



Achievements of National Malaria Control Program 2012

Presentation by : Dr. Po Ly,
National Centre for Malaria Control, Parasitology and Entomology
(CNM), Cambodia

Annual Conference of National Center for Malaria Control , Parasitology and Entomology .
21-22 Mar 2013, NAGA WORLD Hotel, Phnom Penh

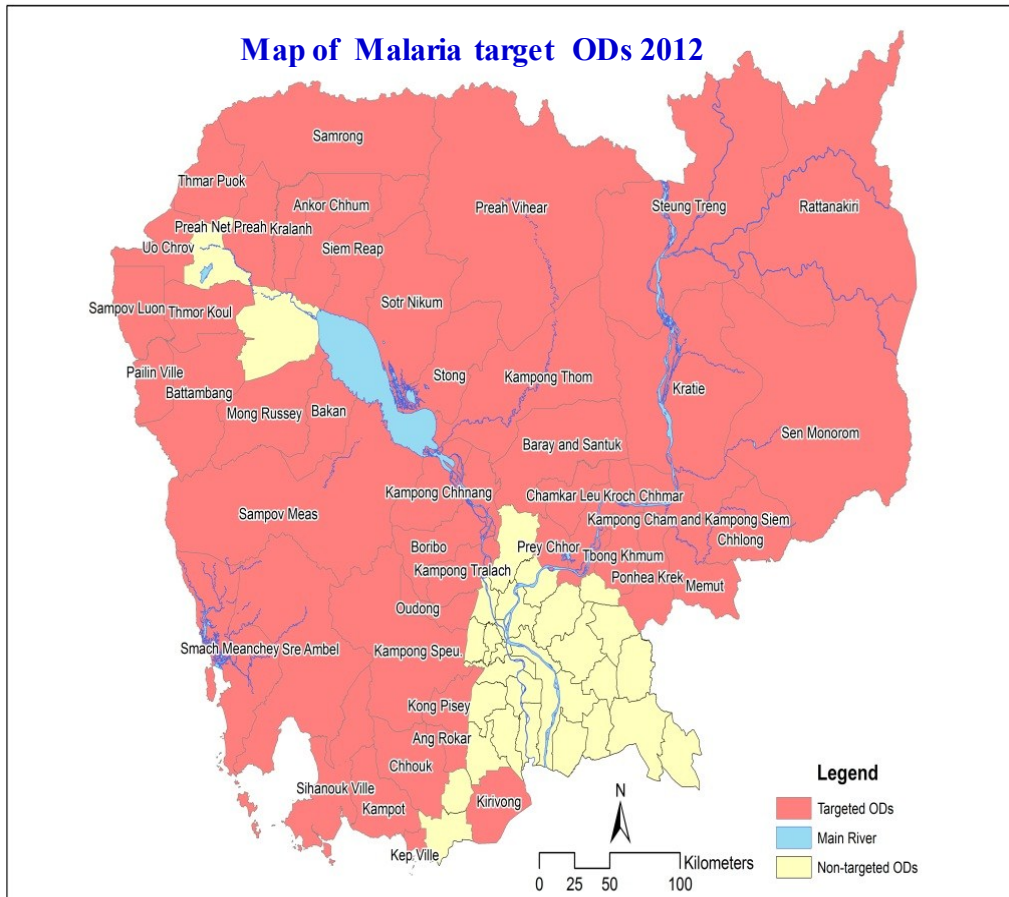


OUTLINE

- I. Public Health Information related to Malaria
- II. Achievements of National Malaria Control Program
- III. Factors contributing to the Success
- IV. Constraints and Challenges
- V. Conclusions
- VI. Way forward 2013-2015



Public Health Information related to malaria



➤ Health Information

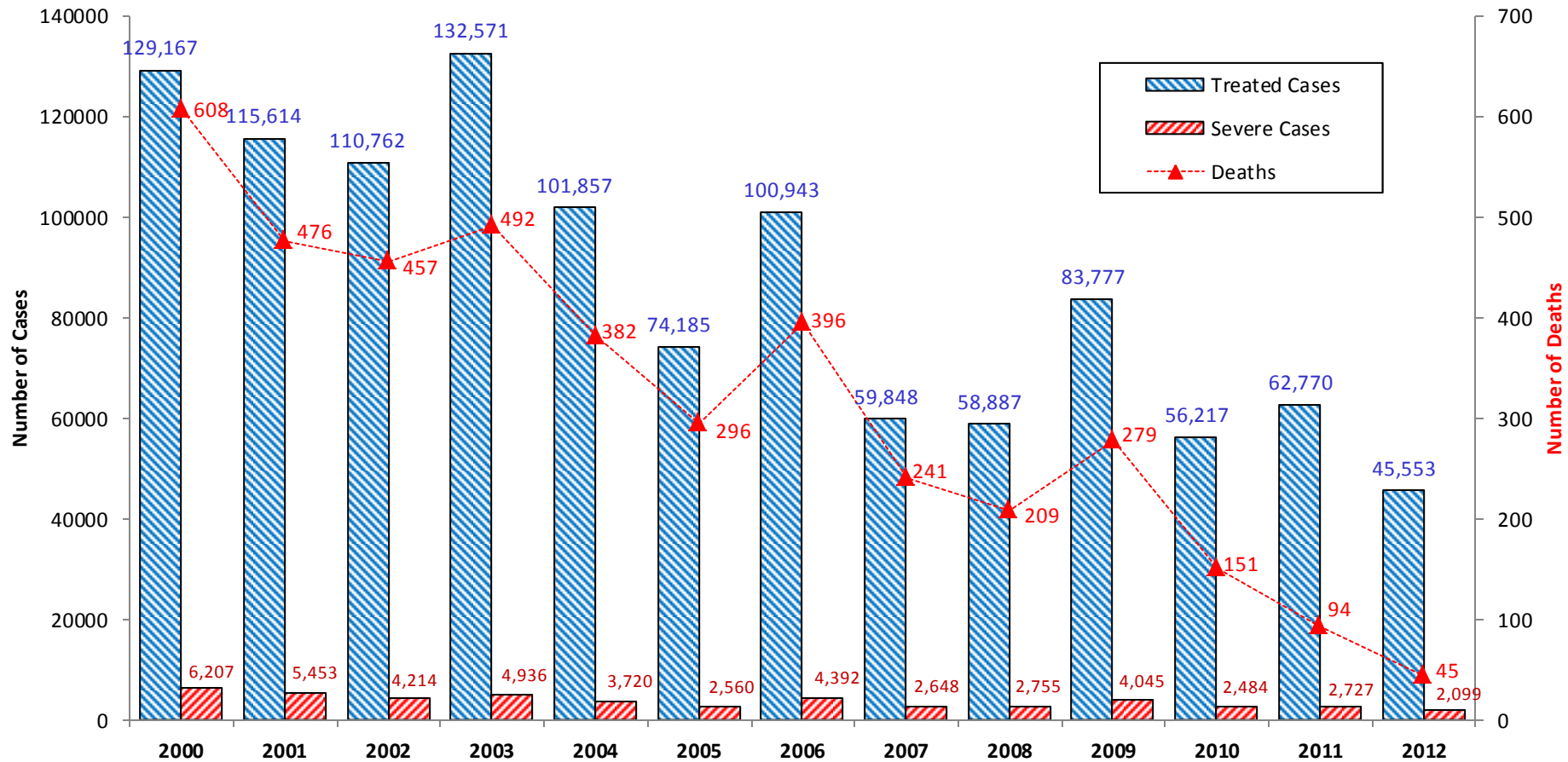
- There are 24 Provincial Health Departments
- Referral Hospitals :91
- Operational Districts :79
- Health Centres :1024
- Health Posts :121
- Villages :15388
- Population: 14,431,777 (Estimated 2012)

➤ Malaria endemic areas

- Provinces :20
- Operational Districts :45
- Health Centres :331
- Villages at risk :4005
- Population at risk :3,261,969

- Malaria transmission in Cambodia occurs mainly in remote, forested areas.
- The populations at highest risk are adult males who go to forest to work and are more likely to be exposed to the vector.

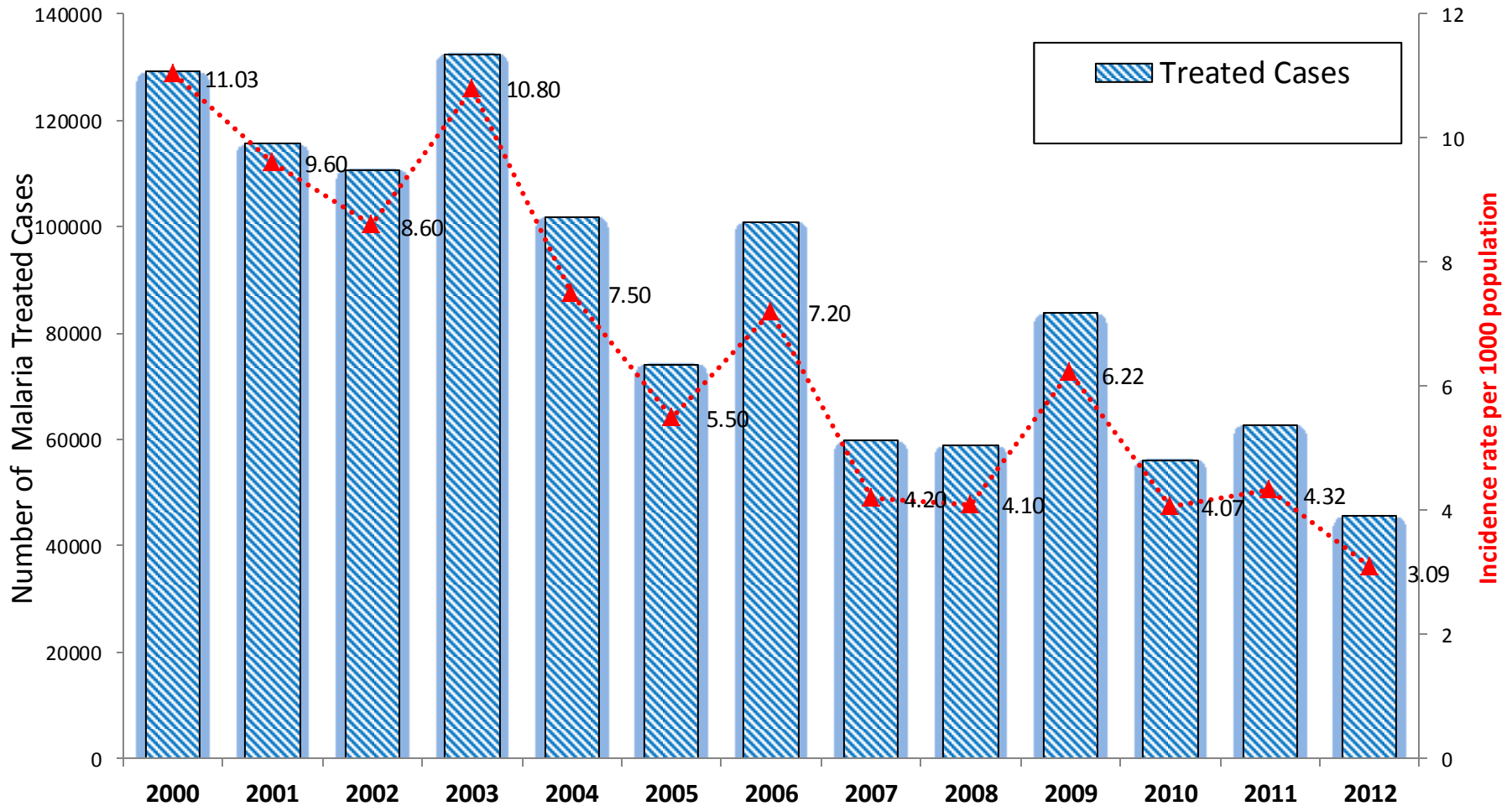
of Malaria treated cases ,Severe cases and Deaths 2000 - 2012 in Cambodia



Data source: HIS

- Number of Malaria treated cases in public sector and by VMWs were 69,515 in 2012. This has decreased by 35% if compared to 2011 (106, 776).Deaths in 2010,2011 and 2012 were 151,94 and 45 respectively. Majority of the deaths were among mobile &migrant population groups.
- MDG Target for Malaria mortality rate per 100,000 population (0.78 by 2015) was already reached in 2011 (0.67) and sustained in 2012(0.32)

Incidence rate of Malaria treated cases per 1000 population, Cambodia. 2000-2012

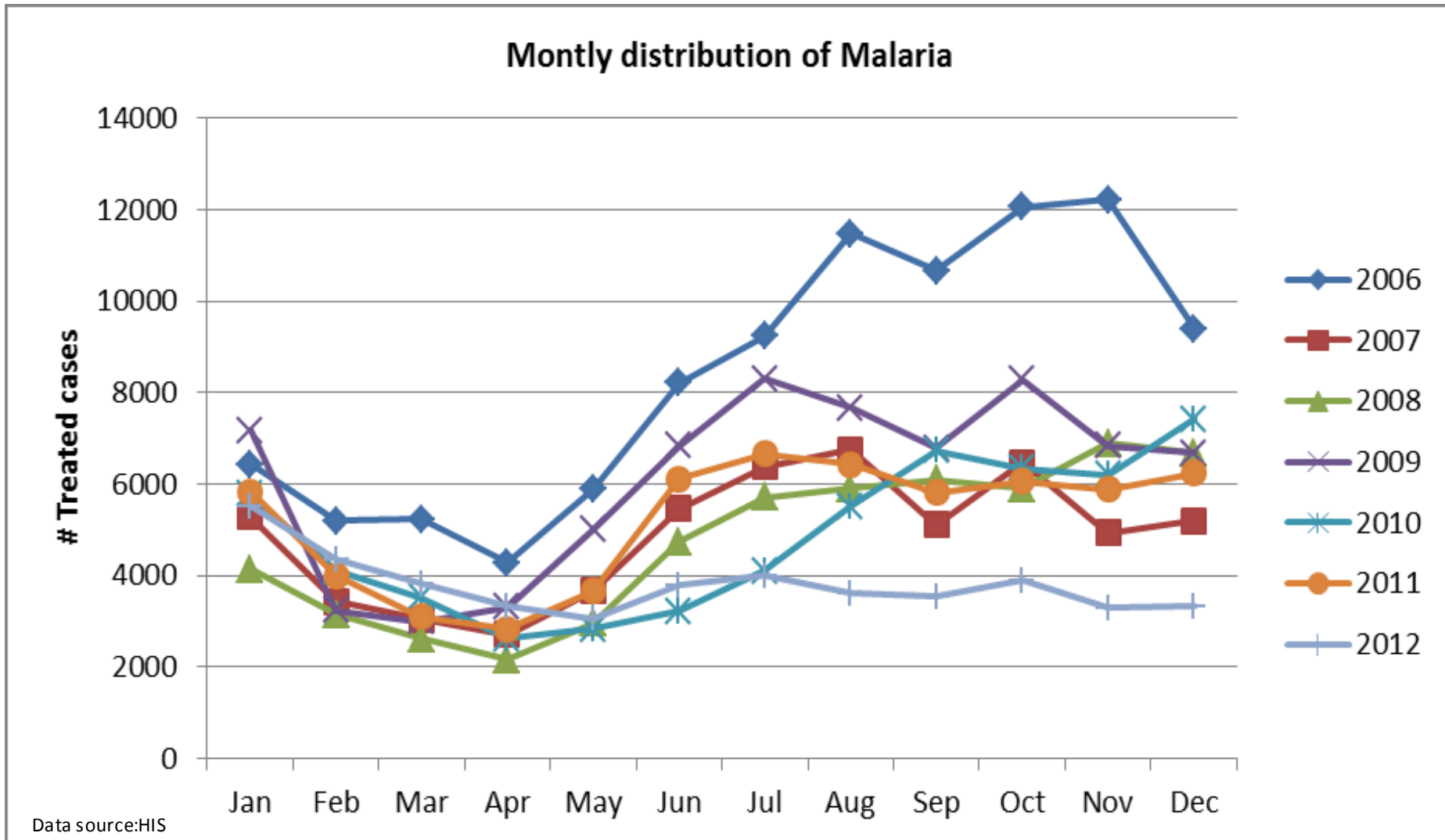


Data source: HIS

Incidence rate of Malaria treated cases at public health facilities in 2011 and 2012 was 4.32 and 3.09 per 1,000 population respectively, in line with long-term decline observed since 2000.



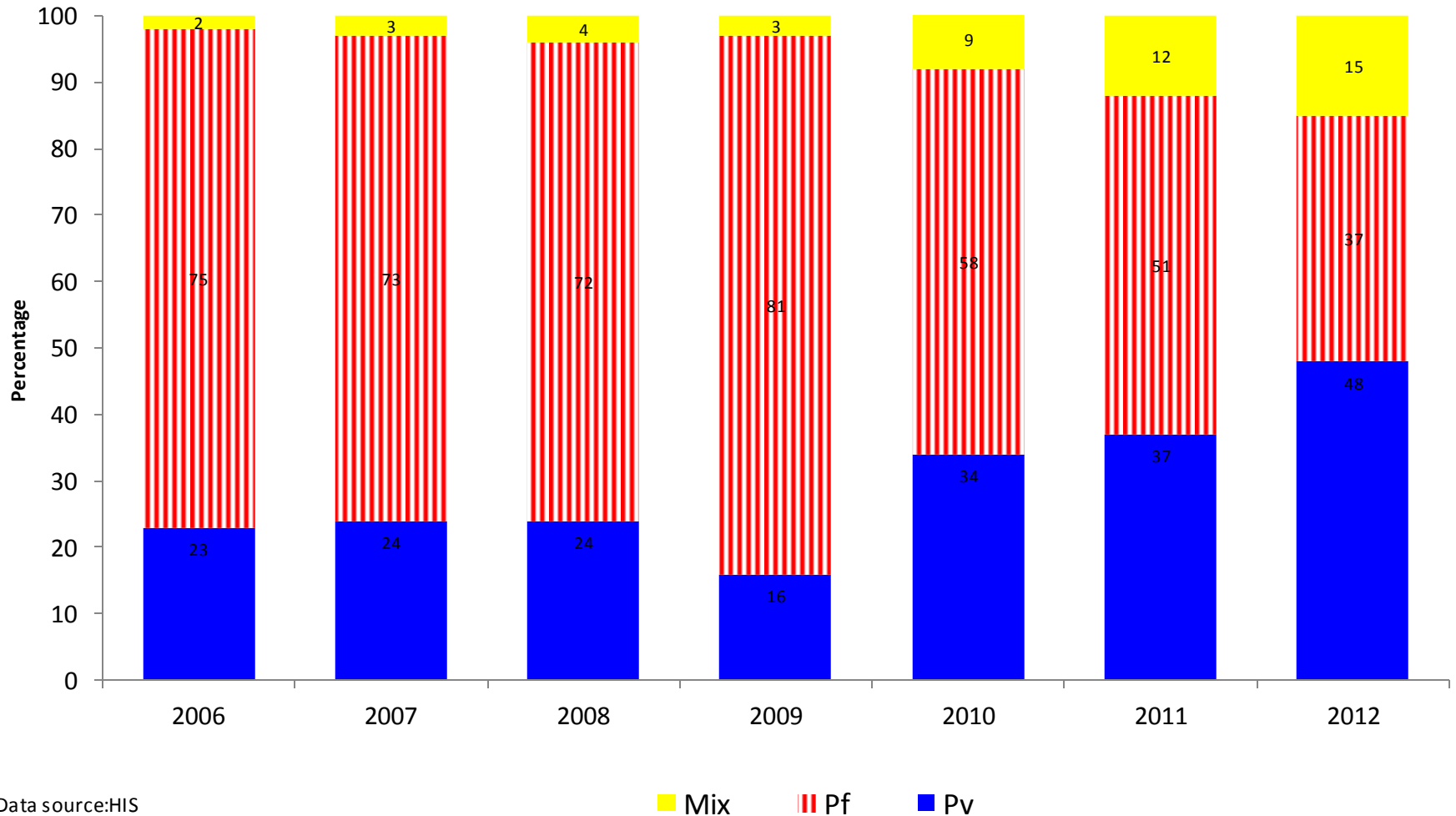
Season Distribution of Treated Cases by Month 2006-2012



- A clear seasonal pattern continues to be observed in Cambodia (May-November, the rainy season).
- The average treated cases per month in 2006 were 8000 cases but this has fallen by more than half to 3700 cases (54%) in 2012.



Distribution of Plasmodium Species 2006-2012: Public Health Facilities



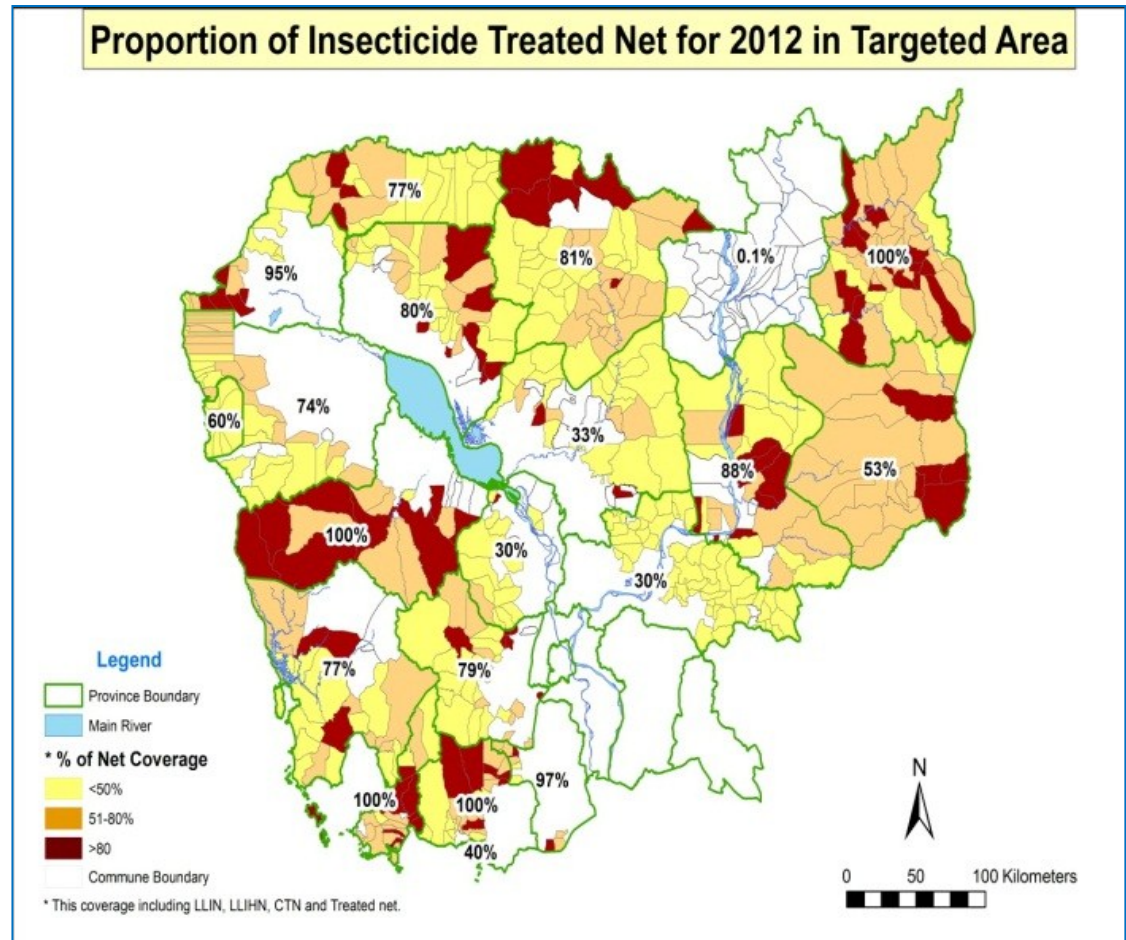
There is a clear reversal of the Pf:Pv ratio in Cambodia. There is a marked increase in the proportion of *P. vivax* which became the predominant parasite species in 2012. In 2012 it accounted for 48 % of confirmed malaria cases followed by *P. falciparum* (37%) and cases defined as mixed (15%).



Bed net distribution in 2012

- By 2012, 100% net coverage has been achieved among the 3.2 million people living in endemic areas due to sustained efforts in bed net distribution over the last three years.
- 1.8 million people were covered with nets in 2012, including 1,881,594 LLINs and 268,700 hammock nets and 72,946 re-impregnated nets.
- For migrants, we focused the net coverage based on the duration of their stay.

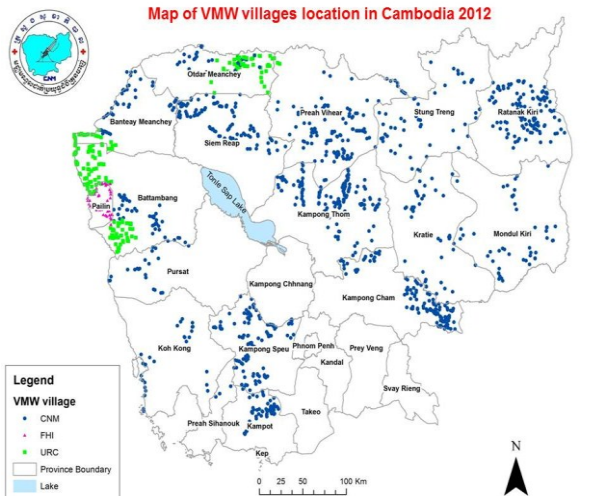
(1) Migrants who reside in new areas and have lived for more than 1 year.



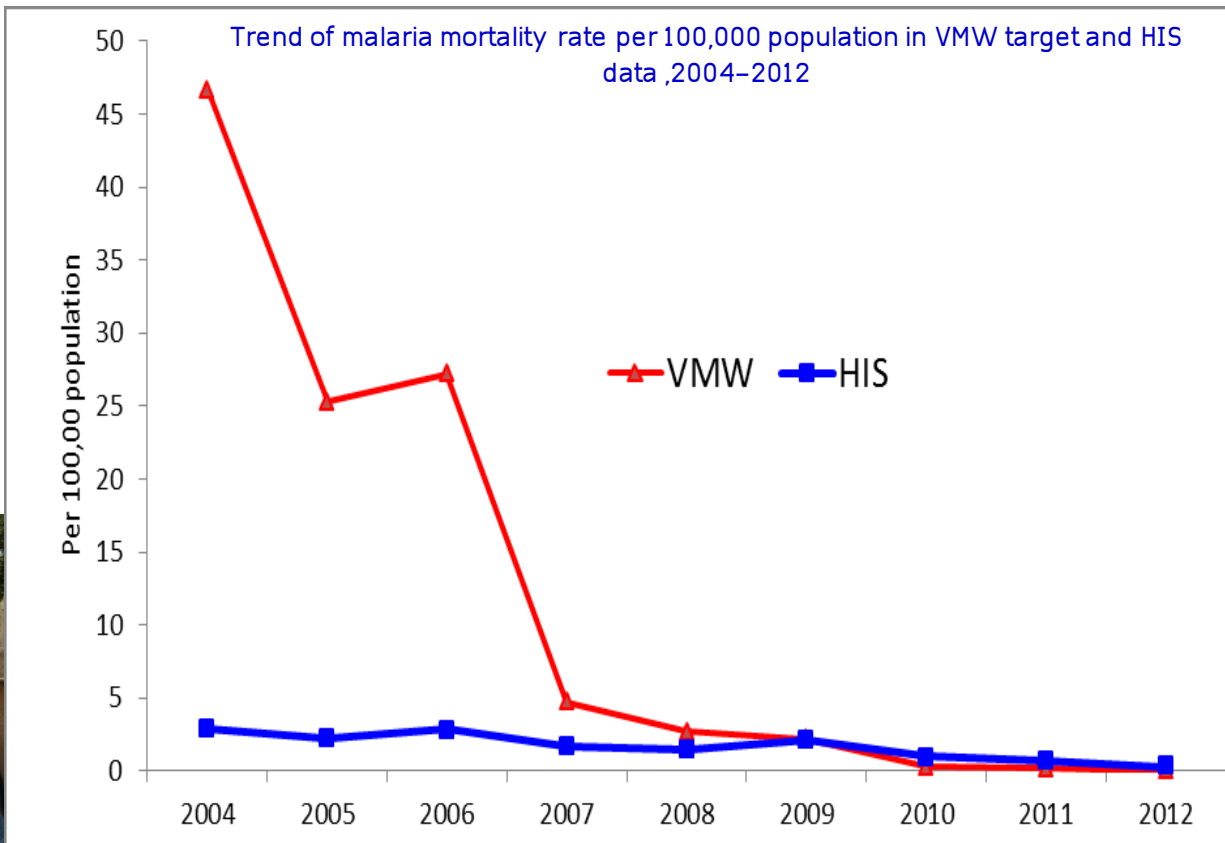
(2) Migrants who come to work in the farm: we focus the coverage by distributing the nets to farm owners through a loaning scheme. This year 2,109 farm owners employing 15,768 migrants have received 244,678 LLINs and 5,044 hammock nets.



Malaria EDAT service at community level (through VMWs)



Total population covered by VMWs 1,154,512.
Provinces 20, ODs 34,
HCs 156, Villages 1606 =
40% among villages at risk 4005.



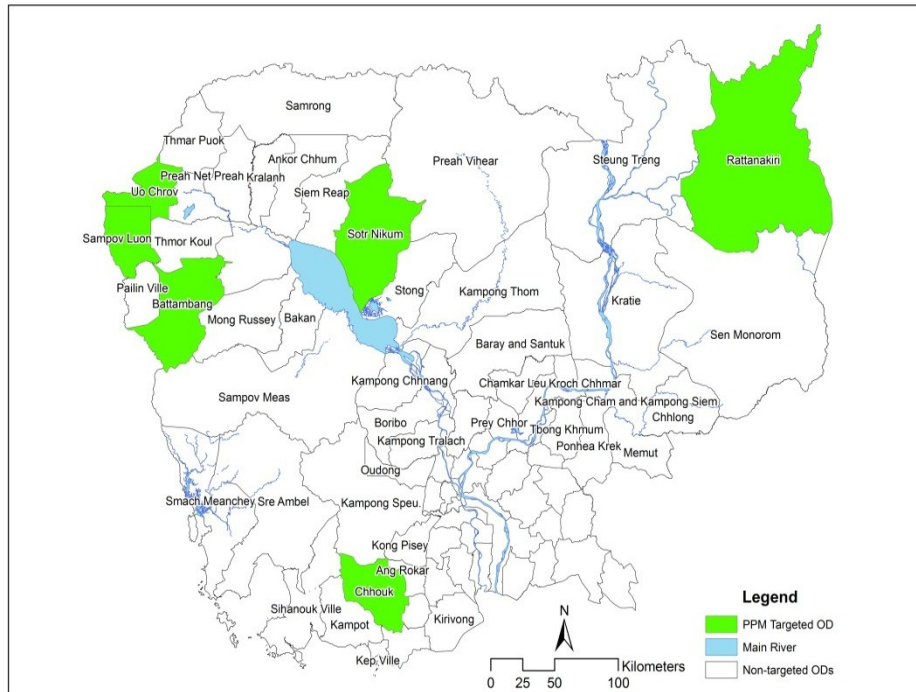
Source: HIS and VMW

- Year 2012, VMWs conducted 106,032 RDT tests and 29,039 were positive. Malaria deaths in target VMW villages Zero
- Year 2011, VMW conducted 138,070 RDT test and 48,750 were positive. Malaria deaths in target VMW villages: 2.
- Positive cases decreased by 40% and deaths decreased by 100%





Public-Private Mix Approach



Strategic Objective:

The partnership of public and private mix approach support the activities in

- controlling the spread of malaria resistance to Artemisinin,
- by improving the diagnosis and referral of patients to hospitals,
- and collection of data on malaria patients who seek treatment in the private sector.

Malaria Data of PPM for 2012:

Name of ODs	PF	PV	Mixed	Referred
Chhouk	209	193	78	28
Soth Nikum	18	42	12	7
Banlung	0	0	0	0
Poy Pet	0	6	1	4
Battambang	13	48	34	91
Sampovlon	5	5	0	19
	245	294	125	149



Factors contributing to the success achieved

- Increased malaria awareness among people at risk as they are able to access information through radio/TV, Newspapers, public advertisements and face-to-face health education in the community.
- There are VMWs and VHVs operating in the villages in malaria endemic areas. They are trained on malaria diagnosis, treatment and prevention and are provided with sufficient antimalarial drugs and RDTs to do blood tests that can give a quick result.
- In 5 years (2008-2012), CNM distributed 6.1 million free nets of which 3.7 million nets were just distributed in 2011-2012.



Factors contributing to the success achieved

- The improvements observed in the implementation of malaria control interventions through innovations in treatment and prevention and accompanying monitoring/supervision.
- The CNM also worked in close coordination with PSI to distribute 870,000 insecticide packages free of charge to net sellers in the private markets as well as in the community.
- Decentralization and expansion of the key malaria control activities to remote areas with poor access to health service especially through the VMW initiative.
- Peace, political stability, economic development and infrastructure development: transportation and information.
- Increased participation from all levels: government, local authorities (province, district, commune, village), ministry of health(PHD, RH, ODs, HCs, HPs) community participation, line ministries, NGOs, Partners and donors, etc.



Constraints and Challenges

- The continuing movement of migrants and mobile workers seeking employment in endemic areas and identification of them continues to be a complicated exercise.

In 2012, deaths occurred mostly among migrants who worked in endemic areas especially among those who had simple fevers who first sought treatment at private clinics and subsequently arrived at public services when the illness had already developed into a severe case. As a result, some of them died during referral or arrived too late only to die at the public hospitals.

- The persistence of resistance of malaria parasite to antimalarial drugs.
- The proportion of *P. falciparum* has been reduced but simultaneously there has been an increasing trend in the number of *P. vivax* cases which are associated with relapses.
*(5% to 12% of people in Cambodia are G6PD deficient) the G6PD deficiency can make the patients susceptible to the side effects of Primaquine which continues to be the only medicine to clear the parasite (*P.vivax*) in liver.*



Conclusions

- We hope that from 2015 onwards, the malaria deaths will no longer be the primary concern for the public health facilities in Cambodia,
 - During the first 2 years of implementation of the national strategic plan for elimination of malaria (2011-2025) the of Royal Government of Cambodia, the malaria mortality (2011-2012) has decreased dramatically .
 - In 2000-2010, malaria deaths have decreased moderately each year by about 8% and by a significant 38% in 2011 and 52% in 2012. It decreased from 151 deaths in 2010 to 94 in 2011 and 45 deaths in 2012.
 - In 2011, only 5 provinces reported 'no' deaths, but this has increased to 13 provinces in 2012.



Way forward: 2013-2015

Priority Interventions in 2013-2015 will be focused on:

- Expanding the coverage of VMW villages to 100% of malaria endemic villages by 2015.
- Prioritize on providing opportunity for migrants to get proper information on malaria and enable them to access early diagnosis and prompt treatment .
- Collaborate with the private sector: drug stores, private clinics, net sellers, farmer owners in endemic areas...etc.
- Continue cross border collaboration and cooperation with neighboring countries and expand those activities to other provinces bordering Laos and Vietnam.
- Continue to monitor and contain the drug resistance and conduct research studies for potential drugs which can kill dormant malaria parasites in the liver, particularly the p.vivax.

Thanks

