DEVELOPMENT POLICY CENTRE

Reducing malaria in Solomon Islands: lessons for effective aid

Camilla Burkot and Katherine Gilbert

Executive Summary

The burden of malaria in Solomon Islands, a small island state of approximately 653,500 people and lower-middle-income status, remains among the highest of all countries outside of sub-Saharan Africa. Nevertheless, significant improvements in malaria control have been made in the last 25 years. From a peak of nearly 450 new cases per 1,000 population in 1993, by 2016 annual national malaria incidence dropped to 81 cases per 1,000.

Solomon Islands also remains one of the world's most aid dependent nations, and assistance from international donors has been particularly visible in the health sector. This paper explores the role that foreign aid has played in the reduction of malaria in Solomon Islands in recent years. Within this, the paper considers the role of the Solomon Islands Ministry of Health and Medical Services with respect to its efforts to coordinate donors and improve aid effectiveness as well as its broader efforts to reform the health system.

This study uses a qualitative within-case methodology, including a review of the published and grey literature as well as a series of in-depth, semi-structured qualitative interviews conducted between March and May 2017. 18 interviews were conducted with key stakeholders who have been involved in the design, funding, and implementation of malaria control and elimination activities in Solomon Islands: individuals currently or

previously employed by the Ministry of Health and Medical Services, bilateral and multilateral donor agencies, advisers, researchers, and members of civil society.

The first half of the paper reviews the history of malaria control and donor involvement in Solomon Islands starting from the post-World War II period. Though substantial resources were expended to control malaria by the US military in Solomon Islands during WWII, after the war there were only limited malaria control efforts undertaken by the British Solomon Islands Protectorate administration and by 1959 the burden of malaria had returned to what it was believed to have been prior to WWII. Following a pilot trial in Ontong Java, a broader Malaria Eradication Pilot Project commenced in two provinces in Solomon Islands in 1961, as part of the World Health Organization's Global Malaria Eradication Campaign, and was expanded to a full Malaria Eradication Program covering all districts in 1970.

The Eradication Program was associated with declining incidence in all districts, and there were high hopes for the successful transition of the Program to the new independent Solomon Islands government in 1978, with the integration and decentralisation of the program into the rural health service. However, it appears that the objective of eradication was soon abandoned after independence, and the focus shifted to malaria control. Malaria incidence increased, despite the resumption of DDT spraying and the implementation of mass drug administration and a number of other vector control measures, reaching a new record high of 440.5 cases per 1,000 in the early 1990s.

By that point, a number of pivotal changes were implemented, which led to a period of sustained progress in malaria control in Solomon Islands. The national malaria program was re-christened the National Vector-Borne Disease Control Program (NVBDCP) and formally integrated into the Ministry of Health in 1992, and a new National Malaria Control Policy was adopted in 1993. With support from a growing group of donors, the mass distribution of insecticide-treated bed nets commenced from 1992. The contributions of development partners also enabled increased access to clinical services and diagnosis, infrastructure, information systems, and staff capacity to manage the malaria program. Between 1992 and 1999, malaria incidence dropped by 82%.

Progress in malaria control was interrupted by the Tensions. The breakout of violence triggered a macroeconomic crisis which resulted in the halting of Solomon Islands

government funding for the NVBDCP and interruptions to most donor-funded efforts. Though the provision of Australian aid funds enabled essential health services to continue to be delivered, efforts to control malaria contracted as the NVBDCP struggled to pay its staff and procure essential anti-malaria drugs.

In the early 2000s, the Global Fund to Fight AIDS, Tuberculosis, and Malaria was established and began to emerge as a major donor in the Pacific region. In 2002, Solomon Islands along with 10 other Pacific island countries joined together under a regional Global Fund grant for HIV/AIDS, TB, and malaria, managed by the Secretariat of the Pacific Community. This was the first of four Global Fund grants that the NVBDCP in Solomon Islands would receive, and it served as a springboard to a rapidly expanded and resourced program. The significant scale-up in resources from the Global Fund corresponded with a steadily dropping annual parasite incidence (API): from 206 per 1,000 in 2003 to 163 in 2005 and 132 in 2007.

The NVBDCP experienced a further increase in funding between 2007 and 2012. With growing global interest in malaria control and elimination, and a rapidly expanding AusAID budget, AusAID launched its Pacific Malaria Initiative (PacMI) in 2007, which sought to support the implementation of a consolidated malaria workplan that coordinated the resources and objectives of multiple donors. The PacMI Support Centre (PacMISC), which was originally intended to fulfil a research function, came to occupy a blended role of research, technical advice, and capacity building to manage the large quantity of donor funds for malaria. The high levels of dedicated malaria funding during this period coincided with the introduction of the health Sector-Wide Approach (SWAp) in 2009, also led by Australia. Despite the presence of the SWAp, AusAID and Global Fund alike largely established or reinforced parallel systems to direct their funding, working outside existing Ministry of Health systems. By 2010, AusAID was contributing about 35% of the NVBDCP budget, and Global Fund about 53%, and the API continued to drop from 132 per 1,000 in 2007 to 80 per 1,000 in 2008 and 45.6 per 1,000 in 2013.

From about 2013, dedicated donor funding for malaria control and elimination began to wane, in favour of increased integration of malaria service delivery into primary health services. Australian aid funding earmarked for malaria reduced, and the focus of Australian support in the health sector shifted to broader ministry reform and

strengthening of provincial health services. With the support of donors, the Ministry of Health decided to apply for a single-country grant from the Global Fund, breaking from the SPC-led multi-country grant – a goal that it had aspired to for a number of years. In 2015, the Ministry of Health was successful and took over as Principal Recipient of a new 'Cash on Delivery' grant, a portion of which must be pre-financed by the Ministry and which is only reimbursed if pre-determined performance targets are met. Due to both improved diagnosis and surveillance, as well as a possible increase in malaria transmission, the reported API doubled from 40.5 per 1,000 to 81 per 1,000 between 2015 and 2016.

The second half of the paper presents six key observations related to the role and effectiveness of donor support for malaria in Solomon Islands, with a primary focus on aid in the period 2003 to the present.

First, while it is difficult to establish a direct relationship between the provision of foreign aid and a specific health outcome, overall the data suggest that aid did significantly contribute to a reduction in malaria in Solomon Islands. Support from the Global Fund was pivotal in that it enabled a substantial scaling-up of key technical interventions, including insecticide-treated bed nets, drugs, and rapid diagnostic tests. Australian aid was critical in supporting the implementation of Global Fund-funded interventions, and in providing flexible and consistent funding. There also seems to have been reasonable coordination among the various donors funding malaria activities. However, there are also concerns that management challenges within the Ministry of Health (particularly at the provincial level) were inadequately addressed by donors, and questions regarding the effectiveness of some modalities of aid, including the Global Fund Cash on Delivery model.

Second, while the Global Fund and Australia now invest in malaria through Solomon Islands country systems, the majority of support has been provided in a highly vertical manner, with implementation reliant upon parallel systems used by the NVBDCP but different from those used by the rest of the health system. There is thus little evidence of positive spill-over from the parallel approach to the broader health system. While supporters of this approach described it as requisite for implementation at the time, most also acknowledged that more should have been done to strengthen existing systems.

Having been built up as a highly siloed, independent program, the NVBDCP is now facing challenges with reintegrating into the Ministry of Health as part of a broader integration and decentralisation reform agenda that commenced in 2011.

Third, as donor funding reduces, sustaining the gains that have been made through the national malaria program will be dependent on strengthening the capacity of provincial malaria programs to plan, budget, and deliver interventions appropriate to their provinces. This represents a significant contrast with earlier donor support designs, which assumed a centralised model in which provincial malaria teams represented little more than 'body shops' to deliver bed nets and insecticide spraying. The differing experiences of Isabel and Temotu provinces – both of which were targeted for elimination, and which saw remarkably different results – attests to the variation in capacity between provinces and the importance of provincial governance to the program's success. Beginning in 2016, the NVBDCP began handing over greater responsibility for implementation to the provinces. However, this will be an extended process, which will require greater attention from donors than in the past.

Fourth, while it seems clear that aid was spent on effective interventions which reduced the burden of malaria in Solomon Islands, the evidence for assessing how efficiently that aid was spent is limited. Research was one area in particular where the efficiency of spending was questioned. Although it made significant contributions to the global evidence base on malaria elimination, the high cost of the research must be weighed against the need for service delivery in the Solomon Islands context.

Fifth, although the Ministry of Health previously had little ownership over donor funding for malaria, since about 2012 it has worked with development partners to increase its involvement in the leadership and management of its national malaria program. One of the key ways it has done this is to take over as Principal Recipient of the Global Fund grant from 2015. The transition of Australian health sector aid funding to broad health sector support has also given the Ministry of Health greater control over the use of these donor resources. The Solomon Islands government has also increasingly financed the malaria program, beginning in 2009. Although the SWAp remains underutilised as a coordinating mechanism and space for policy dialogue, a new Partnership Coordination

Unit that is in the process of being established may further assist the Ministry in coordinating between various development partners and other relevant ministries.

Finally, though malaria elimination timelines have been repeatedly rolled back in Solomon Islands, the political appetite for pursuing elimination has proven resilient. History shows, however, that malaria elimination is highly challenging, owing to operational and health systems constraints at the provincial level (including reporting, surveillance, supply chain, and human resource limitations), geography, and technical challenges, principally the high proportion of Solomon Islands' population with G6PD deficiency (a genetic condition which complicates efforts to treat and eliminate cases of *P. vivax* malaria). For these reasons, a nuanced and evidence-informed policy dialogue on the long-term goal of elimination will need to take place between MHMS and development partners, looking at how best to pursue elimination in a way that is cost-effective and complementary to control efforts.

The findings of this paper are important first and foremost for Solomon Islands as it seeks to sustain the gains that have been made to date and to continue to drive further improvements. However, the findings also have wider relevance. History shows that successes in malaria control can be fragile, with resurgence of disease as a result of reduced funding, restructuring of health systems, and changes in vector behaviour and resistance. As global development assistance dedicated to malaria declines, many countries will be pressed to ensure the most effective use of available funds to control malaria and work towards elimination.

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