



**Bloomberg  
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HEALTH INITIATIVE**

# CRVS country report

Implementation of a cemetery-  
based death notification strategy  
in Honiara, Solomon Islands

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December 2020





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# Implementation of a cemetery-based death notification strategy in Honiara, Solomon Islands

This report outlines the rationale and implementation of a novel strategy to improve the notification of community deaths in Honiara, Solomon Islands. For more information about the Bloomberg Philanthropies Data for Health Initiative in Solomon Islands, visit the CRVS Knowledge Gateway at: <https://crvsgateway.info/>

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## Introduction

Solomon Islands is a Pacific Island country with over 1000 islands, divided into 10 administrative provinces. Honiara 'province' is a capital territory covering most of Honiara city, the national capital, located in Guadalcanal, the largest island.<sup>1</sup> Honiara has a projected population of 90 441 for the year 2020, comprising about 13 per cent of the country.<sup>2</sup>

Since 2016, the Bloomberg Philanthropies Data for Health (D4H) Initiative at the University of Melbourne has been partnering with the Solomon Islands government and the World Health Organization (WHO) country office to improve the quality and policy utility of birth and mortality data in Solomon Islands.<sup>3</sup> Activities have included the introduction of automated verbal autopsy (SmartVA) nationwide for deaths not able to be certified by a medical practitioner, the introduction of a nurse-led death notification form, and the introduction of internationally standardised medical certification of cause of death.<sup>4,5</sup>

In Honiara, prior to the D4H intervention, all death notification services were based at the National Referral Hospital (NRH), the nation's peak referral facility.<sup>6,7</sup> Situation analysis during D4H project planning in 2016 had indicated that all deaths within the city either occurred at the hospital, or if they occurred elsewhere, were reported to the hospital by the next of kin. By the end of 2019, Honiara's death notification system involved:

1. Medical certification of cause of death (using the WHO's international standard form) for all in-patients at NRH, and some recently discharged patients
2. Nurse-initiated death notification (using emergency department nursing staff) for all deaths which were not eligible to be certified by a doctor (deaths on arrival at hospital; deaths by arrival, and community deaths reported to the hospital).

Deaths notified by nurses were also routinely followed up for automated verbal autopsy (VA) by the same pool of trained nurses. Where possible, VAs were conducted in the emergency department at the time of notification, but some were also followed up during community outreach visits by emergency department staff.

Outside of the NRH, however, there were no other systems in place to formally notify community deaths in Honiara.

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1 Department of Foreign Affairs and Trade. (ND). Solomon Islands. Retrieved from <https://www.dfat.gov.au/geo/solomon-islands/Pages/solomon-islands-country-brief>

2 Solomon Islands- National Statistics Office. (2020). Projected population by province 2010 - 2025. Population. Retrieved from <https://www.statistics.gov.sb/statistics/social-statistics/population>

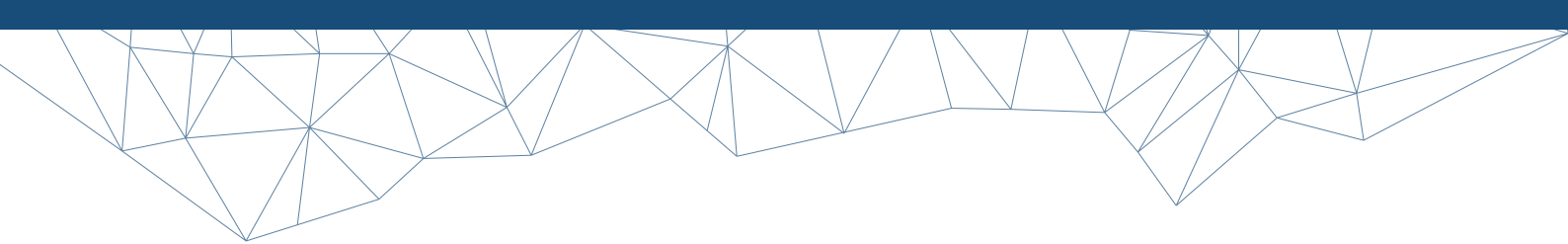
3 University of Melbourne. (ND). Solomon Islands- CRVS country profile. Retrieved from Melbourne: Australia: <https://crvsgateway.info/file/9769/144>

4 Adair, T., & Lopez, A. D. (2018). Estimating the completeness of death registration: An empirical method. *PloS one*, 13(5), e0197047. doi:10.1371/journal.pone.0197047

5 World Health Organization. (2020). Civil registration: why counting births and deaths is important. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/civil-registration-why-counting-births-and-deaths-is-important>

6 Australian High Commission in Honiara-Solomon Islands. (2015). National Referral Hospital's post-natal ward officially opened. Retrieved from <https://solomonislands.highcommission.gov.au/honi/200215.html>

7 De Silva, M., Panisi, L., Maepioh, A., Mitchell, R., Lindquist, A., Tong, S., & Hastie, R. (2020). Maternal mortality at the National Referral Hospital in Honiara, Solomon Islands over a five-year period. *Aust N Z J Obstet Gynaecol*, 60(2), 183-187. doi:10.1111/ajo.13050



## Identification of strategies to improve death notification and verbal autopsy

While the number of deaths notified through the existing systems in Honiara was close to the expected number of deaths in Honiara based on population projections and estimated crude mortality rates, sporadic reports from NRH staff and community health staff working for Honiara City Council (HCC) indicated that there were likely community deaths going unreported to NRH, which thus were not being notified.

In 2019, a partnership formed between the Ministry of Health and Medical Services and the combined Christian churches of Solomon Islands to facilitate a church-based burial notification strategy in some pilot provinces. However, while this strategy was well-suited to rural provinces where religious affiliation is high and where many communities have just one or two churches, it was less suited to Honiara, where the large number of churches would have made reporting complex. Additionally, certain populations more prevalent in Honiara, such as those affiliated with other religions or with no religious affiliation at all, would still not be covered.

It was decided that the Municipal Cemetery of HCC would be the most appropriate place to establish a community death notification strategy for Honiara.

## Rationale for a cemetery-based death notification strategy

HCC manages and maintains the Honiara Cemetery, where, prior to any cremation or cemetery burial, written permission from the City Clerk of HCC must be obtained.<sup>8</sup> In addition, approval for home burials in Honiara must also be sought from the City Clerk, although such burials are very rare.<sup>9</sup> While there are several other small cemeteries in Honiara maintained by churches, it was decided that monitoring should be piloted first at the HCC cemetery the largest and busiest.

## Strategy design

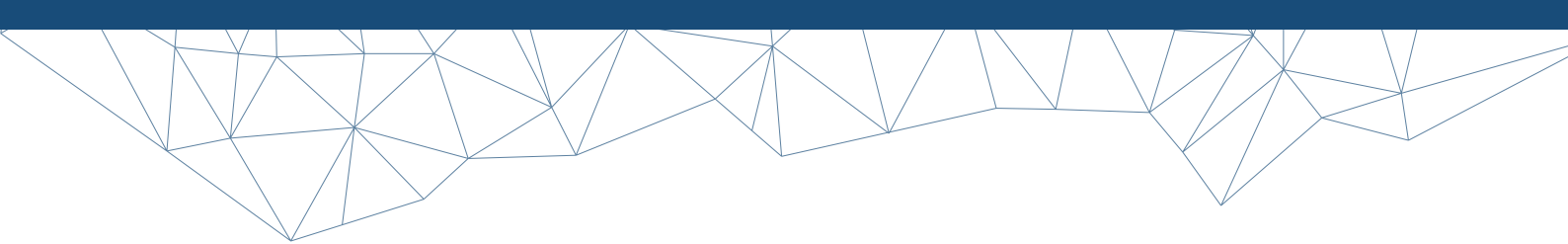
Discussions with the City Clerk's office and HCC cemetery officials indicated that formal record keeping for burials was focused on recording burial fees, and did not record enough information about the deceased to allow cross-checking with the NRH's notifications systems or follow-up with the next of kin.

It was agreed to replace the previously used receipts book with a burials register, which would meet the need of HCC to preserve financial records whilst also capturing sufficient data on the deceased to allow cross-checking and follow-up. After several rounds of consultations, the burials register was printed and placed in the HCC City Clerk's office.

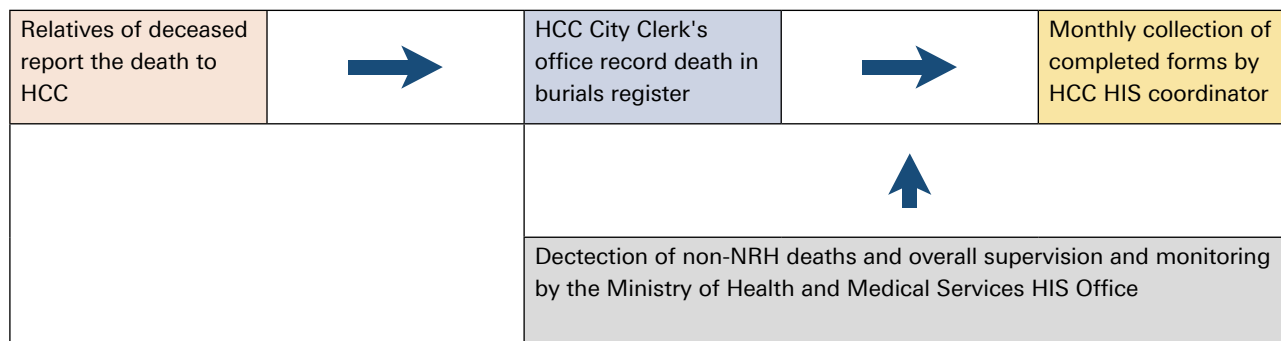
The burials register included sufficient data on the deceased to enable community nurses to complete a death notification form (see **Annex 1**), as well as contact details for the next of kin, to facilitate follow-up by community nurses for VA. To help with de-duplication, the applicant for the burial permit was also required to state whether the death had been previously reported to the NRH. (**Figure 1**).

<sup>8</sup> Honiara City Council. (ND). How to use the cemetery. Retrieved from <https://honiaracitycouncil.com/index.php/health-and-environment/environment-2/how-to-use-the-cemetery-3/>

<sup>9</sup> Transportation of a body by air or by ferry out of Honiara requires next of kin to obtain a death notification form from NRH, which would capture most deaths where burial or cremation did not take place in Honiara



**Figure 1: Business process map for the cemetery death notification system**



## Implementation

The Honiara Provincial HIS coordinator was tasked with collecting the completed forms on a monthly basis, collating the data, then sharing this data with the national HIS office. The national HIS office would then cross-check the reported burials with their database of NRH deaths notifications to identify any deaths which had not been notified by the NRH.

Identified through the business process mapping was a desired future process to conduct follow-up investigations where significant numbers of community deaths are identified but not reported to NRH.

Following training of City Clerk office administrators and HCC HIS staff, the cemetery death notification system was launched in early 2020.

## Outcomes and implications

As at November 2020, 36 cemetery-based death notifications had been received by the National HIS office. Based on this data, it was decided that notification and VA data collection within the HCC area would capture additional deaths and feed these into the CRVS system. Nurses within the HCC mobile health team will receive training to conduct death notification and VA in follow up visits.

National death notification coverage can be improved with nationwide standardised interventions, but coverage may still be limited in some contexts unless targeted, context-specific measures are introduced.

Three key recommendations can be made based on the early lessons learnt from the implementation of this strategy:

1. Cemetery notification is most feasible where formal permission is required for burials, and where very little informal burial/cremation occurs
2. Using or modifying existing cemetery record systems imposes the least change on cemetery staff and is more acceptable than adding another register/record
3. Where the purpose of the system is to check for deaths not notified elsewhere, asking the next of kin whether the death has been notified elsewhere can be a helpful guide, even if formal cross-checking is planned to verify.

## Annex 1



# Honiara City Council Death Record Form



Serial No: \_\_\_\_\_

Receipt No: \_\_\_\_\_

### Information of DECEASED

<b>1. Surname</b> _____		<b>2. First and Middle Names</b> _____		<b>3. Date of Death</b> ___/___/___	
<b>4. Date of Birth</b> ___/___/___  Age _____ (if date of birth is unknown)	<b>5. Sex</b> <input type="checkbox"/> M <input type="checkbox"/> F	<b>6. Place of Death (please tick (v) one of the following)</b> <input type="checkbox"/> NRH <input type="checkbox"/> DOA at NRH <input type="checkbox"/> Village/Home <input type="checkbox"/> Other place <i>If Village/Home, Village/Home name: _____</i> <i>If Other place, specify name of place: _____</i>			
<b>7. For those who Died at Village/Home</b> <b>Was the deceased taken to NRH?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No			<b>8. For those who Died at Other places</b> <b>Was the deceased taken to NRH?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		

### Information about INFORMANT

<b>9a. Surname:</b> _____		<b>9b. First and Middle name:</b> _____	
<b>10. Relationship to Deceased:</b> _____			
<b>11. Contact details</b>			
<b>11a. Mobile No. 1:</b> _____		<b>11b. Mobile No. 2:</b> _____	
<b>11c. Email address (if any):</b> _____			
<b>11d. Present Address in Honiara:</b> _____ _____			
<b>12. Signature:</b> _____		<b>13. Date:</b> ___/___/___	



**Notes:**

**DOA = Died On Arrival**

**NRH = National Referral Hospital**

**Other place = in the boat, in the car, in the plane, on the road etc...**

**Instructions:**

*This Form shall be completed for ALL Deceased buried at the Honiara City Council Cemetery. The Form should be completed by Relative of Deceased who pay for Burial Fee.*

**Responsibility:**

**A. HCC Revenue Clerk**

1. Ensure this Form is completed by Relative prior to the issue of Fee Receipt.
2. File copies of the Form accordingly.

**B. HIS Officer, Ministry of Health & Medical Services**

1. It is the duty of National HIS Office to collect all copies of the Form from HCC Revenue Clerk on a weekly basis.
2. National HIS Office to provide feedback to HCC authorities including Health Services on the number of deaths being buried at HCC Cemetery.
3. National HIS Office to provide feedback to HCC HIS team on the number of home deaths and their location in Honiara

**C. HIS Officer, Honiara City Council**

1. It is the duty of the HIS Office at HCC to inform Nurse Manager of Clinics on home death occur in their catchment area.

The program partners on this initiative include: The University of Melbourne, Australia; CDC Foundation, USA; Vital Strategies, USA; Johns Hopkins Bloomberg School of Public Health, USA; World Health Organization, Switzerland.

Civil Registration and Vital Statistics partners:



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