

*Vj g'Uwf { 'Rtqi tco o g'"*  
*lqt 'j g'Eqwpvgt o gcunt g'lqt 'Eqo o wplecdrg'Fkugcugu'*

**E qwp vt { 'T gr qt vu**

Lcr cp'Kvgtpcv kpcnEqtr qtcv kq'qh'Y ghtg'Ugtxlegu'KEY GNU+

## Eqpvgrvu'

30 Dcpi æf guj	3
40 Ej kpc	6;
50 Eqvg'F kqkt	: 4
60 Gj kqr kc	322
70 I j cpc	34;
80 O qpi qkc	394
90 Rcpco c	3; 5
: 0 Vclknkæcp	429

*The Study Programme  
for the Countermeasure for Communicable Diseases*

# Bangladesh

# JI200710 Country Report Bangladesh

Emerging & Re-emerging Disease Control Program  
& Focal Point, National Rabies Elimination Center  
Directorate General of Health Services  
Ministry of Health & Family Welfare



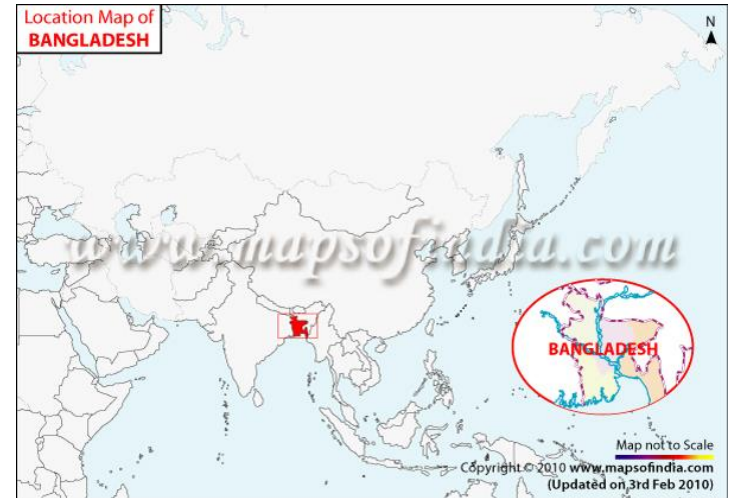
# Country Profile

- **History:**
  - 1971: Liberated from Pakistan
  - 1947-1971: ruled by Pakistan
  - 1757-1947: British ruled as a part of Bengal and Assam province of Sub-continent



# Geographical situation

- **Area:** 147,570 sq.km
- **Estimated Population:** 158,570,535
- **Population density:** 1015/sq.km
- **Boundary:**
  - **North and West:** India
  - **South:** Bay of Bengal
  - **East:** India & Myanmar



# Religion & culture

- **Religion:**
  - Muslim – 89.35 %
  - Hindu – 9.64 %
  - Buddhist – 0.57%
  - Christian – 0.27%
  - Others – 0.17%
- **Official language:** Bangla , English is also spoken.
- Indigenous communities have own languages

# Demographic and health Indicators

- IMR: 36/1000 live births (SVRS)
- MMR: 194/100000 live birth (BMSS)
- Under-5 mortality rate (per 1000 live births) 47 (SVRS 2010)
- Regd. Physician: 58,977 (HRD data sheet 2011)
- Regd. Dental surgeons: 4,986 (HRD Data sheet 2011)
- Regd. Nurses: 30,418 (BNC 2011)
- No. of TBA 6,500 (BNC 2011)

6/24/2013

# Basic Indicators

- Population Growth Rate: 1.37
- Life expectancy at birth: 67.7 (SVRS 2010)
- Urban population: 28% (BDP 2012)
- GDP per capita: 674 US\$ (WB 2011)
- GDP growth rate : 5.5% (IMF FY 2011)
- Adult Literacy rate: 58.6% (SVRS 2010, BBS).





# Bangladesh: Administrative units

**Division - 7**

**District - 64**

**Upazila - 492**

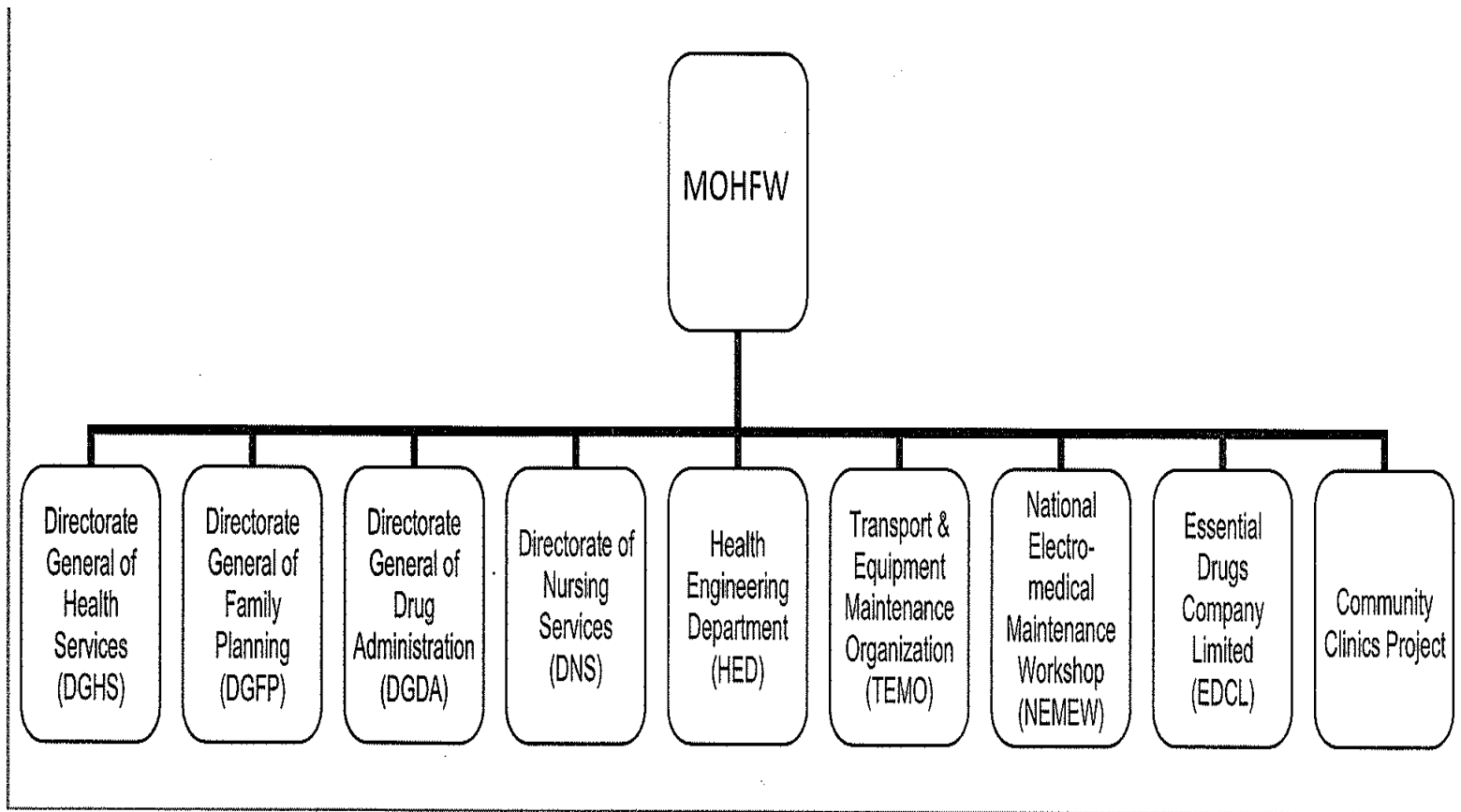
**Union- 4501**

**Ward - 40500**

**Village - 87300**



# Organizational Chart of MoH&FW Bangladesh



# EPI Target diseases & Coverage

## Target diseases:

- Diphtheria
- Tuberculosis
- Tetanus
- Pertusis
- Poliomyelitis
- Measles
- Rubella
- Hepatitis B
- Haemophilus

## Rate of Coverage (%)

- BCG- 95%
- Penta-I- 99%
- Penta-2- 97%
- Penta- 3- 96%
- Measles -96%



# Commonly Prevalent Communicable Diseases

Sl. no	Diseases	Sl. No.	Diseases
1	Malaria	8	Dengue
2	Kala-azar	9	Rabies
3	Filaria	10	Nipah
4	HIV/AIDS	11	Anthrax
5	Influenza	12	Chikungunia Fever
6	Tuberculosis	13	Leptospirosis
7	Leprosy	14	Hepatitis

# Programs under CDC, DGHS

1. National Malaria Control Program
2. Filariasis Elimination and STH Control Program
3. Kala-azar Elimination Program
4. Avian and Pandemic Influenza Control Program
5. Emerging & Re-emerging Disease Control Program
6. Disease Surveillance

# **Snapshots-**

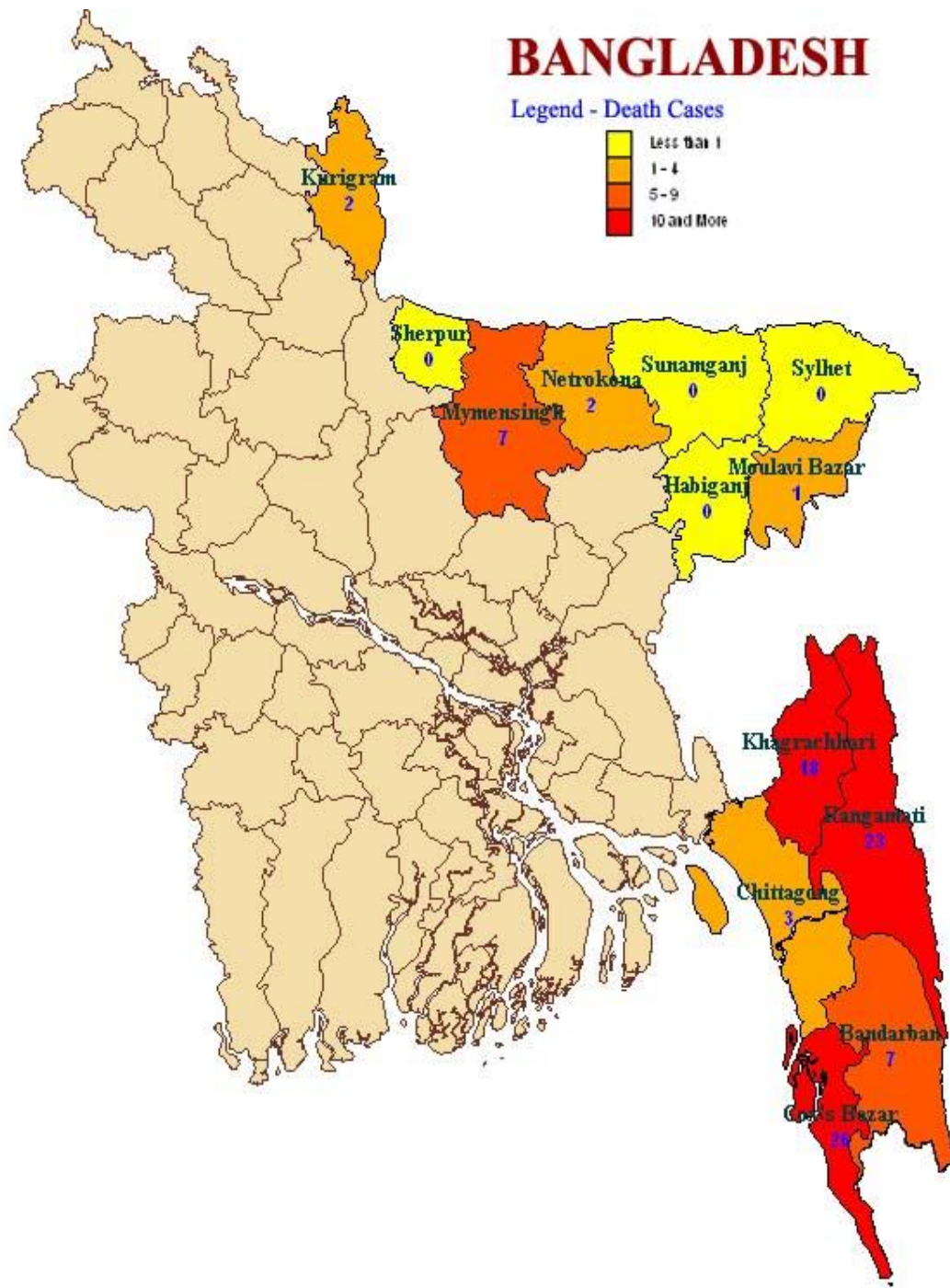
## **Current Situation of Communicable Diseases**

# BANGLADESH

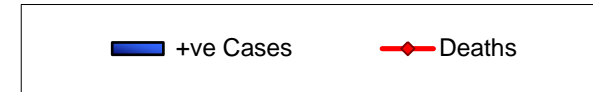
Legend - Death Cases



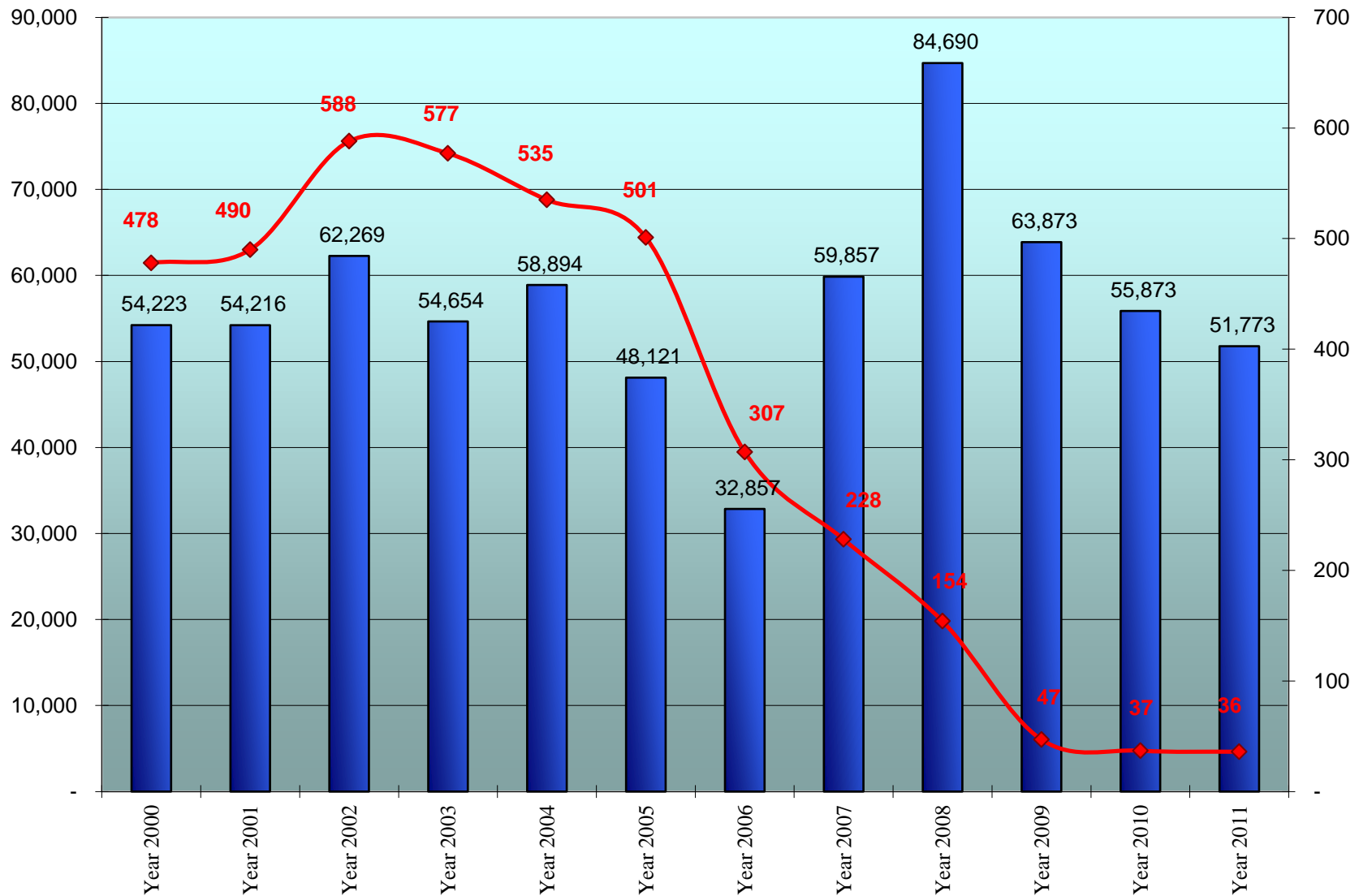
## Malaria situation in Bangladesh



## Malaria Cases and Death



**In 2012, Total cases 29518, Mortality -11**

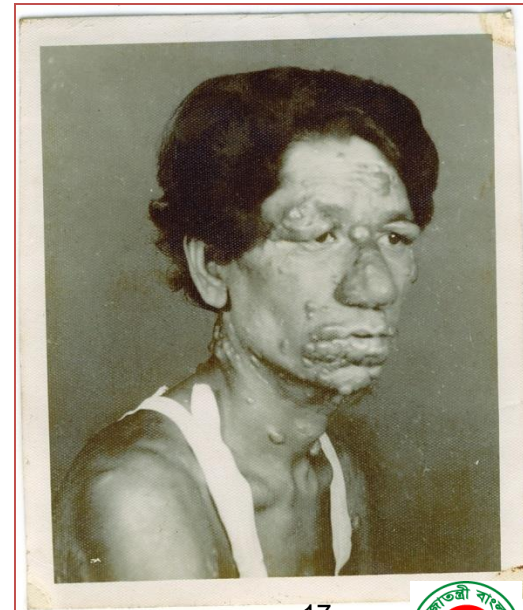
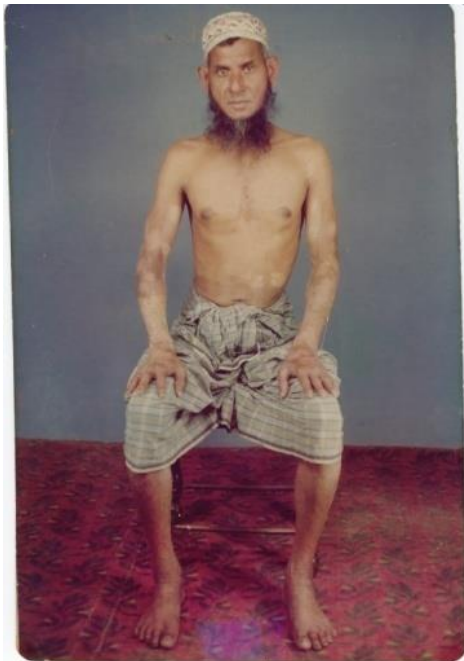


# **Specific Objectives**

- 1. Early diagnosis and prompt treatment (EDPT)**
- 2. Vector control**
- 3. Strengthening surveillance system**
- 4. Community participation and partnership with research and academic institutions, private sector and NGOs**
- 5. Strengthening program management**
- 6. Capacity building**
- 7. Supervision**



# Kala-azar





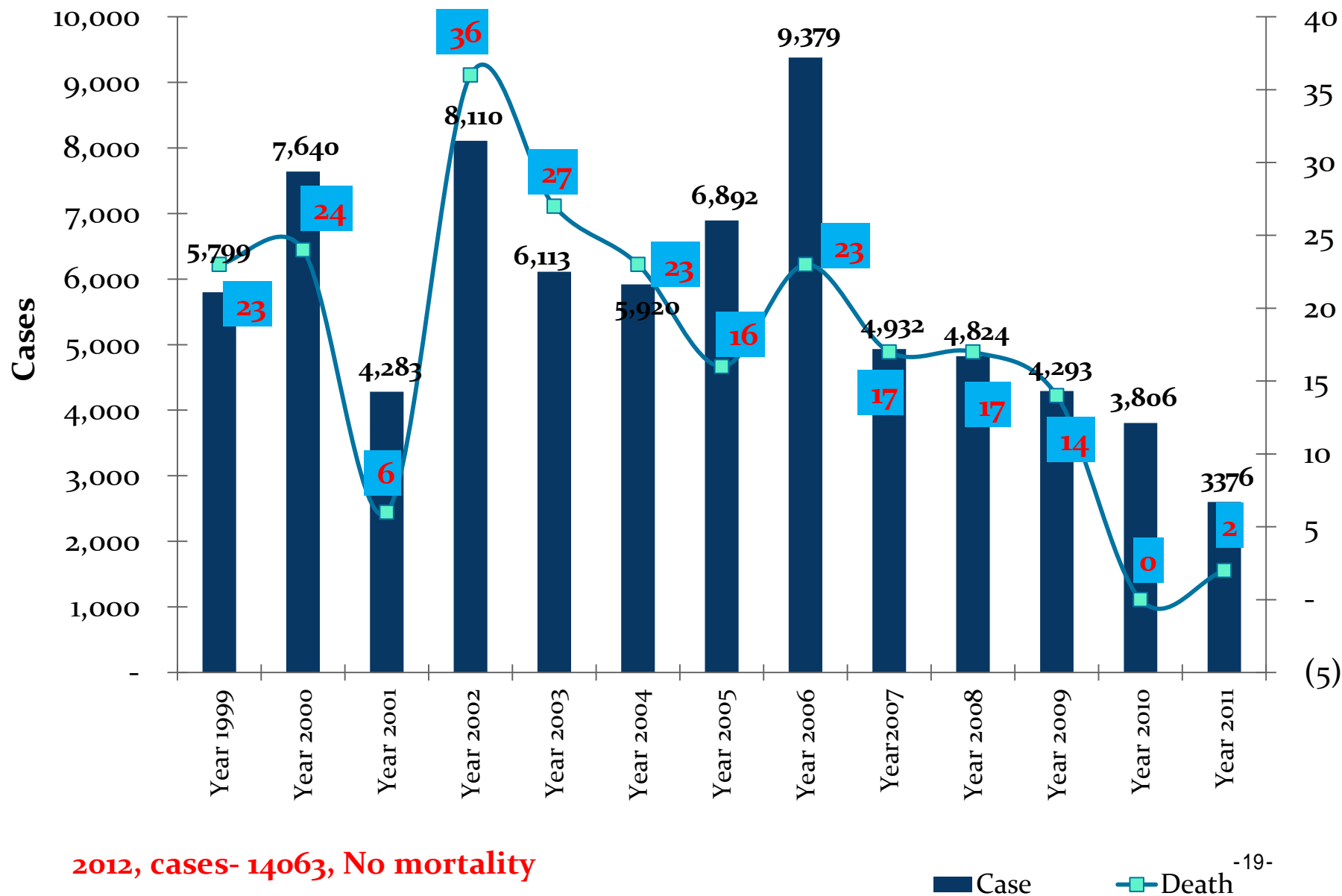
## Endemicity of KA in Bangladesh







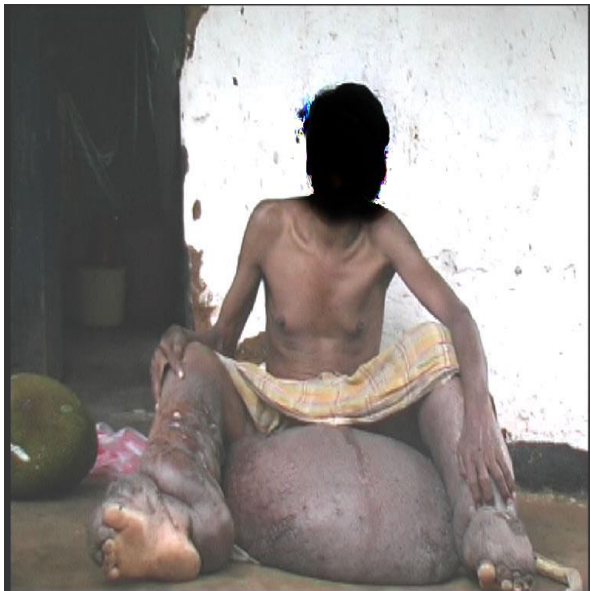
## Kala-azar: Trend in Bangladesh



# VL Elimination Strategy

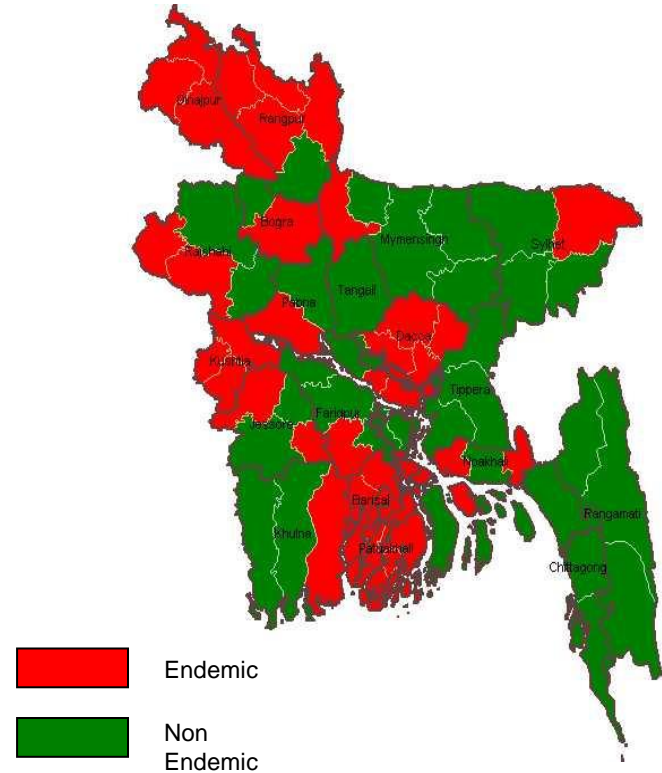
- I. Early diagnosis and complete case management of Kala-azar and PKDL
- II. Integrated vector management (IVM)
- III. Effective disease and vector surveillance
- IV. Operational research
- V. Social mobilization and building awareness

# Filariasis



# Bangladesh Burden of Filariasis

- **Population at risk of LF:** 70 million
- **Endemic districts:** 34 (2004)
- **Endemic district with *Microfilaria* <1%:** 15 (2007)
- **Endemic district with *Microfilaria* >1%:** 19 (2008)
- **Morbidity status:** 2% to 3.9% (endemic area)



# Goal & Objectives

## Goal

To eliminate filariasis from Bangladesh by 2015

## Objectives

- To reduce microfilaria or antigenaemia prevalence below cut off point ( $<1\%$ )
- To reduce morbidity

# Filaria Elimination Strategy

- Mass Drug Administration (MDA) : By Tab DEC and Tab Albendazole once in a year.
- Morbidity control & Hydrocele repair.
- Social Mobilization / IEC activities.
- Community Based Morbidity Control and Kit Box distribution
- Microfilaria Survey
- Transmission Assessment Survey (TAS)
- Post MDA Coverage Survey
- ACSM , Child to Child Education using Little Doctor Concept



# Avian & Pandemic Influenza Control program

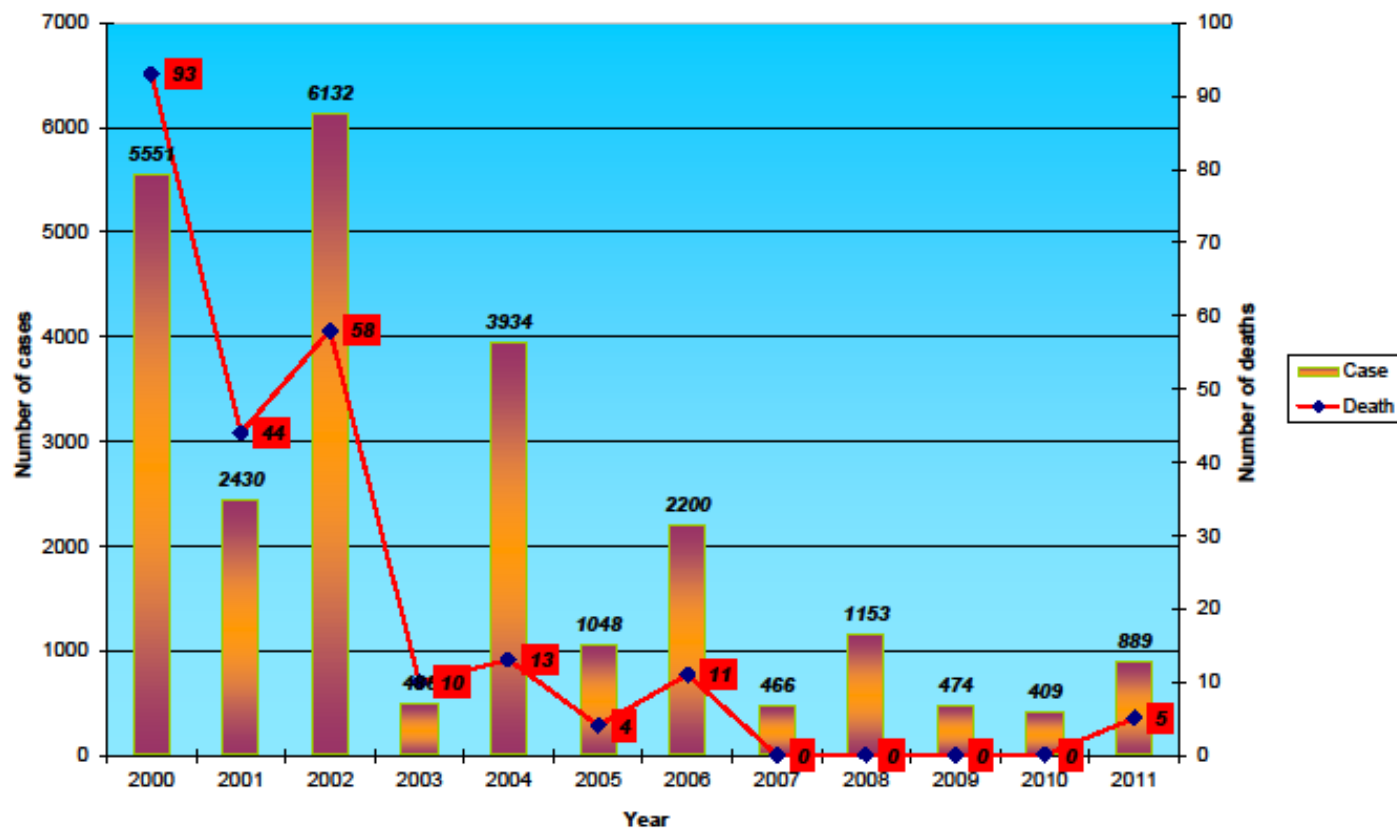
Case No	Location	Date of Sample Collection	Date of test result with institute	Details of Patient					Comments
				Age & Sex	H/o Poultry exposure	Clinical Feature	Severity	Fate	
1	Kamalapur,	January 2008	May 2008 CDC Atlanta	15 month, Male	Yes	Fever, Cough		Recovered	Identified as <b>H5N1</b>
2	Kamalapur,	March 14, 2011	March 14, 2011, IEDCR	13 month, Female	Yes	Fever, Cough		Recovered	Identified as <b>H5N1</b>
3	Kamalapur,	March 15, 2011	March 15, 2011, IEDCR	31 month, Male	Yes	Fever, Cough		Recovered	Identified as <b>H5N1</b>
4.	Kamalapur,	February 26, 2011	March 24, 2011, <b>Sequencing by</b> CDC Atlanta	4 Years, Female		Fever, Cough		Recovered	Identified as <b>H9N2</b>
5.	Live bird market,	February 26, 2012	February 27, 2012, IEDCR	40 Years, Male	Yes	Cough		Recovered	Identified as <b>H5N1</b>
6.	Live bird market, (South)	March 04, 2012	March 04, 2012, IEDCR	26 Years, Male	Yes	Cough		Recovered	Identified as <b>H5N1</b>
7.	Live bird market, (South)	March 04, 2012	March 04, 2012, IEDCR	18 Years, Male	Yes	Cough		Recovered	Identified as <b>H5N1</b>

# Dengue

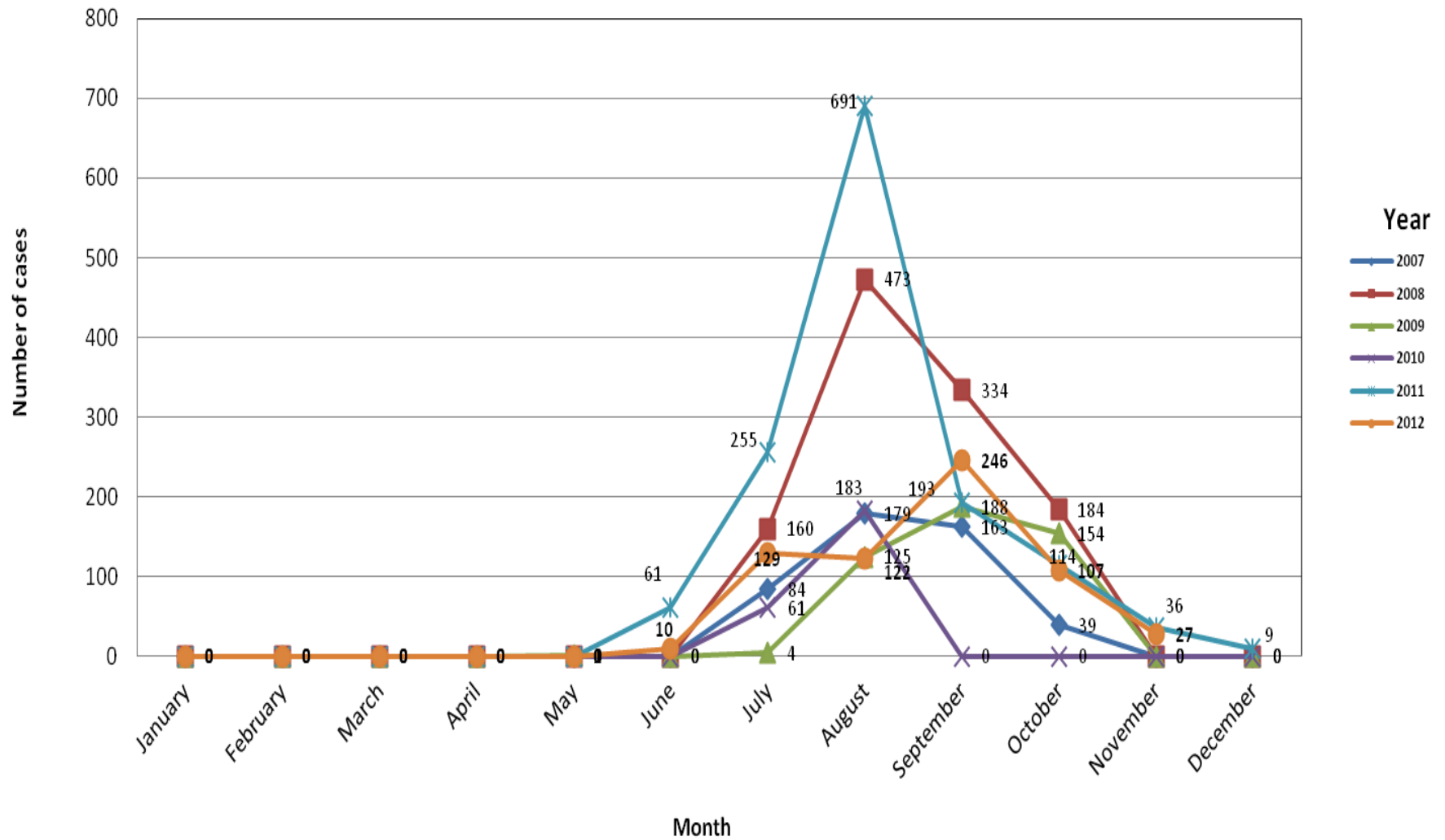




### Dengue cases and deaths in Bangladesh (2000-2011 up to 18th August)



## Dengue cases in Dhaka from 2007-2012 ( 20.11.2012)



# Nipah infection

- Emerging zoonotic disease.
- First recognized in a large outbreak of 276 reported cases in Malaysia and Singapore from September 1998 through May 1999.

## Agent

- NiV is a highly pathogenic paramyxovirus belonging to genus Henipavirus.
- It is an enveloped RNA virus.

**Incubation period:** 6-11 days (average- 9), In Bangladesh, it is 2-12 days (average- 7 days)

## Transmission:

- **Drinking of raw date palm sap (*kancha khejurer rosh*) contaminated with NiV .**
- **Close physical contact with Nipah infected patients**



# Nipah virus Infection: An Emerging Viral Zoonotic Disease



# Bangladesh situation of Nipah

Year	Districts	Suspect	Death
2001	Meherpur	13	09
2003	Naogaon	12	08
2004	Rajbari- 12, Faridpur – 36, Other dist.-24	72	52
2005	Tangail	12	11
2007	Thakurgaon- 5, Kushthia -8	13	8
2008	Manikganj and Rajbari	09	08
2009	Rangpur, Rajbari	02	01
2011	Faridpur- 5, Kurigram-1, Nilphamari-1,Lalmonirhat-1	24	18
2012	Joypurhat	6	6
2013 Feb 3	Gaibandha, Natore, Rajshahi, Naogaon, Rajbari, Pabna, Jhenaidah, Mymensingh	12	9

# Nipah Update by 3 February 2013

## Nipah Infection in 2013 (Update on 3 February, 2013)

- **3 February 2013:** 12 Nipah cases were identified among them 9 died (mortality rate 75%); 3 cases are still under treatment.
- **Affected 8 districts:** **Gaibandha, Natore, Rajshahi, Naogaon, Rajbari, Pabna, Jhenaidah, Mymensingh.**
- Age distribution of cases are 8 months to 43 years among them 8 are male.
- **Till February, 2013,** a total of 177 human cases of Nipah infection in Bangladesh were recognized from outbreak among them 137 (77%) died.
- In Bangladesh, there are 24 Nipah prone districts



# Rabies : Biggest Challenges in Bangladesh



Photograph: Dr. Aung Swi Marma June 2012, IDH, Dhaka

# Rabies: Current Situation

- Most neglected longstanding NTD.
- Rabies transmission
  - mostly (99%) by dog
  - few by cats, Jackals, Mongoose & others
- Transmission occurs by
  - bite,
  - scratch or
  - licking of broken mucous membrane by rabid animal.
- The disease is nearly 100% fatal but equally preventable by modern animal bite management
- 55,000 -70,000 people die from rabies annually, mostly in Africa and Asia



# Rabies: Current Situation

- **Annual human rabies case: >2000**
- Affected population is mostly school going children (<15yrs. age )
- Over 85% of rabies cases rural poor people
- Certain percentage of people still use the traditional methods: Kabiraj, boidya, ohzhan, etc
- **Annual animal exposure: 2-3 hundred thousand**
- **Annual animal rabies case: 25 thousands?**
- **Total dog population: 1.2 million (DLS 2010)**
  - Pet: 2,12,421(17.29%)
  - Stray: 9,95,067(82.70%)

# Rabies control activities in the past

- \* **Infrequent culling of dogs by municipalities/CCs**
  - Direct biting, crushing of neck
  - Injecting Mg-sulpha direct to heart
  - Dog bait with tab Strychnine
- \* **Limited vaccination of pet dog at private sector**
- \* **Dog bite management**
  - Mostly by traditional healers
  - Vaccination-
    - Mostly locally produced NTV
    - Limited use of tissue culture vaccine
    - Rare use of immunoglobulin



# Possible causes of high prevalence of Rabies

- Large number of stray dogs
- Many dog bites
- Lack of awareness
- Unplanned killing of dogs
- Inaccessibility to safe and effective vaccine
- Dependency on NTV
- No measure for MDV and DPM
- Lack of active involvement of health service
- Lack of initiative of DLS
- Lack of multisectoral involvement
- Lack of resources
- Lack of diagnostic facilities

# Rabies Elimination Strategy of Bangladesh

## Goal

- Reduction of rabies by 90% within 2015
- Elimination of rabies from by 2020

## Strategy

1. Advocacy, Communication and Social Mobilization (ACSM)
2. Management of dog bite
3. Mass dog vaccination
4. Dog population management
5. Capacity building
6. Survey and Operational research

# Countermeasures for the Challenge

1. Establishment of National Rabies Prevention and Control center at Infectious Disease Hospital Dhaka in 11 July, 2010.
2. Introduction of tissue culture vaccine (TCV) in intra-dermal route for the first time in the country.
3. Hands-on training of doctors, nurses and paramedics dealing with animal bites on animal bite management and IDRV use.





# Countermeasures for rabies control

4. Development of National Guideline on IDRV use and National Rabies Prevention and Control Strategy
5. Formation of Rabies National Steering Committee (NSC) and Technical Working Group (TWG)
6. Mobilization of key stakeholders (Local government, Livestock department, national & international NGOs, agencies (WSPA, HIS, WHO, FAO, OIE etc) for Multisectoral collaborative One Health Approach.
7. Procurement of vaccine and logistics
8. Expansion of rabies prevention and control center



Dog bite management started in 64 districts of the country

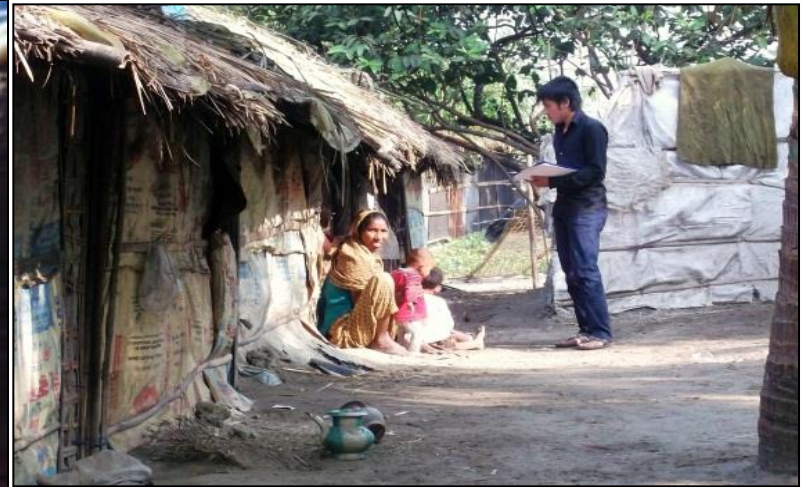
Map Of Bangladesh

# Map Of Bangladesh



# Rabies- Countermeasures

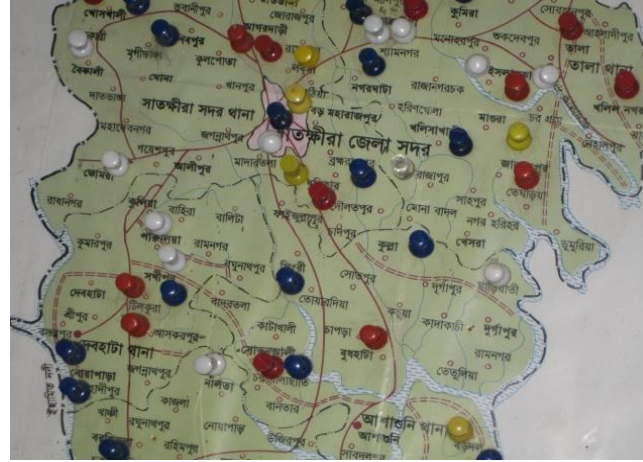
9. National Rabies Survey
10. International Workshop on rabies elimination in Bangladesh
11. Piloting Mass Dog Vaccination 4 settings
12. MDV campaign in 38 district municipalities and CC of 4 divisions
13. Piloting DPM at Raipura, Narsingdi and DCC North
14. Observation of World Rabies Day
15. Awareness raising campaign involving school children
16. KAP survey on rabies among different professionals of adult and school going children



## Catching and vaccinating



# MDV: Satkhira District





# ACSM



# Bangladesh is moving towards from control to elimination of rabies by 2020

## **The key challenges:**

1. Fund constraints
2. Shortage of trained manpower
3. Weakness of surveillance system
4. Rabies diagnostic lab facilities

# Conclusion

- Communicable disease burden of Bangladesh has been experiencing shift in different dimensions
  - Improvement in some communicable diseases
  - Emergence and re-emergence of some diseases
  - Increasing trend of non communicable diseases
- The country is demonstrating better capacity in prevention and control of communicable diseases
- Research activities in relation to diseases is getting momentum



**THANK YOU**



*The Study Programme  
for the Countermeasure for Communicable Diseases*

# China



# Country Report

- FUJIAN, CHINA

- 2013.02.05



# THE PEOPLE'S REPUBLIC OF CHINA







# Current Situation in Fujian

- The number of communicable disease cases is **205145 in 2011**
- The number of death caused by communicable diseases is **229 in 2011**



# Current Situation in Fujian

- Fujian is a high incidence(185.86/100000 ) in Hepatitis B



乙肝离肝癌有多远？



# Current Situation in Fujian

- Food poisoning is growing in number (81 cases in 2011), accounting for 11.57% of the public health emergencies

food.  
poisoning

食物中毒



# Big Challenges

- How to reduce the incidence of infectious diseases
- How to improve the emergency response capacity

# How to reduce the incidence of infectious diseases

- Increasing fund for communicable diseases control.
- Enhancing surveillance system.
- Strengthen the management of infectious sources, medical observation for the close contacts, timely vaccination.
- Strengthen health education and publicity .
- Improve the immunization coverage.







## Response to the emergency case

- China has established an emergency organization system since 2003 after SARS outbreak.
- The system divided into the central and local two levels.

# Response to the emergency case

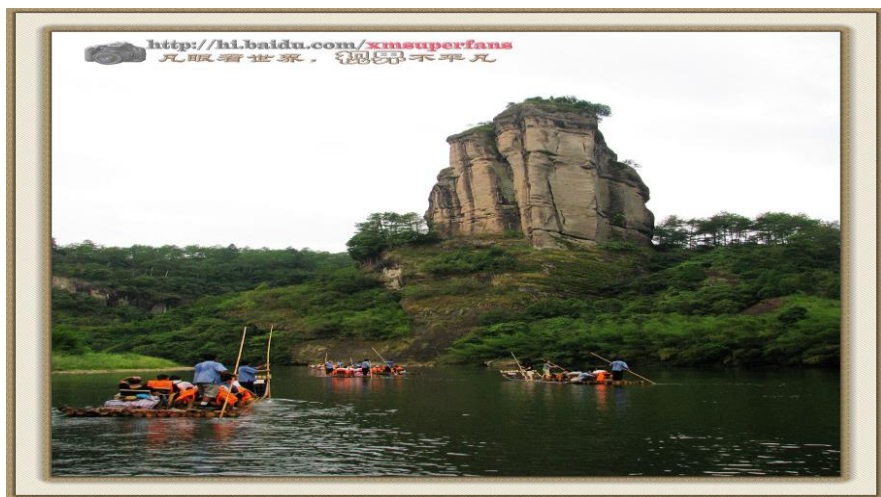
- **FUJIAN CDC is playing a critical role in responding to infectious, occupational, or environmental emergency incidents.**
- **Three networks are linkage and unity to make the most rapid response and take appropriate measures and plan for public health emergencies.**



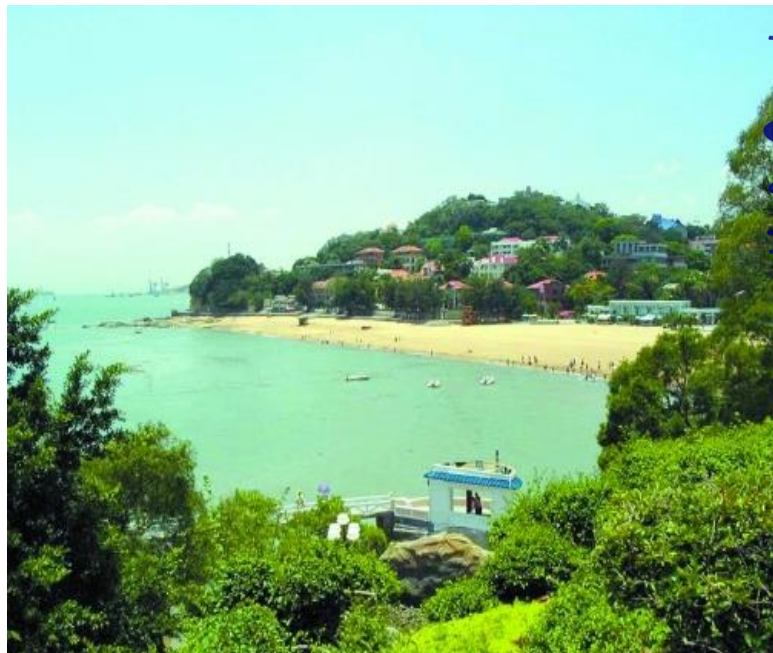


# The Charm of Fujian















# Delicious Food

**Fo tiao qiang**



**Fish ball**



**Won ton**



**Ding bian**

# Sea Food

**braised sea eel with soy  
sauce**



【福建小吃 网上第一门户】  
www.FujianXiaoChi.com

**braised fish with soy  
sauce**



【福建小吃 网上第一门户】  
www.FujianXiaoChi.com

**a prawn**



DSC-T900 F3.5 1/40s ISO80



# Snacks



**Egg dumplings**



**Radish pastries**



**Steamed Pork Dumplings**



**Wuxiang rolls**

Best Wishes for You!

YOU

I really appreciate JICA that let me meet you

---everyone seated here !We learn a common

language ,we study in a common room, and we

commonly have best teachers!

I believe this period with you will become a

precious memory! Thank you!

ME



# **Communicable Disease Prevention and Control in China**

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**Ministry of Health, P.R.China**

**Feb 2013, Tokyo**



# Outline

---

- **Strategies**
- **Challenges**
- **Measures**



# National strategic frame

Prioritized diseases	Expanded programme on immunization	Diseases under intensive surveillance	Emerging and reemerging communicable disease
<ul style="list-style-type: none"> <li>•HIV/AIDS</li> <li>•TB</li> <li>•Schistosomiasis</li> <li>•Hepatitis B</li> </ul>	<p>14 vaccines to prevent 15 kinds of disease</p>	<ul style="list-style-type: none"> <li>•Plague</li> <li>•Cholera</li> <li>•Influenza</li> <li>•other statutory communicable disease</li> <li>•.....</li> </ul>	<ul style="list-style-type: none"> <li>•SARS</li> <li>•H5N1</li> <li>•Pandemic H1N1 2009</li> <li>.....</li> </ul>





# **Policies on prioritized diseases**

---

- **HIV/AIDS : Development and Implementation of “Four Frees and One Care” Policy for HIV infections and AIDS patients.**
- **TB: Free to patients (ss+) on DOTS treatment, sputum test and X-rays, award local health professionals to report TB cases.**



# **Policies on prioritized diseases**

---

- **Schistosomiasis:**
  - Snails control
  - Checking and curing infected human and livestock synchronously
  - Improved sanitation and health education
- **Hepatitis B:**
  - National immunization program;
  - Prevention-based control



# Expanded Programme on Immunization

---

- In 1978, 4 vaccines to prevent 6 kinds of vaccine preventable infectious diseases (BCG, DPT, OPV and MV)
- In 2002, 5 vaccines to prevent 7 kinds of vaccine preventable infectious diseases (Hepatitis B vaccine)
- Currently, 14 vaccines to prevent 15 kinds of disease ( hepatitis A, epidemic meningitis, etc.)

# Immunization schedule

Vaccine	Age												
	Birth	1 m	2 m	3 m	4 m	5 m	6 m	8 m	18 m	2 y	3 y	4 y	6 y
HepB	1 <sup>st</sup> dose	2 <sup>nd</sup> dose					3 <sup>rd</sup> dose						
BCG	1 dose												
Polio			1 <sup>st</sup> dose	2 <sup>nd</sup> dose	3 <sup>rd</sup> dose							4 <sup>th</sup> dose	
DPT				1 <sup>st</sup> dose	2 <sup>nd</sup> dose	3 <sup>rd</sup> dose			4 <sup>th</sup> dose				
DT													1 dose
MR(MV)								1 dose					
MMR (MM, MV)									1 dose				
JE-a								1 <sup>st</sup> dose		2 <sup>nd</sup> dose			
Men-A							1st dose, 2nd dose						
Men A+C											1 <sup>st</sup> dose		2 <sup>nd</sup> dose
HepA-a									1 dose				
JE-I								1 <sup>st</sup> , 2 <sup>nd</sup> dose	3 <sup>rd</sup> dose				4 <sup>th</sup> dose
HepA-i									1 <sup>st</sup> dose	2 <sup>nd</sup> dose			

# Influenza Sentinel Hospitals

2000年  
8 网络实验室  
31 哨点医院



2005年  
63 网络实验室  
197 哨点医院



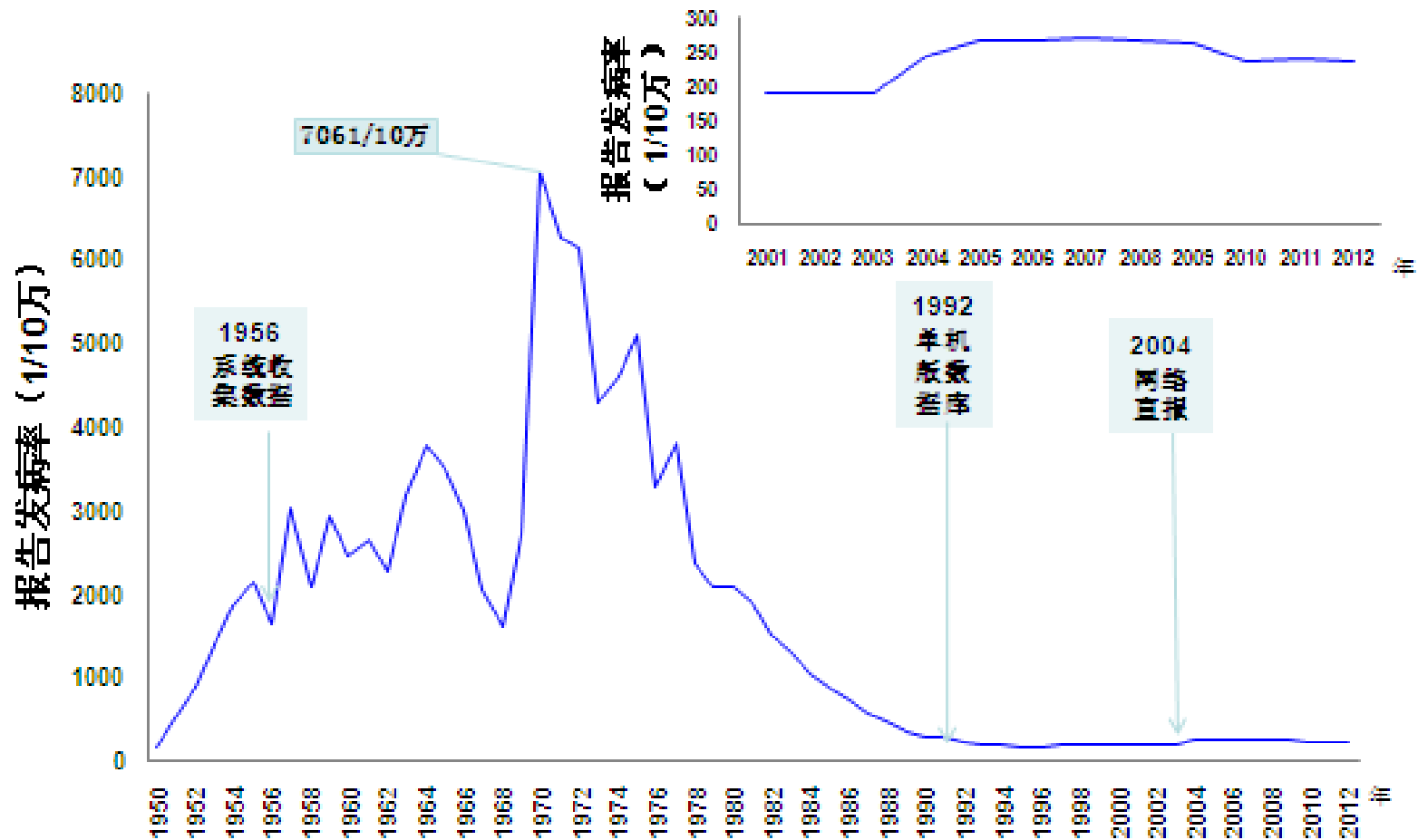
2009年  
411 网络实验室  
556 哨点医院



全国流感监测网络管理  
建立全国流感监测网络



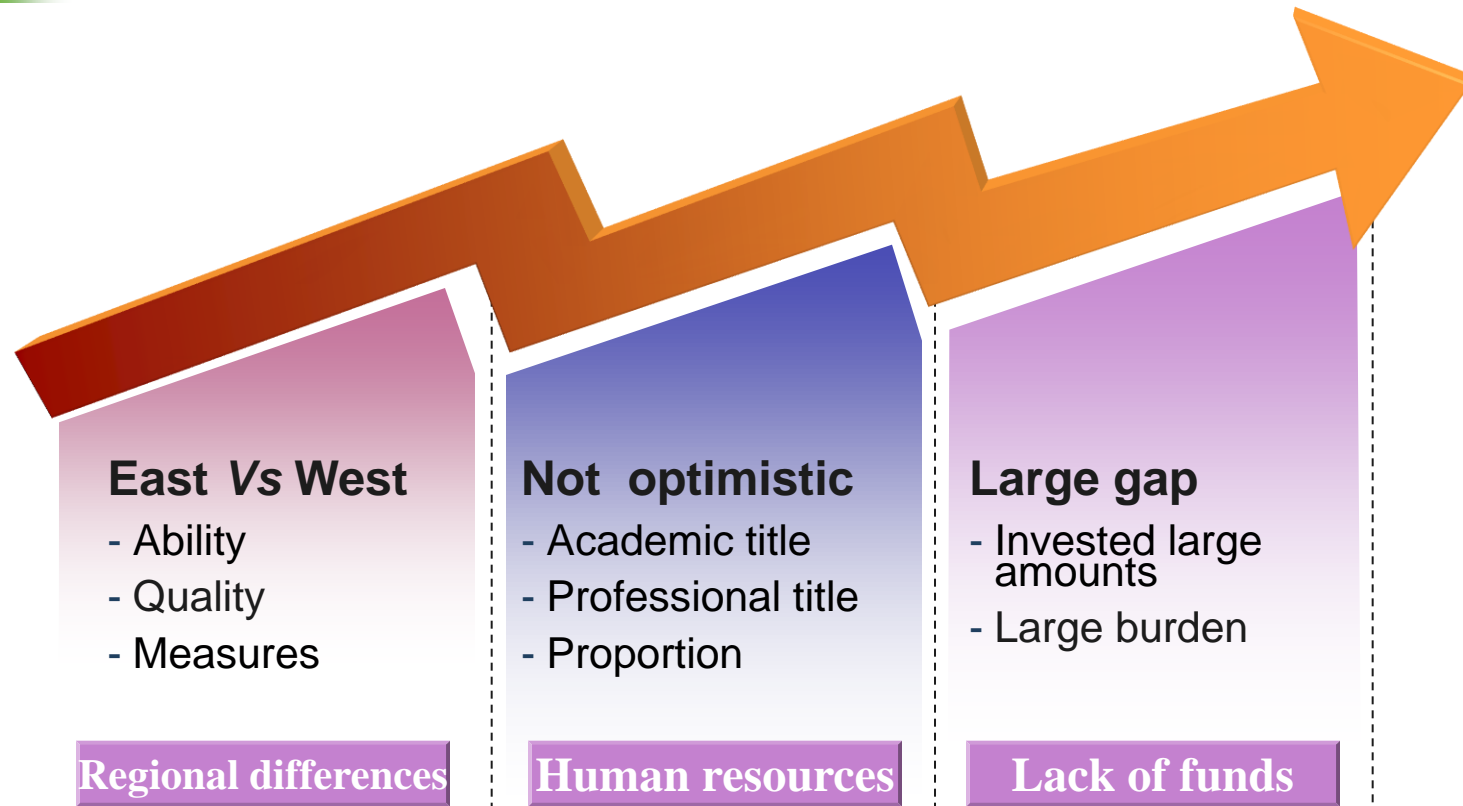
# the reported incidence rate of Category A and B (1950-2012)





# Challenges

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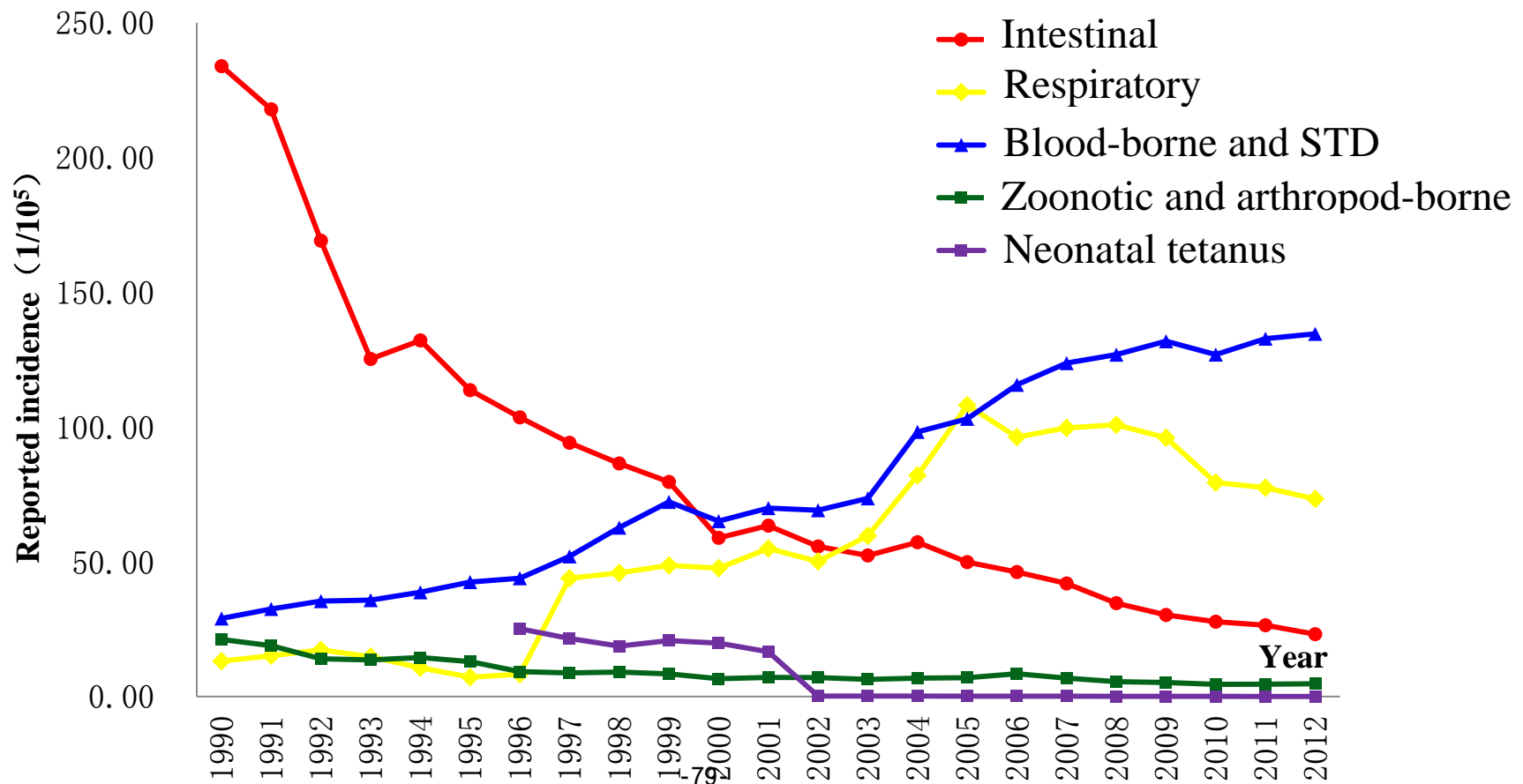


# **Infectious diseases are still the great threat to public health**

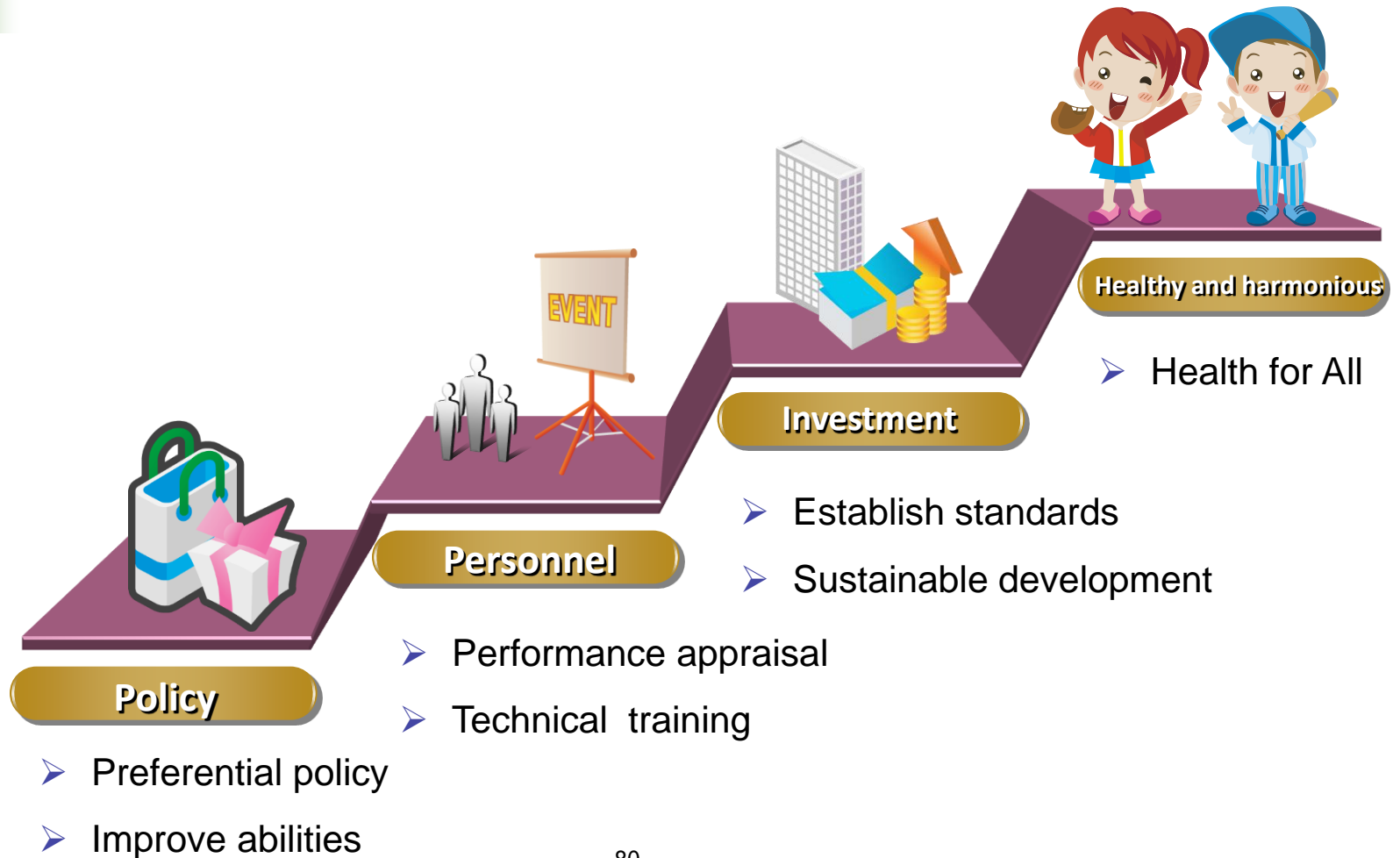
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- In 2011, a total of 6.3 million cases and over 15 thousand deaths caused by 39 notifiable diseases was reported
- Total incidence rate was 471/100,000
- Total mortality rate was 1.18/100,000

# The current of reported incidence of class A and B notifiable diseases with different routes of transmission from 1990 to 2012



# Measures







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**Thanks for your attention!**

*The Study Programme  
for the Countermeasure for Communicable Diseases*

# Cote Divoir



# **COUNTERMEASURE FOR COMMUNICABLE DISEASES CÔTE D'IVOIRE (IVOIRY COAST)**

*JAPAN, February 3 to February 23,  
2013*

# Organization health Ministry

- **Health Administrative System composition :**

- *central level*

- Minister office,

16 management directions attached to minister office

- 2 general directions

- Health management directions

- 6 central Directions

- 22 health programs

- AIDS management directions

- 4 central directions

- 1 AIDS programs

# Organization health Ministry

- health Administrative system composition :

- ☐ *middle level*

- 20 health and AIDS regions.

- ☐ *Peripheral level*

- 70 health and AIDS Districts.



# Organization health Ministry

- Health care system composition:

- ❑ *primary care level*

- 1781 cares central.

- ❑ *secondary care level*

- 17 regional Hospital central (CHR)
    - 71 generals Hospitals (HG).

- ❑ *Tertiary care level*

- 4 Hospital University Central(CHU).

# BASIC INDICATOR

INDICATOR	FIGURES	YEAR OF REPORT
Area (in 1000 sq.km)	322.462	
Estimated population	20,153,000	2011
<Percentage of population		2011
-Under 5 years old (%)	15%	
-Under 15 years old (%)	41%	
-15 – 59 years old (%)	53%	
-Over 60 years old ( %)	6%	
Living in urban areas (%)	49	2008
Annual growth rate (%)	2.3	2008
	3.3	1998

# BASIC INDICATOR

INDICATOR	FIGURES	YEAR OF REPORT
Gross national income per capita (ppp int.\$)	1580	2008
Population living below the poverty line (with< 1,25 \$ US a day )	23.3%.	2009
Annual growth rate (%)	2.3 3.3	2008 1998
Total fertility rate (per woman)	4.6	2008
Adult mortality rate (probability of dying between 15 and 60 years per 1000 population)	361	2008
Male	367	2008
female	354	2008

# BASIC INDICATOR

INDICATOR	FIGURES	YEAR OF REPORT
Life expectancy at birth (years)		2008
-Total	56	
-male	55	
-female	56	
Infant mortality rate (probability of dying between birth and age 1 per 1000 live births)	83	2009
Maternal mortality ratio (per 100,000 live births)	470	2008
Under-5 mortality rate (probability of dying by age 5 per 1000 live birth)	119	2009
Access to improve drinking-water sources (%)		2008
-urban	93	
-rural	68	

# BASIC INDICATOR

INDICATOR	DATA	
Health work force Total No.and density (per 10.000 population) -physicians -Professionnal nursing -midwifefery personnel)	1/5695 1/3646 1/3717	
Three leading causes of morbidity (year: ) HIV (2010) TB (2006) Malaria (2008)	No. of cases 424 260 PLWHIV 420/100000 1343650	Rate/100,000 3.2% (2012) 747/100000 7072/100000
Three leading causes of instituational mortality (year: )  HIV (2006) TB (2006) Malaria (2006)	No. of cases  46 600  20 000	  128.3 /100 000



# BASIC INDICATOR

INDICATOR Cases and death for diseases under WHO-EPI	DATA No. of cases	DATA No. of cases
Diphtheria, since 1998 to 2008	0	0
Measles 2006	7	0
Pertussis, since 1998 to 2008	0	0
Poliomyelitis, 2008	1	0
Tetanus, 2007	31	ND
Tuberculosis, 2006	420/100000	747/100000

# BASIC INDICATOR

INDICATOR Cases and death for diseases under WHO-EPI	DATA No. of cases	
Gonorrhoea	ND	
Hepatitis A	ND	
Hepatitis B Unspecified	ND	
Syphilis	ND	
Trachoma	ND	
Yaws	ND	
	-92-	

# BASIC INDICATOR

INDICATOR Cases and death for diseases under WHO monthly CD Notes	DATA No. of cases	DATA No. of death
Cholera, 2007	08	01
Dengue fever/DHF, since 1998 to 2008	0	0
Encephalitis		
Influenza		
Meningitis, 2008	1020	167
Plague		
Yellow fever, 2008	13	01
	-93-	

# BASIC INDICATOR

INDICATOR Cases for six diseases	DATA No. of cases	DATA Rates/100,000
Filariasis	ND	
Leshmaniasis	ND	
Leprosy, 2008	998	
Malaria, 2007	7029000	
Schistosomiasis	ND	ND
Trypanosomiasis, 2007	13	
	-94-	

# BASIC INDICATOR

INDICATOR Cases for following STDs	DATA No. of cases	DATA Rates/100,000
AIDS		
Chancroid	ND	
Chlamydia	ND	
Herpes	ND	
Lymphogranuloma venereum	ND	
Non-gonococcal urethritis (NGU)	ND	
	-95-	



# BASIC INDICATOR

INDICATOR Cases of hepatitis:	DATA No. of cases	DATA Rates/100,000
HAV	ND	
HBV	ND	
HCV	ND	
HDV	ND	
HEV	ND	

# National Immunization calender for Schedule Child under-5

TYPES OF VACCINESS	TIME	CIBLE
-BCG	birth	
-DTwPHibHep	6, 10, 14 weeks	
-OPV	6, 10, 14 weeks	
- yellow fever	9 months	
- Measles	9 months	
-tetanus	Pregnant woman first contact	Pregnant women
- Vitamin A	6, 2,18, 24,30,36 weeks	
-	-97-	

# Immunization coverage under 5 year

Year Type of vaccines	2011	2010	2009	2008	2007	2000
BCG	74%	91%	95%	91%	94%	76%
DTP1	75	95	95	89	93	83
DTP3	62	85	81	74	76	62
HepB3	62	85	81	74	76	-
Hib3	62	85	81	-	-	-
yellow fever	49	69	24	50	68	55
Polio 3	81	77	58	75	61	56

# THANKS

...

*The Study Programme  
for the Countermeasure for Communicable Diseases*

# Ethiopia



# Presentation on Country fact sheet

COUNTRY -----

ETHIOPIA

PRESENTATION ON----- COUNTRY FACT SHEET

FEB3, 2013

JAPAN/TOKYO/

# **Table of Contents**

## **A. Country Profile / Ethiopia**

## **B. Basic Indicator**

## **C. Current Situation**

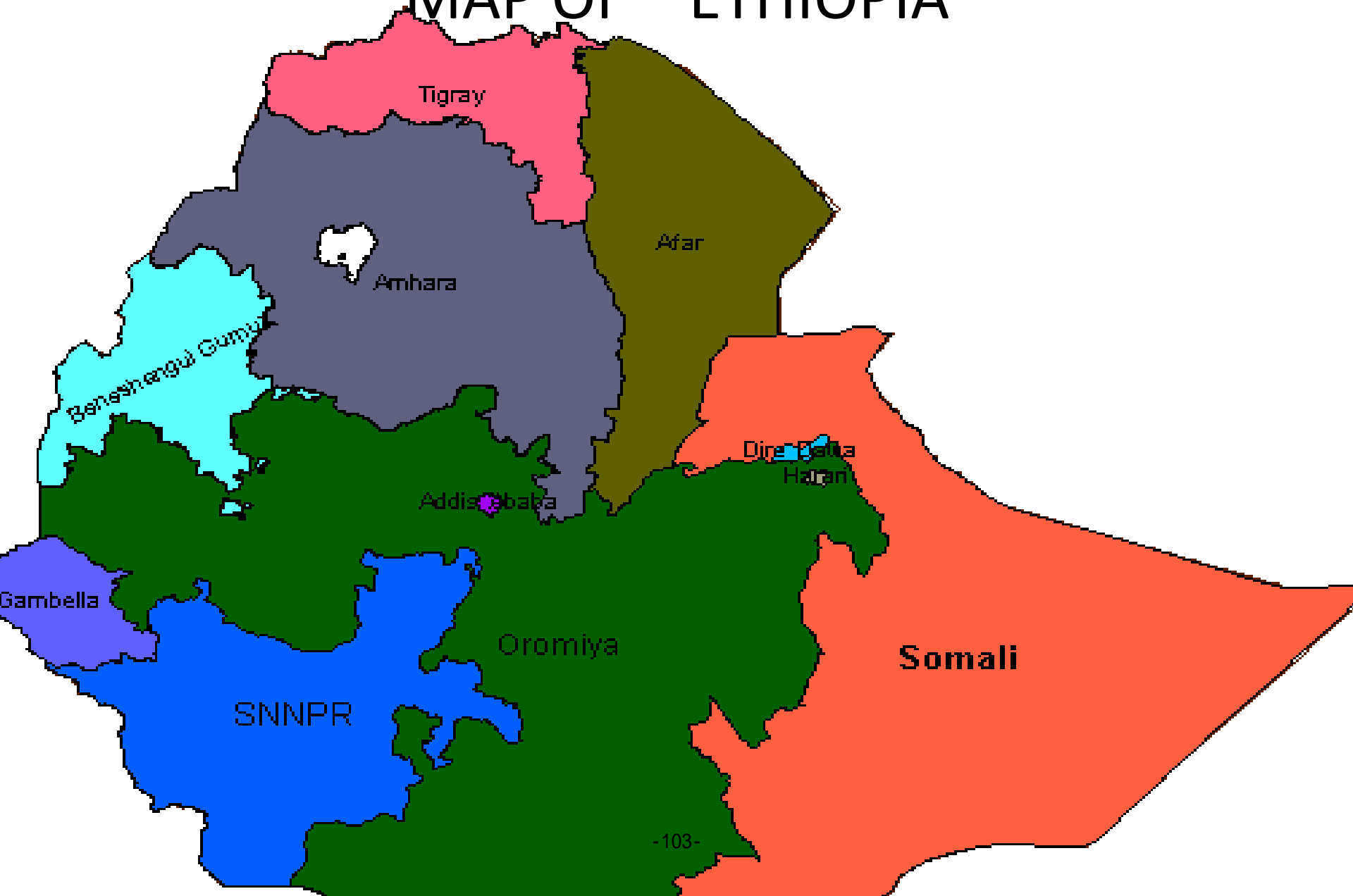
- Organization of the Ministry
- Administration of National Policy
- Programs / Laws / Regulations
- Major Challenges in the field of communicable disease control

## **D. On-going Immunization Program**

## **E. Production of Vaccine**

# A. Country profile

## MAP OF ETHIOPIA



# Different nations and nationalities



Historically,

Ethiopia was ruled by successive emperors and kings, with a feudal system of government. In 1974 the military took over the reins of rule by force and administered the country until May 1991.

- Currently, a federal system of government exists, and political leaders are elected every five years.



- The government is made up of two tiers of parliament,
- the House of Peoples' Representatives and the House of the Federation.
- At present Ethiopia is administratively structured into nine regional states—Tigray, Affar, Amhara, Oromiya, Somali, Benishangul-Gumuz, Southern Nations Nationalities and Peoples (SNNP), Gambela, and Harari—and two city administrations, that is, Addis Ababa and Dire Dawa Administration Councils.

- The highest governing body of each regional national state is the regional council, which has elected members and is headed by a president nominated by the party that holds the majority of seats.
- The regional president is assisted by heads of various regional bureaus, including the regional health bureau
- Each regional state is subdivided into zones, *woredas /districts/ and kebeles*.
- with 43% of the population being Orthodox Christians, 33.9% Muslims, and 18% Protestant Christians, with the rest following a diversity of other faiths.

- Ethiopia has great geographical diversity; its topographic features range from the highest peak at Ras Dashen, 4,550 metres above sea level, down to the Affar Depression, 110 metres below sea level (CSA, 2009).
- The climate varies with the topography, from as high as 47 degrees Celsius in the Affar Depression to as low as 10 degrees Celsius in the highlands.

- Djibouti, Eritrea, the Republic of the Sudan, the Republic of the Southern Sudan, Kenya, and Somalia border the country.
- There are three principal climates in Ethiopia: tropical rainy, dry, and warm temperate. Maximum and minimum average temperatures vary across regions of the country
- Generally, the mean maximum temperature is highest from March to May and the mean minimum temperature is lowest from November to December. (MOI, 2004).

- Ethiopia is an agrarian country and agriculture accounts for 43 percent of the gross domestic product or GDP (CSA, 2009). Coffee has long been one of the main export items of the country; however, other agricultural products are currently being introduced on the international market.
- Between 1974 and 1991 the country operated a central command economy but has since moved toward a market-oriented economy.
- Currently, the country has one commercial and two specialized government owned banks and 14 privately owned commercial banks, one government-owned insurance company and eleven private insurance companies. There are also 30 micro-financing institutions established by private organizations (NBE, 2010).



- the economy has grown in real GDP at a rate of 11 percent per annum in the past five years. With an average population growth rate of 2.6 percent, the GDP growth rate translates to an 8.4 percent growth in average annual per capita income. This rapid growth is the result of
- diversification and commercialization of small-scale agriculture, expansion of non-agricultural production in services and industry, capacity-building and good governance, off-farm employment especially through small enterprises, and investment in infrastructure (MOFED, 2010).

## **National health profile:**

- The major health problems of the country are largely preventable communicable diseases and nutritional disorders. More than 90% of child deaths are due to pneumonia, diarrhoea, malaria, neonatal problems, malnutrition and HIV/AIDS, and often as a combination of these conditions.
- Following the change of government in 1991, the new Government of Ethiopia put in place many political and socio-economic transformation measures. Among these,
- it developed a first national health policy, which was followed by the formulation of four consecutive phases of comprehensive Health Sector Development Plans (HSDPs), starting from 1996/97

- The policy and the first HSDP were based on critical reviews of prevailing national health problems and a broader awareness of newly emerging health problems in the country.
- the core of the health policy are democratization and decentralization of the health care system
- developing preventive, promotive and curative components of health care; assurance of accessibility of health care for all parts of the population
- encouraging private and NGO participation in the health sector.

- During the past fifteen years, the Federal Ministry of Health has built an impressive framework for improving the health for all, including maternal and neonatal health
- . This has included a wide range of strategies such as
  - Reproductive Health Strategy (2006),
  - Adolescent and Youth Reproductive Health Strategy (2006)
  - and the Revised Abortion Law (2005).

- There are also strategies on free service for key maternal and child health services (Health Care Financing Strategy)
- training and deployment of new workforce of female Health Extension Workers (HEWs) for institutionalizing community health care with clean and safe delivery at Health Post (HP) level, and
- deployment of Health Officers (HOs) with MSc training in Integrated Emergency Obstetric and Surgery (IEOS) skills

## B. Basic indicators

1. Area (in 1000 sq. km)	1.1million
2. Estimated Population(,000s)	73.8 million
3. Percentage of population	
- Under 15 years old(%)	46.3
- over 60 years old(%)	6
4. Living in urban areas(%)	16.1%
5. Annual growth rate(%)	2.6%
6.Total fertility rate(per woman)	4.8 children/women



7. Adult mortality rate

- (probability of dying between 15 and 60 years per 1000 population) 4.5

8. Life expectancy at birth (years)

- Male 50.9
- Female 53.5

9. Infant mortality rate

- (probability of dying between birth and age 1 per 1000 live births) 59

10. Maternal mortality ratio (per 100,000 live births)  
676

# 11. Under-5 mortality rate

- (probability of dying by age 5 per 1000 live birth)  
88

# 12. Access to improve drinking-water sources (%)

- Urban area 94.5
- Rural area 41.7

# 13. Immunization coverage among 1-year-olds (%)

- BCG 90
- Polio 3 times 84.3/
- Measles 81.5
- DPT 3 times 84.3
- HepB3 84.3
- Hib3 84.3

#### 14. Three leading causes of morbidity (Year: )

- -malaria 17%
- -diarrhoea 8%
- -pneumonia 7%

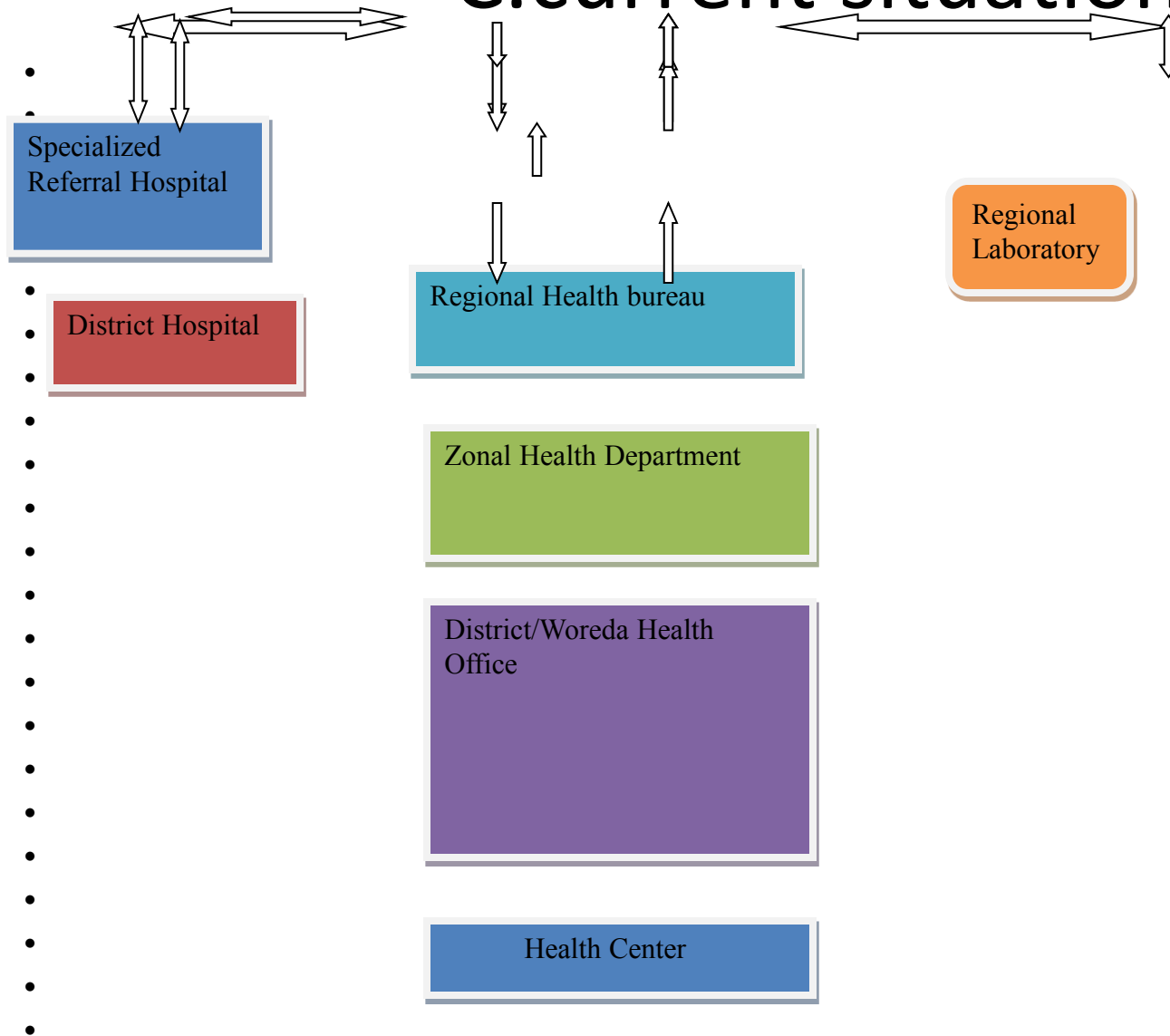
#### 15. Three leading causes of institutional mortality (Year 2012 )

- -Lower Respiratory Infections 128,305
- -Diarrheal Diseases 124,015
- -Stroke 54,816

## 16. Health workforce

- (total No. and Density (per 10,000 population)
  - Physicians 1:24841
  - Professional Nursing and midwifery personnel 1:11000

# C.current situation



## 2. Admenstration of national policy

### Federal Ministry Of Health:

- Expand Health service delivery
- Establish & administer referral hospital & laboratory and research institutions.
- Set Health service delivery standards
- Accreditation & certification of health professionals
- Design strategies on communicable diseases prevention and control

### Regional Heath Bureau:

- Similar to the federal Ministry of Health in the context of the regional health priorities

Zonal Health Department&woreda convert contextually and mostly are implementers



# 3.Program laws

## Malaria

- By 2015, achieve malaria elimination within specific geographical areas with **historically low malaria transmission**
- By 2015, achieve near zero malaria death in the **remaining malarious areas** of the country
- By 2020, achieve elimination of malaria across the country
- By 2015, achieve malaria elimination within specific geographical areas with **historically low malaria transmission**
- By 2015, achieve near zero malaria death in the **remaining malarious areas** of the country
- By 2020, achieve elimination of malaria across the country

## Tuberculosis

- The DOTS Strategy & the STOP TB Strategy:- WHO recommended a more comprehensive TB control strategy in 2006 based on previous DOTS and DOTS-plus experiences. This new strategy is called the Stop TB Strategy

## Hiv/Aids

- The Strategic Framework for the National Response to HIV/AIDS in Ethiopia for 2001-2005 focuses on reducing the transmission of HIV and associated morbidity and mortality, and its impact on individuals, families, and society at large.
- The strategy is built on four issues: multisectoralism, participation, leadership, and efficient management (including adequate monitoring and evaluation).

## 4. Major challenges of communicable disease

- Poor recording, reporting & documentation of communicable diseases
- Inadequate laboratory facilities to confirm communicable diseases.
- Shortage of trained & skilled manpower
- Shortage of resources /Material & Financial/
- The surveillance system is not electronically networked
- Low community awareness on communicable diseases

## D. On going imunization program

- Polio
- Measles
- Pentavalent/ Tetanus,
- Pertusis,Diphtheria
- Hepatitis B, & Pneumonia/
- BCG
- TT
- PCV /Pneumococcal Vaccine/

## E. Production of vaccine

vaccines are donated by international organizations & imported from other countries

- BCG
- TT
- Pentavalent
- Measles
- PCV
- Polio

- THANKS TO
- JICA TOKYO
- JAPAN MINISTRY OF HEALTH AND WELFARE
- JAPAN GOVERNMENT
- Ms KATO Megumi/organizer contact
- Finally to all participants for their attention



*The Study Programme  
for the Countermeasure for Communicable Diseases*

# Ghana

# COUNTRY REPORT ON COMMUNICABLE DISEASES IN GHANA

# OUTLINE OF PRESENTATION

- Map of Ghana
- Brief description of Ghana
- Basic indicators
- Health indicators
- Administration on national policy, decentralization
- Management structure of the KBTH
- Challenges to the control of CDs

# GHANA IN WEST AFRICA



# MAP OF GHANA



FLAG OF GHANA



Kente Weaving



King of Asante in Palanquin

# GHANA

- The Republic of Ghana, formerly the Gold Coast, is a West African country bordering the Gulf of Guinea.
- Boundaries: Burkina Faso to the north,
  - Côte d'Ivoire to the west
  - Togo to the east.
- Coastline on the Gulf of Guinea,  
part of the Atlantic Ocean.



# GHANA

- Ghana is about the size of the United Kingdom
- It has an area of 238,533 sq. kilometers
- Gained independence on the 6<sup>th</sup> March 1957 from Britain
- Became a Republic-1960
- The capital of Accra is located along the southeastern coast.
- Official language is English

# GHANA

- Ghana has a tropical climate, warm and comparatively dry along the southeast coast, hot and humid in the southwest, and hot and dry in the north.
- Its terrain is mostly low plains with a plateau in the south-central area.
- Its highest point is Mount Afadjato
- 10 regions: the Northern, Upper West, Upper East, Volta, Ashanti, Western, Eastern, Central, Brong-Ahafo, and Greater Accra.

# GHANA

- Ghana's largest lake, Lake Volta, is also the world's largest artificial lake.
- There are two main seasons in Ghana: the wet and the dry seasons
  - Northern Ghana experiences its rainy season from March to November
  - Southern Ghana experiences the season from April to mid-November.

# GHANA



Mole park



Kakum  
Park



Boti falls

# GHANA



# GHANA





# GHANA

- Largest ethnic group is the Akan.
- CHIEF EXPORTS: Gold, cocoa, timber, tuna, bauxite, aluminum, manganese ore, diamonds, Crude oil.
- CHIEF IMPORTS: petroleum, foodstuffs

# BASIC INDICATORS

INDICATOR	FIGURES
Area (in 1000 sq. km)	238,533
Estimated Population	24,658,823
Percentage of population Under 15 years old (%)	38.3%
Percentage of population 65+ years old (%)	4.7%
Living in urban areas (%)	51%
Intercensal growth rate (%)	2.5%

INDICATOR	FIGURES	
Total fertility rate (per woman)	4.0	2008, GDHS
Adult mortality rate (probability of dying between 15 and 60 years per 1000 population)	317	2007
Life expectancy at birth (years)		
-Total	61.45	
-Male	60.22	
-Female	62.73	2011
Infant mortality rate (probability of dying between birth and age 1 per 1000 live births)	50/1000	2008, GDHS
Maternal mortality ratio (per 100,000 live births)	375/100,000	2008, GDHS
Under-5 mortality rate (probability of dying by age 5 per 1000 live birth)		

# BASIC INDICATORS

- INDICATOR	FIGURES	
<b>12. Access to improved drinking-water sources (%)</b>  - Urban area - Rural area	93.0% 76.6%	2008, GDHS
<b>13. Health workforce (total No. and Density) per 10,000 population)</b> -Physicians - Professional Nursing and midwifery personnel	( 1:10,423)  (1:1,077)	2010, Ghana Health Service

# BASIC INDICATOR

14. Immunization coverage among 1-year-olds (%)		
-BCG	98%	2011 WHO, UNICEF Estimates
-Polio3times	91%	
-Measles	91%	
- Rubella	Not known	
- DPT 3 times	91%	
- HepB3	91%	
- Hib3	91 %	

# BASIC INDICATOR

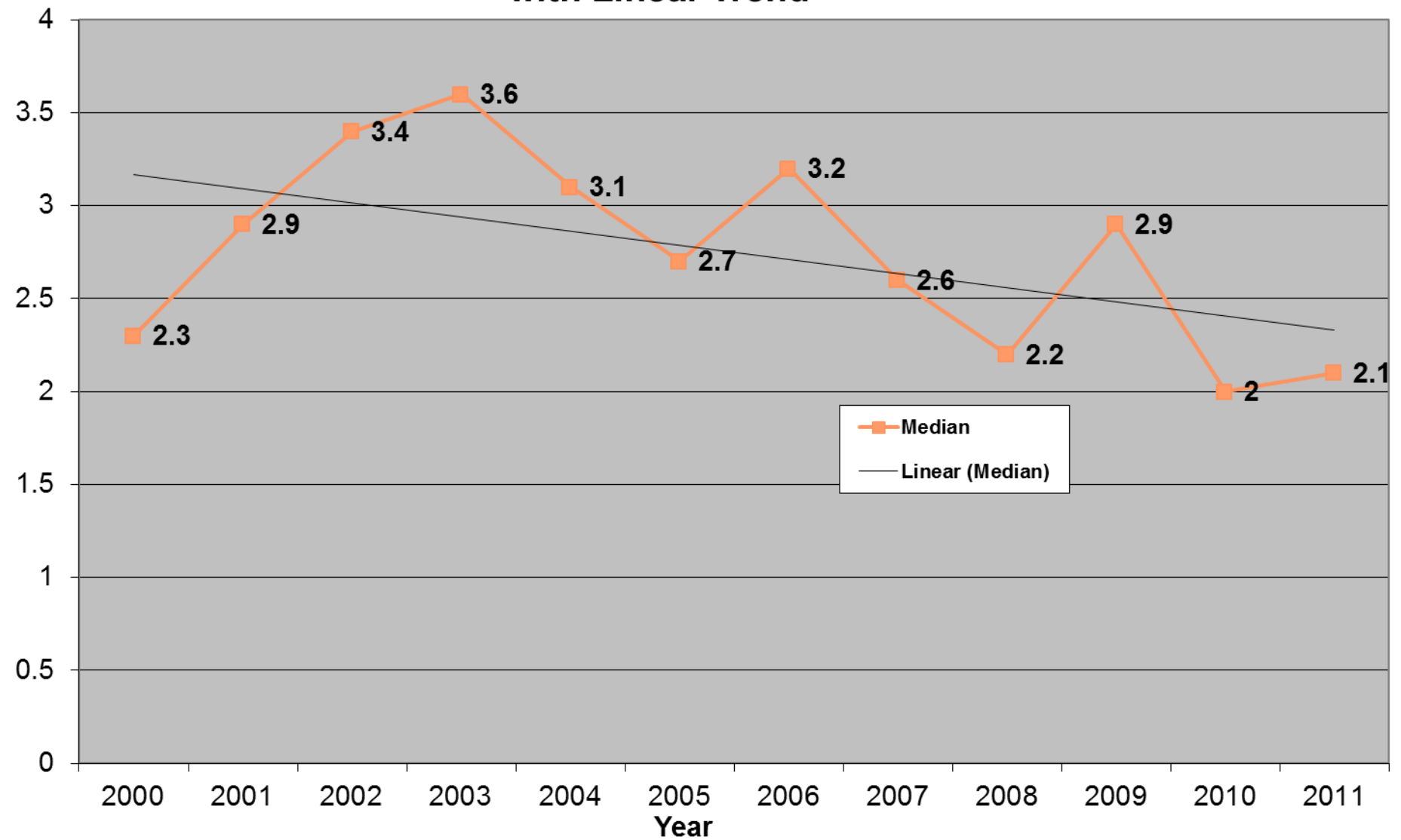
- **Three leading causes of morbidity**
- - Malaria
- - Upper respiratory tract infections
- - Diarrhoeal diseases
  
- **Three leading causes of institutional mortality**
- - Malaria
- - HIV related conditions
- - Anaemia



# BASIC INDICATOR

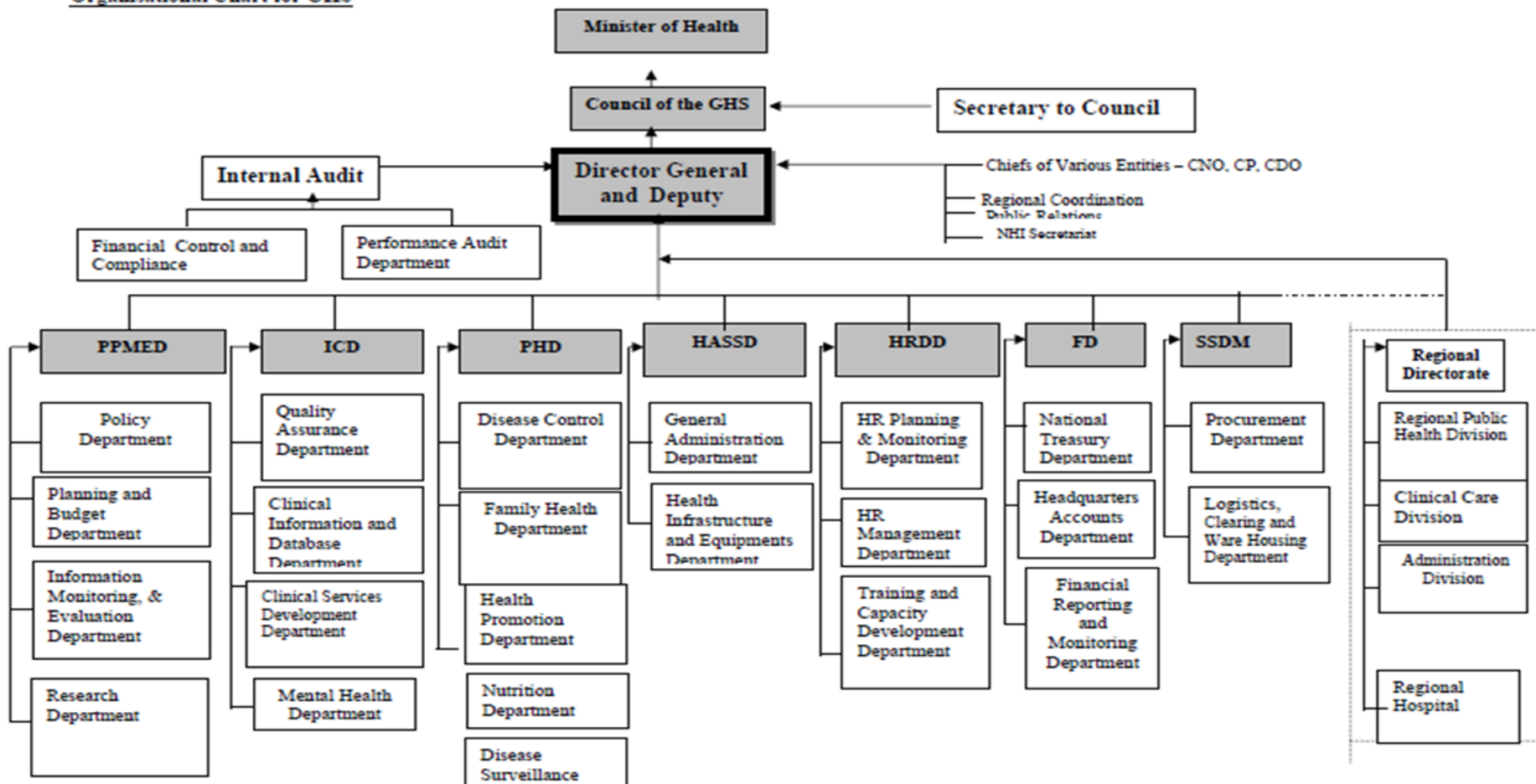
- Number of cases of HIV/AIDS patients is **225, 478**
- prevalence of HIV in the general population – 1.5%.
- prevalence of HIV among pregnant women – 2.1%

## Median HIV Prevalence 2000 - 2011 with Linear Trend



# ADMINISTRATION ON NATIONAL POLICY, DECENTRALIZATION

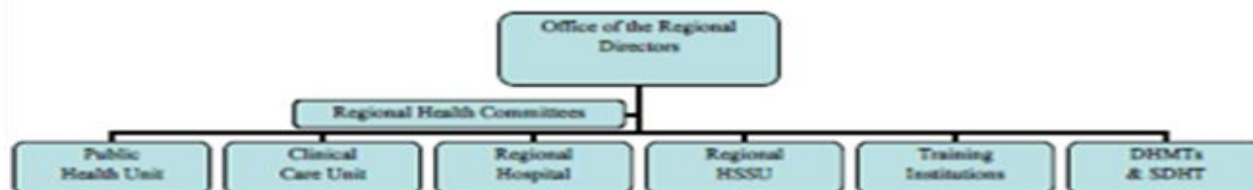
Organisational Chart for GHS



### Ghana Health Service – Headquarters Level



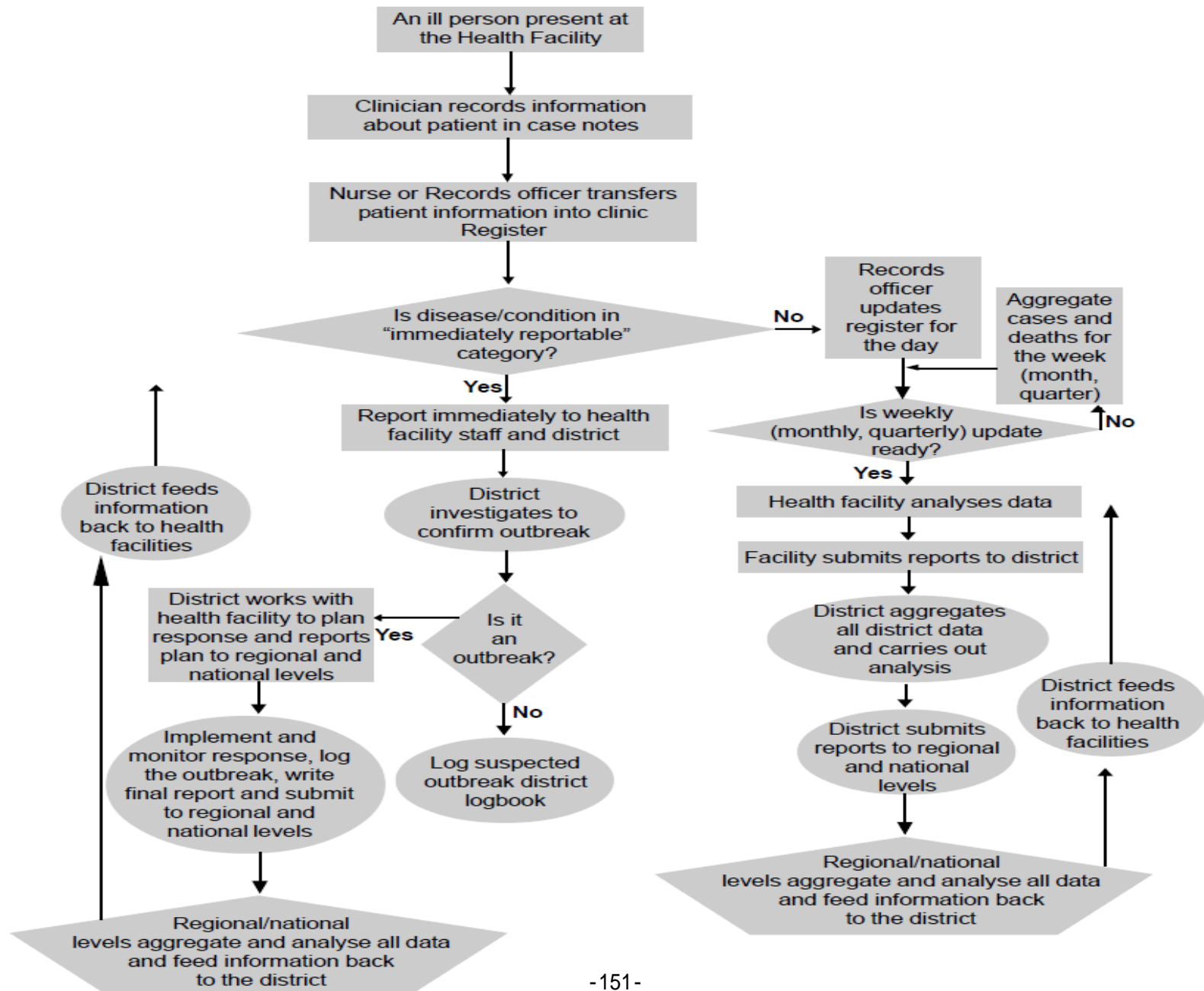
### Regional level



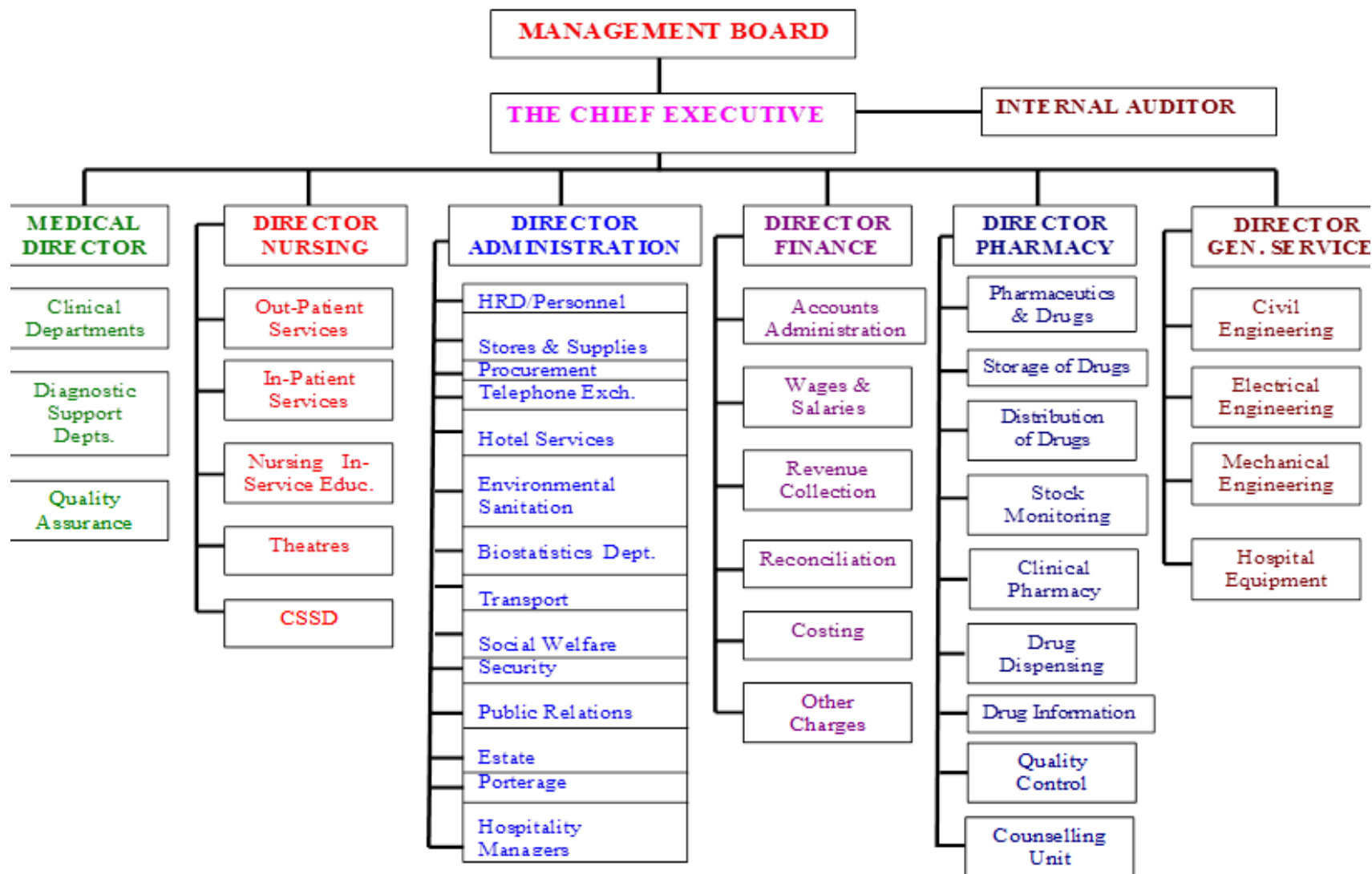
### District level



**Figure 1: Information flow in an integrated disease surveillance system**



**KORLE-BU TEACHING HOSPITAL**  
**MANAGEMENT EXECUTIVE STRUCTURE**



# KORLE-BU TEACHING HOSPITAL

- Korle-Bu Teaching Hospital is the largest hospital in Ghana.
- The number one referral hospital for the country and sometimes from the West Africa sub-region.
- 2000 Bed capacity
- average attendance- 1500 OPD patients per day and
- 150 admissions per day.
- The hospital has over 4000 staff.



# KORLE- BU TEACHING HOSPITAL

- The compound houses the University of Ghana Medical School, a Nursing training school, School of Hygiene, School of Allied Health Sciences, the University of Ghana Dental School, students and health workers accommodation.

# Challenges with the control of communicable diseases

- Inadequate human resource capacity to investigate and control Cholera outbreaks.
- Lack of standardized protocol for investigating and controlling Cholera.
- Delayed response in dealing with outbreaks of communicable diseases in the hospital and surrounding communities
- Poor compliance to infection prevention and control practices by health staff and patients
- Weak surveillance system for hospital acquired infections eg MRSA

# CHOLERA IN GHANA

# OUTLINE

- Introduction
- Summary of cholera in Ghana
- Cholera in Korle-bu Teaching Hospital
- Steps used in investigating the outbreak
- Challenges with the control of cholera
- Action plan for countermeasure

# CHOLERA

- **INTRODUCTION**
- Cholera is an acute intestinal infection caused by ingestion of food or water contaminated with the bacterium *Vibrio cholera*.
- Has a short incubation period
- Produces an enterotoxin that causes a copious, painless, watery diarrhoea.
- Vomiting also occurs in most patients
- Can lead to severe dehydration and death

# CHOLERA

- **INTRODUCTION**

- Most persons infected with *V. cholerae* do not become ill, although the bacterium is present in their faeces for 7-14 days.
- When illness does occur, about 80-90% of episodes are of mild or moderate severity and are difficult to distinguish clinically from other types of acute diarrhoea.
- Less than 20% of ill persons develop typical cholera with signs of moderate or severe dehydration.

# CHOLERA IN GHANA

- A total of 5,518 cases with 57 deaths
- case fatality rate of 1.0 %
- cases reported from 30 districts in seven regions between the period of 1st January to 2nd September 2012.

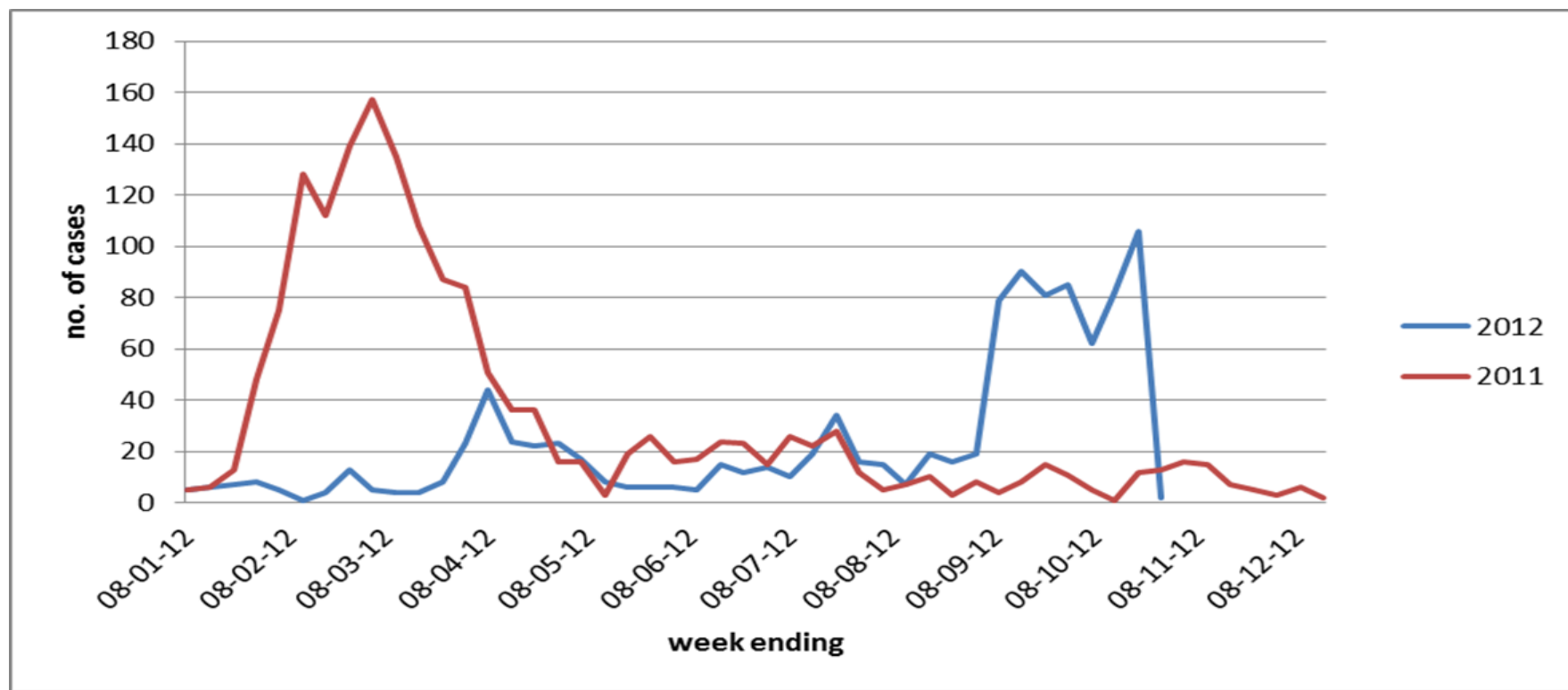


# CHOLERA IN KORLE-BU TEACHING HOSPITAL

- 583 cases have been recorded from January-September, 2012 during the period.
- September 1<sup>st</sup> to 13<sup>th</sup> witnessed a sharp rise in the number of severe diarrhoea/cholera cases of 146.
- There were a total number of 5 deaths over the period.

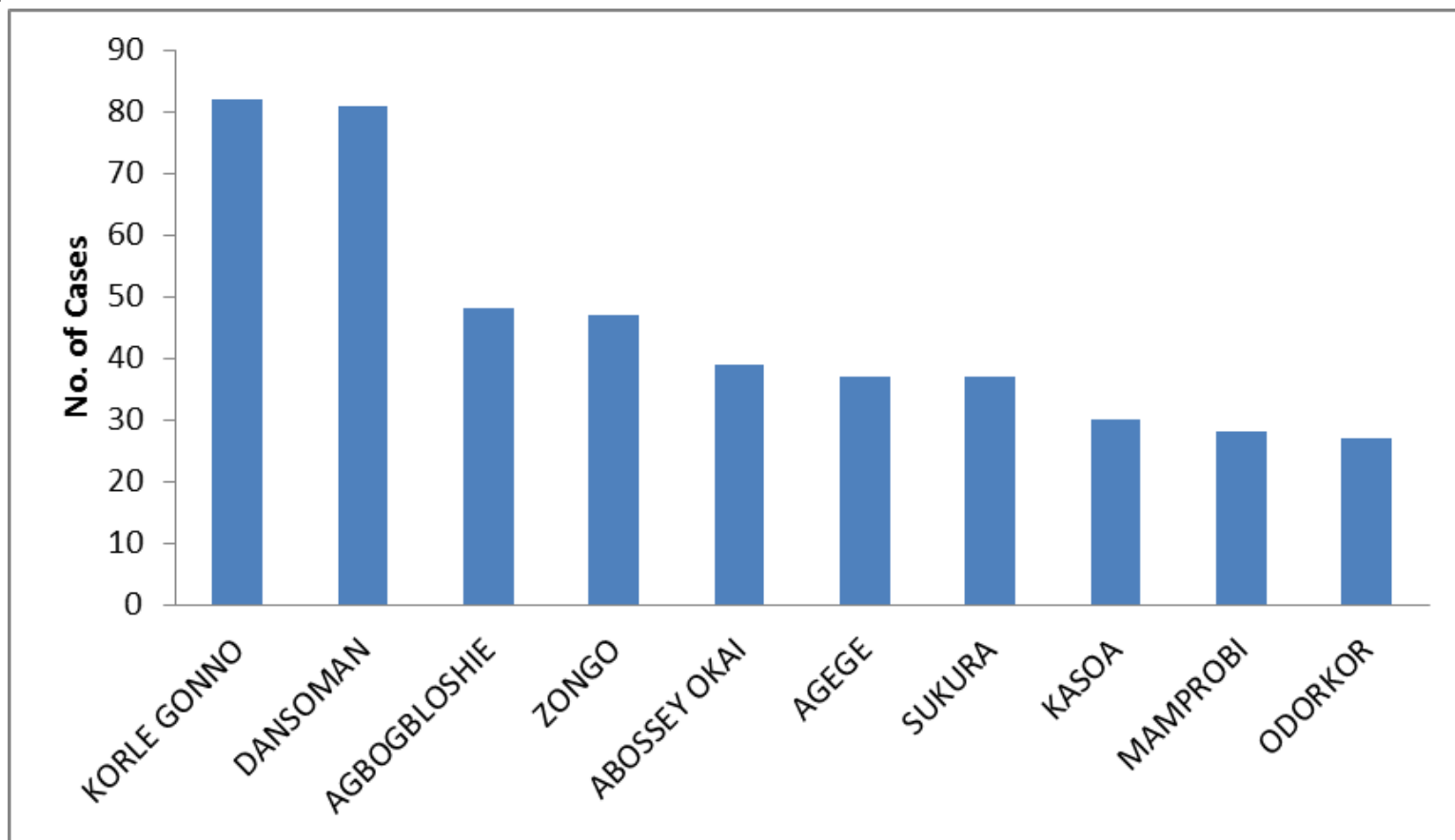
# CHOLERA IN KORLE-BU TEACHING HOSPITAL

- Fig 1: Comparison of weekly trends in severe diarrhoea/cholera for 2011 & 2012



# CHOLERA IN KORLE-BU TEACHING HOSPITAL

Fig 2: Location of severe/cholera cases by specific communities from January – September, 2012



# Steps used in investigating the outbreak

1. Establish the existence of an outbreak
2. Verify the diagnosis
3. Define a case
4. Implement Infection prevention and control measures
5. Describe data by time, place, person
6. Communicate findings
7. Health education

# Challenges with the control of cholera

- Inadequate human resource capacity to investigate and control Cholera outbreaks.
- Lack of standardized protocol for investigating and controlling Cholera.
- Delayed response in dealing with outbreaks of cholera in the hospital and surrounding communities
- Poor compliance to infection prevention and control practices by health staff, patients and relatives
- Lack of a proper holding bay for patients with cholera.
- Insanitary conditions

# Transporting an individual with cholera



# Cholera bed





- JAPAN has always been interested in controlling communicable diseases!
- Beneficiary countries are grateful.



DOCTOR  
HIDEYO  
NOGUCHI  
JAPANESE  
1876 ~ 1928

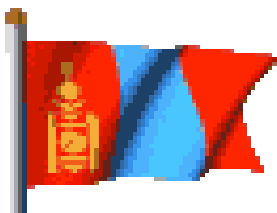




- **THANK YOU FOR YOUR ATTENTION**

*The Study Programme*  
*for the Countermeasure for Communicable Diseases*

# Mongolia



# Country report of Mongolia

National Center for Zoonotic Diseases, National Center for  
Communicable Diseases  
Ministry of Health, Mongolia

# Mongolia Today

## Geography



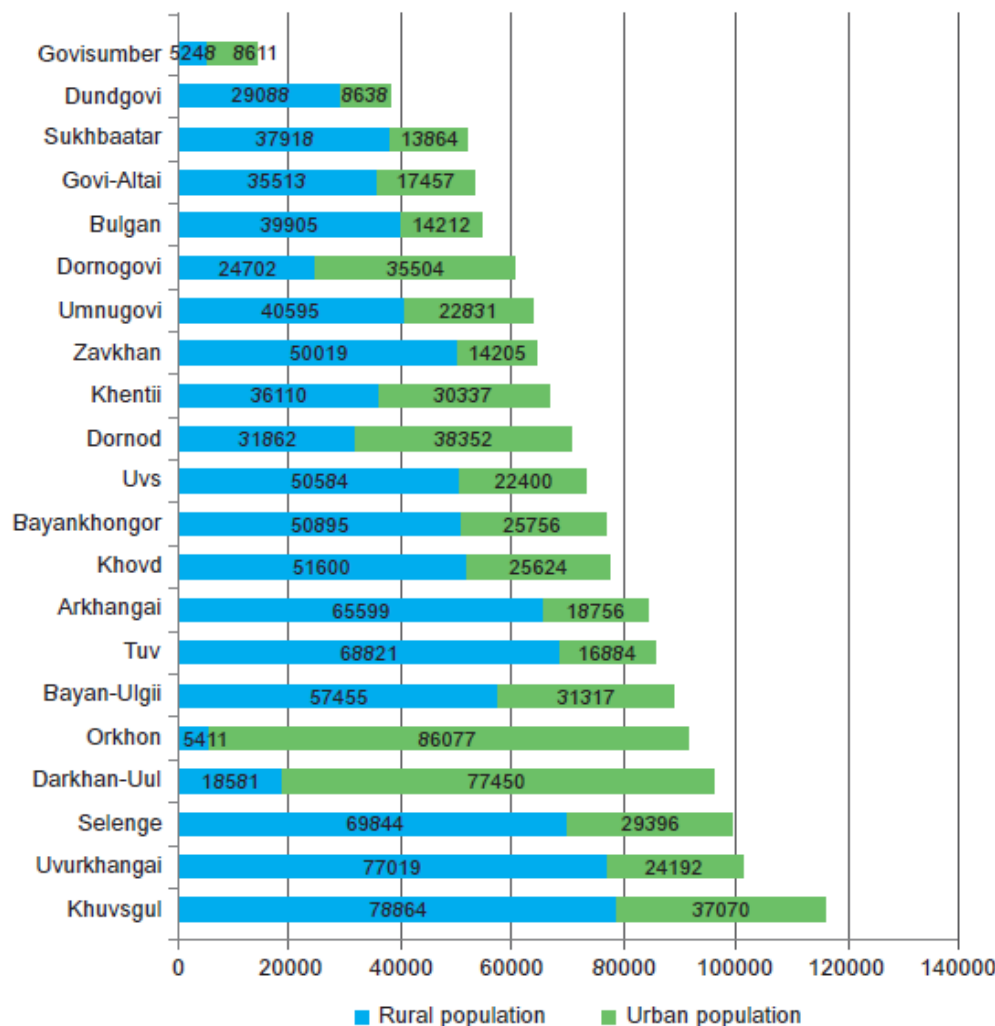


# Background



- **Demography:** Total population 2.8 million (2011)
- **Livestocks:** 36.3 million (2011)
- **Territory:** 1564.1 km.square
- **Density:** 1.57 million km<sup>2</sup>/per person, lowest density in the world
- **Administration:** 21 provinces and capital city, with 343 soums
- **Climate:** Desert and continental, temperature: as low as -45°C to -50 °C in winter and 25 ° to 30 °C in the summer

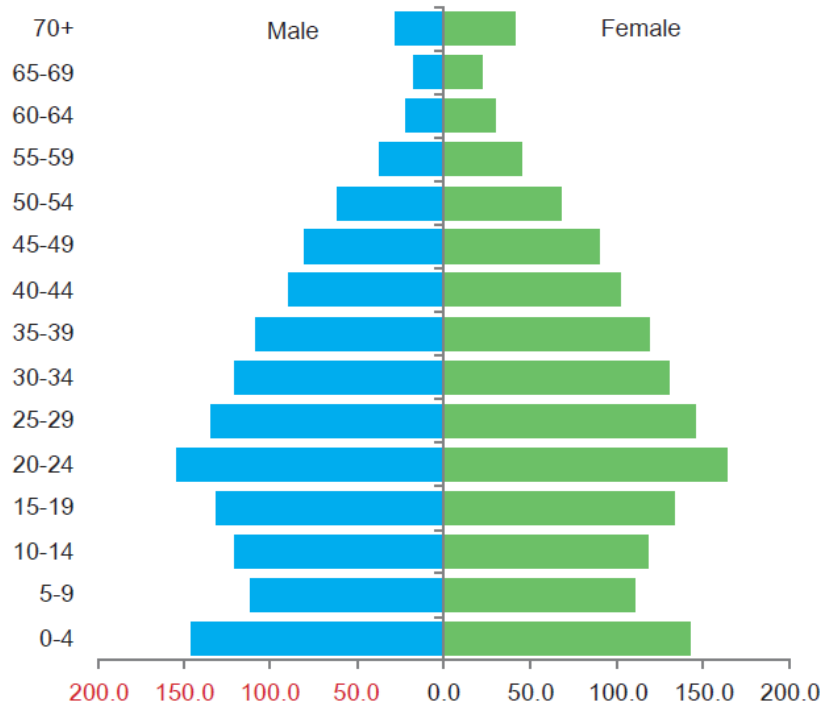
# Rural and urban population, 2011



- 43.1% live in Ulaanbaatar
- 24% live in aimag centers
- 32.9% live in rural areas including soum centers and baghs, 2011

# Demographic indicator, 2011

## Life expectancy



## Percentage population

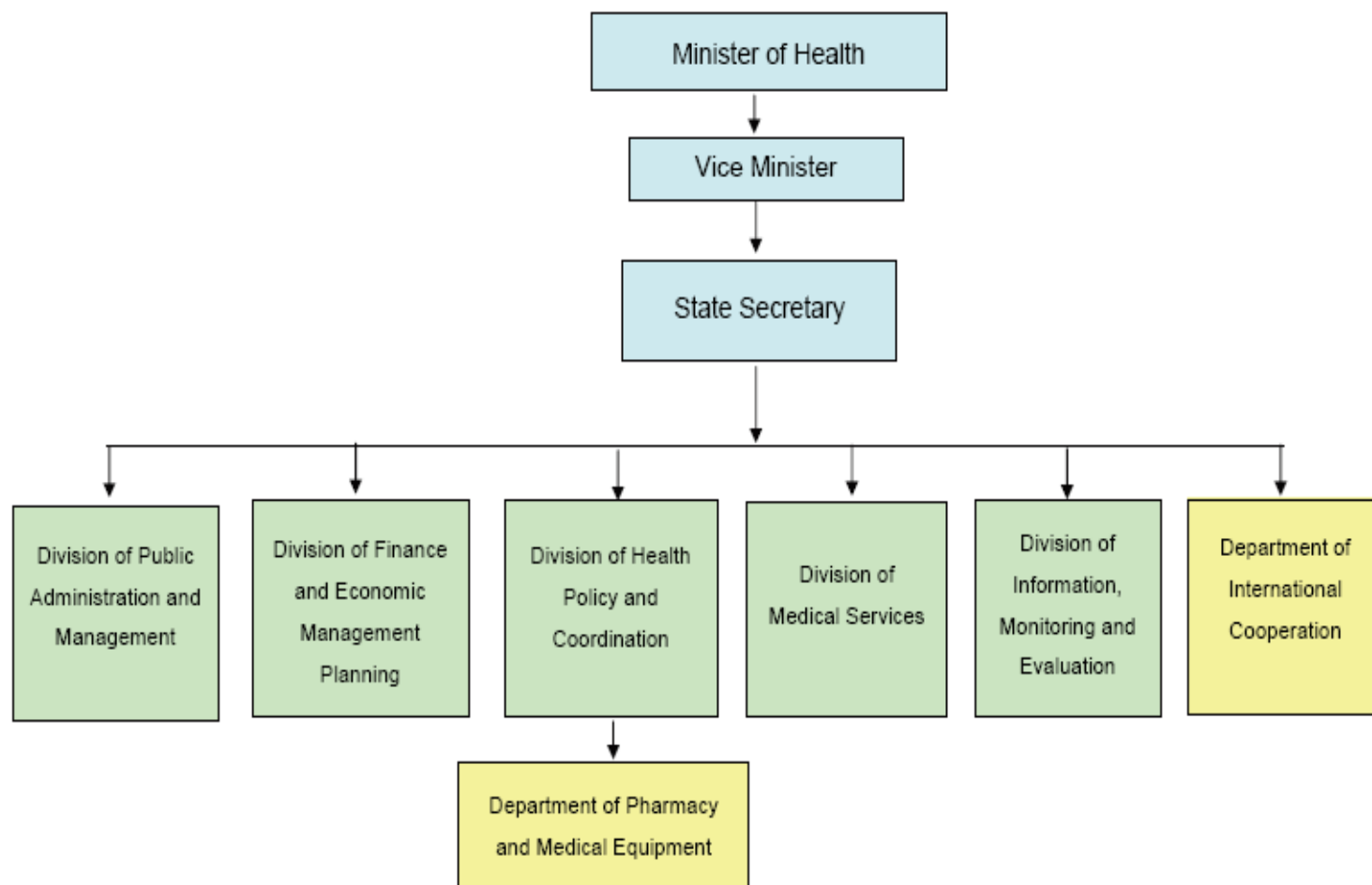
Under 15 years old-27.2%

Under 60 years old-72.8%

Annual growth rate-1.9%

Average life expectancy of the population  
Mongolia was 68.32 years

- Women-73.76
- Men-64.68

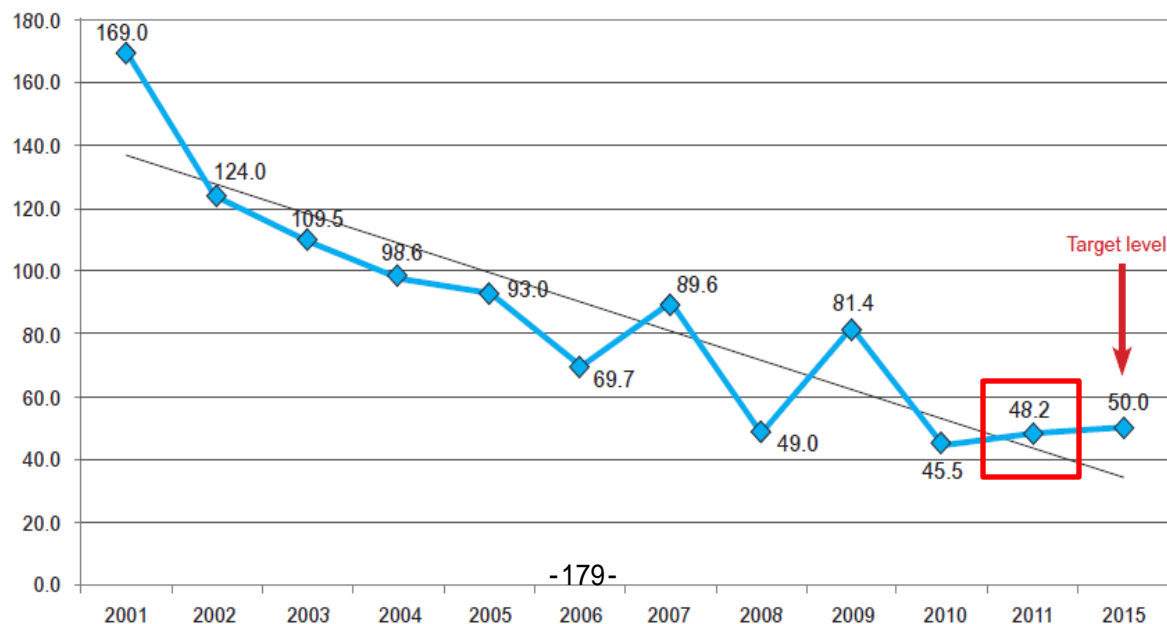


# Demographic indicator, 2011

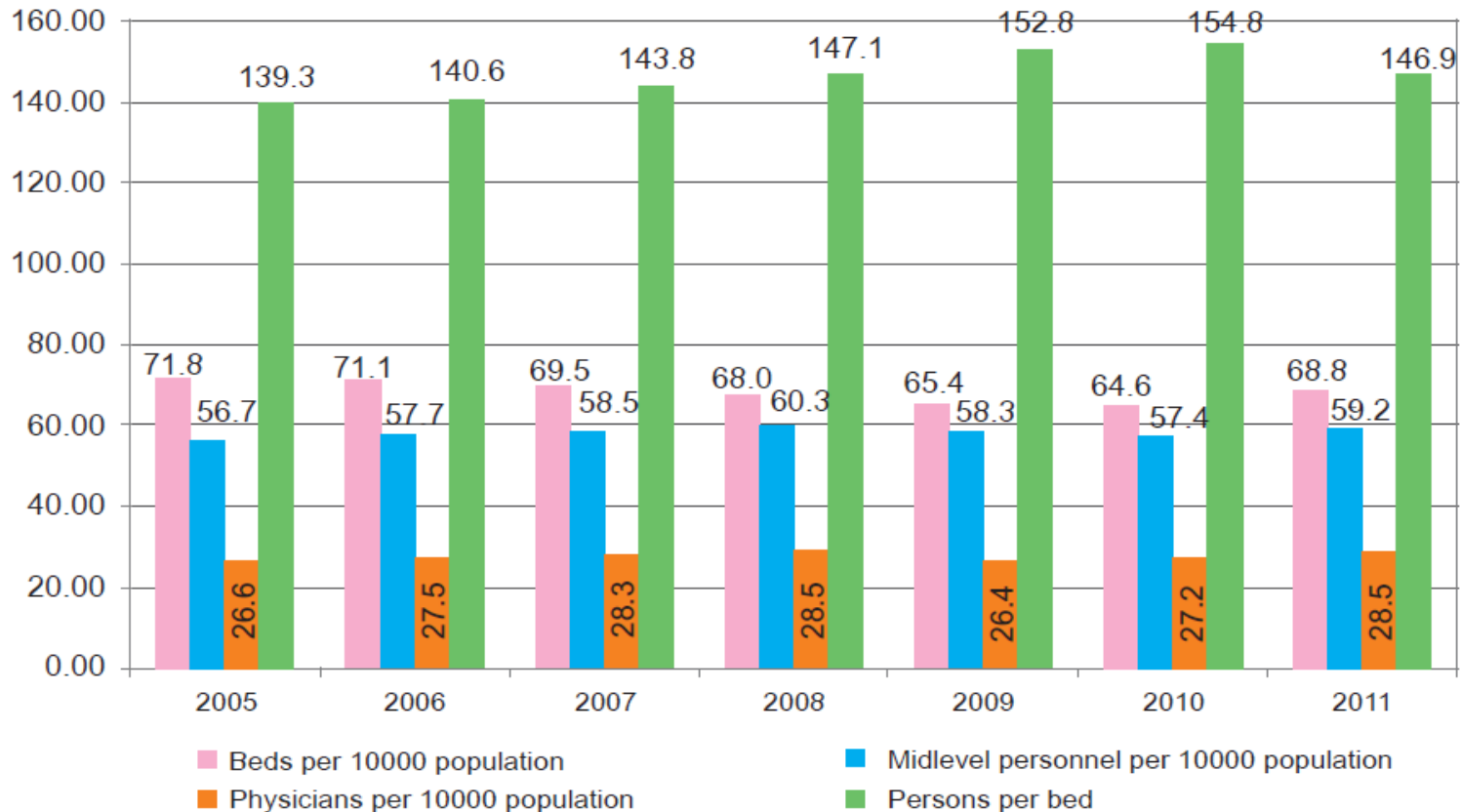
Infant mortality rate-**16.3**  
per 1000 live births

Under-5 mortality rate-**20.0**  
per 1000 live births

Maternal mortality rate-**48.2** per 100.000  
live births



# Health workforce, 2005-2011



Per 10.000 population, 2011:

Doctors-**28.5**

Nurses and midwives-**59.2**

# Major Programm for Communicable Diseases

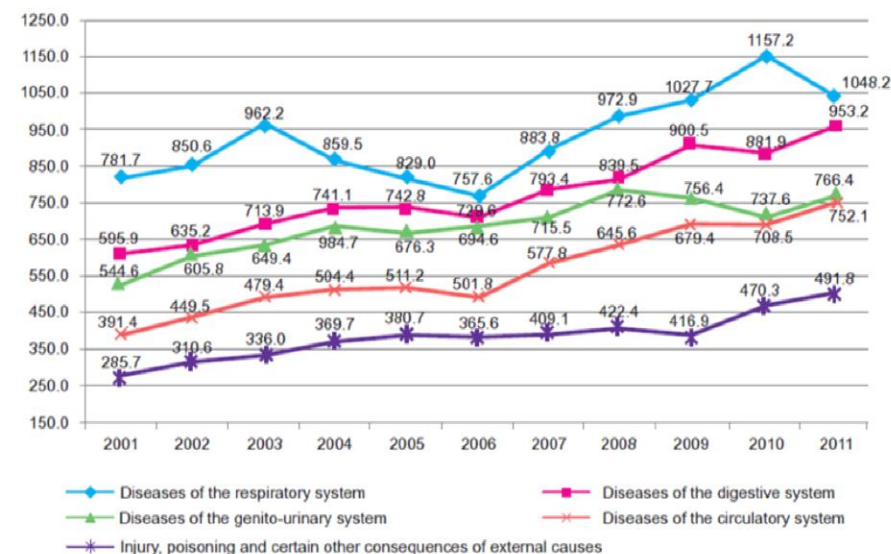
- Subprogram on control and prevention of vaccine preventable disease.
- Subprogram on control and prevention of tuberculosis.
- Subprogram on control and prevention of intestinal infections
- Subprogram on control and prevention of infectious disease with natural foci and zoonosis.
- Subprogram on control and prevention of HIV, AIDS, STI.
- Subprogram on control and prevention of viral hepatitis



# Leading cause for morbidity and mortality, 2001-2011

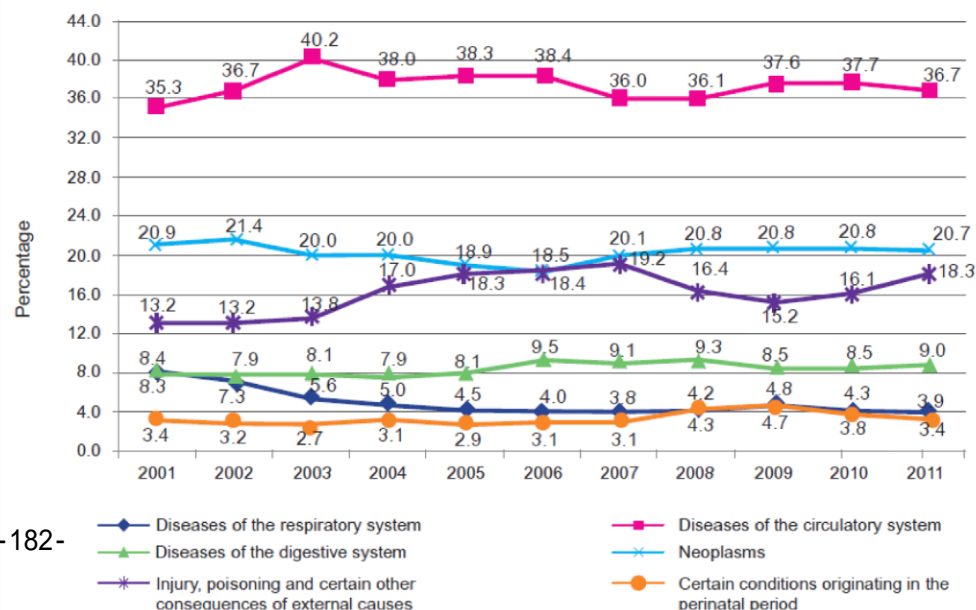
## Leading morbidity:

1. Diseases respiratory diseases
2. Diseases of the digestive system
3. Diseases of the genitourinary system



## Leading mortality:

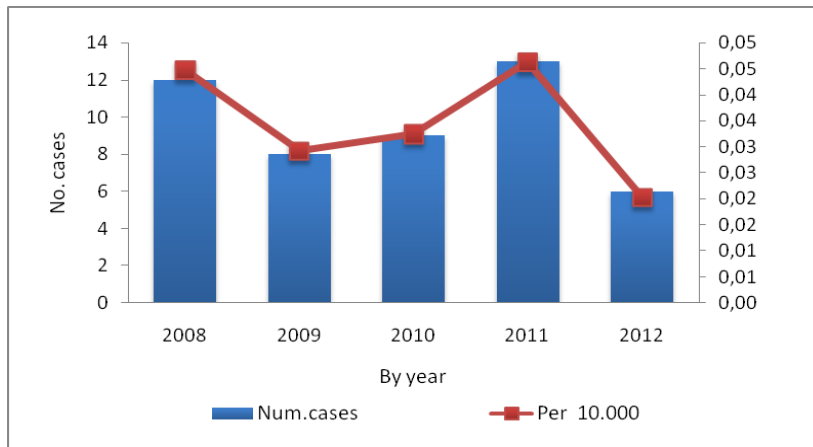
1. Diseases of the circulatory system
2. Tumour and neoplasm
3. Injuries, poisoning and other consequences of external causes



# Diseases under WHO monthly report

Cholera outbreak, 1996:

178 confirmed cases, 12 deaths (CFR=6.7%)

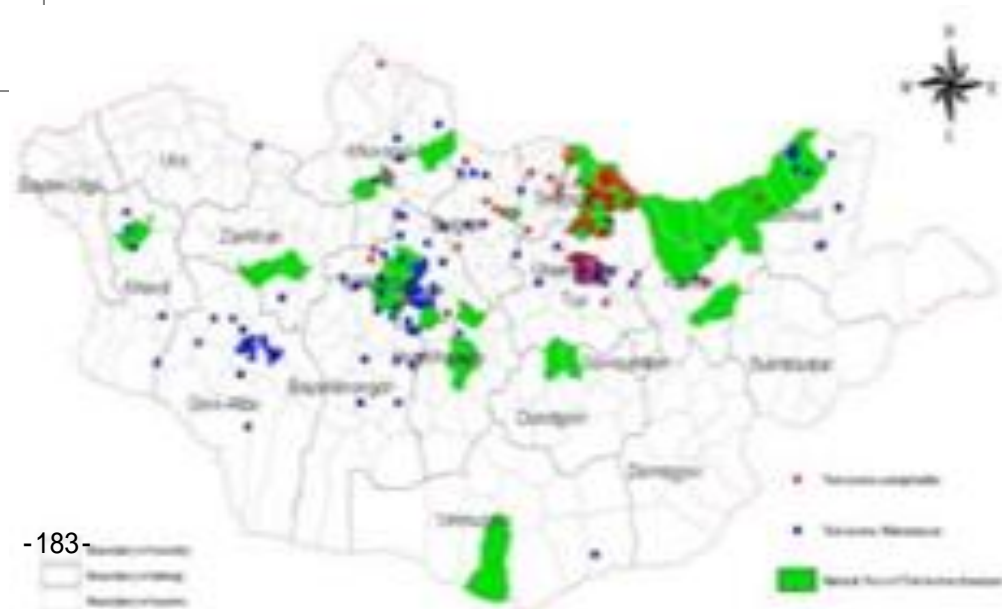


*Tick borne encephalitis,  
2008-2012:*

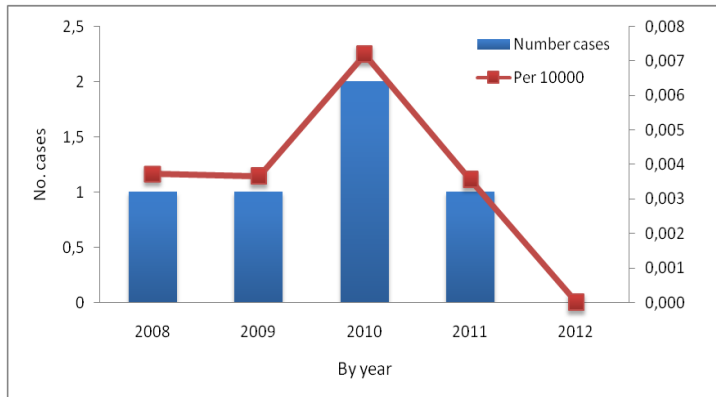
Confirmed cases-48

CFR-0

*Human cases of TBDs,  
2008-2012:*

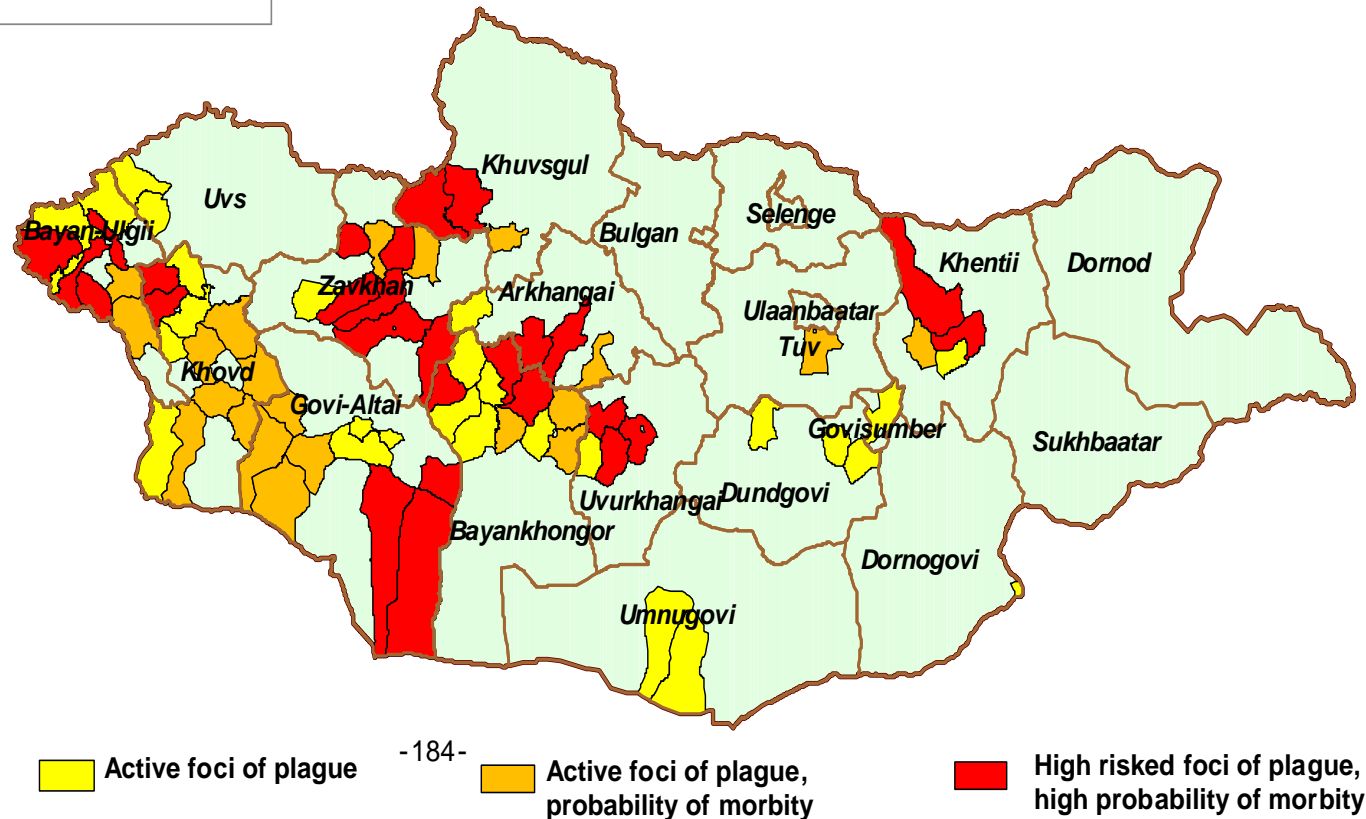


# Diseases under WHO monthly report



*Plague, 2008-2012:*  
Confirmed cases-5  
CFR-0

Prevalence of  
plague risk  
territories



# Diseases under WHO monthly report

	No of cases	Rate 100.000	No of Death
Tuberculosis	3985	143	111
Viral Hepatitis	14612	528	20
Hepatitis A	13612	490	
Hepatitis B	749	27	
Hepatitis C	152	25	
Hepatitis D	701	25	

# Cases for following STD

	No of cases	Rate 100.000
Gonorrhoea	5159	
Syphilis	4268	
AIDS	17	1

# Immunization Programmes

- Name of Target Diseases

1. Tuberculosis
2. Hepatitis B
3. Polio
4. Measles
5. Mumps
6. Rubella
7. Diphtheria
8. Tetanus

- Type of Vaccines

1. BCG-98,9%
2. HEP B-98,9%
3. OPV-99,2%
4. Pentavalent-99,2%
5. MMR-98,1%
6. DT

9. Hemaphilis influenza B -187-

# Immunization schedule

schedule	Birth dose within the 24 hours	2 Month	3 months	4 months	9 months	2 years	7 years	15 years
BCG	1							
HEP B	1							
OPV	1	2	3	4				
5valent		1	2	3				
MMR					1	2		
DT							1	2



# Immunization Programmes

Type of vaccines	Dose	No of Immunized Persons
BCG/Japan	1	70576
HEP B/Korea	1	69802
OPV/Belgium	4	70506/66938/66514/66334
Pentavalent/Gavi	3	66940/66514/66308
MMR/India	2	62061/60433
DT/India	2	

# Production of vaccine (Rabies)

<b>Name of vaccines</b>	<b>Tissue culture vaccine for rabies</b>
Method production	Goat's brain tissue vaccine
Name of factory	Institution of Public health research
Amount of production	150 liter
Sufficient to meet the needs	Yes, because need to develop the CCVs (cell culture vaccines)

# Vaccines zoonotic diseases, from other countries

<b>№</b>	<b>Name of vaccine</b>	<b>Which country</b>
1	Cell culture rabies vaccine	Russia
2	Live spore vaccine for anthrax (STI)	Russia
3	Dry live plague vaccine	Russia, Kazakhstan
4	Tick borne encephalitis inactivated vaccine	Russia
5	Yellow fever vaccine	Russia

# Vaccination against zoonotic diseases in 2012

Anthrax vaccine	3527 vaccinated people; 1031 of them for I and II doses and 2496 for repeatedly doses
Plague vaccine	total 22639 vaccinated
Rabies vaccine	4100 vaccinated and 104 people received rabies serum treatment (rabies immunoglobulin)
TBE vaccine	9671 vaccinated
Yellow fever vaccine	100 vaccinated

*The Study Programme  
for the Countermeasure for Communicable Diseases*

# Panama



# COUNTRY REPORT PANAMA

# Data from Panama



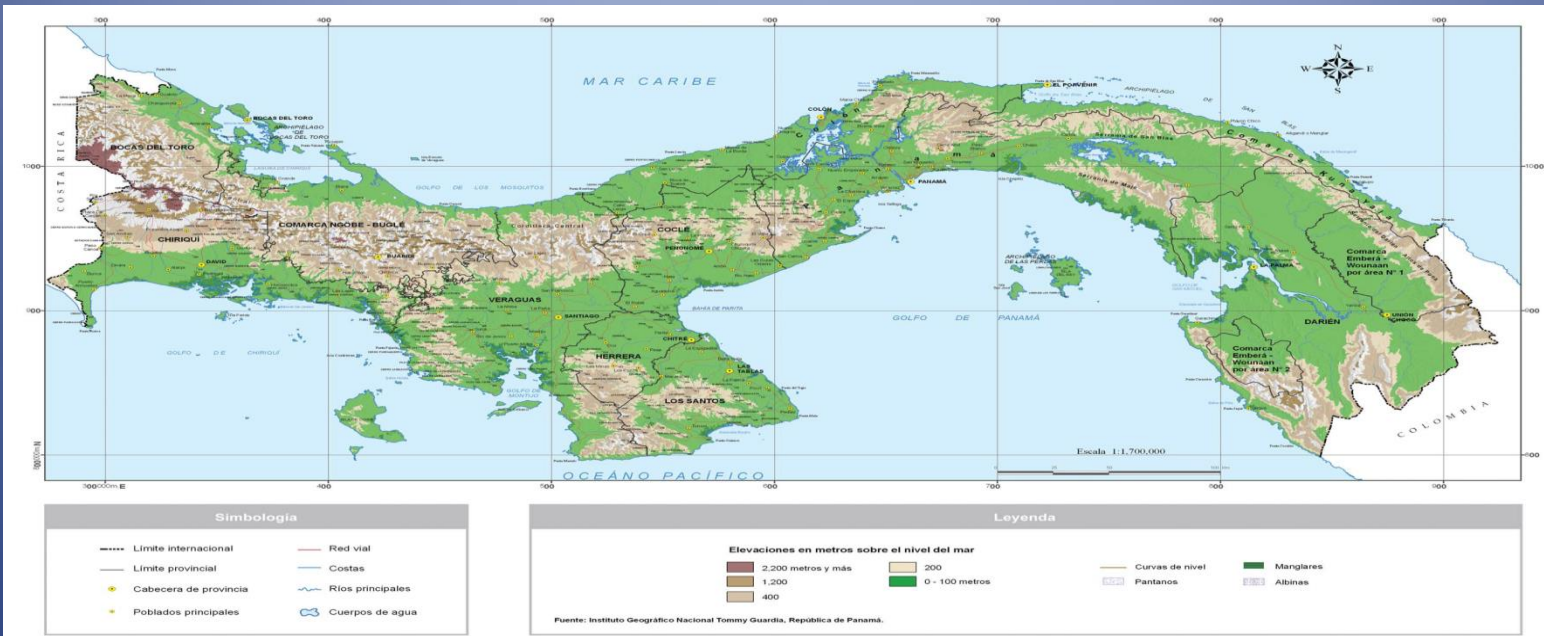
Panama is located in the Central American isthmus between Costa Rica and Colombia at 7 to 10<sup>a</sup> north latitude and 77-83<sup>a</sup> west longitude with an S shape .

It has an area of 75,517 square kilometers with a length of 772 km and 60 to 177 km in width. Its borders also run with the Caribbean Sea and the Pacific Ocean.



# Distribution of Landscape

40% forests and 500 rivers



# ETHNIC GROUPS



# INDICATORS

Indicator	Data	Year
Population	3,723,821	2011
Living in urban areas	2,383,245 (64%)	2011
Living in rural areas	1,340,576 (26%)	2011
Life expectancy at birth	77.9 Fem= 80.86 Male=75.18	2011
Percentage of population	Under 15y/o =28.7% Over 60y/o =9.9%	2011
Annual growth rate (%)	1.7	2011
Total fertility rate	2.4	2011



# INDICATORS

Indicator	Data	Year
Infant mortality rate Per 1000 alive births	13.2	2011
Maternal mortality rate Per 10,000 alive births	8.1	2011
Under 5 y/o mortality rate Per 1000 alive births	0.9	2011
Adult mortality rate per 1000	4.69	2011
Expenditure in health	8.3 % of TGI	
Immunization coverage	90%	2011
Health workforce physicians and nurses	10,295	2011

# Public Health System

Secretary of Health (MINSA)- regulatory , policy maker and provides healthcare for unemployed population or not.(open to everyone )

Social Security System (CSS)- healthcare for employed individuals with benefits regimen for family members- wife, children and parents ; maternity and sick leave benefits and pension plan .  
Insured and family members – 2,800,000

Institute for Drinking Water provision and Sewage Disposal (IDAAN)

Gorgas Memorial Center for Health Studies (ICGES)

Environment Authority (ANAM)

Food Safety Authority (AUPSA)

Urban and Household Waste Management (AAUD).

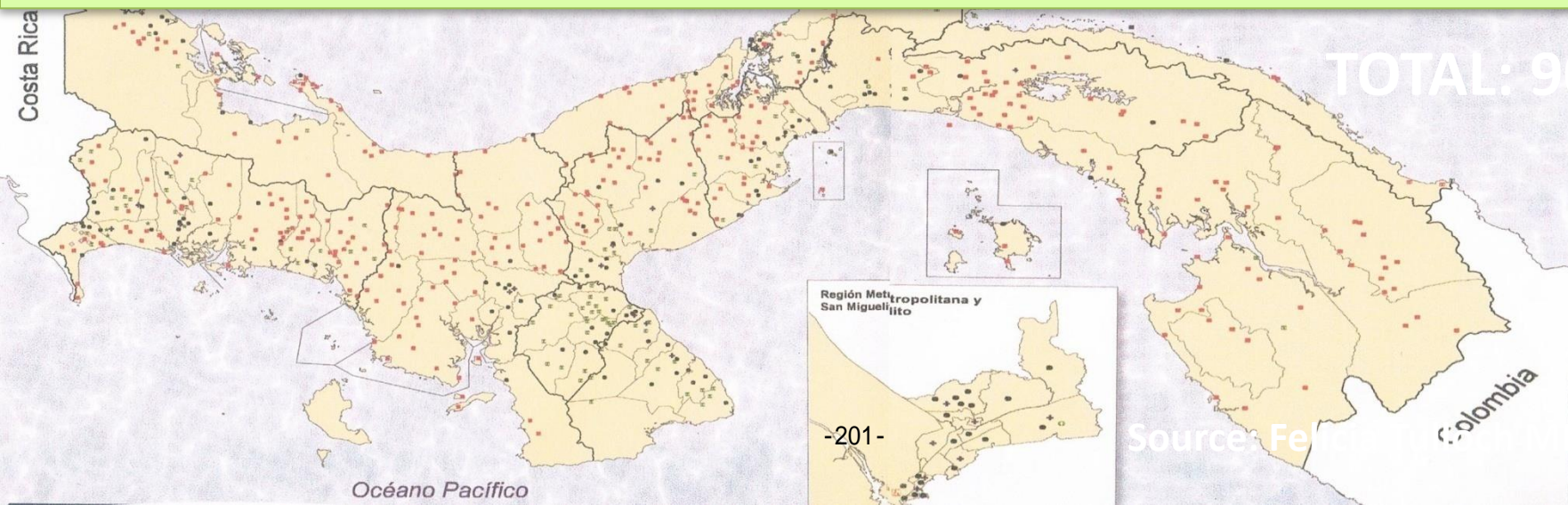
Source: Felicia Tulloch  
MD



# HEALTH SYSTEM MINSA – CSS, 2010



■ III LEVEL HOSPITALS:	5
■ INSTITUTES:	2
■ REGIONAL HOSPITALS :	16
■ HOSPITALS:	12
■ POLICENTERS:	6
■ POLICLÍNICAS:	26
■ HEALTH CENTERS:	188
■ ULAPS:	14
■ CAPPS:	23
■ HEALTH SUB CENTERS:	119
■ HEALTH POSTS :	480
■ UNDER CONSTRUCTION : 5 HOSPITALS   CAPPS- 15   ULPS -16   ( FY=2013)	



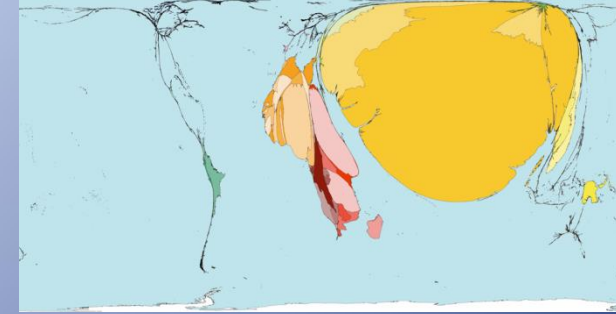
# VACCINATION PROGRAM

AGE GROUP	VACCINES	COVERAGE
1 Y/O	BCG, POLIO,PENTAVALENT, MMR, ROTAVIRUS, HEPATITIS A, NEUMOCOCO, INFLUENZA	MORE THAN 85 %
UP TO 5 YEARS	REINFORCEMENT MMR, POLIO, HEPATITIS A ,DPT	MORE THAN 85%
10 Y/O GIRLS	PAPILLOMA VIRUS (recent) TdAP	40% 65.4%
PREGNANT	Tdap	46.9%
MORE THEN 60 Y/O	INFLUENZA , NEUMOCOCO	78%
HEALTHCARE WORKFORCE	INFLUENZA, TDAP, NEUMOCOCO, MMR , HEPATITIS B, HEPATITIS A	90% for Tdap
SELECTED	VARICELLA, YELLOW FEVER	



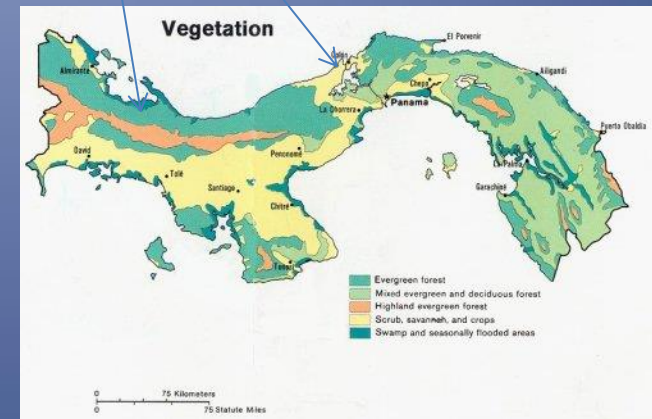


# Leishmaniasis



Distribution of cases in **2010** (3221 cases). By region  
Caribbean- 71% of cases mostly in Bocas del Toro (800 cases) Coclé (1034), Colon (300 )

- **Current situation-**
- Important public health problem predominantly the cutaneous form
- **In 2010**, the statistics department reported 3221 cases, in 2011 - 2175 cases
- These were distributed in the 14 regions



In 2011 --2175cases



**TBC**

# COMMUNICABLE DISEASES

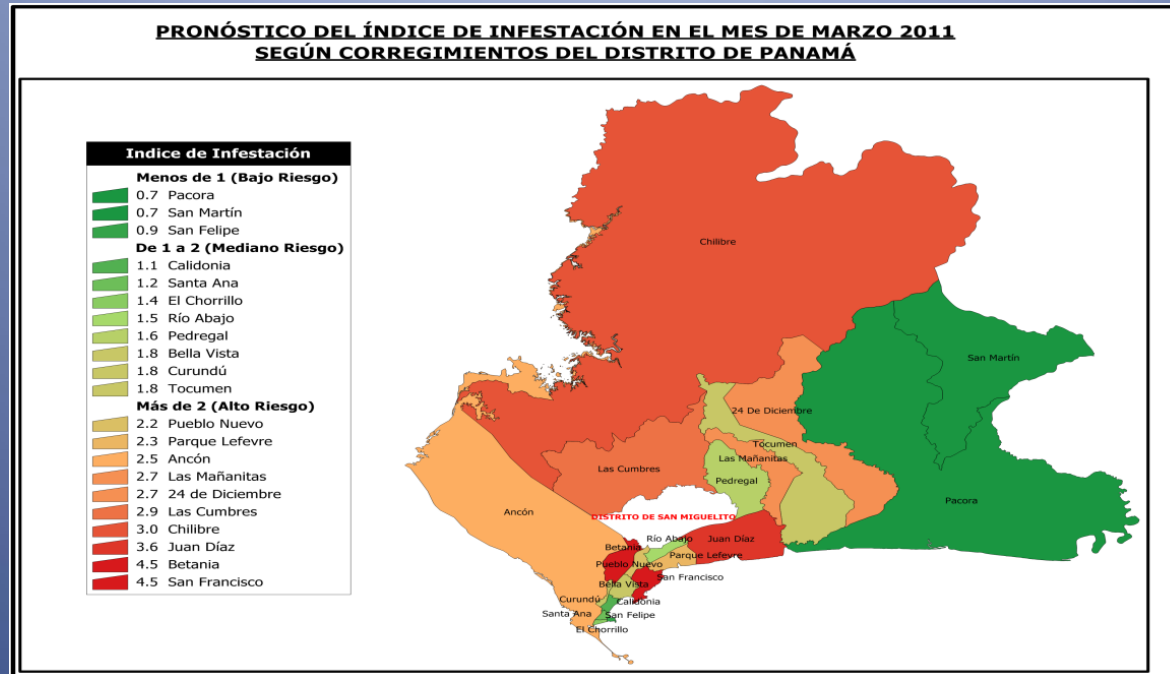


**AIDS**

Disease	Cases (2011)	Risk groups	Programs
Tuberculosis	1594	Inmates, indigenous pop, HIV/ AIDS,	TAES, F/U,
HIV /AIDS	796  (12,315 cases between 1984-2011)	Heterosexuals, Homosexuals, Bisexuals, Vertical transmission	Regulatory law , Mass media information, specially for carnival , Post exposure prophylaxis
Trypanosomiasis	61 (increasing)	Farmers,	Active search, blood bank testing
Dengue fever	3,882		Mass media information, fumigation of breeder areas,

# DENGUE

## 3882 CASES IN 2011



- 2012- 1107 CASES RATE : 30.7:100,000
- SEVERE =6 DEATHS= 0

THANK YOU



*The Study Programme  
for the Countermeasure for Communicable Diseases*

# Tajikistan

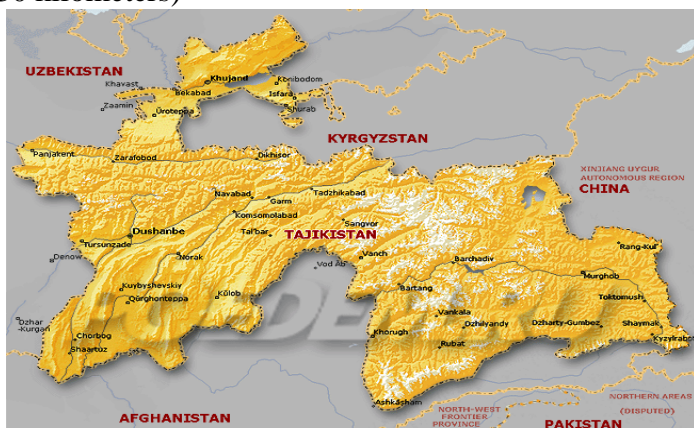


## Country Report - Republic of Tajikistan

**A. Country Profile.** Tajikistan is a sovereign, democratic, law-governed, secular republic. Tajikistan located in southwestern area of Central Asia and it is total area 142.600 km<sup>2</sup>. Dushanbe is the capital of RT since 1924.

**State borders** - Length: 700 kilometers from west to east 350 kilometers from north to south.

In the west and north, Tajikistan has borders with Uzbekistan (910 kilometers) and Kyrgyzstan (630 kilometers); in the south – with Afghanistan (1030 kilometers and in the east – with China (430 kilometers)



**Language:** Most of Tajikistan's population belongs to the Persian-speaking Tajik ethnic group, who share language, culture and history with Afghanistan and Iran. The majority of the population (2000 census) are Tajiks (79.9%), speaking in the Tajik language, in addition, about 17% of the population is Uzbek, Kyrgyz (1.3%) and less than 1% - Russian. Most of Tajikistan's population is Muslim.

**Religion:** The vast majority of the population in Tajikistan (95 -99%) are Sunni Hanafi school of thought (which formalized from 2-nd of April 2009). Currently, the country has approx. 3000 mosques, of which 259 are cathedral. In Gorno-Badakhshan Ismaili religious minority there, which has a history of X-XI centuries. In 2009, the Ismaili Centre was opened in the capital of the country . In Tajikistan, 85 registered non-Muslim religious communities. Among them are the bulk of Christians (Orthodox b.ch.), and there are 5 communities of Baptists, two Roman Catholic parish, a community of Seventh Day Adventists, Jehovah's Witnesses and Lutherans. The two communities have come from the South Korea Song Min church.

After independence, Tajikistan suffered from a devastating civil war which lasted from 1992 to 1997. Since the end of the war, newly established political stability and foreign aid have allowed the country's economy to grow. The primary sources of income in Tajikistan are aluminium production, cotton growing, selling dried fruit, agriculture (crops, Livestock) and remittances from migrant workers. Nearly one million Tajik men worked abroad in 2009 (IOM).

**Climate:** continental January from +22C (Pyandj) to -61C (Laje Bulunkul), June from -8C (Lake Bulunkul) to +45C (Pyanj)

**Geography:** Tajikistan is mountainous with heights above sea level varying between 300 and 7495 meters. Mountains belonging to the highest ranges of Central Asia make up 93% of the total area of the country. There is the Fergana valley in the northin the northwest and the central parts there are the Tukmenian, Zaravshan, Hissar and Alay mountain ranges. The southeast boasts the impressive Pamir range (its highest mountain, the Somanids Peak or former Communism Peak, with an altitude of 7495 metres, is one of the highest summits of the world); while the southwest has the Vakhsh, Hissar and other valleys.

Tajikistan's high mountains accommodate great supplies of ice and snow. The line of perpetual snow is situated at height between 3500 and 3600 meters in the west and rises up to 5800 meters in the east. The total area of the glaciers in Tajikistan covers more than 8476 square kilometres. There are over the thousand registered glaciers with a length of more than 1.5 kilometers. Sixteen glaciers (such as Fedchenko and Grumm- Grzymailo glaciers) have length of more than 16 kilometers.

**Lake and rivers.** There are about 947 rivers longer than 10 kilometers with a total length of more than 28500 kilometers. The rivers account for 60% of all hydro-resources of central Asia. There are some 1300 lakes with a total surface area of 705 km. Karakul, Sarez and Yashikul are the largest expanses to have been created naturally. The lakes are mainly located at height of 3500 meters.

**Flora.** The Tajikistan's flora abounds in wild fruit-bearing trees and in numerous species of plants, which are widely used by the population.

**Fauna.** Tajikistan boasts some 80 species of mammals, more than 365 kinds of birds, 49 kinds of reptiles, 40 kinds of fish, 10 thousands of various insects. One can observe such predators as snow leopards, lynx, bears, hyenas, otters, wolves, foxes and martens, as well as deer and rock-goats.

**Natural resources.** Tajikistan is also richly endowed with mineral deposits. Currently, more than 400 deposits have been identified, 100 of which are being exploited. Some 40 kinds of mineral raw materials are being extracted, such as fossil minerals, ores and non-metallic. The estimated total geological coal reserves amount to some four billion tons. Eighty percent is coking coal. Deposits have been discovered for many rare and precious metals such as zinc, lead, bismuth, molybdenum, tungsten, gold, silver, antimony, mercury and fluorite, as well as gas and petroleum, among others.

**Environment:** current issues: increasing levels of soil salinity; industrial pollution; excessive pesticides; natural hazards: characteristic of spring and autumn mudflows, earthquakes

**Education:** Tajikistan has a high rate of literacy due to the old Soviet system of free education, with an estimated 99.5% of the population having the ability to read and write.

**GDP:** The level of GDP per capita - 2,19 thousand dollars (in 2010).



## A. HEALTH INDICATOR

	Indicator	Year	Data	source/reference
1	Area (in 1000 sq. km)	2011	142,6	<a href="http://stat.tj/">http://stat.tj/</a>
2	Estimated Population(,000s)	2010	7564,5	<a href="http://stat.tj/">http://stat.tj/</a>
3	Percentage of population - Under 15 years old(%) - over 60 years old(%)	2010	35,6 7,6	Medstat Medstat
4	Living in urban areas(%)	2010	26,4	Medstat
5	Annual growth rate(%)	2010	101,2	<a href="http://stat.tj/">http://stat.tj/</a>
6	Total fertility rate <sup>2</sup> (per woman)	2010	3,7	
7	Adult mortality rate (probability of dying between 15 and 60 years per 1000 population)	2010	4,2	
8	Life expectancy at birth (years) Total Male Female	2009	72,8 70,5 75,3	<a href="http://stat.tj/">http://stat.tj/</a> <a href="http://stat.tj/">http://stat.tj/</a> <a href="http://stat.tj/">http://stat.tj/</a>
9	Infant mortality rate (probability of dying between birth and age 1 per 1000 live births)	2010 2011 2003	34,0 18,3 65,0	<a href="http://stat.tj/">http://stat.tj/</a> Medstat MIKI-2005
10	Maternal mortality ratio (per 100,000 live births)	2011 2010 2009	38,1 45,0 20,0	Medstat
11	Under-5 mortality rate (probability of dying by age 5 per 1000 live birth)  Brass-metod	2011 2010 2003  2010	23,3 20,9 79,0  50,0	Medstat MIKI-2005 Results of survey on infant, child and maternal mortality in the Republic of Tajikistan in 2010, <a href="http://stat.tj/en/publication/results/">http://stat.tj/en/publication/results/</a>
12	Access to improve drinking-water sources (%) Urban area  Rural area  Access to improved sanitation (%) Urban area	 2010 2005 2010 2005  non-	70,0 94,5 93,0 42,1 61,0  64.7 (access to clean water)	SSESS MIKI-2005 SSESS MIKI-2005

		avialable non- avialable		
	Rural area			
13	Health workforce (total No. and Density (per 10,000 population) Physicians  Professional Nursing  midwifery personnel	2010 2010 2010 2010 2010	15412 209 35126 46,1 4022 5,3	Medstat  Medstat  Medstat
14	Immunization coverage among 1-year- olds (%) BCG  Polio 3 times  Measles  Rubella  DPT 3 times  HepB3  HHZ3	2009 2005 2009 2005 2009 2005 2009 2005 2009 2005 2009	85 95 93 79 97 86 97 NA 93 82 93 69 93	Medstat MIKI-2005 Medstat MIKI-2005 Medstat MIKI-2005 Medstat MIKI-2005 Medstat MIKI-2005 Center of Immunization
15	Three leading causes of morbidity (Year: ) Сумма ОКИ ОВГ ТВ (new cases)  ТВ (No. of active cases) ТВ (No. of active new cases) ОРВИ ГРИИП пневмония	Data No. of cases Rate/100,000		SSESS SSESS SSESS <a href="http://stat.tj/">http://stat.tj/</a> <a href="http://stat.tj/">http://stat.tj/</a> Medstat SSESS SSESS SSESS
16	Three leading causes of institutional mortality (Year -2010) All CD ОКИ (уст, токсикоинф, вирусн) пневмония ТВ	No. of cases	No. of death	SSESS SSESS SSESS SSESS
17	Cases and death for six diseases under WHO-EPI Diphtheria Measles  Pertussis Poliomyelitis	No. of cases	No. of death	SSESS SSESS Center of Immunization SSESS SSESS

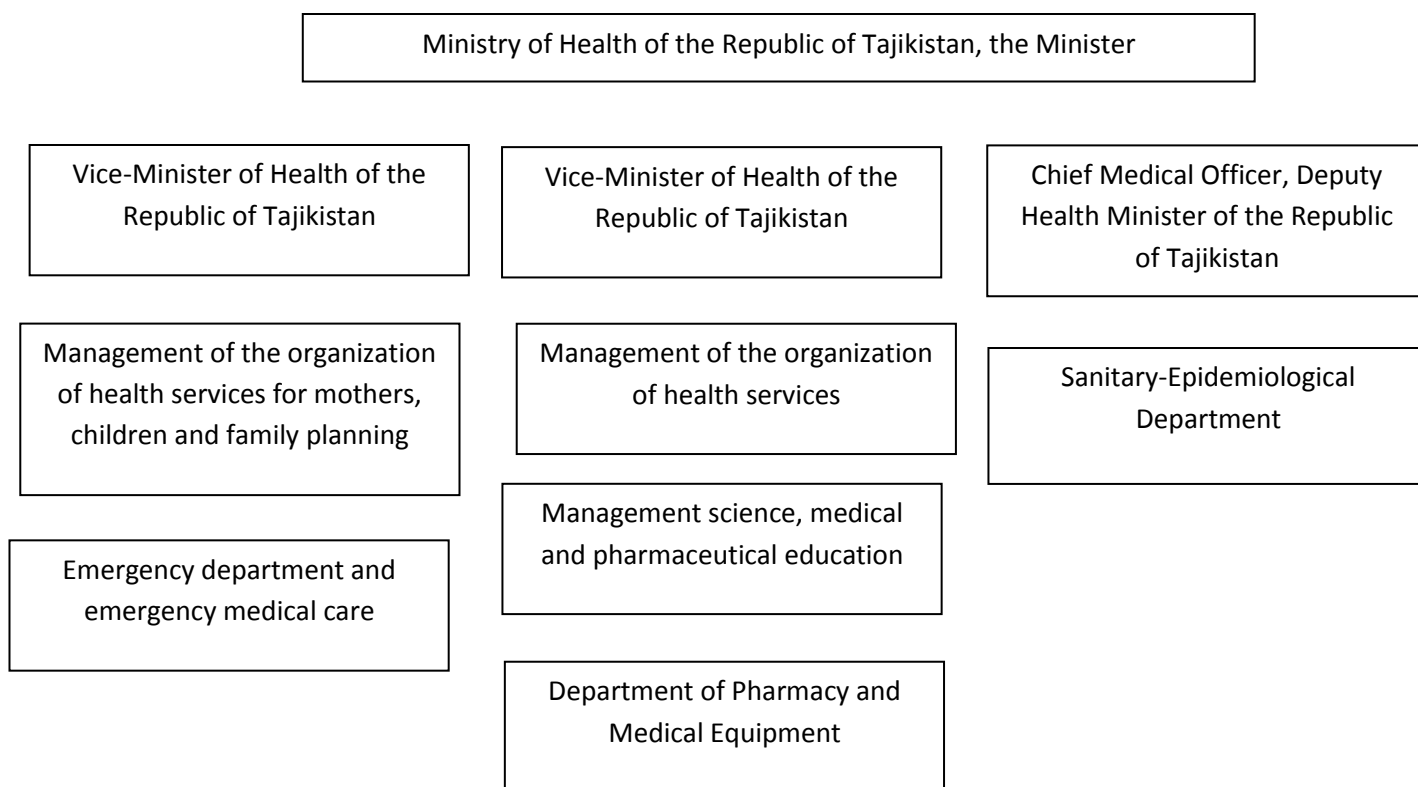
		457	9	Center of Immunization
	Tetanus	4	0	SSESS
	Tuberculosis	5391	86	SSESS
18	Cases for diseases under the WHO annual CD Bulletin	No. of cases		
	Gonorrhoea	401		SSESS
	Hepatitis A	9631		SSESS
	Hepatitis B	265		SSESS
	Unspecified			
	Syphilis	360		SSESS
		380		Medstat
	Trachoma	N/A		
	Yaws	N/A		
19	<b>Causes and death for six diseases under WHO monthly CD Notes</b>	<b>No. of cases</b>	<b>No. of death</b>	
	Cholera	0	0	SSESS
	Dengue fever / DHF	N/A		
	CCHF-2011	15	2	SSESS
	Encephalitis	N/A		
	Influenza (2010)	16695	1	SSESS
	Meningitis (2010)	23	0	SSESS
	Plague	0	0	SSESS
20	<b>Cases for following six diseases</b>	<b>No. of cases</b>	<b>Rate/100,000</b>	
	Filariasis	N/A		
	Leishmaniasis	40	0,5	SSESS
	Leprosy	0		
	Malaria	106	1,4	SSESS
	Schistosomiasis	0		
	Trypanosomiasis	0		
21	Cases for following STDs	No. of cases	Rate/100,000	
	AIDS (2010/all)	41/57	1,8/2,5	Medstat
	HIV (2010/all)	1004/2857	13,2/37,6	Medstat
	Chancroid			
	Chlamydia			
	Herpes			
	Lymphogranuloma venereum			
	Non-gonococcal urethritis (NGU)			
22	Hepatitis, (%)	No. of cases	Rate/100,000	
	Cases of hepatitis (all) :	10083	132,4	SSESS
	HAV	9631	126,5	SSESS
	HBV	265	3,5	SSESS
	HCV	84	1,1	SSESS
	HDV	N/A		
	HEV	9	0,1	SSESS
	Unknown			

## **B. ADMINISTRATION ON NATIONAL POLICY**

**C-1.** Regarding the system and process of decision making in national health care policy, especially in the field of CDC, please outline division of responsibility at the national, regional and local levels.

- Everyone has the right to health. Each within prescribed by law, enjoy free medical care in public health facilities. Other forms of medical care are determined by law (The Constitution of the RT, Article 36).
- Guide the health of the population in the Republic of Tajikistan shall state executive bodies in accordance with the laws of the Republic of Tajikistan. Ministry of Health of the Republic of Tajikistan led health in the country, the activities of republican institutions, research and education the public health system, analyze, develop policies and strategies, protect public health and health care together with the executive power is exercised by a co-ordination and control the organs and institutions of the public health system for the quality of health-care, medication assistance departmental agencies, institutions, private health care system and are responsible for the development and health (Article 5 Law of the Republic of Tajikistan “About Public Health Protection”).
- The competence of the Government of the Republic of Tajikistan in the field of sanitary and epidemiological safety of the public include:
  - definition of the unified state policy in ensuring Sanitary - Epidemiological Safety (Article 4 of Law of the Republic of Tajikistan "About Sanitary and Epidemiological Safety").The competence of the Ministry of Health of the Republic of Tajikistan in the field of sanitary - epidemiological safety of the public include:
  - realization of a unified state policy in ensuring Sanitary - Epidemiological Safety;
  - development and long-term forecasts and programs in the field of sanitary and epidemiological safety; Development of draft laws and other regulations in the field of sanitary and epidemiological safety of the public in the prescribed manner; Public-health - epidemiological regulation; ..... (Article 5 of Law of the Republic of Tajikistan "About Sanitary and Epidemiological Safety").
- The competence of local authorities in ensuring Sanitary - Epidemiological Safety include: Control over the observance of sanitary norms and regulations of the Republic of Tajikistan in the field of sanitary - epidemiological safety;..... (Article 6 of Law of the Republic of Tajikistan "About Sanitary and Epidemiological Safety").
- State sanitary and epidemiological supervision by the State Sanitary and Epidemiological Service of the Republic of Tajikistan (Article 43 of Law of the Republic of Tajikistan "About Sanitary and Epidemiological Safety").

## C-2. ORGANIZATION CHART OF YOUR MINISTRY



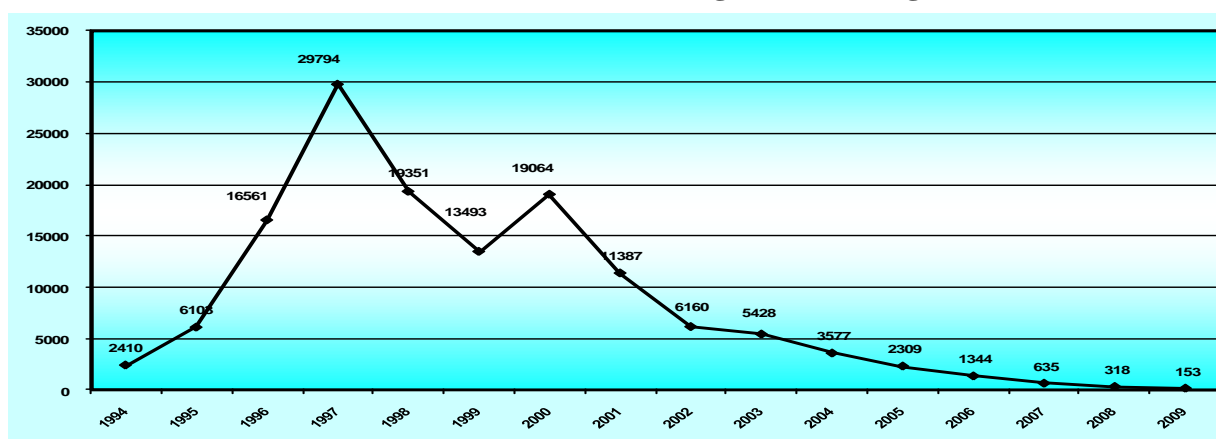
## C-3. MAJOR PROGRAMMES / LAWS / REGULATIONS

Please outline major program(s), laws(s), and regulation(s) for CDC currently in effect in your country.

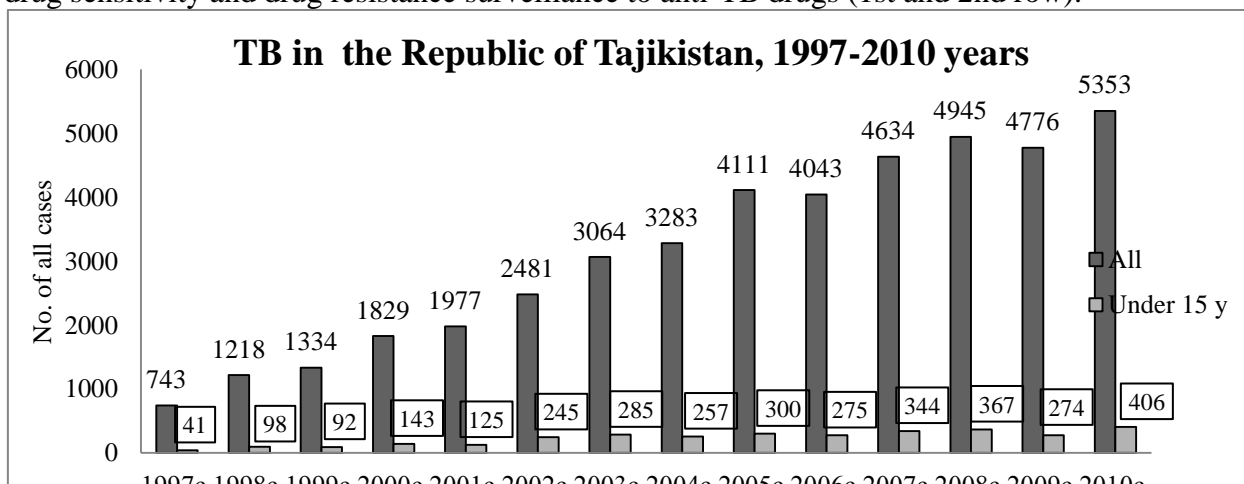
1 . **Malaria.** The country has implemented "Program to combat tropical diseases (malaria) in the Republic of Tajikistan for 2006-2010": has taken the necessary administrative rulings and developed normative and legislative base; was created logistical base for the planning of malaria interventions, including the budget; prepared by the appropriate personnel in order to strengthen human resources; have strengthened the preventive and care services, especially in the early diagnosis and appropriate standards of examination and treatment; have been developed mechanisms for early case detection, rapid response to outbreaks and prevent abnormal situations associated with malaria; enhanced surveillance system for malaria; designed and developed components of the entomological surveillance of malaria; carried out theoretical and practical research on the characteristics of the epidemiology of malaria in Tajikistan, drug resistance *P. malariae*; improved system for monitoring and evaluation of interventions.

Approved a new National programs aimed at achieving a break of malaria in the Republic of Tajikistan, 2011 - 2015 years. The program aims to break the local malaria transmission and its elimination in the Republic of Tajikistan in 2015 and maintaining epidemiological territories where its transmission has been interrupted earlier.

**The number of new malaria cases registered during 1994-2009**



2. **Tuberculosis.** The DOTS strategy was introduced in 2002 in Dushanbe. Coverage of the introduction of increased annually and by 2007 had reached 100 percent. In accordance with the preliminary results of the study of drug resistance (DRS), Tajikistan can have one of the highest rates of drug-resistant TB in the world. The main challenges for TB control are limited human resources and weak laboratory capacity. Tajikistan has received increasing support for testing drug sensitivity and drug resistance surveillance to anti-TB drugs (1st and 2nd row).

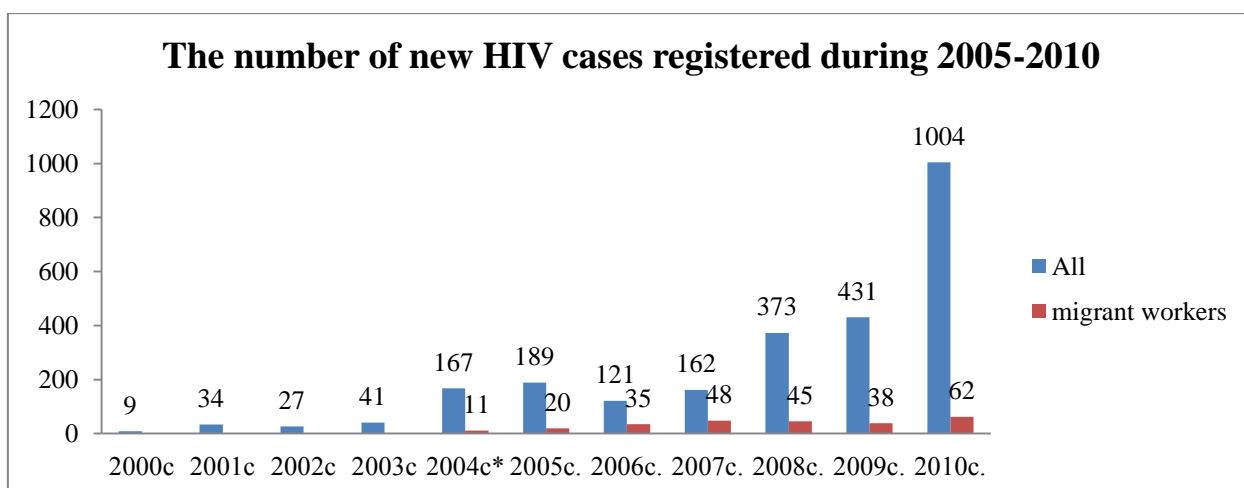


1. Law of the Republic of Tajikistan "About protect the population from tuberculosis" (22/12/2006 № 223)

2. The National Program for the protection of population from tuberculosis for the period 2010-2015yy. Until 2015 year will achieve the following goals:

- At least 85% cure of the total number of newly diagnosed patients.
- The incidence and deaths reduced by 50% compared with 1990 levels for Tajikistan - this means: reduce the incidence rate at 41.0 per 100,000. (or below); reduce the rate of deaths by 7.0 (or later), per 100,000 population, including TB / HIV. In 2009, the mortality rate was 5.9 per 100,000 population.

3. **HIV/AIDS.** In April 1997, under the Government established a National Coordinating Committee for AIDS. Since 1993, the Decision of the Supreme Council was commissioned in the RT Law "On prevention of AIDS." In the country conducted sentinel surveillance among IDUs, SW, pregnant, prisoners.



1. Law of the Republic of Tajikistan on Combating HIV / AIDS (Two time: 27/12/1993; 28/12/2005, № 150)

2. The National Programme on HIV / AIDS in the Republic of Tajikistan for 2011-2015  
Programme on HIV / AIDS is based on strategies for poverty reduction in Tajikistan for the period 2010-2012, the UN Development Assistance Framework for Tajikistan for 2010-2015 and the National Strategy for Health of the Republic of Tajikistan for the period 2010-2020.

The purpose of the Program: In accordance with the Millennium Development Goal number 6, 2015 to stop the spread of HIV / AIDS by providing universal access to prevention, treatment, care and support. The main strategic directions:

- 1) Create a legal environment that contribute to achieving universal access to prevention, treatment, care and support.
- 2) Implementation of prevention programs and access for all population groups, especially the most vulnerable to HIV prevention services.
- 3) The provision of antiretroviral therapy, treatment of opportunistic diseases such as tuberculosis, palliative care and providing care for HIV - infected.
- 4) Integration of HIV into primary health care in order to improve access, reduce stigma and improve quality of care.
- 5) Reduction of stigma and social development support for PLHIV.
- 6) Improved oversight, monitoring, evaluation of preventive control, improved surveillance of HIV.

#### **C-4. PROBLEMS IN THE FIELD OF CDC**

Please outline the problems concerning human, institutional, and financial resources of communicable diseases control in your country.

Communicable diseases control problems in our country:

1. Weak legislative base
2. Poor funding
3. Lack of qualified personnel
4. Inadequate technical equipment
5. Geographical remoteness of possible infectious foci from the administrative centers

#### **C-5. Influenza (Pandemic (H1N1) 2010)**

1. **Please describe the current situation and influenza (Pandemic (H1N1)2011) in your country.**

The first H1N1 case was registered in June 2009 года, within the period 2009- 2011 in total 4 lethal cases were registered, of which 3-pregnant women and 1 with chronic coronary disease. Totally, 149 H1N1 cases were detected in 2009 - 2011 through sentinel sites surveillance

2. **Please describe strategy to control influenza (Pandemic (H1N1)2011).**



On 1st of October, 2009 the Government the Republic of Tajikistan have adopted a National plan on prevention pandemic flu in the country.

The purpose of this plan is to prevent the spread of highly pathogenic strain viruses of pandemic influenza H1N1 (H5N1) in the Republic

1. Epidemiological surveillance and preventive measures of the public health system
2. Pandemic risk reduction, vaccination strategy and use of antiviral drugs
3. Medical care, including emergency care of medical facilities
4. Communication and social support for population

#### **C-6. REPORTS ON SURVEYS/PROJECTS OF CDC**

Please bring to Japan a report on any survey / project concerning Communicable Diseases Control which have been accomplished in your country in the past four years, if one exists. We realized projects:

1. M&E of intestinal infections/ISTC/
2. Improving the system of surveillance of brucellosis/FAO.
3. ILI/ Improving the system of surveillance/WB/WHO

#### **C. CURRENT IMMUNIZATION PROGRAMMES**

National Program of Immunization of the Republic of Tajikistan at 2011-2015.

Name of Target Diseases	<b>TB</b>	<b>Polio</b>	<b>Measles, Rubella</b>	<b>whooping cough, diphtheria, tetanus</b>	<b>hepatitis B</b>
Type of Vaccines	BCG	Polio	MR	Hib, DPT	Hep B, Hib
Schedule of Immunization	V:3-5 days after birth R: 6,16 years*	V:At birth, 2,3 and 4 months R: 12 month	V:12 months R: 6 years	V: 2, 3 and 4 months R: 16-23 months	V: 2, 3 and 4 months
Age of Target Population	see above	see above	see above	see above	see above
Number of Target Population	7616400	7616400	7616400	7616400	7616400
Number of Immunized persons					
Rate of Coverage (%) -2010	98	95	97	93	98
Others					

\*no vaccine

#### **D. DOMESTIC PRODUCTION OF VACCINE**

Has your country produced any vaccines in the past 5 years?

**( X ) No**

( ) Yes Please specify;

#### **E. OVERSEAS PRODUCTION OF VACCINE**

**1. What kinds of vaccines are donated by international organizations? And in what quantities are they received?**

not acceptable

**2. What kinds of vaccines are imported from other countries?**

1. BCG, Polio, DTP, HepB - delivered by JICA from France, Belgium, Canada, India, South Korea
2. Hib - delivered by GAVI from Switzerland, South Korea
3. MR, PT - purchased by the Government of the Republic of Tajikistan from Switzerland, Bulgaria, India

出典：平成 24 年度 JICA 集団研修カントリーレポート

➤ 平成 24 年度 JICA 集団研修「感染症対策行政」

Japan International Corporation of Welfare Services (JICWELS) was established with the sanction of the Minister for Health, Labour and Welfare in July 1983 and implements international technical cooperation programmes with purpose of contributing to the promotion of health and social welfare activities in the friendly nations.

Japan International Corporation of Welfare Services (JICWELS)  
Toranomom YHK Bldg. 4F, 2-3-20, Toranomom  
Minato-ku, Tokyo 105-0001 JAPAN  
Phone: +81-(0)3-6206-1137  
Fax: +81-(0)3-6206-1164  
<http://www.jicwels.or.jp>

公益社団法人国際厚生事業団（JICWELS）は、国際的な保健・福祉分野の国際協力に貢献することを目的として、1983 年（昭和 58 年）7 月 7 日に厚生省（現厚生労働省）から社団法人の認可を受け設立されました。開発途上国の行政官研修や WHO フェローの受入れ、調査企画や研究開発並びに情報の交換及び広報活動など、海外諸国との国際交流活動を推進しています。



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東京都港区虎ノ門 2-3-20 虎ノ門 YHK ビル 4 階  
電話 03-6206-1137（事業部） Fax 03-6206-1164

<http://www.jicwels.or.jp>