



USAID-Greater Mekong Sub-region Control and Prevention of Malaria (CAP-Malaria)

March 19, 2012

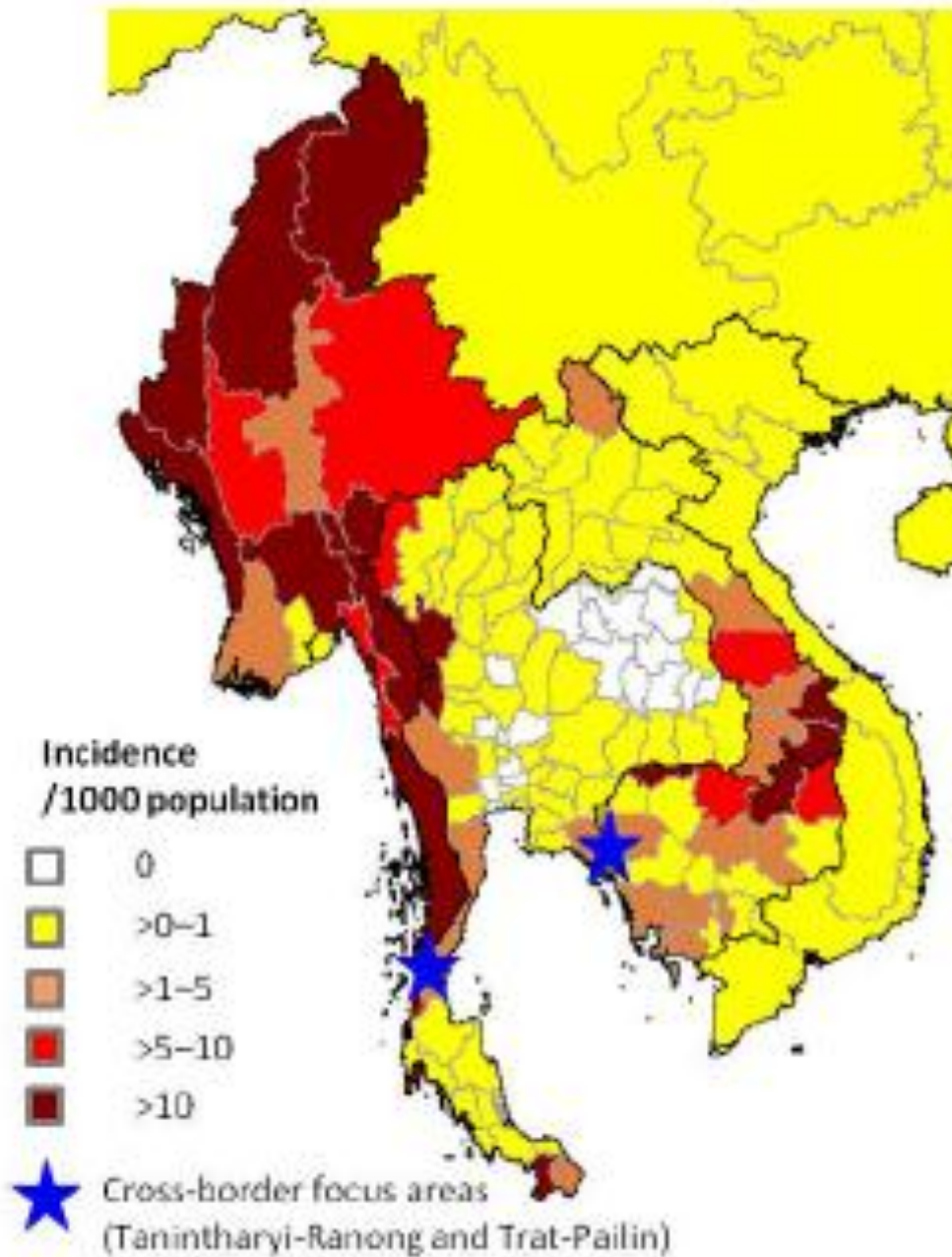
Presentation Outline

1. Malaria control in Greater Mekong Sub-region
2. Introduction to USAID CAP-Malaria Project
3. Focus on hard-to-reach populations
4. Implementation Strategies
5. Future Needs



Malaria Situation in the GMS Countries

Malaria incidence in the Greater Mekong Subregion
2008 (Cui et. al., 2011)



Early Warning Signs of Emerging Artemisinin resistance in the GMS Region - Day 3 (+) after ACT treatment



Factors contributing to emergence and spread of drug-resistant malaria

- Drug management and quality
 - Non adherence to treatment
 - Sub-standard, counterfeit antimalarial drugs
- Population movement
 - Mobile and migrant – internal migration
 - Cross border population movement
- Economic pressures

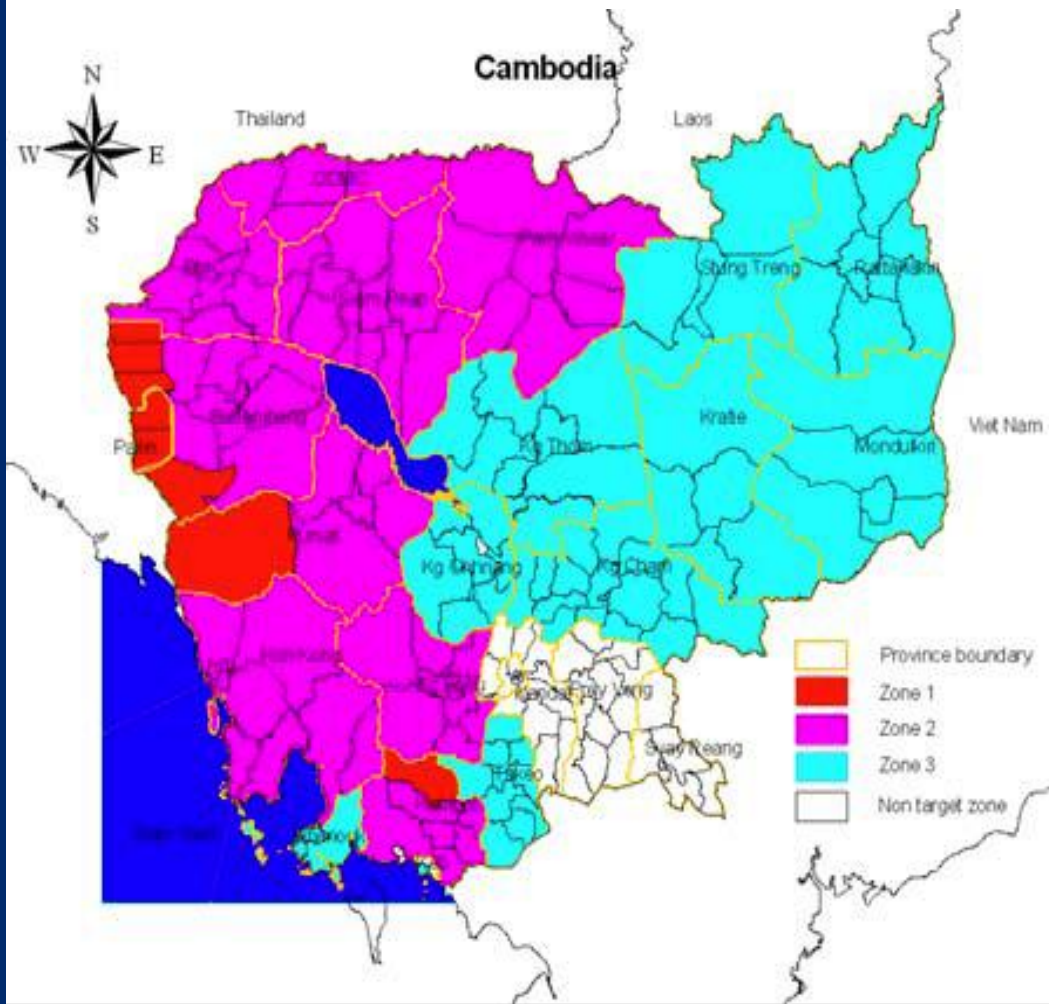


The Control and Prevention of Malaria (CAP-Malaria) project

CAP-Malaria Project Objectives

1. Develop and scale-up cost effective **vector control** interventions to prevent the transmission of malaria
2. Improve the quality and effectiveness of **diagnosis and treatment** for malaria at the community and health facility levels
3. Reduce **management** bottlenecks of the NCMPs and local institutions to implement and monitor malaria control activities
4. Support the establishment and maintenance of **strategic information** for malaria control

Building on lessons learned from the USAID Malaria Control in Cambodia project, 2007-2011

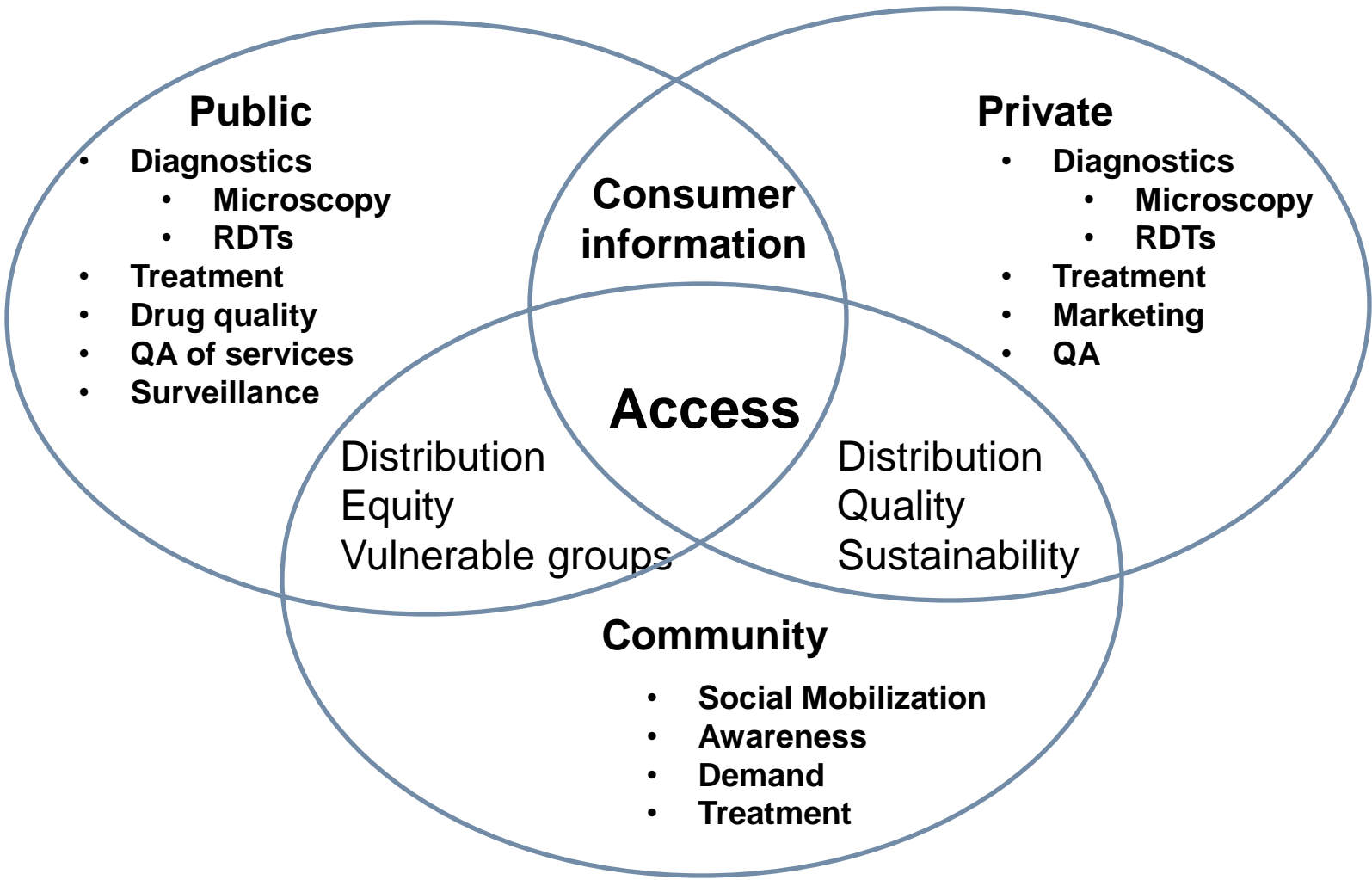


- 4 provinces (Zone 1)
- 5 operational districts
- 44 Health Facilities
- Target population: 1 Million

WHO - Malaria Containment / Elimination Zoning Overview Thailand - Cambodia



Strengthening Public, Private and Community Linkages for Malaria Prevention, Diagnosis and Treatment



Expected project impact

Delay the spread of artemisinin resistant malaria through development and implementation of a successful model to increase preventive and curative services.

Coordinating activities with PMI Partners in GMS Region

- CDC Malaria Consortium – M&E
- DELIVER (USAID) – LLINs, RDTs, Drugs, etc.
- PSI – Social marketing, BCC
- University of Maryland: TES
- USP – drug quality
- WHO – coordination and technical support



CAP-Malaria: Focus on Vulnerable Populations

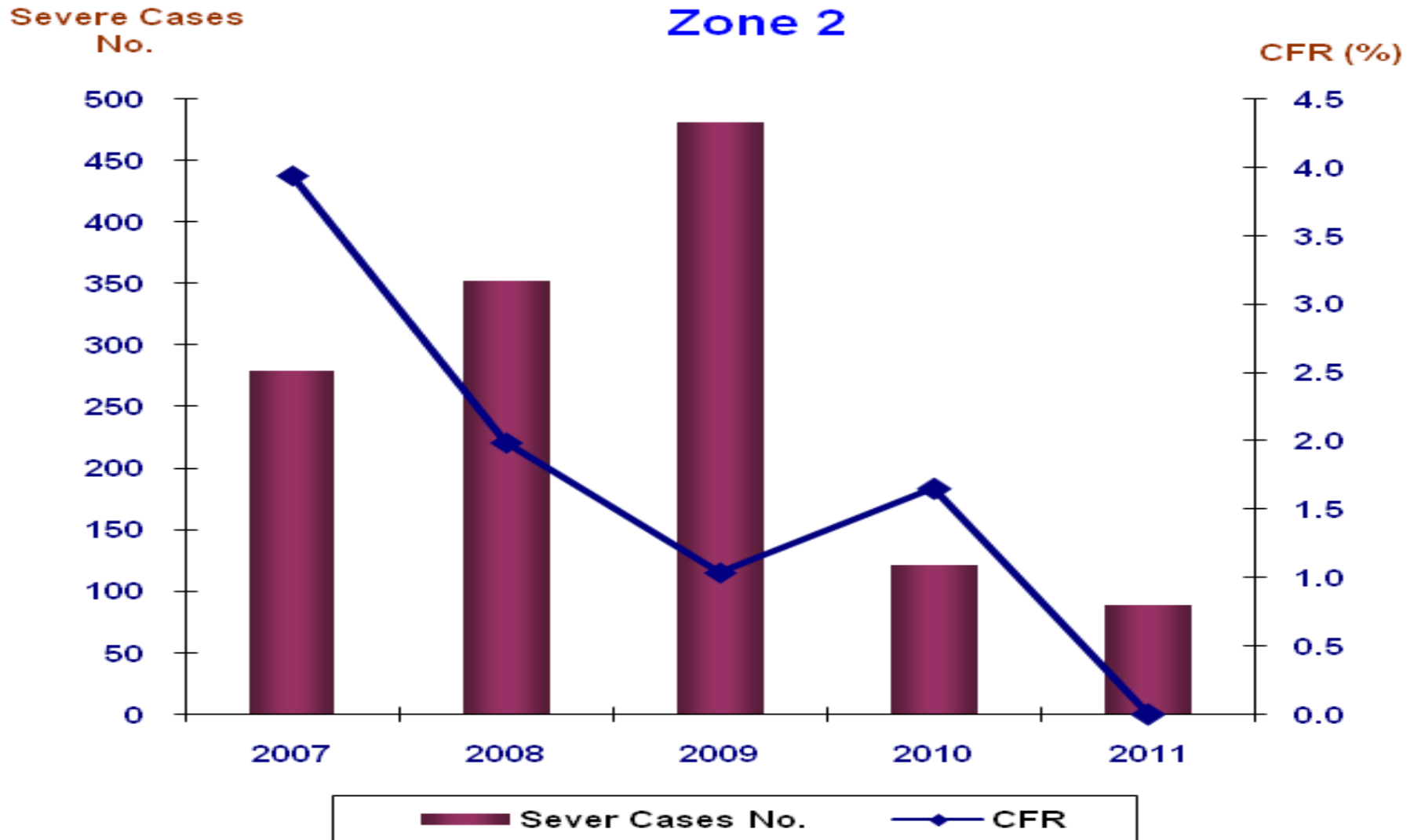
Who are the population groups at risk in GMS region?

- Communities in remote forested and jungle areas (~600,000 people in Cambodia Zone 1)
- Temporary residents (1-2 million people)
 - Ethnic forest inhabitants
 - Organized labor (military, plantation workers, road construction)
 - Refugees/ New forest settlers
 - Temporary migrants/mobile labor (as much as 60-80% of population during the rainy season)

Risk factors for increased vulnerability to malaria

- Reside in temporary dwellings or out of doors in high-risk malaria areas, making them very accessible to *P. Falciparum* mosquitoes that bite at night;
- Migrate from non-endemic malaria areas and so have little malaria immunity;
- Lack malaria prevention knowledge;
- Lack of finances for malaria prevention resources, such as long-lasting insecticide-treated bed nets (LLINs) and/or sprays;
- Reduced social networks that would support access to prevention and/or treatment services.

Severe malaria cases and CFR in Zone 2 (2007-2011)





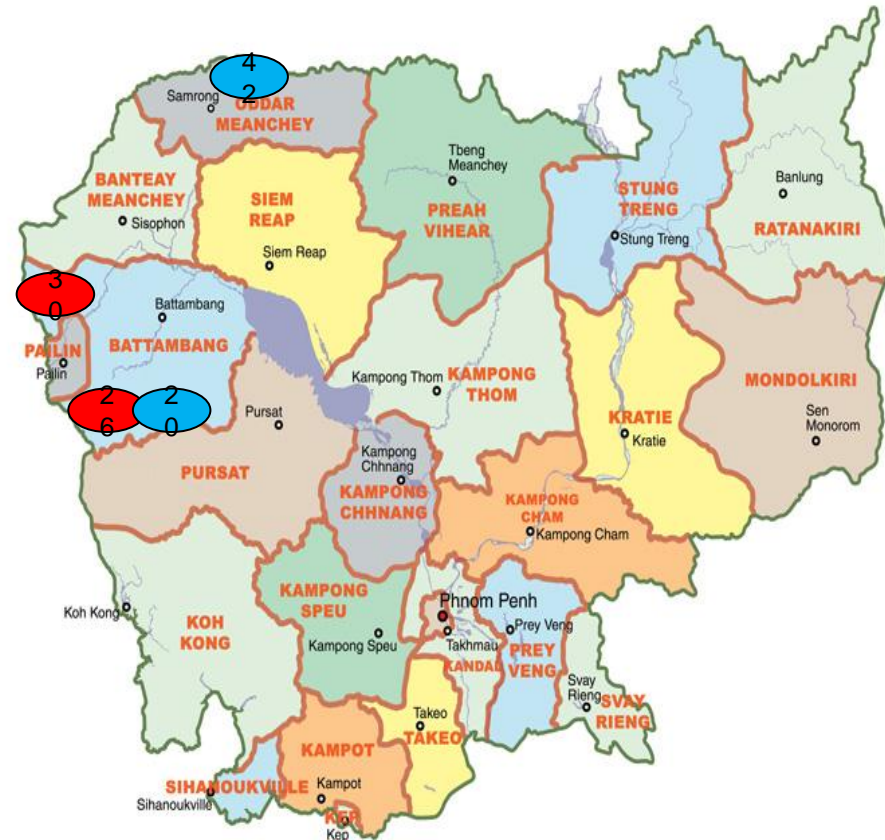
Migrant workers participating in focus group discussion

Findings on mobile workers and migrant populations

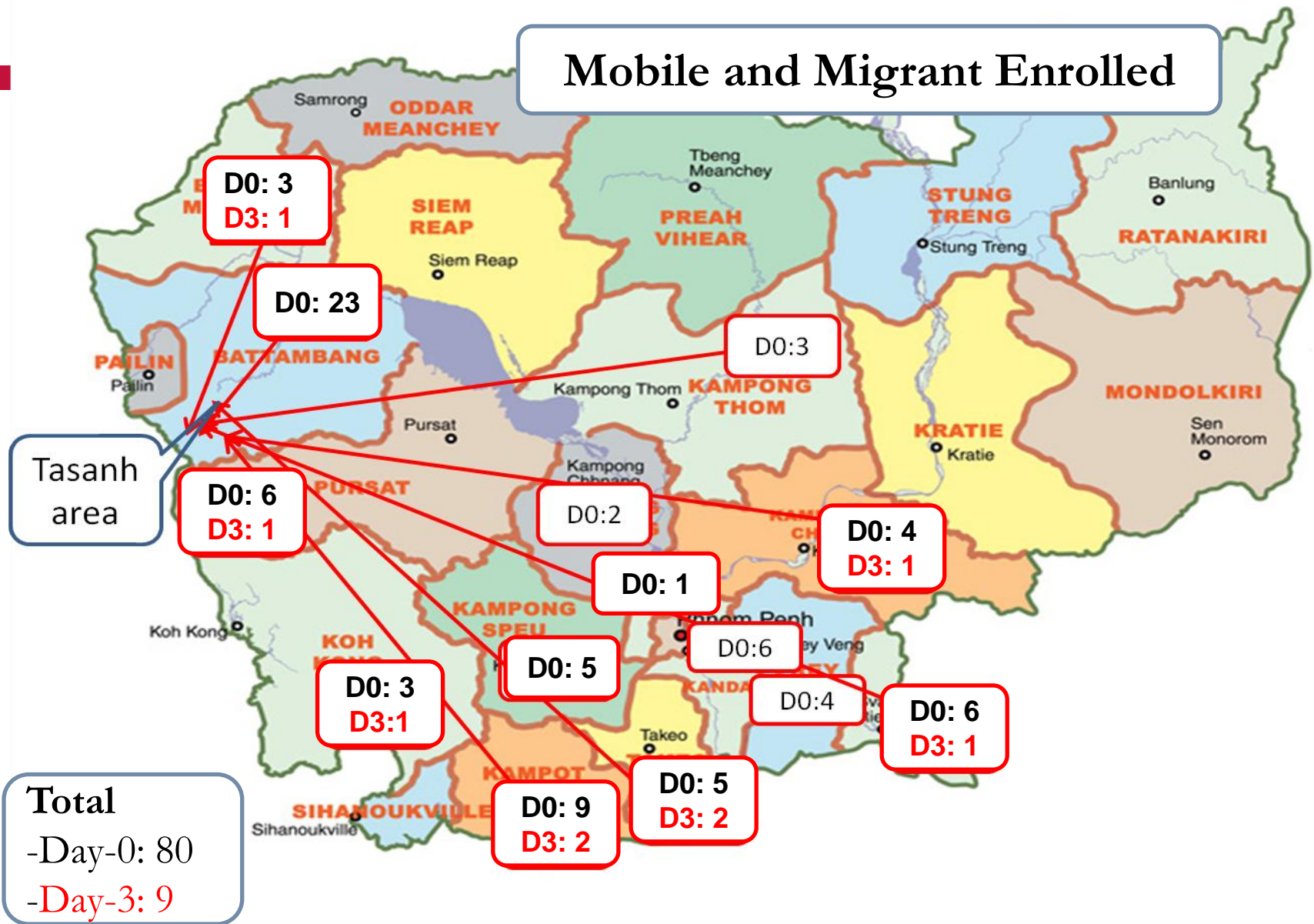
- Young population (below 30 years); male
- 2-8 weeks at a time during harvesting and planting; from non-endemic areas
- Connected through networks that link farmers, their extended families living in other regions of the country, and past and current mobile workers. These networks serve as the workers' source of information on what kind of work is available in different areas.
- While workers consider bed nets desirable to prevent mosquito bites, most are unaware of the link between nets and malaria prevention or between mosquitoes and malaria.

Community Day 3 Surveillance for ARM

- 264 *P. falciparum* and 42 mix cases enrolled on Day 0 (confirmed by microscopy)
- 78% male, mostly between 15-49 yrs.
- 17% were positive on Day 3 (n=56)



Mobile and Migrant Enrolled

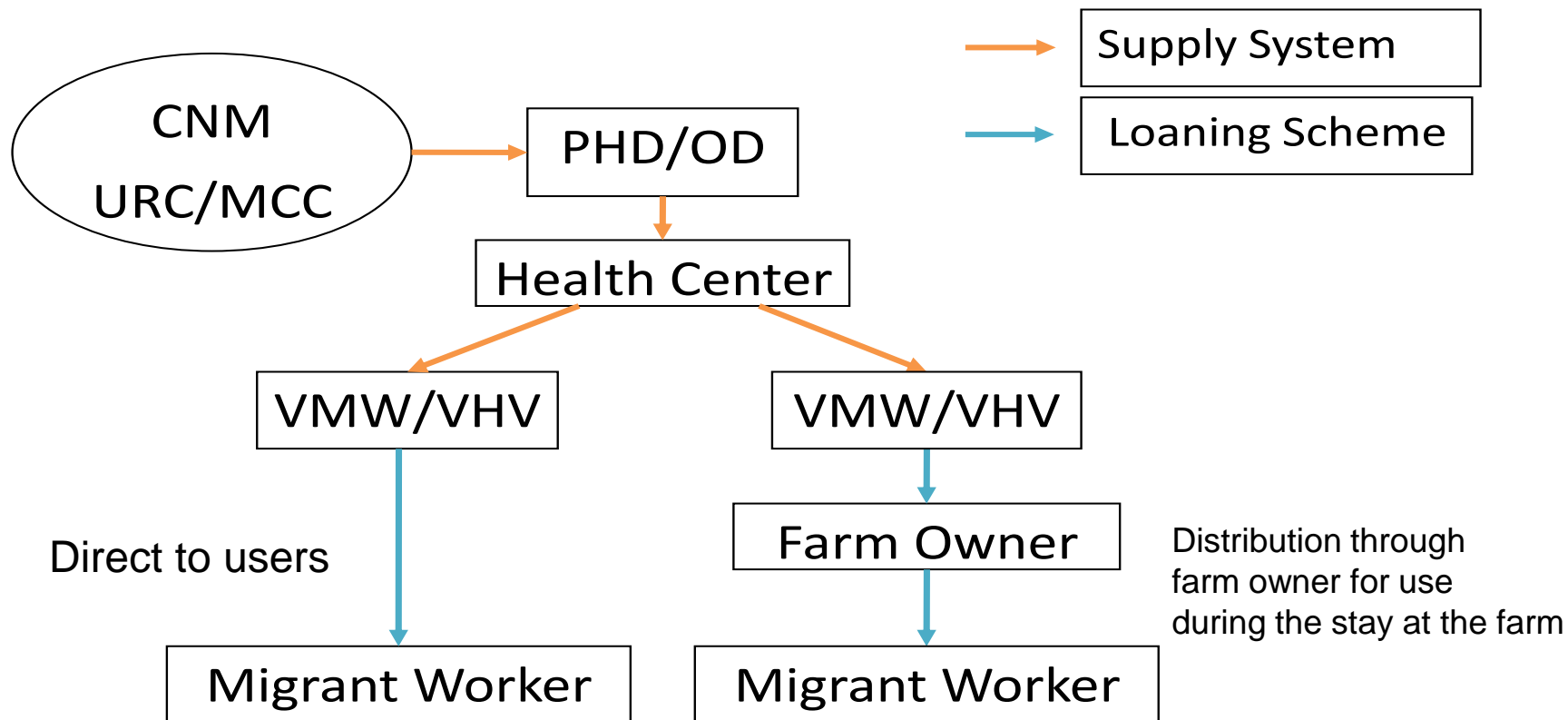




CAP-Malaria: Implementation Strategies

LLIN Lending schemes for mobile populations

Net Distribution Strategy



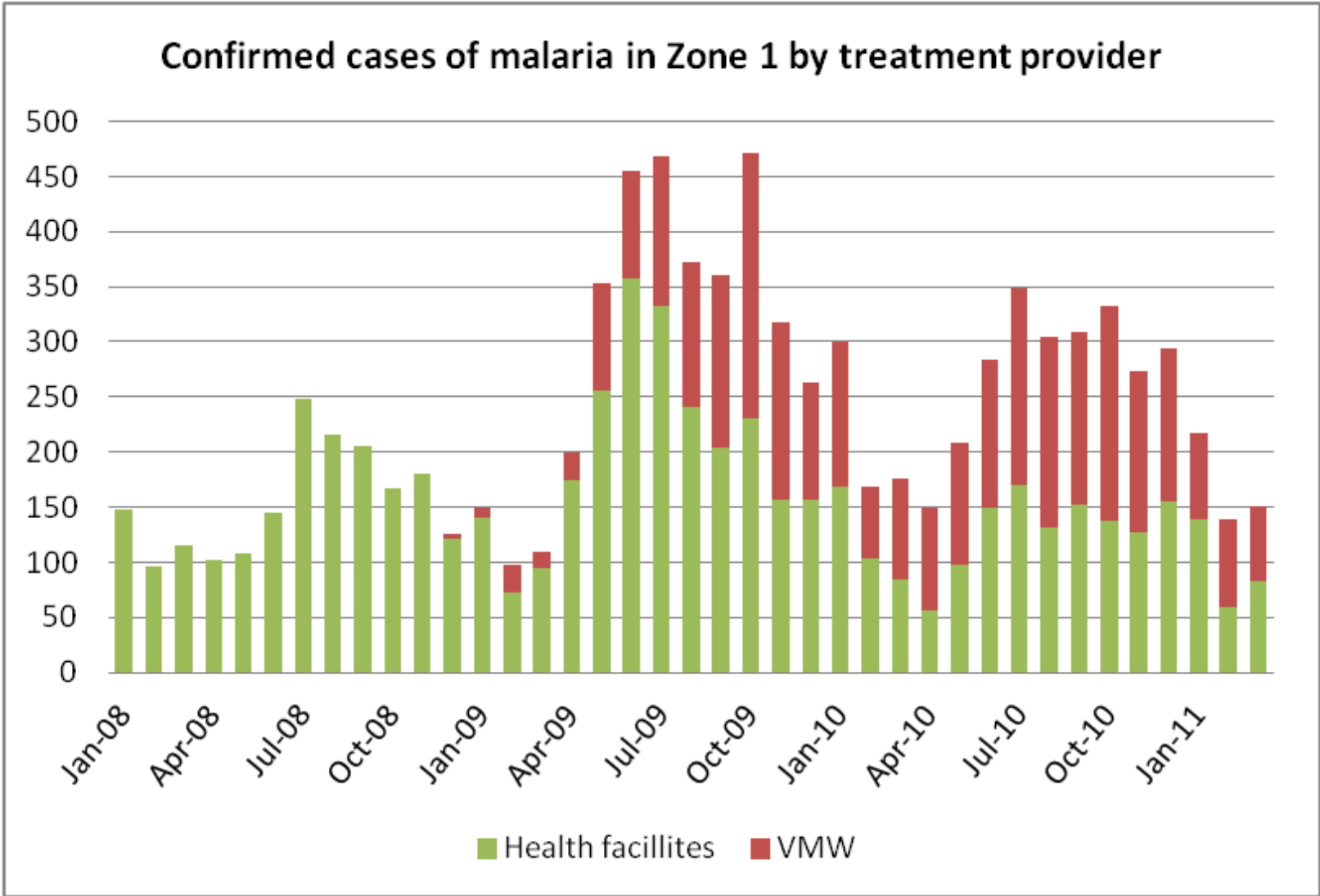


Outreach through taxi drivers for migrant and mobile population

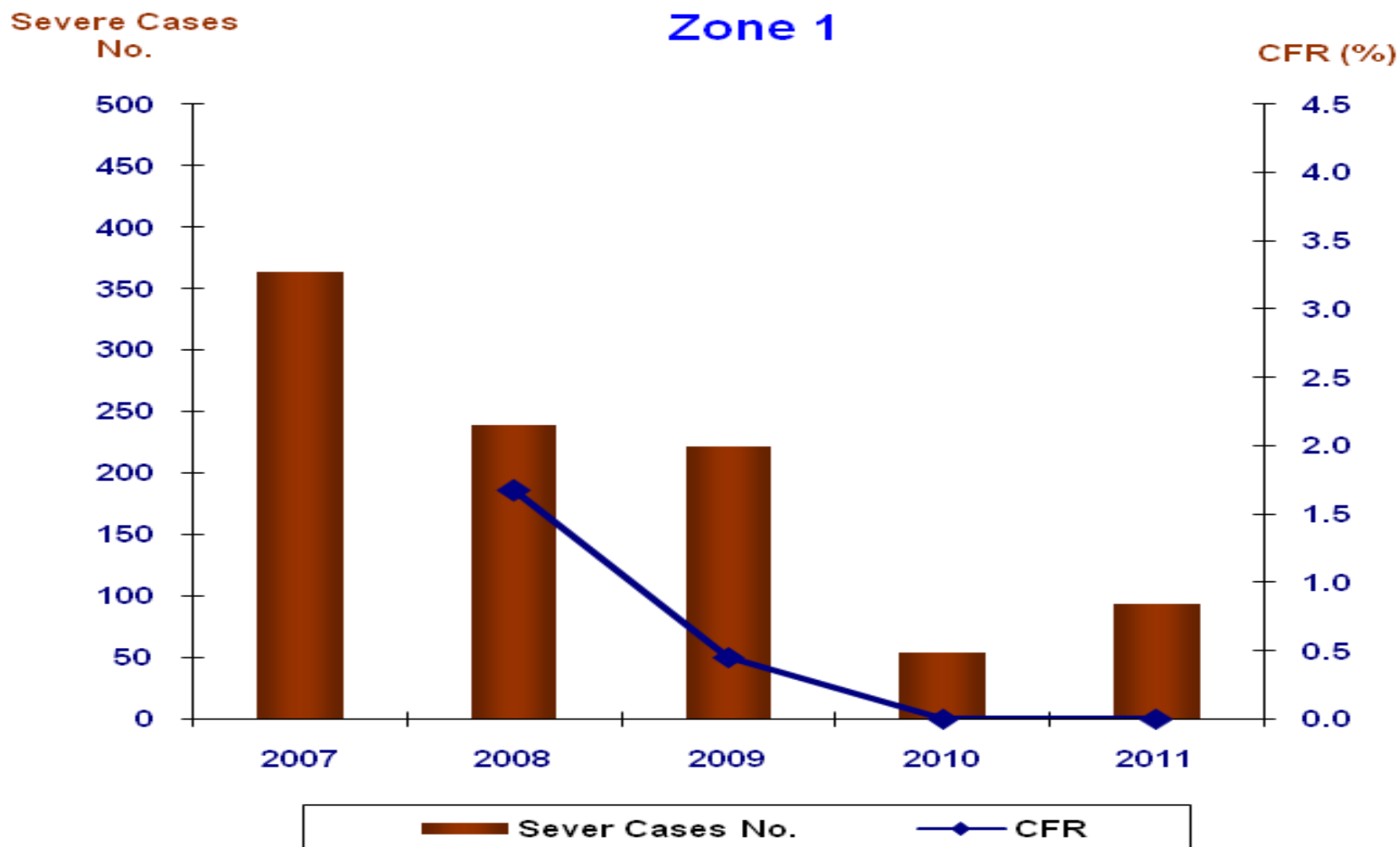


Community-level diagnosis and treatment by village malaria workers

Contribution of village malaria workers to malaria treatment in Zone 1 (2008-2011)



Declining number of severe malaria cases and CFR: Zone 1 (2007-2011)





Future Directions

Scale up best practices

- LLIN lending scheme to reach migrant/mobile employees
- BCC interventions including radio call in shows
- Village malaria workers for early diagnosis and prompt treatment
- Integration of malaria with PHC services in malaria endemic areas
- Strengthen the quality of microscopy services
- Private sector involvement in malaria diagnosis and treatment
- Quality of anti-malarial drugs
- Community mapping as an early warning sign of potential multi-drug resistance (Day 3 Surveillance)

Additional research to guide programming

- Contextual drivers of migration in other border areas and information on other at-risk groups (especially in Burma)
- Additional information on risk factors for mobile populations (and sending communities)
- Innovative prevention strategies (beyond INTs)
 - personal protection methods for “outdoor” biting, e.g. repellent preference, insecticide treated clothes
 - Evaluate local bednet preference
- Vector behavior- entomological study on behavior of vectors, species mapping

Focus on cross-border areas and cross-country collaboration

- Implement the concept of twin-cities model for malaria control/containment between Burma-Thailand and Cambodia-Thailand.
- Develop innovative strategies to address malaria transmission in high risk groups
 - Dual language content IEC materials
 - Malaria post at cross border and other locations to ensure accessibility of comprehensive services
 - New methods for collecting information and case investigation, especially from those from the migrant population (standard patient cards)

THANK YOU

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