

Honiara, Solomon Islands. Stacks of backlogged Medical Certificates of Cause of Death (MCCDs) await processing at the Medical Records Department of the National Referral Hospital. This department is responsible for managing and safeguarding inpatient records and ensuring that each death is accurately documented and certified. Photo Credit: Juan Arredondo.

THE CHALLENGES

The Solomon Islands—a Pacific Island nation spread across hundreds of small islands—faced a critical gap in public health information for many years, especially around the number of deaths and what was causing those deaths. "Before 2016, death registration coverage was very low — sometimes fewer than 10 deaths registered per year," said Roderick Kidoe, civil registrar at the Ministry of Home Affairs.

Many factors contributed to this lack of data: geographical and budgeting challenges, fragmented reporting and a lack of coordination between ministries. In addition, 80% of deaths occurred outside of hospitals and went unrecorded, making it nearly impossible to identify real disease burdens or design evidence-based policies. Public health leaders had little to no reliable data to guide health planning and policy.

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DATA FOR HEALTH INITIATIVE

Beginning in 2016, the Solomon Islands began transforming death registration and cause-of-death reporting with support from the Bloomberg Philanthropies' Data for Health Initiative. This work is part of broader efforts to strengthen the country's civil registration and vital statistics (CRVS) system—ensuring accurate, timely data on births, deaths and causes of death. The initiative brought together Solomon Islands' Ministry of Health and Medical Services and the Ministry of Home Affairs, along with the CDC Foundation, the World Health Organization (WHO) and other partners.



IMPACT AT A GLANCE

- More than 16,000 deaths registered since reforms began, up from fewer than 10 annually before 2016
- Majority (~80%) of doctors trained in the international Medical Certification of Cause of Death (MCCD)
- Child deaths due to severe malnutrition dropped from 30% in 2017 to 9% in 2024 due to improved data and death audits
- Verbal autopsy rolled out nationwide to generate cause of death from community deaths
- Electronic data integration between separate health and civil registry reporting systems, representing real-time data sharing and a comprehensive strengthening of the Solomon Islands' CRVS structure



The Solomon Islands emcompass hundreds of islands in the South Pacific and have a population of approximately 820,000 people.



Rebecca Manelase (center), Chief Medical Statistician at the Ministry of Health and Medical Services, stands alongside Seraphina Elisha (left), Principal Medical Statistician, and Julie Qilabasa Alakalia (right). Together, they lead the national effort to oversee the accurate tracking, coding, and management of Medical Certificates of Cause of Death (MCCDs) across the Solomon Islands. Their responsibilities include training healthcare professionals in proper death certification practices and ensuring data quality and compliance with the World Health Organization's International Classification of Diseases (ICD) standards. Photo Credit: Juan Arredondo

KEY INNOVATIONS

The reform efforts tackled both technical aspects — such as standardizing death notification forms, training and tools — and broader systemic challenges like interministerial coordination.

LEADERSHIP AND COORDINATION

A National Mortality Technical Working Group (MNTWG) was established in 2016 to lead and coordinate efforts to improve death reporting in the Solomon Islands. The MNTWG is comprised of senior doctors, along with health information system (HIS), civil registrar and medical record officers. This working group provides technical guidance and helps align efforts across the health system. Its ongoing work has laid the foundation for key reforms—such as improving how deaths are recorded in hospitals and communities—that have since been rolled out nationwide.



TRAINING AND STANDARDIZATION

Prior to the Data for Health Initiative, the Solomon Islands lacked a standardized and functional system for medical cause-of-death reporting. Multiple death notification forms were used, and death notification was handled by nurses, with minimal involvement from doctors. This led to fragmented and unreliable cause-of-death data.

To standardize death certification, the Ministry of Health and Medical Services introduced the international Medical Certification of Cause of Death (MCCD). Globally known as the gold standard, MCCD provides accurate data essential for public health planning and policy. The MCCD Training of Trainers (ToT) was launched in 2017, with the goal of developing a core team of local master trainers in the country. The MCCD training of doctors began at the National Referral Hospital, and in 2019, the rollout of MCCD training was extended to Gizo Hospital and Kiluúfi Hospital. The training covers all key clinical departments, such as pediatrics, surgery, obstetrics-gynecology and internal medicine.

This training was also institutionalized by making MCCD instruction a required part of medical internship and induction programs. "Integration with the medical internship and induction programs ensures all new doctors receive MCCD training," said Dr. Chris Dereveke, an MCCD master trainer and doctor in obstetrics and gynecology at the National Referral Hospital. In conjunction with the training, the MCCD forms were rolled out nationally. The forms include carbon copies — ensuring copies go to families, facilities, provincial and national authorities.



Dr. Chris Dereveke, Master Trainer for Medical Certification of Cause of Death (MCCD), stands at the forefront of efforts to improve the accuracy and reliability of mortality data in the Solomon Islands. Based at the National Referral Hospital in Honiara, Dr. Dereveke plays a critical role in training healthcare professionals to properly document causes of death—a foundational element in building a responsive and evidence-based public health system. Photo Credit: Juan Arredondo

Along with properly certifying the medical cause of death, high-quality ICD coding (a global standard system for translating text-based diagnoses into alphanumeric code) is essential for generating accurate cause-of-death data. HIS officers and medical records staff at the National Referral Hospital received ICD-10 coding training. This training focused on correctly interpreting and coding information from the MCCD forms, enabling the integration of reliable mortality data into the national CRVS system. **The ICD-10 coding serves as a critical foundation for generating high-quality death statistics that inform evidence-based health planning and policy development.**

By 2025, an estimated 80% of doctors had received MCCD training. Dr. Dereke explained the benefits of MCCD training. In addition to providing reliable data, it "improves [doctors'] clinical and diagnostic capabilities because filling in a death certificate requires understanding how the person died. That's the part of physiology of the diseases ... what started the disease and what causes the death."

Several measures are in place to sustain this progress. The National Mortality Technical Working Group systematically reviews death statistics and cause-of-death data. Trainers visit provinces to help train doctors and encourage completion of MCCD forms. Death audits, which review cases to verify cause-of-death accuracy and explore contributing factors, have also been used to improve quality.



REACHING COMMUNITIES: CHURCHES AND VERBAL AUTOPSY

With most deaths in the Solomon Islands occurring at home, the Ministry of Health and Medical Services and Data for Health partners worked to improve both death notification and cause-of-death data at the community level.

Churches are beginning to play a critical role in notifying health services when a death occurs. "Pastors had been conducting funerals without doctors and nurses knowing about the deaths," explained Dr. Titus Nasi, head of pediatrics at the National Referral Hospital. In response, a 2018 pilot in Guadalcanal and Western Provinces trained pastors from major denominations — including the United Church, South Sea Evangelistic Church, Seventh-day Adventist, Roman Catholic, and Anglican — to complete simple death notification forms during burials. These forms are sent to nearby health facilities and eventually included in the national registry. With these denominations covering about 95% of the population, the strategy shows strong potential for nationwide scale-up.

Once a death is reported, verbal autopsy (VA) helps determine the likely cause of death. Introduced in 2016 and rolled out to all provinces by 2018, VAs involve structured interviews with a relative or caregiver of the deceased to identify signs, symptoms and circumstances surrounding the death — especially when no medical professional is available to certify the cause.

In rural areas, the VA process begins when a death is announced — often through traditional signals like conch shell blowing or drumming — or when nurses receive a report from the family, community leaders or churches. After a culturally appropriate mourning period (typically at least 10 days), a trained nurse visits the family to conduct the interview using a standardized 10-part form.

Completed forms are transported — often by truck or boat — to provincial health offices. "Sometimes I walk from here and go to fill in the death notification form and conduct the interview even though the weather may not be comfortable," said Nurse Jack Igolo from Western Province.

Health workers digitize the data using tablets and upload it to the Open Data Kit (ODK) Aggregate server, a centralized system for managing survey data. The Ministry of Health and Medical Services then uses a computer-coded verbal autopsy algorithm to assign a probable cause of death.

The combined efforts of church-based notification and verbal autopsy are reshaping how the country understands mortality. "By conducting the verbal autopsy, we know the cause of the disease and we try to minimize the spread of the disease by educating the community and family members," said Nurse Igolo.



Jack Igolo, a registered nurse at Koriovuku Health Facility, visits the remote village of Kolomali to conduct a verbal autopsy with Tevarlyn Soga and Mendos Tivikera, whose wife and mother died of cancer at home two months earlier. Photo Credit: Juan Arredondo

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Inside the Medical Records Department at the National Referral Hospital, staff are responsible for managing and safeguarding patient records, including the medical certification of cause of death. Photo Credit: Juan Arredondo

DIGITAL INTEGRATION

A major factor to improve coordination was the Memorandum of Understanding (MoU) between the Ministry of Health and Medical Services and the Ministry of Home Affairs, developed in a 2019 CRVS stakeholders committee workshop. This **MoU established formal data-sharing protocols between the two ministries**, which had previously maintained separate and unconnected reporting pathways for deaths.

Work under this partnership is now yielding results. A technical integration between the two main systems that collect death data — DHIS2, used by the Ministry of Health and Medical Services, and Promadis, used by the Ministry of Home Affairs — has been completed through an application programming interface (API). This software connector allows the systems to securely and automatically **push and fetch both birth and death data,** enabling real-time data exchange.

In parallel, the Ministry of Health and Medical Services has strengthened how it collects and uses death data. Through DHIS2's Tracker Capture, **health workers can now record and manage individual-level death records, enhancing the detail and traceability of mortality data.** The Ministry also adopted ANACoD3, a specialized WHO tool used to analyze causes of death and uncover patterns that can inform public health priorities.

This digital integration marks a key milestone in enabling cross-sectoral data sharing and strengthening the Solomon Islands' CRVS system. Shared, real-time access to vital data enhances the completeness and accuracy of national statistics on deaths and causes of death — critical for informed public health action. "Avoiding silos, duplications ... this is the first step of a very complex web of interoperability," said Vasco Nuño Miranda, a WHO information officer who supports the Ministry of Health and Medical Services. "It's an excellent start ... **ministries talking to each other on the HIS [health information system] level."**



IMPACT

STRENGTHENING DEATH REGISTRATION

Since 2016, death registration coverage has increased dramatically — from fewer than 10 annually to over 16,000 total registrations by 2025. This increase reflects coordinated interventions, including partnerships with churches and local leaders to report community deaths and streamlined processes at health facilities and civil registry offices.

IMPROVED DATA QUALITY

The proportion of deaths with ill-defined causes has dropped sharply, and **reliable data now consistently identify causes of death, such as non-communicable diseases (NCDs) like diabetes and heart disease.** "Non-communicable diseases (NCDs), especially diabetes, heart disease, stroke and cancers, are the top causes of death. These findings are consistent across both hospital-based MCCD data and verbal autopsy data from the community," explained Seraphina Elisha, principal medical statistician at the Ministry of Health and Medical Services.

In 2017, the country's cause-of-death data was presented for the first time at a national health conference, while Solomon Islands' first mortality report is due to come out soon. "With this report, it can effectively enhance informed decision making ... especially in rural communities where most deaths are happening," said Elisha.

TARGETED INTERVENTIONS TO SAVE LIVES

Improved death data, combined with regular death audits, has contributed to life-saving changes in child health. As Dr. Nasi explained, the data revealed that many child deaths previously attributed to pneumonia or malaria were in fact due to underlying, severe malnutrition — an insight that reshaped public health priorities. "They were getting pneumonia, malaria because they have a poor immune system due to malnutrition," said Dr. Nasi.

In response, targeted interventions including new clinical guidelines, improved therapeutic nutrition and extensive staff training have led to a **dramatic drop in child mortality from severe acute malnutrition: from 30% in 2017 to just 9% by 2024.** Similarly, a clearer understanding of newborn deaths prompted national training in essential newborn care, helping to reduce deaths from birth asphyxia (when a baby does not get enough oxygen before, during or after birth) and prematurity. **These advances highlight how better data — and acting on it — can transform outcomes for the most vulnerable.**



In the pediatric ward of the National Referral Hospital, nurses carefully prepare F-75 Nutriset therapeutic milk for a three-monthold infant admitted with signs of severe malnutrition. The enriched formula, used in the initial phase of treatment for undernourished children, is a critical tool in stabilizing fragile patients. Photo Credit: Juan Arredondo



CULTURAL AND OPERATIONAL SHIFTS

There has also been a shift in mindset among health workers. "Sometimes when patients die, we think that and feel that it is the end of our job," said Dr. Dereveke. "But when I became a master trainer, I realized that our job doesn't end when a person dies ... we need to know [the cause] in order to prevent further future deaths."

Accurate records also help families manage legal and financial matters. "For example, my dad passed away in 2010. I had to go to the health facility, ask them to fill out the death notification in order to get the National Provident Fund," said Rebecca Manelase, chief medical statistician for the Ministry of Health and Medical Services. "So personally, it's very important for me, for the country and for the citizen as well."

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Besley Bamusqi, a local health advocate and champion of the Data for Health Initiative, conducts a verbal autopsy with Mevin Tione, whose mother died at home three weeks earlier. He gathers detailed information to be later entered into the health information system (HIS) of the Solomon Islands. Photo Credit: Juan Arredondo



CHALLENGES AND THE PATH FORWARD

Despite success, challenges persist. The Solomon Islands' geography — with remote islands and limited transport — delays reporting. Superstitions around discussing death, staff shortages, a paper-based system and low digital literacy continue to pose barriers.

To address these issues, legislative reform is underway. A new civil registration bill aims to decentralize services and establish provincial registration offices. In parallel, work continues to train coders, digitize systems and improve turnaround times.



Ruth Morga, whose father died of cancer at home three months earlier, holds his medical records to support the verbal autopsy process. Photo Credit: Juan Arredondo

A MODEL FOR REFORM

The Solomon Islands is now seen as a leader in death registration reform for similar low-to-middle-income countries. Its success shows how low-resource settings can strengthen CRVS with coordinated efforts and sustainable capacity-building. Reflecting on the country's progress, Brian Idufanoa, director of planning and policy in the Ministry of Health and Medical Services noted, "We are now living in an era where data speaks louder than assumptions and opinions. For the health sector, **data are one of the vital things that will inform both the decision, the policies and the interventions."** He added: "We are quite strong in terms of cross-sectoral coordination ... other countries have very siloed systems."

THEN		NOW
Deaths rarely registered—fewer than 10 per year	\rightarrow	More than 16,000 deaths registered since 2016
No standardized cause-of-death certification	\rightarrow	MCCD adopted and majority of doctors trained
Health worker training focused only on treatment	\rightarrow	Training now includes focus on understanding and documenting causes of death
No data sharing between health and civil registration systems; separate reporting pathways	\rightarrow	Automated, real-time data sharing between health (DHIS2) and civil registry (Promadis) systems
Most deaths outside hospitals went unreported	\rightarrow	Verbal autopsies used nationwide; church pilot supports notification
Malnutrition-related child deaths underrecognized	\rightarrow	Deaths from severe acute malnutrition reduced from 30% to 9% by 2024

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