EDITORIAL

Malaria elimination – where are we at?

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Malaria, a preventable and treatable parasitic infection caused by the *Plasmodium* parasite, and transmitted through a female *Anopheles* mosquito is a major contributor to global morbidity and mortality [1]. Malaria remains endemic in up-to 91 tropical and sub-tropical countries and territories. The 2016 WHO Malaria report indicates global incidence of 212 million cases (range 148 – 304 million) in 2015, with the WHO African region accounting for 90% of the new cases, followed by the South-East Asia Region (7%) and the Eastern Mediterranean Region (2%) with an estimated mortality of an 429 000 (range 235 000–639 000), of whom 303 000 were children under five years of age [2]. According to the WHO in 2016, there has been a decrease in malaria cases and deaths of 37% and 60% since 2000, respectively [3]. WHO reports a 21% malaria incidence and 29% mortality decline between 2010 and 2015. The rate of progress depends on the strength of the national health system, the level of investment in malaria control and a number of other factors, including biological determinants; the environment; and the social, demographic, political and economic realities of a particular country [4].

Various countries and regions have had different targets towards the control, elimination and in some cases eradication of Malaria. E*limination which* is the interruption of local transmission (reduction to zero incidence of indigenous cases) of a specified malaria parasite species in a defined geographic area is a global goal [4]. Those who have advanced still have the risk of importation of non-indigenous malaria. Countries are situated at different points

along the road to elimination [4]. A holistic global approach and effort is necessary to achieve a total elimination of this ailment. It requires new tools and strategies aimed at completely clearing the parasite from a given geographical area then globally [5]. In May 2015, the World Health Assembly (WHA) committed to a global elimination initiative by adopting the *Global Technical Strategy for Malaria 2016-2030* (GTS). This strategy though ambitious, achievable elimination goals for 2030 included milestones to track progress along the way including reducing malaria case incidence by at least 40%; reducing malaria mortality rates by at least 40%; eliminating malaria in at least 10 countries; and preventing a resurgence of malaria in all countries that are malaria-free by 2020. By 2015, 10 countries and areas reported fewer than 150 locally-acquired cases of malaria and another 9 between 150 – 1000 cases. However, less than half (40) of the 91 malaria-endemic countries are on track to meet the GTS milestone of a 40% reduction in malaria case incidence by 2020. An accelerated approach is required to ensure the global goal is achieved by 2030 [6]. WHO estimates that 21 countries are in a position to achieve this goal, including six countries including Algeria, Botswana, Cape Verde, Comoros, South Africa and Swaziland in the African Region [7].

Some countries and regions have made great strides in eliminating indigenous malaria transmission and been certified Malaria free by the World Health Organisation. Certification of malaria elimination is the official recognition by WHO of a country's malaria-free status which is granted when a country has proof that the chain of local transmission of all human malaria parasites has been interrupted nationwide for at least 3 consecutive years [8]. Between 1955 and 2015, 27 countries and two territories received WHO malaria free certification [9]. The WHO European region hit its 2015 target to wipe out malaria, with reduced number of indigenous malaria cases having dropped from 90 712 in 1995 to zero cases in 2015 [10]. Outside the European region, 8 countries reported zero cases of the disease in 2014 including Argentina, Costa Rica, Iraq, Morocco, Oman, Paraguay, Sri Lanka and United Arab Emirates while another 8 countries each tallied fewer than 100 indigenous malaria cases in 2014. Furthermore, 12 countries reported between 100 and 1000 indigenous malaria cases in 2014 [7]. Sri Lanka was certified malaria free in 2016, a truly remarkable achievement considering it was among the most malaria

affected countries in the mid-20th century. [11]. Although there is a declining incidence of Malaria in Africa, there is also a considerable uncertainty around the reported estimates according to Nkumama et al [12].

Zambia's elimination strategy goals spelt out in the National Malaria Strategic Plan (NMSP) 2011-2016, aim to eliminate local malaria infection and disease by 2020, maintaining a malaria free-status and preventing its reintroduction in country [13]. Malaria prevention and control in Zambia is a prominent sub-component of the Health, Water & Sanitation, HIV/AIDS of GRZ/UNICEF Country Programme 2011-2015 [14]. A desk review on malaria in Zambia between 2000 and 2010 revealed three distinct epidemiological strata after a notable malaria reduction (66%) in in-patient cases and deaths, particularly in 2000-2008. Although Zambia passed the Roll Back Malaria target of reducing malaria mortality by half between 2000 to 2010, malaria cases and deaths re-surged, increasing in 2009-2010 in the northern-eastern parts of Zambia [15,16]. Between 2000 and 2015 it was projected that malaria incidence would decline by 50-75% in Zambia [17] and in particular Mukonka et al [18] documented reduction in malaria morbidity and mortality in Nchelenge district following a scale-up of malaria control measures.

In this publication THP-Z features under the perspective, *Let's clear the smoke: Making bars and restaurants accountable for a smoke-free Lusaka* which suggests more penalties of public facility owners who allow smoking in their areas and 4 research articles including *Malaria Incidence in Zambia, 2013 to 2015: Observations from the Health Management Information System* which indicates an unstable incidence rate over a three-year period from 2013 to 2015. The paper indicates that generally the incidence of malaria in Zambia increased by 6% between 2013 and 2014, and then decreased by 18% between 2014 and 2015, resulting in an overall decrease of 12% for the 2013-2015 and more specifically an increase of 90 to 103 per 1000 (from 2013 to 2014) before dropping to 83/1000 in 2015 among pregnant women; *Challenges surrounding the response to road traffic accident emergencies at Ndola Teaching Hospital casualty department, Zambia* which determined to establish the challenges in attending to RTA victims that are faced at Ndola Teaching Hospital (NTH), Zambia; *Medical prescriptions pitfalls of acute upper respiratory tract infections in government healthcare facilities in Zambia* which

demonstrated over prescription and drug misuse for upper respiratory infections in Zambia and; *Condom use at last sexual intercourse among teenagers in Zambia: results from the Zambia Demographic and Health Survey, 2013-2014* which determined correlates for condom use at last sexual intercourse.

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