

COLOMBIA

Colombia has decreased malaria cases in the past few years and is on track to meet the WHA 58.2 target for MDG 6C by 2015. In 2014, cases have decreased by 71.8% since the beginning of the millennium (Figures 1 and 2). Colombia reported 17 malaria-related deaths in 2014 (only Brazil reported a higher amount), though they have decreased by 86.3% since 2000.

The department of Choco along the Panama border had the highest number of cases in 2014, having increased by 39.4% since 2013 (Figure 3). Quibdó, in the department of Choco, had the highest reported number of cases of all municipalities at 5,008. Antioquia department previously had the highest amount of cases, but malaria has decreased by 55.4% since 2013.

Figure 2. Number of cases and deaths due to malaria in Colombia, 2000–2014

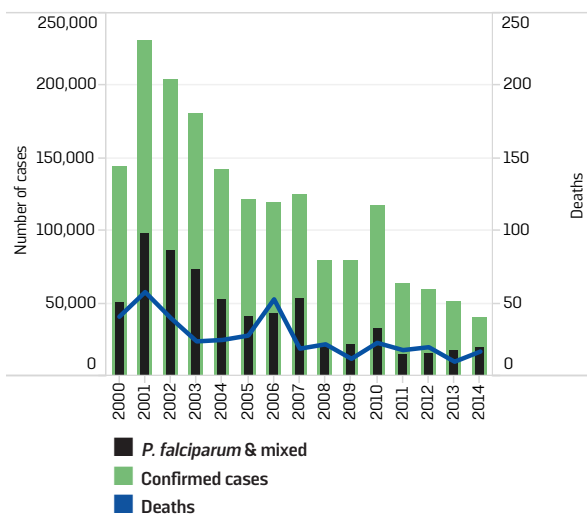
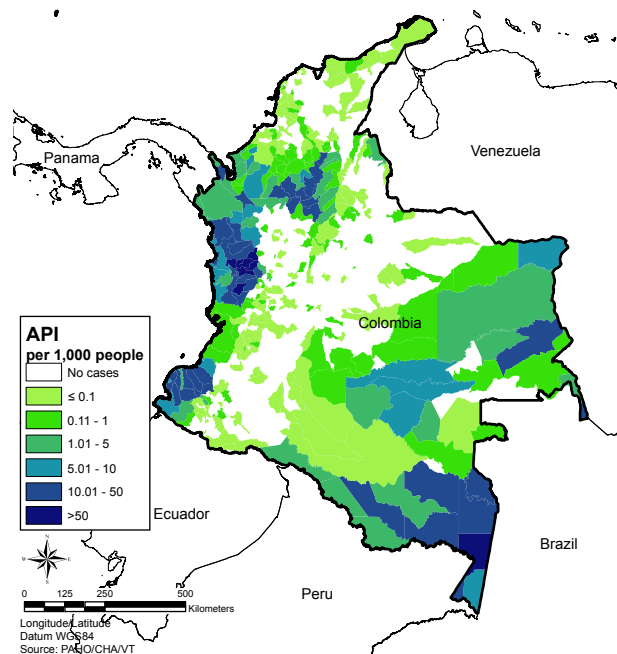


Figure 1. Malaria by Annual Parasite Index (API) at municipality level (ADM2), Colombia 2014

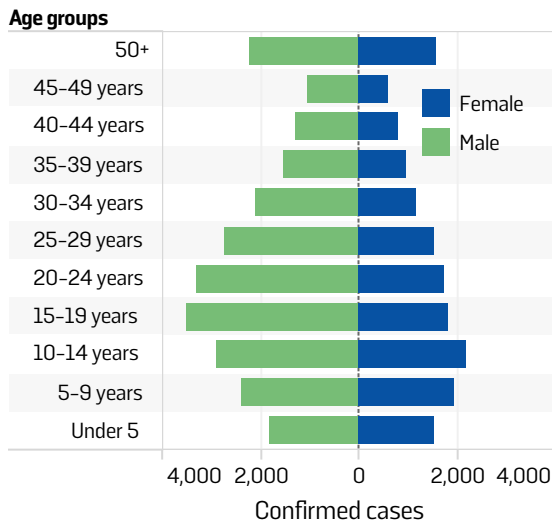


There are various malaria vector species in Colombia including *Anopheles darlingi*, *An. pseudopunctipennis*, *An. albimanus*, *An. nuneztovari*, *An. neivai*, and *An. punctimacula*. *Plasmodium falciparum* infections accounted for about half of all cases in 2014, an increase from the previous year (34%). In the past, the majority of cases have been due to *P. vivax*, but in 2014 Choco had an outbreak of *P. falciparum* malaria.

Figure 3. Municipalities with the highest number of malaria cases in Colombia, 2012–2014

Municipality	Department	2012	2013	2014
Quibdó	Choco	1,703	4,232	5,008
Tadó	Choco	1,560	1,814	3,472
El Bagre	Antioquia	6,570	4,572	2,109
Novita	Choco	392	668	1,886
Caceres	Antioquia	1,922	5,061	1,419
Tumaco	Narino	1,524	1,422	1,330
Medio San Juan	Choco	21	406	1,165
Río Iro	Choco	8	522	1,077
Zaragoza	Antioquia	1,738	1,732	961
Bagadó	Choco	686	556	894

Figure 4. Malaria cases by age and sex in Colombia, 2014



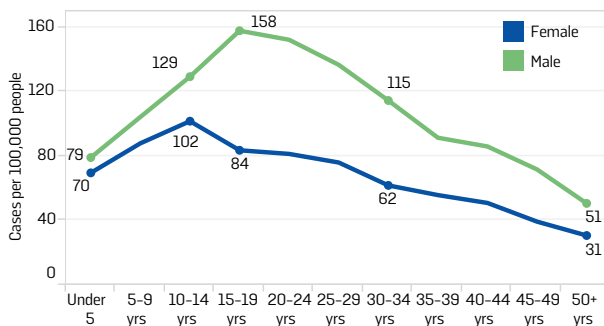
Men are more at risk for malaria than women and accounted for 61% of cases in 2014 (Figure 4). The age-standardized incidence that year was 102 cases per 100,000 men and 65 cases per 100,000 women. Throughout all age groups, the incidence of malaria was higher in men than in women, peaking for those men in the 15-19 year age group (Figure 5). In women, the incidence was highest for those aged 10-14 years old.

Diagnosis and Treatment

Although both microscopy and RDTs are presently used for malaria diagnosis, the former is the principal method (Figure 6). RDTs were introduced in 2007 and their use has varied from year to year. The SPR in 2014 was 10.1, decreasing from over 30 at the start of the millennium. Colombia uses chloroquine and primaquine (0.25 mg/kg for 14 days) as a first-line treatment for *P. vivax*, while artemether-lumefantrine combination is used to treat *P. falciparum* cases.

In 2014, access to treatment improved compared to the previous year when almost half of malaria patients

Figure 5. Malaria incidence by age and sex in Colombia, 2014



received treatment in more than 72 hours following the onset of symptoms (Figure 8). Currently, only 36% of all malaria patients have to wait more than 72 hours before receiving treatment, an especially important factor during *P. falciparum* outbreaks. However, data have varied significantly from one year to the other, which raises doubt over the quality of information available for ascertaining trends in access to diagnosis and treatment.

Figure 6. Blood slides examined, RDTs examined, and SPR in Colombia, 2000-2014

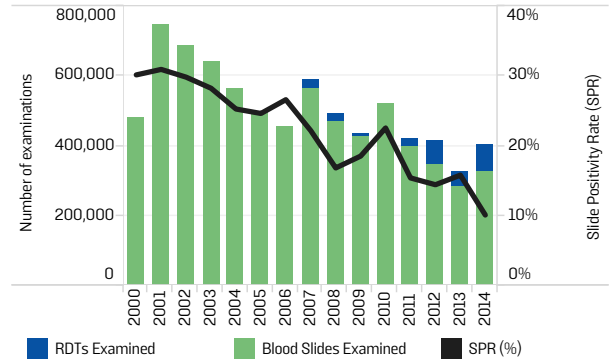
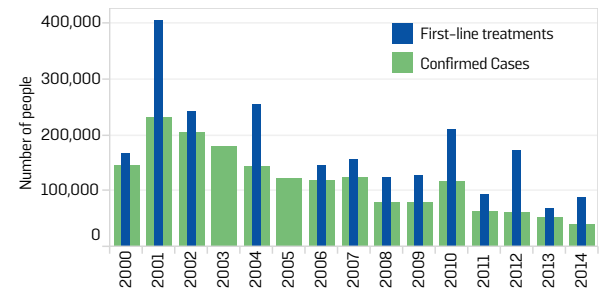
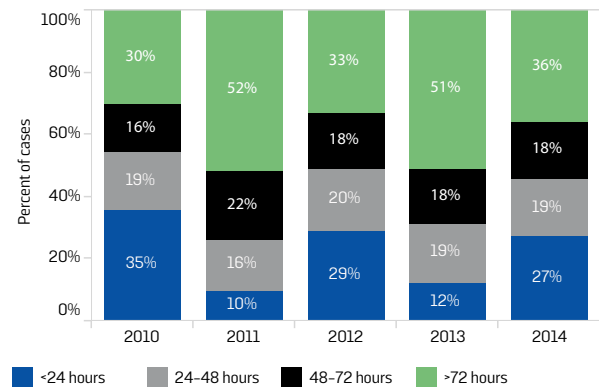


Figure 7. Number of malaria cases and those treated with first-line treatments in Colombia, 2000-2014



*First-line treatment data unavailable for 2003 and 2005.

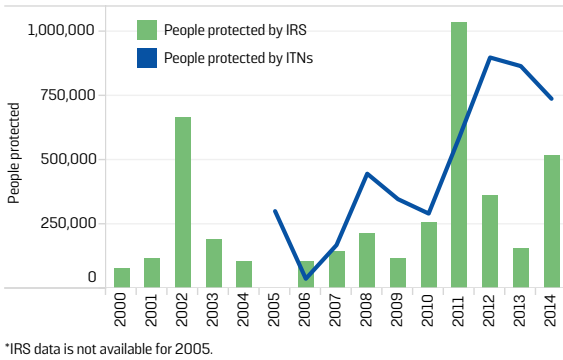
Figure 8. Time between first symptom and initiation of treatment in Colombia, 2010-2014



Vector Control

ITNs have been distributed in Colombia, most notably in 2005, 2008, and 2012. An estimated 750,000 people are estimated to be protected by ITNs (Figure 9). Use of IRS increased in 2014 compared to the year before, protecting around 520,000 people. Tests performed in 2013 and 2014 found confirmed resistance in *An. darlingi* vectors to organochloride and pyrethroid insecticides in the department of Choco, the department with the highest incidence of malaria in the country.

Figure 9. People protected by IRS and by ITNs in Colombia, 2000-2014



Funding

Although various external sources have contributed to malaria funding, the majority of funds are provided by the government. However, these funds were reportedly decreased to half in 2014 compared to 2013 (Figure 10). The Global Fund has provided financial support, although the last grant ended in 2014 and the country is no longer eligible to receive funds. The USAID has provided resources since 2002 via the AMI/RAVREDA project. Other external funds have come from PAHO/WHO in the past. The recent decrease in funding may put at risk the progress made as cases tend to increase when resources decrease, especially so in Choco and other malaria endemic areas where the Global Fund grant was supporting malaria-related activities up until 2014.

Figure 10. Funding for malaria in Colombia for 2000-2014

