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Commentary

Water access as a required public health intervention to fight COVID-19 in the Pacific Islands

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In 2015, 193 United Nations (UN) member countries adopted Agenda 2030 as an agreed framework for sustainable development to 2030 [1], with seventeen sustainable development goals (SDGs). For health, water and sanitation, the relevant goals are SDG 3, to "ensure healthy lives and promote well-being for all at all ages", and SDG 6, to "ensure availability and sustainable management of water and sanitation for all" [1].

Water, sanitation, and hygiene (WASH) interventions, including handwashing services, are often considered independently to public health. Yet, in the COVID-19 global pandemic, good hygiene and regular, thorough handwashing are cornerstones of the public health response. WASH services are critical to interrupting transmission of SARS-CoV-2, and thus the public's health. Concomitant access to soap and hand-hygiene related skills and knowledge [2] are also essential.

In the Pacific Islands, WASH interventions to improve public health are limited. In Suva, Fiji, health and sanitation systems have been strengthened to protect communities from COVID-19 [3]; most other Pacific Island nations lack sufficient WASH, including handwashing services, to enable effective containment of COVID-19.

We used the most recent data from the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (www.washdata.org) to assess potential access to WASH services across 21 Pacific Island nations (excluding Australia and New Zealand). All nations reported national-level estimates of household-level drinking water and sanitation coverage; only 62% of countries provided data separately for urban and rural regions (Fig. 1A). Only 4 (19%) nations (Republic of the Marshall Islands (RMI), Solomon Islands, Vanuatu, and Federated States of Micronesia (estimates from 2005)) had data on household handwashing and hygiene facilities (Fig. 1A). Rural areas in RMI, Solomon Islands and Vanuatu had a higher percentage of households with no facilities for water and soap, and a lower percentage of households with basic facilities for water and soap, compared to urban areas. These are immediate data gaps that must be addressed to evaluate the risk of SARS-CoV-2 transmission.

There are very limited data from Pacific Island countries on available drinking water, sanitation or handwashing facilities in schools and healthcare facilities (Fig. 1B and C).

For schools, only 43% of Pacific Island nations reported drinking water and sanitation data, while only 29% had data on hygiene and handwashing facilities (Fig. 1B). Education and messaging on adequate hygiene needs to be developed that is age-appropriate [4] and gender-specific, with hand-hygiene facilities available on-site.

For healthcare facilities, only three Pacific Island nations reported data on drinking water and sanitation (Fig. 1C). In a 2017 census in Fiji, 13% of healthcare facilities did not have handwashing stations at points-of-care or within 5 m of toilets. In this setting, regular handwashing and disinfection practices, and safely managing health care waste, are essential for infection control [5]. Data on waste management facilities were reported for 57% of Pacific Island nations, largely restricted to hospitals, with no information available for primary care facilities. Functional hand-hygiene services should be available to all those working or visiting healthcare facilities.

The COVID-19 pandemic is an appropriate time to expand the coverage of WASH in Pacific Island countries to increase coverage for households, schools and healthcare facilities. Increased education and active community engagement alongside this expansion is critical to its success for public health.

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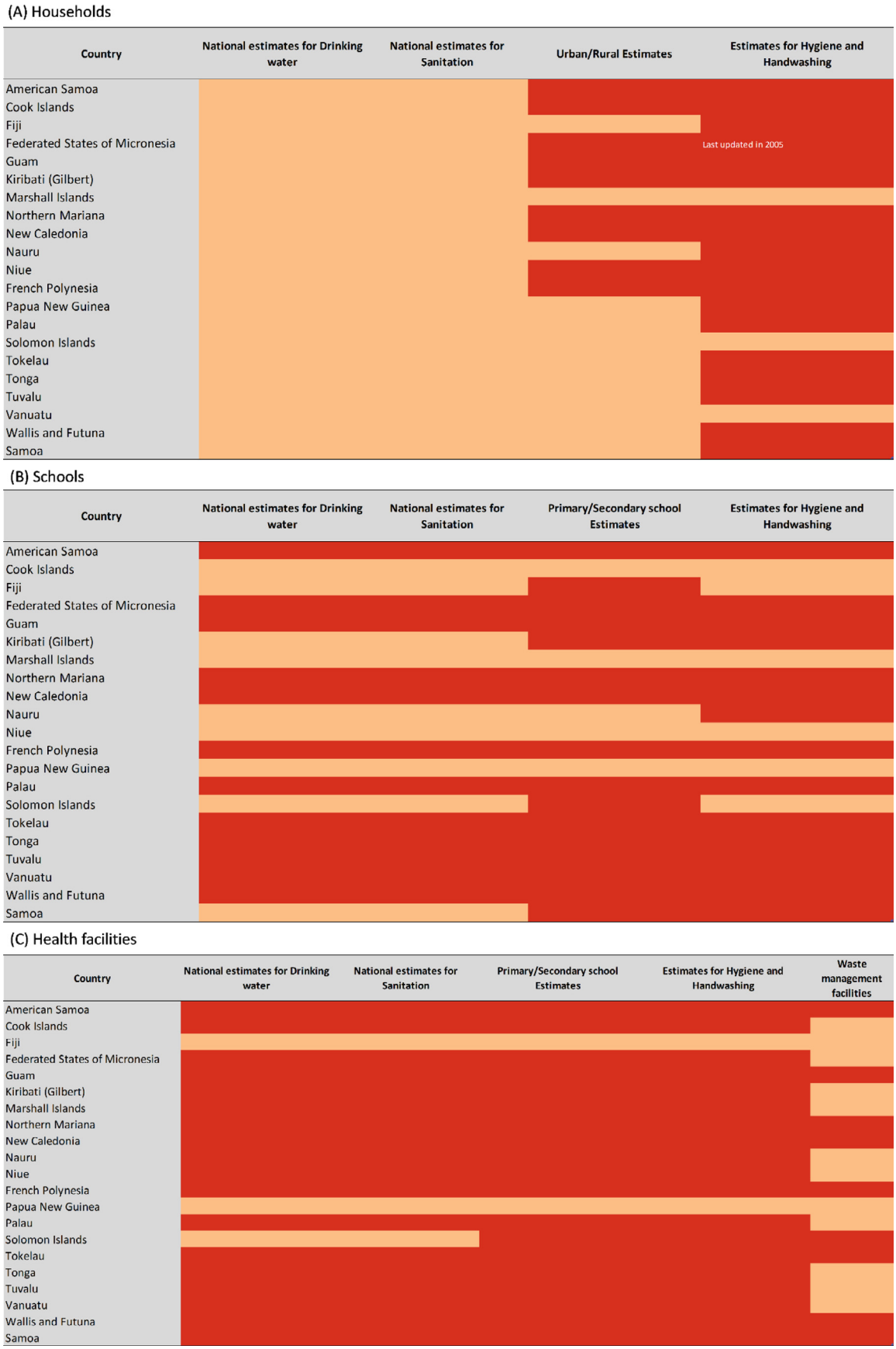

Fig. 1. Data availability ( ) and gaps ( ) for WASH related information in (A) Households (B) Schools and (C) Healthcare facilities in 21 Pacific Island countries (data based on 2019 JMP).

Enhancing existing initiatives, such as the Healthy Islands monitoring framework and the principles of Universal Health Coverage (UHC) adopted by Pacific Health Ministers in 2015, can reduce data gaps on indicators, and improve reporting on the efficiency, uptake and sustainability of services across urban and rural areas [6]. Cultural knowledge and practices for WASH remain a knowledge gap for Pacific Island countries [7].

Many countries are not on track to achieve their SDG commitments by 2030 and some are going backwards [8]. The 2018 UN Economic and Social Council global estimates [9] indicate that:

- Three billion people do not have basic handwashing facilities at home;
- One third of primary schools lack basic drinking water, sanitation and hygiene services;
- 12% of healthcare facilities have no water service, obtaining this from >500 m away, or from an unimproved source.

The COVID-19 pandemic will have a disproportionate impact on communities without access to suitable quality water, soap, and knowledge about handwashing for personal hygiene. This and other socio-economic inequalities will reduce the effectiveness of response measures and increase health risks to wider populations [10]. Successive waves of outbreaks will worsen social conditions, placing additional strain on public health infrastructure. Actioning the Agenda 2030 commitment by prioritising access to WASH services as a public health intervention for COVID-19, alongside scaling-up of locally successful solutions, experience sharing, and education is now essential.

Declaration of Competing Interest

The authors declare no conflict of interest.

Data for reference

This study used publicly accessible data (www.washdata.org).

Author contributions

AS conceptulised the work. AL wrote and prepared the figures from washdata.org. All authors contributed to interpretation, writing and revision of the commentary.

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