In this month’s *American Journal of Tropical Medicine and Hygiene*, China’s remarkable progress in malaria control and elimination over the last decade is showcased in two articles. Feng and others reported annual national trends from 38,972 reported cases in 2004, to a peak of 60,193 (or 0.40/10,000) in 2006, to just 4,128 in 2013. Chen and others reported similar data from Zhejiang province, whereby reported malaria cases peaked in 2007 at 598 (0.12/10,000) and then declined to 215 in 2014. As the populations in many of China’s provinces exceed those of most other countries—the population of Zhejiang was 55 million in 2013—province level experiences and achievements are worth noting.

There are 31 provinces, municipalities, or autonomous regions in China. In 2010, when the national elimination strategy was formulated, 19 were considered to have endemic malaria, and achievements are worth noting. Specifically, high-risk individuals receive primaquine and other strata to ensure that interventions are dynamic and appropriate.

First, the importance of political and financial commitment for the final push toward malaria elimination cannot be underestimated. When malaria comes under control, there is a tendency for commitment and resources to wane in the face of competing priorities. However, the Chinese government has recognized broader purposes, that is, to promote not only health, but also economic and social development, and to align with the global malaria elimination agenda. There were mandates for legislation and coordinated action across several ministries and commissions (including Finance, Science and Technology, Entry-Exit Inspection and Quarantine, and General Logistics) and governments at all levels. The government’s commitment is best manifested by continued strong domestic financial support despite China losing eligibility for new funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria in 2012.

Second, as the epidemiology of malaria is heterogeneous, particularly in low-transmission settings, China has stratified its approach to malaria elimination. Counties are classified into four categories: Type 1, confirmed local cases in the past three consecutive years, with incidence ≥ 1/10,000 in at least 1 year; Type 2, confirmed local cases in the past 3 years and annual incidence < 1/10,000; Type 3, no local cases for at least 3 years, and thus only imported cases; and Type 4, no history of any local cases, and thus only imported cases. Within counties, further stratification occurs to the level of villages, facilitating targeting and tailoring of interventions to local conditions. For example, vector control would be of a priority in areas with ongoing local transmission whereas activities to address imported malaria would be more of a priority in Type 3 and 4 areas. Re-stratification is ongoing to ensure that intervention strategies are dynamic and appropriate.

Third, passive and active surveillance programs have been strengthened. On a national level, the proportion of reported cases based on only clinical diagnosis, without laboratory confirmation, was > 30% on average over the study period, but dropped to only 1% in 2013. In Zhejiang, the median time from illness onset to laboratory confirmation of malaria declined from a median of 5 to 3 days over the study period. Importantly, in 2004, in response to the severe acute respiratory syndrome (SARS) outbreak, a national web-based system was established for reporting of 37 notifiable conditions at the level of the township. This system provides China with real-time malaria data. A “1-3-7” strategy was developed to link passive with active surveillance and response, with case reporting within 1 day, case investigation within 3 days, and focused investigation and action within 7 days.

Finally, a key strategy has been the use of mass drug administration (MDA) for malaria control and elimination. During the 1950s and 1960s, China implemented MDA campaigns on a large scale, treating tens of millions of people for control of *P. falciparum* and *P. vivax* in high-transmission settings. More recently, MDA has been reserved for targeted use in smaller populations. Specifically, high-risk individuals receive primaquine before the transmission season as “spring treatment” to eliminate any potential *P. vivax* liver stage parasites, and drugs are administered during the transmission season as
chemoprophylaxis.1–14 In 2006, when there was a resurgence of 
*P. vivax* in Anhui and cases there accounted for 58% of 
China’s indigenous cases, MDA was critical to local control, 
and also likely resulted in fewer imported cases to nearby 
Zhejiang. MDA for malaria is not currently recommended by the World 
Health Organization, but new policy is being considered.15

Moving forward, what is next for China? With the shift from 
control to elimination, new challenges have arisen.16,17 The 
two articles published in this issue clearly show that malaria is 
increasingly imported, a disease of adult men, and occurs 
throughout the year, rather than in traditional peaks associ-
ated with rainy seasons. Maintaining constant vigilance regard-
ing imported malaria and prevention of reintroduction will be 
important. New strategies to target high-risk individuals, such as 
Chinese businessmen and laborers working in Africa, will 
need to be designed and implemented with private companies. 
The question of whether the ambitious task of border screen-
ing is feasible or effective will need to be tested. Collaboration 
with neighbors near and far, such as through the Asia Pacific 
Malaria Elimination Network, will be critical. Will the world’s 
most populous and fastest developing country prevail in its 
goal for malaria elimination? Likely yes. The next question 
will be whether China can take these lessons learned, and con-
tribute leadership, expertise, and resources to help realize 
worldwide eradication, a goal recently set for 2040.18

References

1. Feng J, Xiao H, Xia Z, Zhang L, Xiao N, 2015. Analysis of 
malaria epidemiological characteristics in the People’s Republic 


Malaria in Zhejiang Province, China from 2005 to 2014. *Am J 

Revised National Malaria Strategy* 2010–2015. Beijing, China: 
China Ministry of Health.


6. Sein T, Chairman’s Statement of 9th East Asia Summit. Nay Pyi 
Taw, Myanmar, November 13, 2014.


Mao to now. *J Glob Health* 1: 224–238.

Gosling RD, Feachem RG, Gao Q, 2014. Communicating and 

11. Xia ZG, Zhang L, Feng J, Li M, Feng XY, Tang LH, Wang SQ, 
Yang HL, Gao Q, Kramer R, Ernest T, Yap P, Zhou XN, 
2014. Lessons from malaria control to elimination: case study in 

12. Hsiang MS, Hwang J, Tao AR, Liu Y, Bennett A, Shanks DS, 
Mass drug administration for the control and elimination of 
*Plasmodium vivax* malaria: an ecological study from Jiangsu 

13. Wang SQ, Li YC, Zhang ZM, Wang GZ, Hu XM, Qualls WA, 
Xue RD, 2014. Prevention measures and socio-economic 
development result in a decrease in malaria in Hainan, China. 

SS, Huang F, 2014. Preparation of malaria resurgence in 
China: case study of vivax malaria re-emergence and outbreak 

15. WHOMPA Committee and Secretariat, 2015. Malaria Policy 
Advisory Committee to the WHO: conclusions and recom-
 mendations of sixth biannual meeting (September 2014). 


J, Gao Q, 2014. Malaria in overseas labourers returning to 
China: an analysis of imported malaria in Jiangsu Province, 