

# Mental Health Information System

**Dr. Ahmed Heshmat**  
**Mental Health Advisor**

## ✓ **Why?** (Key requirements)

- Information about need and service delivery is crucial to monitor and plan improvements in service provision
- Routine information systems for mental health in many countries are rudimentary or absent, making it difficult to understand the needs of local populations and to plan accordingly.

## ✓ What? (Key components)

- National commitment and leadership to ensure that relevant high quality information is collected and reported;
- A minimum data set of key mental health indicators;
- Intersectoral collaboration with appropriate data sharing;
- Routine data collection supplemented with periodic surveys;
- Quality control and confidentiality;
- Technology and skills to support data collection,
- Sharing and dissemination.

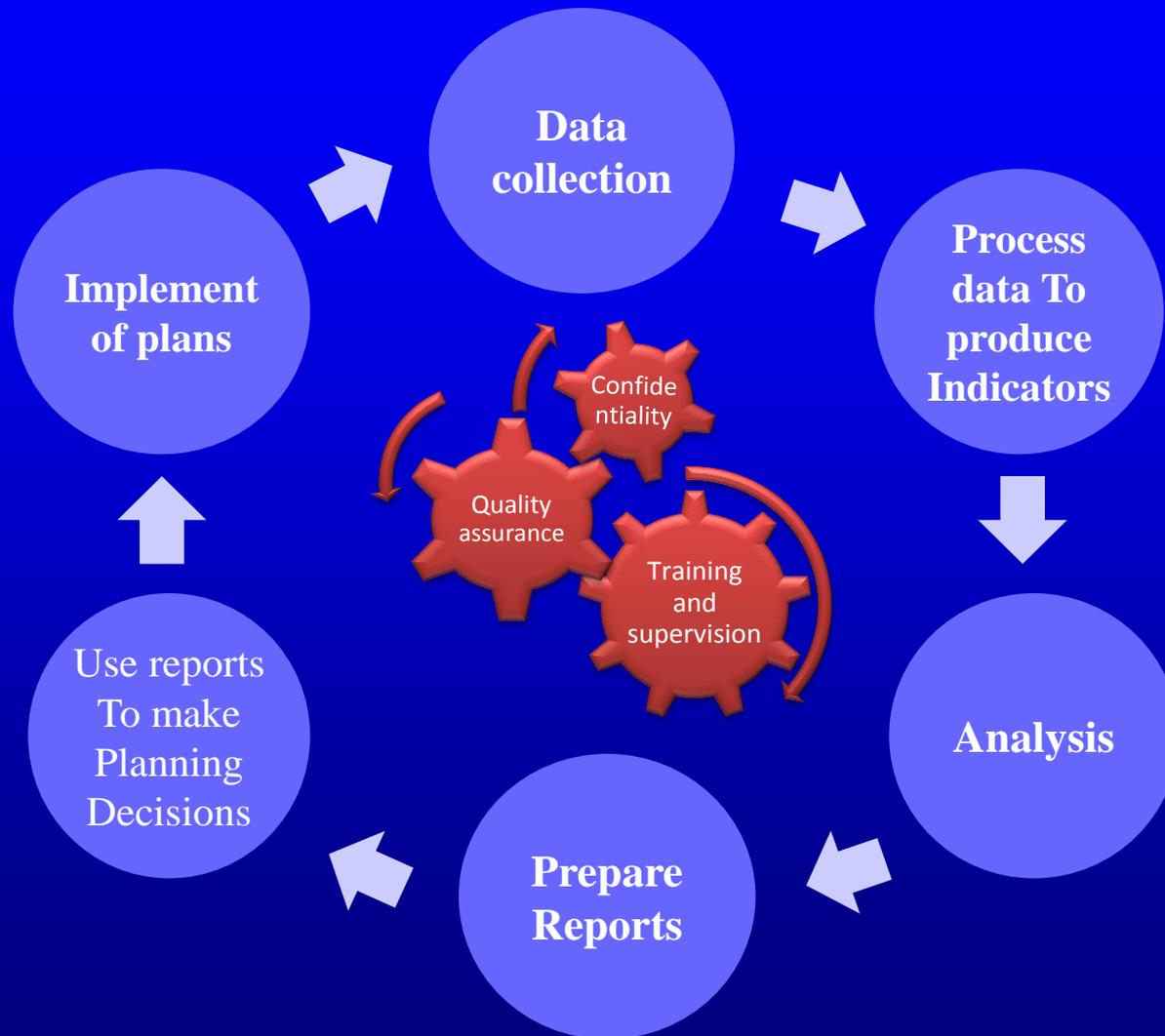
## ✓ How? (Key strategic interventions)

1. Periodically assess and report the mental health resources and capacities available using standardized methodologies.
2. Routinely collect information and report on service availability, coverage, and continuity, for priority mental disorders disaggregated by age, sex and diagnosis.

## **A mental health information system:**

- Should not only collect, process and analyse information about mental health determinants, needs, system response and impact of interventions;
- It is also crucial that findings are communicated in an accessible form that is useful to those who will use it.
- Only then can it perform its functions of facilitating effective planning, budgeting, delivery of mental health care, and evaluation.

# Information loop



- This information loop , from data collection, through analysis and reporting to informed implementation of plans needs to be driven by an infrastructure of training and supervision of all staff involved, quality assurance and confidentiality.
- These activities require clear leadership to oversee and manage the processes in its entirety.

# Key recommendations and actions:

- 1. Periodically assess and report the mental health resources and capacities available using standardized methodologies.**
  - Establish a national focus of expertise and leadership to implement the development, reporting and use of mental health surveillance and information.
  - Develop procedures, regulations and training to ensure that the processes of collecting, analyzing, reporting and using data meet standards of quality and confidentiality.

## **Key recommendations and actions** (continue) :

- 2. Routinely collect information and report on service availability, coverage, and continuity, for priority mental disorders disaggregated by age, sex and diagnosis.**
  - Develop or strengthen National Mental Health Information Systems incorporating the developed indicators for MH.

## Levels

- National
- Governorate
- District
- Hospital
- PHC



## Periodicity

Longer  
(quarterly or  
annually)

Shorter  
(monthly)

# Type

Outcome	{	• Input	Personnel, Hospital Beds
		• Process	Patients seen, Treatments
		• Output	Discharges, Engagement
		• Effect	Recovery, Function
		• Impact	Reduced stigma

# Interpretation

- Standards

## Committee Meetings

Terms of Reference indicate meet 10 times per year

Standard fully met: 10 minuted meetings in past year

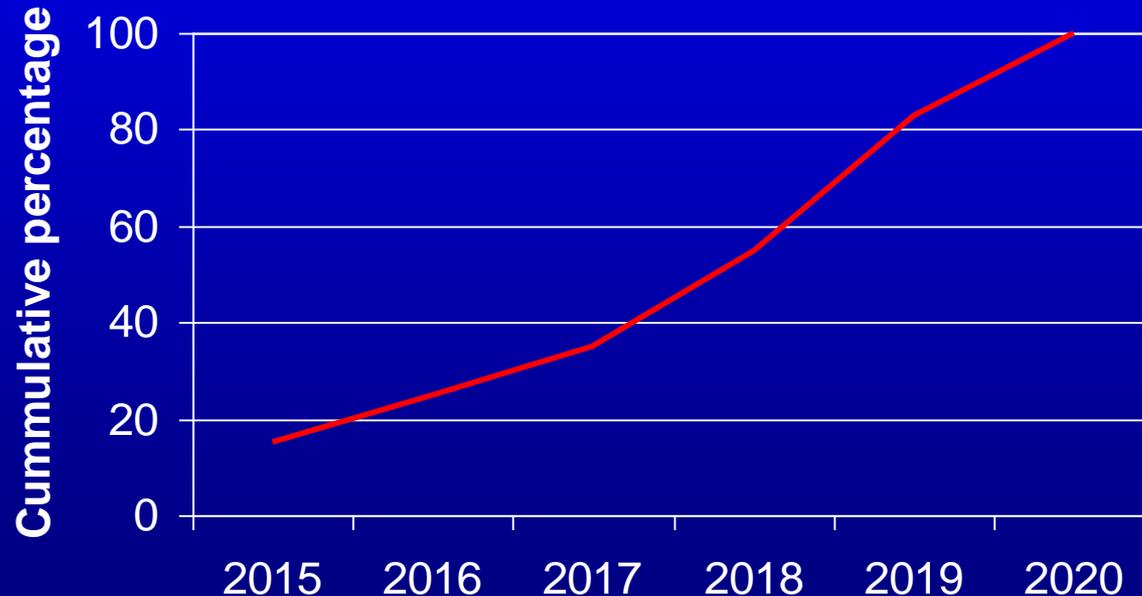
Standard partially met: 6-9 minuted meetings in past year

Standard not met: 5 or less meetings in past year

# Interpretation

- Targets (time-plan)

Training of Primary Care Staff



# Interpretation

- Comparative

Duration of untreated illness



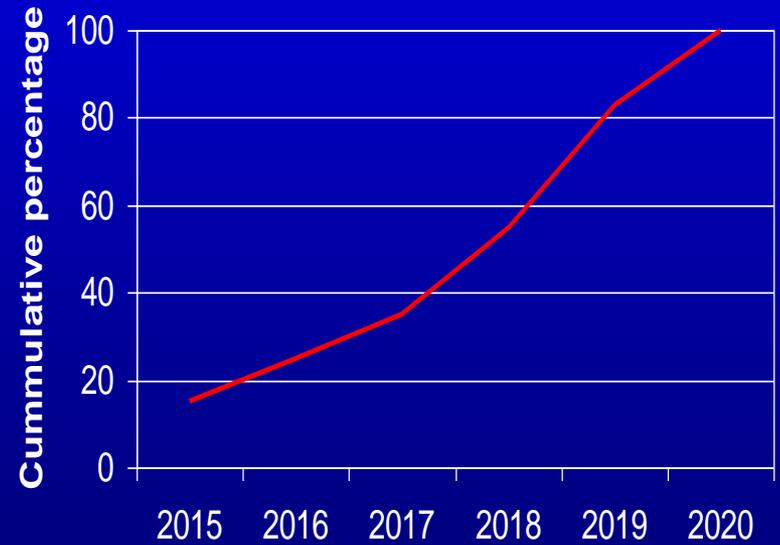
# Interpretation

- Time trends

Duration untreated illness: Town D



Training of Primary Care Staff



# Interpretation

- Brief guidance

## Out of stock days for essential psychotropic drugs in facility

The target is zero. Whenever the rating is more than zero, action is required to investigate the cause, and take remedial steps. If the rating is more than zero, the next rating should be lower, if not further action is required. If the rating does not fall for three consecutive reporting periods, a formal inquiry reporting to the Board/Management Committee/Technical Support Team is required.

# Classification

1. National Indicators
2. Primary Care Mental Health Indicators
3. Psychiatric Care Indicators
4. Monitoring and Research

## 3.2.1 Psychiatric care facilities

## 3.2.2 Psychiatric beds

2. Primary Health Indicators
  1. Human Resource Development
  2. Facilities
  3. Management
  4. Primary Services
3. Psychiatric Care Indicators
  1. Human Resource Development
  2. Facilities
  3. Management
  4. Psychiatric Hospital-based Services
  5. Psychiatric Outpatient Services
  6. Psychiatric Intermediate Services
  7. Psychiatric Specialty Services
4. Monitoring and Research
  1. Monitoring mental health services
  2. Mental health research

1.

**3.5.1 Psychiatric outpatient clinics**

**3.5.2 General/District Hospitals with psychiatric outpatient clinics**

**3.5.3 New psychiatric outpatients**

**3.5.4 Percentage of all psychiatric outpatients by diagnosis**

2.

**3.5.5 Percentage new psychiatric outpatients by diagnosis**

**3.5.6 Duration of untreated mental illness**

**3.5.7 Financial arrangements for psychiatric outpatients**

3.

**3.5.8 Attendance at planned follow-up after outpatient appointment**

2. Facilities

3. Mental health services

4. Psychiatric Hospital-based Services

5. Psychiatric Outpatient Services

6. Psychiatric Intermediate Services

7. Psychiatric Specialty Services

4. Monitoring and Research

1. Monitoring mental health services

2. Mental health research

1.
  - 3.5.1 **Psychiatric outpatient clinics**
  - 3.5.2 **General/District Hospitals with psychiatric outpatient clinics**
  - 3.5.3 **New psychiatric outpatients**
  - 3.5.4 **Percentage of all psychiatric outpatients by diagnosis**
2.
  - 3.5.5 **Percentage new psychiatric outpatients by diagnosis**
  - 3.5.6 **Duration of untreated mental illness**
  - 3.5.7 **Financial arrangements for psychiatric outpatients**
3.
  - 3.5.8 **Attendance at planned follow-up after outpatient appointment**

2. Facilities
  3. Monitoring and Research
  4. Psychiatric Hospital-based Services
  5. Psychiatric Outpatient Services
  6. Psychiatric Intermediate Services
  7. Psychiatric Specialty Services
4. Monitoring and Research
    1. Monitoring mental health services
    2. Mental health research

<b>Description</b>	
Number	
Name of Indicator	
Definition	
Principal	
Type of Indicator	
<b>Construction</b>	
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
Data Producers	
Presentation	
Periodicity	

<b>Description</b>	<p>Unique three part number, e.g. 3.5.6</p> <p>First digit indicates the class (3=Psychiatric Care Indicator)</p> <p>Second digit indicates the area (5=Psychiatric Outpatient Services)</p> <p>Third digit indicates the specific Indicator (6=Duration of untreated illness of new patients)</p>
<b>Number</b>	
Name of Indicator	
Definition	
Principal	
Type of Indicator	
<b>Construction</b>	
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
Data Producers	
Presentation	
Periodicity	

<b>Description</b>	<p>Summary Name of Indicator:</p> <p>Duration of untreated mental illness</p>
Number	
<b>Name of Indicator</b>	
Definition	
Principal	
Type of Indicator	
<b>Construction</b>	
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
Data Producers	
Presentation	
Periodicity	

<b>Description</b>	<p>Detailed definition of Indicator</p> <p>Mean duration of untreated mental illness, where duration is the number of weeks between the patient first meeting the criteria for diagnosis to the date first seen by the psychiatric services.</p>
Number	
Name of Indicator	
<b>Definition</b>	
Principal	
Type of Indicator	
<b>Construction</b>	
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
Data Producers	
Presentation	
Periodicity	

<b>Description</b>	<p>The principals of any Health Sector Reform:</p> <p>Universal coverage, Quality, Equity, Efficiency and Sustainability</p> <p>Quality and Equity</p>
Number	
Name of Indicator	
Definition	
<b>Principal</b>	
Type of Indicator	
<b>Construction</b>	
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
Data Producers	
Presentation	
Periodicity	

<b>Description</b>	Input, Process, Output, Effect or Impact
Number	
Name of Indicator	
Definition	
Principal	
<b>Type of Indicator</b>	
<b>Construction</b>	
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
Data Producers	
Presentation	
Periodicity	

<b>Description</b>	<p>Type of measure, e.g. percent, average, count, Yes/No.</p> <p>In this case: Mean number of weeks</p>
Number	
Name of Indicator	
Definition	
Principal	
Type of Indicator	
<b>Construction</b>	
<b>Measure</b>	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
Data Producers	
Presentation	
Periodicity	

<b>Description</b>	<p>The variables used as the numerator and denominator in the calculation of the Indicator.</p> <p>In this case: The summed duration (in weeks) of untreated mental illness in new psychiatric outpatients divided by the number of new psychiatric outpatients</p>
Number	
Name of Indicator	
Definition	
Principal	
Type of Indicator	
<b>Construction</b>	
Measure	
<b>Numerator</b>	
<b>Denominator</b>	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
Data Producers	
Presentation	
Periodicity	

<b>Description</b>	<ol style="list-style-type: none"> <li>1. Outpatient Clinics in Mental Hospitals</li> <li>2. Outpatient Clinics in General/District Hospitals</li> </ol>	
Number		
Name of Indicator		
Definition		
Principal		
Type of Indicator		
<b>Construction</b>		Disaggregated by diagnosis, sex, age, marital status, living circumstances, literacy, distance from facility and occupation
Measure		
Numerator		
Denominator		
<b>Classification</b>	Reported at three levels: <ol style="list-style-type: none"> <li>1. Hospital</li> <li>2. Governorate (All Hospitals compared &amp; combined)</li> <li>3. National (all Governorates compared &amp; combined)</li> </ol>	
<b>Rationale</b>		
Use		
Users		
<b>Production</b>		
Data Producers		
Presentation		
Periodicity		

<b>Description</b>	<p>At this time, no standard has been developed for this Indicator. Duration of untreated mental illness can be used as an indicator of accessibility of services (those who have long durations may have difficulty in accessing services for various reasons). It is important to understand the reason for long durations (such as: living circumstances, distance to travel, poverty, disability) in order to make plans to improve access. Duration of untreated mental illness will be used as a Comparator Indicator: e.g. comparing Hospitals. Extreme ratings compared with other similar Hospitals warrants further inquiry to establish whether this represents special circumstances, good practice, poor practice etc. Time trends can monitor remedial actions.</p>
Number	
Name of Indicator	
Definition	
Principal	
Type of Indicator	
<b>Construction</b>	
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
<b>Use</b>	
Users	
<b>Production</b>	
Data Producers	
Presentation	
Periodicity	

<b>Description</b>	At what level is the Indicator going to be used.
Number	
Name of Indicator	
Definition	
Principal	
Type of Indicator	
<b>Construction</b>	At what level is the Indicator going to be used.
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	Mental Health Department (Master Plan Implementation), Hospitals, Governorates and Nationally.
Use	
<b>Users</b>	
<b>Production</b>	
Data Producers	
Presentation	
Periodicity	

<b>Description</b>	<h1>Mental Health Information System</h1>
Number	
Name of Indicator	
Definition	
Principal	
Type of Indicator	
<b>Construction</b>	
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
<b>Data Producers</b>	
Presentation	
Periodicity	

<b>Description</b>	<p>Tables, graphs, ranked by Hospital and Governorate.</p> <p>Trends over time</p>
Number	
Name of Indicator	
Definition	
Principal	
Type of Indicator	
<b>Construction</b>	
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
Data Producers	
<b>Presentation</b>	
Periodicity	

<b>Description</b>	<p>Quarterly for Hospitals and Governorates.</p> <p>Annually Nationally</p>
Number	
Name of Indicator	
Definition	
Principal	
Type of Indicator	
<b>Construction</b>	
Measure	
Numerator	
Denominator	
Classification	
<b>Rationale</b>	
Use	
Users	
<b>Production</b>	
Data Producers	
Presentation	
<b>Periodicity</b>	

## 2.4.1. Mental health cases in primary care

**Definition:** Percentage of mental health cases among all primary care attenders.

**Use:** At this time, no standard has been developed for this Indicator. It will be used as a Comparator Indicator: e.g. comparing Facilities within a District. Extreme ratings compared with other Facilities warrants further inquiry to establish whether this represents special circumstances, good practice, poor practice etc. Time trends can monitor remedial actions, and for early identification of changes in diagnostic patterns. For example, training of primary care personnel in mental health should result in increased detection of mental health cases, reflected as an increase in this Indicator.

Facility	Number of mental health case encounters	Number of attenders at primary care	Mental health cases in primary care
FHC 1	149	9653	1.5%
FHC 2	32	6877	0.5%
FHC 3	188	7644	2.5%
FHC 4	73	12132	0.6%
FHU 1	0	3506	0.0%
FHU 2	12	4778	0.3%
All	454	44590	0.9%

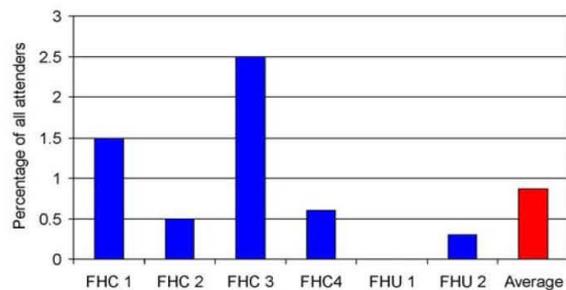
### Comments:

1. Considerable variation between centres, relative high rates in FHC1 & FHC3, low in FHC2, FHC4 & FHU2, none in FHU1.
2. Lowest rates in FHUs compared with FHCs – may be due to presence of psychiatrists at FHCs?
3. Rates are low compared with research findings from other countries (range between 1.2% and 14.5%).
4. Time trends: show impact of training in FHC1 increasing Indicator, but benefit lost when doctor left.

### Recommendations:

Target training on FHUs and new doctors.

2.4.1: Mental health cases in primary care



2.4.1: Mental health cases in primary care  
Monitoring over time

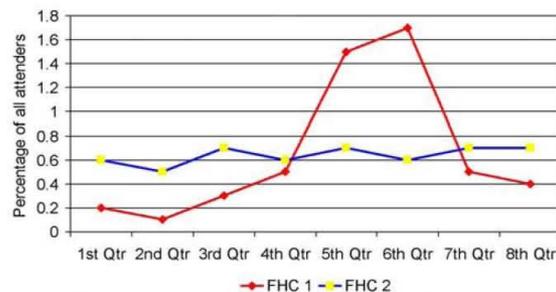


Figure made up for purpose of presentation – not real data!

## 2.1.2: Primary health care personnel with mental health training within the past five years

**Definition:** Percentage of primary health care personnel that have received mental health training within the past five years (where primary health care personnel includes physicians, nurses, social workers and health educators).

**Use:** The target is that by 2010, all primary health care personnel will receive mental health training every five years. This Indicator allows monitoring of the progress at each level towards this target. The trend over time graph should progress towards reaching 100% by or before 2010. From 2010, this Indicator should remain 100%. Shortfall of the time-trend before 2010 or result of less than 100% after 2010, requires action to increase training.

Centre	Number of primary health care personnel	No of PHC personnel with MH training in past 5 years	PHC personnel with MH training in past 5 years
FHC 1	15	14	93.3%
FHC 2	22	11	50.0%
FHC 3	17	3	17.6%
FHC 4	20	5	25.0%
FHU 1	5	4	80.0%
FHU 2	4	1	25.0%
All	83	38	45.8%

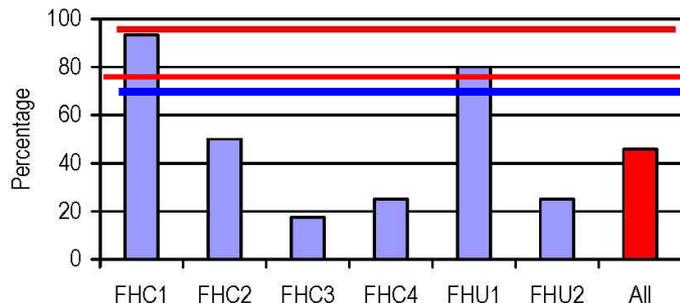
### Comments

1. Substantial variation between centres: good percentage in FHC1 and FHU 1, low in FHC3 and FHU2.
2. Time trend shows that although training is increasing, it will not meet the target of 100% by 2010. Coverage in 2008 is 50% - we need to aim for 75% coverage in 2009, and 100% in 2010.

### Recommendations

1. Increase resources into training, more frequent training ensuring accessible to the FHCs and FHUs with low percentage of trained personnel.

PHC personnel with MH training in past 5 years



Monitoring training of primary care personnel over time

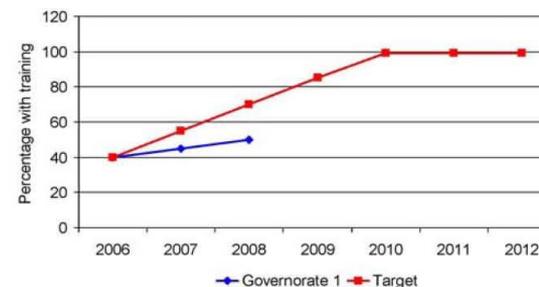


Figure made up for purpose of presentation – not real data!

## 2.4.4: Mental health cases referred

**Definition:** Percentage of all diagnosed mental health cases seen in primary care that are referred to psychiatric services.

**Use:** At this time, no standard has been developed for this Indicator. It will be used as a Comparator Indicator: e.g. comparing Facilities within a District. Extreme ratings compared with other Facilities warrant further inquiry to establish whether this represents special circumstances, good practice, poor practice, limited access to specialist referral etc. Time trends can monitor remedial actions, and can be used to identify trends in referral patterns to ensure adequate/appropriate response by specialist services.

Centre	Number of mental health cases / encounters	Number of referred mental health cases	Mental health cases referred
FHC 1	149	4	2.7%
FHC 2	32	0	0.0%
FHC 3	188	28	14.9%
FHC 4	73	18	24.7%
FHU 1	0	0	No cases
FHU 2	12	2	16.7%
All	454	52	11.5%

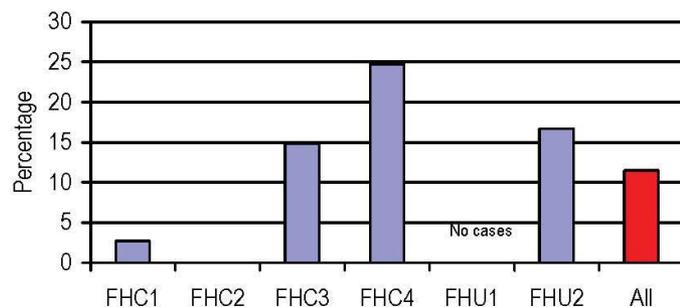
### Comments

1. There appear to be differences in the way this data has been reported. Some centres including referred to the visiting psychiatrist, others not including such visits.
2. Over time centres converge towards referral of 15-20% of their MH cases.

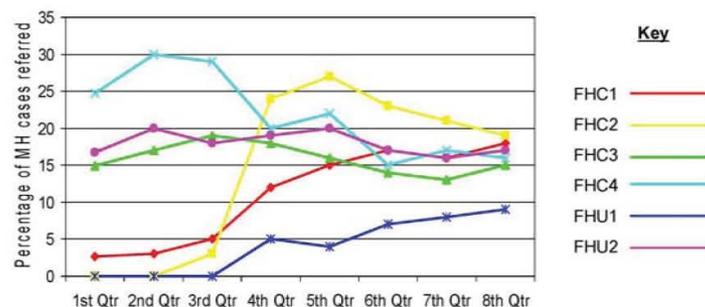
### Recommendations

1. All centres use the same criteria that a psychiatrists (even when carrying out clinics in PHC) part of the specialist mental health services, and referrals to the visiting psychiatrist are reported as referrals. Please check data reported for this period, and resubmit adjusted data if necessary.

**Mental health cases referred**



## 2.4.4: Monitoring mental health cases referred over time



Summary Table of all Primary Care Mental Health Indicators for quarterly reporting period July to September 2005

No.	Indicator	FHC 1	FHC 2	FHC 3	FHC 4	FHU 1	FHU 2	All Centres	Summary Comments
<b>2.1</b>	<b>Human Resource Development</b>								
2.1.1	Primary health care personnel with mental health training								
2.1.2	Primary health care personnel with mental health training within the past five years								
<b>2.2</b>	<b>Facilities</b>								
2.2.1	Primary health care facilities providing mental health care								
2.2.2	Out of stock days for essential psychotropic drugs	0%	0%	200%	0%	200%	0%	67%	2 drugs unavailable for whole period in FHC3 & FHU1
<b>2.3</b>	<b>Community Interventions</b>								
2.3.1	Community Mental Health Team formed								
2.3.2	Community Mental Health Team trained								
2.3.3	Community Mental Health Team meetings								
2.3.4	Community Mental Health Team Action Plan								
2.3.5	Community Mental Health Team review of Action Plans								
<b>2.4</b>	<b>Activities</b>								
2.4.1	Mental health cases in primary care	1.5%	0.5%	2.5%	0.6%	0%	0.3%	0.9%	Varies: lower in FHUs than FHCs
2.4.2	New mental health cases in primary care	47.7%	62.5%	63.8%	15.1%	-	16.7%	41.2%	Varies: lower in FHUs than FHCs
2.4.3	Percentage of mental health diagnoses	74.5%	100%	98.4%	68.5%	-	100%	88.3%	
2.4.4	Mental health cases referred	2.7%	0%	14.9%	24.7%		16.7%	11.8%	Varies: confusion about definition?
2.4.5	Referred mental health cases with received feedback	100%	-	42.9%	100%	-	50%	73.2%	Generally high, check FHC3 & FHU2
2.4.6	Treatment gap by diagnosis								
2.4.7	Mental health education sessions	8.4%	2.7%	3.1%	5.7%	2.2%	2.4%	4.1%	Occurring everywhere, encourage more in FHCs 2&3 and FHUs 1&2
2.4.8	Mental health education session attenders	11.3%	9.2%	11.1%	5.9%	9.0%	14.2%	10.1%	Attendance good appears greater than for non-MH sessions

**Thank You**