

Global Health

Deforestation Clears Way for Zoonotic Malaria in Malaysia

Intensive deforestation in Malaysia's rainforests is exposing more humans to a type of malaria previously found only in long-tail and pig-tail macaques, report an international team of investigators (Fornace KM et al. *Emerg Infect Dis*. 2016;22[2]:201-209).

An increase in the number of human infections with the zoonotic malaria species *Plasmodium knowlesi* have been noted in Malaysian Borneo over the last decade, and it is now the leading cause of human malaria in the region. Deforestation has been suggested to drive this emergence by promoting closer contact between humans and mosquitoes that bear the pathogen—primarily *Anopheles leucosphyrus* mosquitoes—through spatial overlap between villages and macaques living in nearby forests.

To explore potential associations between disease transmission and deforestation, the researchers analyzed data on *P knowlesi* malaria incidence from health clinics in the districts of Kudat and Kota Marudu in northwestern Sabah, Malaysia, on the island of Borneo from 2008 to 2012. During this time period, they found 2006 people with malaria in 405 villages, of whom 739 were estimated to be infected with *P knowlesi*. Estimates from remote sensing data indicated a 4.8% concomitant decline in forest cover in Kudat and Kota Marudu.

The researchers found during their 5-year period of observation that substantial environmental change occurred in these districts, with 206 of 405 villages (51%) having lost more than 10% of forest cover within a 5-km radius. They noted that a higher incidence of *P knowlesi* across villages was associated with a high rate of forest loss surrounding these villages 5 years before, but not within the same year, the incidence of *P knowlesi* malaria was reported.

Rates of Youth Obesity Increase Around the World

The prevalence of infant, childhood, and adolescent obesity is an increasing problem around the world that poses serious health consequences if actions are not taken to address the factors associated with this

unhealthy trajectory. The Commission on Ending Childhood Obesity (ECHO) presented recommendations to reverse the trend of expanding waistlines among children in its final report on January 25 during the 138th session of the World Health Organization (WHO) Executive Board (<http://bit.ly/1K6sFxr>).

The WHO director-general established the commission in 2014, gathering an international group of 15 individuals with relevant backgrounds to address gaps in existing mandates and strategies, and its report is the culmination of a 2-year process that involved discussions with more than 100 WHO member states. The report notes that at least 41 million children younger than 5 years are overweight or obese, most of whom live in low- and middle-income countries.

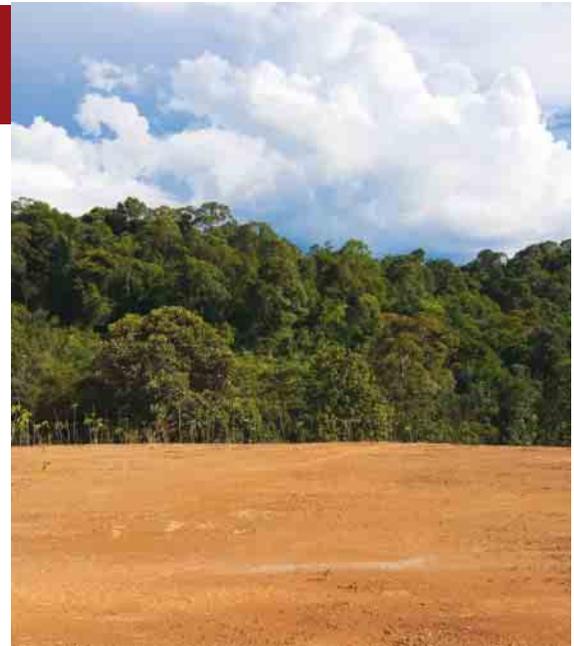
Childhood obesity is a complex and multidimensional problem that requires a multitude of approaches and interventions. The ECHO report addresses these issues in a set of recommendations that focus on implementing programs in 6 areas: promoting consumption of healthy food; encouraging physical activity and reducing sedentary behaviors; providing guidance for mothers-to-be on preconception and antenatal care to reduce the risk of childhood obesity; providing guidance and support for healthy diet, sleep, and activity in early childhood; promoting healthy behaviors in schools; and providing family-based, multicomponent, lifestyle weight management services for obese children and young people.

The recommendations also propose several strategies for implementing these programs, such as increasing access to healthy foods in disadvantaged communities and taxing sugar-sweetened beverages.

Antibiotics of No Benefit in Treating Children With Malnutrition

Using routine antibiotics to treat children with uncomplicated severe acute malnutrition (SAM) does not aid nutritional recovery, reported an international team of investigators (Isanaka S et al. *N Engl J Med*. 2016; 374[5]:444-453).

In 1999 the World Health Organization (WHO) recommended that all children with



Research finds that high rates of historic forest loss is associated with increased incidence of malaria.

SAM should receive antibiotics to reduce the risk of death because malnutrition was often complicated by bacterial infection and required treatment in the hospital. However, the costs and consequences of emerging resistance associated with routine antibiotic use raise questions about antibiotic use in treating children with uncomplicated cases of SAM.

In this double-blind, placebo-controlled trial carried out at 4 health centers in Niger, the researchers randomly assigned 2412 children who were aged 6 to 59 months and who had uncomplicated SAM to receive either placebo or amoxicillin twice daily for 7 days. Both groups also received ready-to-use therapeutic food along with free standard primary health care. The primary outcome was nutritional recovery at 8 weeks based on improved weight-to-height scores, increased measurement of the upper arm, and lack of edema.

Of the children included in the analysis (n = 2399), researchers found no significant difference in the likelihood of nutritional recovery between the groups: among the children who received amoxicillin, 65.9% (790/1199) recovered, while 62.7% in the placebo group (752/1200) recovered.

The authors noted several limitations in the study, including the fact that the pre-defined end point of 80% nutritional recovery was not achieved. — M. J. Friedrich