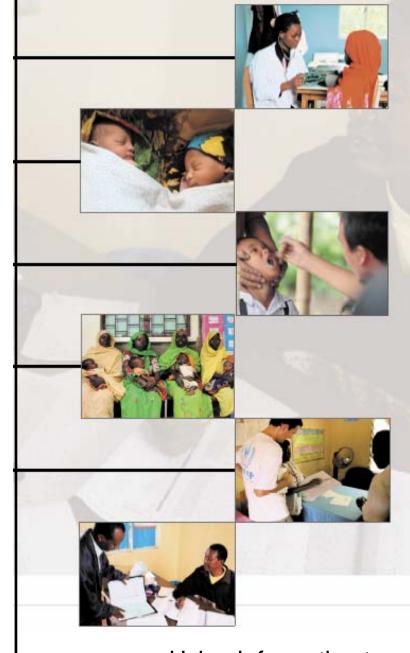
# **Health Information System** (HIS)

Module 3 - Morbidity







Using Information to Protect Refugee Health

# Learning Objectives

At the end of the module, you should be able to:

- Identify the tools used to monitor outpatient services
- Understand how to collect and report morbidity data
- Interpret the data and apply it to public health practice

## **Tools and Guidelines**

- >1 What are the tools used for data collection?
- >2 Who is responsible for collecting the data?
- >3 What data should be collected and how?
- >4 How and when should the data be reported?
- >5 How should the data be interpreted and used?

# >1 What are the tools used for data collection?

- Primary Tools
  - Daily Tally Sheet
  - OPD Register
  - Outbreak Alert Form
  - Weekly + Monthly Morbidity Report
- Secondary Tools
  - Patient Records

# >2 Who is responsible for collecting the data?

- Clinical Officers in each camp should take responsibility for recording information
- Clinical Officer in-charge is responsible for compiling Weekly Morbidity Report

# >3 What data should be collected and how?

- Daily Tally Sheet:
  - Must first determine whether patient is new or revisit
  - Follow standardised guidelines
  - Critical to correct calculation of statistics at the end of the month

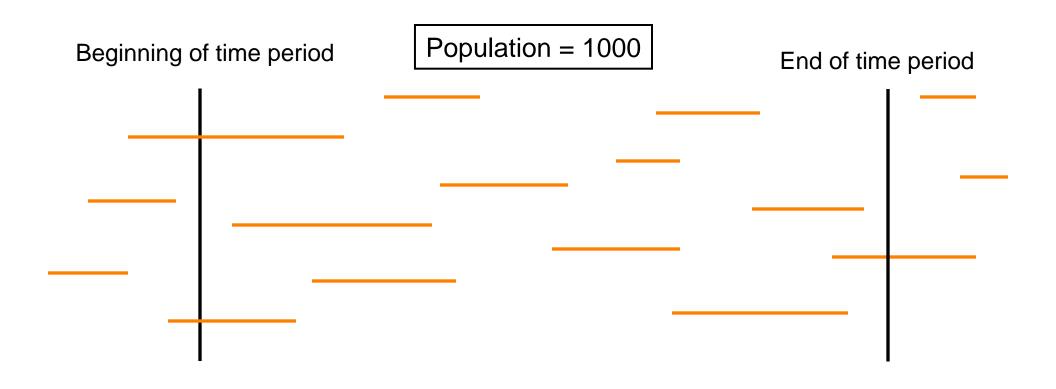
## Prevalence

- The number of pre-existing events present in a defined population
  - Includes old and new cases
  - Used mainly to track chronic diseases such as tuberculosis, diabetes etc.

## Incidence

- The number of new events occurring in a defined population
  - Includes new cases only
  - Used mainly to track short duration diseases such as communicable disease
  - Time units must be specified

# Prevalence & Incidence



Point prevalence at beginning: 2 / 1000 = 0.2%

Incidence: 10 / 1000 / time period



# Key Differences

### Incidence

- New cases
- A rate
- Measures risk
- Time unit

### **Prevalence**

- New and old cases
- A proportion
- Does not measure risk
- No time unit

Table 2. Time that should elapse before a patient with a history of a diagnosis can be considered a "new" visit

At least 1 week	At least 1 month	At least 1 year	Lifelong*
Malaria	Skin disease	Tuberculosis	Measles
URTI, LRTI	Malnutrition	Meningitis	Polio
Diarrhoea	Anaemia	Mental illness	HIV/AIDS
Eye disease	STI		Leprosy
Intestinal worms	Dental		

<sup>\*</sup> A patient can never again be termed a "New Visit" for problems in this category, if a diagnosis has previously been made

### Issues to consider

- New visits vs Repeat visits
  - Record consultation and diagnosis for new visits (=incident cases)
  - Record consultation alone for revisits (=prevalent cases)
- Multiple diagnosis
- Mixed presentation

Health Information Syste	m
--------------------------	---

Camp	Name of Staff Member
Health Centre	Date (s)/ to//

This tally sheet records:

Refugee / National data (select appropriate)

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Record New Visits ONLY	Male	Female	Male	Female
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2. * Malaria (confirmed)	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
3. URTI	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
4. LRTI	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
5. Skin disease	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
6. Eye disease	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
7. Intestinal Worms	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
8. * Watery diarrhoea	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
9. * Bloody diarrhoea	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
10. Tuberculosis	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
11. Leprosy	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
12. * AFP / Polio	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
13. * Measles	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
14. * Meningitis	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
15. HIV/AIDS	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
16. ** STI (non HIV/AIDS)	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
17. Acute malnutrition	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
18. Anaemia	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
19. *** Injuries	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
20. Dental	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
21. Mental Illness	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
22.	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
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24.	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
25.	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
26.	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000
27. Other	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000	00000 00000 00000 00000

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3.0 Morbidity

# ealth Information System

Camp	Nan
Health Centre	Date

This tally sheet records:

# Refugee / National data

	Ν	/lale		Female						
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**RE-VISITS** 

	DIAGNOSIS			< 5		
-	Record New Visits ONLY	Mal	е		Femal	е
	1.* Malaria (suspected)	00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000	00000 00000 00000 00000 00000 00000	00000 00000 00000
	2. * Malaria (confirmed)	00000 00000	00000 00000 00000 00000	00000	00000 00000 00000 00000	00000 00000
	3. URTI	00000 00000	00000 00000	00000	00000 00000	00000
	4. LRTI	00000 00000	00000 00000	00000	00000 00000	00000
ase	5. Skin disease	00000 00000	00000 00000	00000	00000 00000	00000
Communicable disease	6. Eye disease	00000 00000	00000 00000	00000	00000 00000	00000
cable	7. Intestinal Worms	00000 00000	00000 00000	00000	00000 00000	00000
muni	8. * Watery diarrhoea	00000 00000	00000 00000	00000	00000 00000	00000
Com	9. * Bloody diarrhoea	00000 00000	00000 00000	00000	00000 00000	00000
	10. Tuberculosis	00000 00000	00000 00000	00000	00000 00000	00000
	11. Leprosy	00000 00000	00000 00000	00000	00000 00000	00000
	12. * AFP / Polio	00000 00000	00000 00000	00000	00000 00000	00000
	13. * Measles	00000 00000	00000 00000	00000	00000 00000	00000
	14. * Meningitis	00000 00000	00000 00000	00000	00000 00000	00000
	15. HIV/AIDS	00000 00000	00000 00000	00000	00000 00000	00000

# Types of case definition

- May be based on clinical or laboratory criteria
- Laboratory diagnosis as part of case-definition can improve specificity of clinical diagnosis
- Case definitions are for surveillance purposes only:

A surveillance case definition is not to be used for the management of patients and is not an indication of intention to treat.

# **Case Definitions**

### 4. Lower Respiratory Tract Infection (LRTI)

Classification	Source
Syndromic Case	WHO/IMCI

Case Definition

#### Pneumonia

Any child 2 months to 5 years of age with cough or difficult breathing and:

- breathing faster than 50 breaths / minute (2 12 months)
- breathing faster than 40 breaths / minute (1 5 years)

(Infants less than 2 months with fast breathing 60 breaths or more per minute are referred for serious bacterial infection).

#### Severe pneumonia

Any child 2 months to 5 years of age with cough or difficult and any of the following general danger signs:

- unable to drink or breastfeed
- vomits everything
- convulsions
- lethargic or unconscious

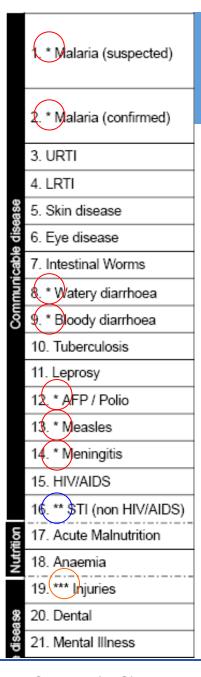
or chest indrawing or stridor in a calm child.

### Use of Case Definitions

- Collect standardized and comparable morbidity data
- Every event under surveillance requires case definition; no diagnosis recorded unless these criteria are met
- To guarantee consistent application, clinical officer must be equipped with minimum set of equipment

# Other Data Collection

- \* Outbreak Alert
- \*\* Sexually Transmitted Infection (STI)
- \*\*\* SGBV-related injury



#### Also record STI case information in table below:

	SYNDROMIC DIAGNOSIS		Ма	ile	<	18	Fe	male	ě		Mal	e	≥ ′	18	Fen	nale	1975	ontacts reated	
Œ.	Urethral Discharge Syndrome (UDS)	00000	00000	00000						00000	00000	00000					00000	00000	
Infection (STI)	Vaginal Discharge Syndrome (VDS)					00000	00000	00000						00000	00000	00000	00000	00000	
pejuj	Gential Ulcer Disease (GUS)	00000	00000	00000		00000	00000	00000		00000	00000	00000		00000	00000	00000	00000	00000	
Transmitted	Pelvic Inflammatory Disease (PID)					00000	00000	00000						00000	00000	00000	00000	00000	
	Opthalmia Neonatorum	00000	00000	00000		00000	00000	00000											
Sexually	Congential Syphilis	00000	00000	00000		00000	00000	00000											
Š	Others	00000	00000	00000		00000	00000	00000		00000	00000	00000		00000	00000	00000	00000	00000	

#### Weekly Alert Thresholds for each Health Facility:

Malaria	1.5 times the baseline <sup>†</sup>
Watery Diarrhoea	1.5 times the baseline <sup>†</sup>
Suspected Cholera	1 case
Bloody Diarrhoea	5 cases
Acute Flaccid Paralysis / Polio	1 case
Measles	1 case
Meningitis	5 cases or 1.5 times the baseline <sup>†</sup>

<sup>&</sup>lt;sup>†</sup> Baseline = average weekly number of cases of the disease calculated over the past 3 weeks

#### If weekly thresholds are exceeded:

- 1. Report to clinic supervisor
- 2. Complete Outbreak Alert Form

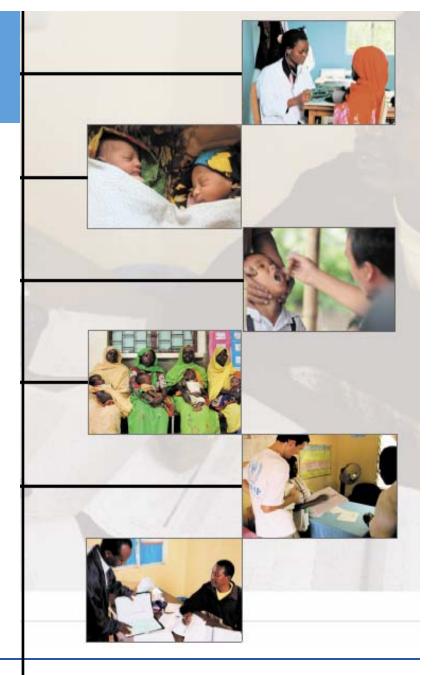
<sup>\*</sup> Disease with outbreak potential. If weekly alert threshold is exceeded report immediately to supervisor. \*\* Also record syndromic diagnosis; < 18 /≥ 18 age group; and treatment of contacts in the STI table above.
\*\*\*\* Includes SGBV; complete incident report form for all cases

# **Exercise Work**

# **Health Information System** (HIS)

Module 3: Part 1 – Consultation and Diagnosis

**Question 1** 





Health Information System (HIS) Slide 20

# Country-specific Selection

- 5 'free cells' to name diseases/health events in:
  - Tally sheets
  - Report forms
  - Excel sheet
- Database will recognise text and store information accordingly
- Requires strong coordination at country and camp level to ensure consistency over time/locations

### Surveillance Criteria

- Does it result in high disease impact?
- Does it have significant epidemic potential?
- Is it a specific target of a national, regional or international control program?
- Will the information collected lead to public health action?

### **Health Information System**

#### 3.0 Morbidity

Name of Organisation

Name of Camp & Unit

**Out-Patient Department Tally Sheet** 

#### Note

Up to five additional causes of morbidity can be reported using this tally sheet. Write the names in the free-spaces on this cover (labelled numbers 22 - 26).

The same names should be written on **all** sheets inside this pad.

If you are unsure what to write, please ask your supervisor.

Ë	19. *** Injuries	00000	00000	00000	00000
Non-comm.	20. Dental	00000	00000	00000	00000
Non	21. Mental Illness	00000	00000	00000	00000
	22.	00000	00000	00000	00000
	23.	00000	00000	00000	00000
	24.	00000	00000	00000	00000
	25.	00000	00000	00000	00000
	26.	00000	00000	00000	00000
	27. Other	00000	00000	00000	00000

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# Use of other data tools

- OPD Register:
  - Clinical Decision-making
  - Outbreak Alert
  - Quality of Care
- OPD Patient Records

# **OPD** Register

OPD No.	Name	Age	Sex (M / F)	Status (Ref / Nat)	Address	Date of visit	New or Re-visit*	100 S	Weight
	8								

Presenting signs and symptoms	Past history of anti-malarial use †	RDT or Lab. results	Diagnosis	Treatment ‡	Admit (Y / N)



# How and when should the data be reported?

- Retrieve data from Tally Sheets; convert tallies to numbers
- Enter into Weekly Morbidity Report
- System should include zero reporting

→ DIAGNOSIS	<	5
Record New Visits ONLY	Male	
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1. * Malaria (suspected)	00000 00000 00000	000
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2. * Malaria (confirmed)	00000 00000 00000	000
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3. URTI	00000 00000 00000	000



### **Health Information System**

This tally sheet records:

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Refugee /

DIAGNOSIS

Weekly Reporting Form Health Centre

Name of Organisation

Morbidity 3.0

**Health Information System** 

Name of Camp Current Week & Month

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->	Record New Visits ONLY		Ма	ile	
	record few visits offer	00000	00000	00000	0000
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		00000	00000	00000	00000
		00000	00000	00000	0000
	2. * Malaria (confirmed)	3405.63	00000-	Hisse	00000
	3. URTI	00000	00000	00000	00001
	4. LRTI	U323355	0.5500	00000	
Communicable disease	5. Skin disease	98060	128633	00000	0000
	6. Eye disease	1000000	508033	00000	0000
	7. Intestinal Worms	00000	0.000,000	00000	0000
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шш	8. * Watery diarrhoea	25050	0.000.000	9776896	
ပိ	9. * Bloody diarrhoea	00000	00000	00000	00001
	10. Tuberculosis	00000	00000	00000	0000
	11. Leprosy	00000	00000	00000	0000
	12. * AFP / Polio	00000	00000	00000	0000
	13. * Measles	00000	00000	00000	0000
	14. * Meningitis	00000	00000	00000	0000
	15. HIV/AIDS	00000	00000	00000	0000
	16. ** STI (non HIV/AIDS)	00000	00000	00000	0000
ition	17. Acute malnutrition	00000	00000	00000	0000
Nut	18. Anaemia	00000	00000	00000	0000
Ė	19. *** Injuries	00000	00000	00000	0000
Non-comm.	20. Dental	00000	00000	00000	0000
Non	21. Mental Illness	00000	00000	00000	0000
	22.	00000	00000	00000	0000
	23.	00000	00000	00000	0000
	24.	00000	00000	00000	0000
	25.	00000	00000	00000	0000
	26.	00000	00000	00000	0000
	27. Other	200833	00000	00000	0000

3.1	Consultation	1200	ugee		ional	Number of full-time trained clinicians
	Name V State	M	F	M	F	Number of full days OPD functioning
	New Visits					enter average number holding OPD consultations o
	Revisits					of the week

3.2 Morbidity		Refugee <5   ≥5 Total					National <5   ≥5			
		F	М	F	Iotai	M I	F	M	F	
1. * Malaria (suspected)										
2. * Malaria (sonfirmed)							-			
3. URTI										
4. LRTI										
5. Skin disease										
6. Eye Disease										
7. Intestinal worms										
8. * Watery diarrhoea										
9. * Bloody diarrhoea										
10. Tuberculosis										
11. Leprosy										
12. * AFP / Polio										
13. * Measles										
14. * Meningitis										
15. HIV/AIDS										
16. ** STI (non-HIV/AIDS)										
17. Acute malnutrition										
18. Anaemia										
19. *** Injuries	_				<b></b>					
20. Dental										
21. Mental Illness									1	
22.										
23.										
24.										
25.										
26.										
27. Other										
Total										

- Disease with outbreak potential. Refer to weekly alert thresholds (see reverse)
- \*\* Also enter information on syndromic diagnosis; < 18 /≥ 18 age group; and treatment of contacts in STI table (see reverse)
- \*\*\* Includes SGBV. Ensure incident report form has been completed each case

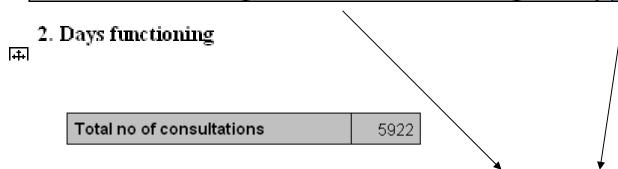
# Additional Data Needs

	th Informat y Reporting Form	n		me of	Organis Camp	sation						
3.0	Morbidity		Cu	rrent V	Veek &	Month	-					
3.1 Consultation Refugee M F					National  M   F   Number of full-time trained clinicians <sup>§</sup>							
New Visits Revisits					Number of full days OPD functioning  § enter average number holding OPD consultations on each day of the week						each day	
3.2 1	Morbidity	, M	Refugee < 5   ≥ 5			Total	< M	12.3.2	ional   ≥   M	5   F	Total	
	Malaria (suspected) Malaria (confirmed) IRTI	<u> </u>										



### 1. Staffing

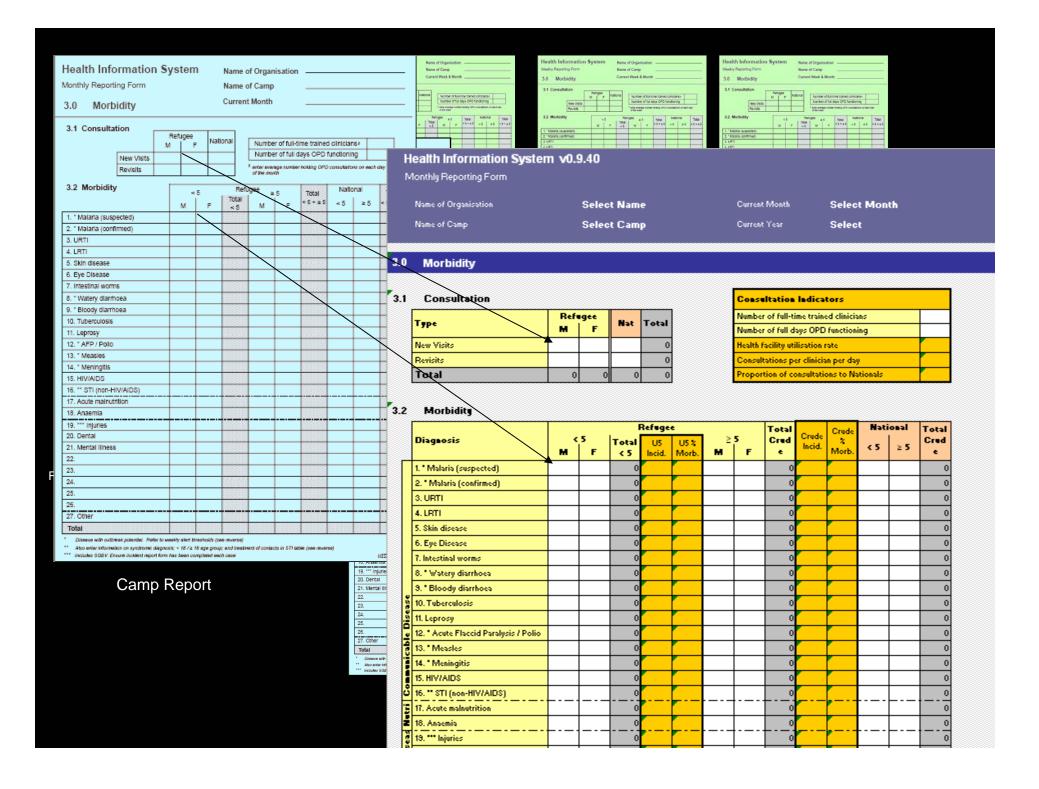
Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Av		
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б	6	б	6	б	2	2	4.9		
б	б	б	6	б	2	2	4.9		
б	б	5.5	5.5	5	2	2	4.6		
Average no. Clinical officers working each day									



Consultation Indicators	1
Number of full-time trained clinicians	6
Number of full days OPD functioning	28
Consultations per clinician per day	35

# >5 How should the data be interpreted and used?

- Enter data into Monthly Excel Spreadsheet
- Understand how to interpret and use the indicators that are generated

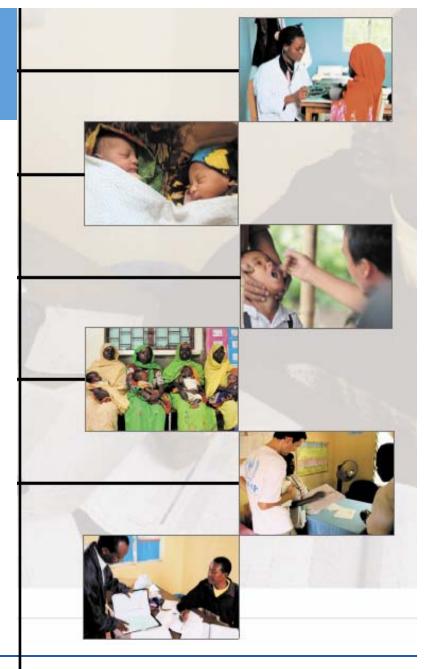


# **Exercise Work**

# **Health Information System** (HIS)

Module 3: Part 1 – Consultation and Diagnosis

Questions 2 and 3





Health Information System (HIS) Slide 32