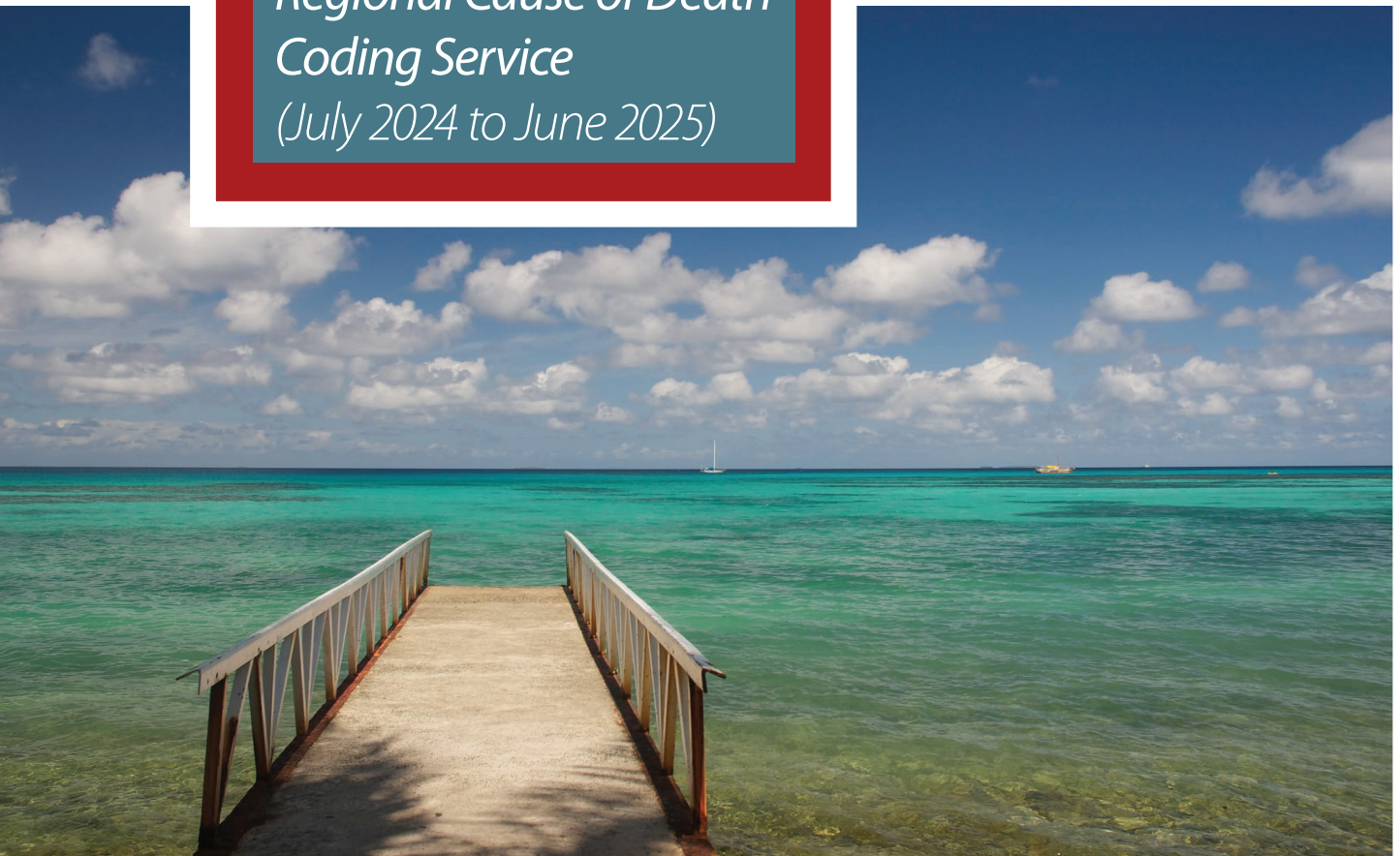




Pacific  
Community  
Communauté  
du Pacifique

# Making Death Count

***Tuvalu:** Cause of Death  
Analysis from the Pacific  
Regional Cause of Death  
Coding Service  
(July 2024 to June 2025)*



**WORLD BANK GROUP**

## OVERVIEW

**Pacific Island countries face ongoing challenges in producing high-quality cause of death data. In response, a regional approach endorsed in 2023 is being piloted by Fiji, Tonga, and Tuvalu to strengthen coding capacity and data quality.**

**Supported by the Pacific Community (SPC) and development partners, especially Bloomberg Philanthropies Data for Health, the initiative uses automated coding through the Iris software hosted in Fiji, with de-identified records submitted monthly by Tonga and Tuvalu. This regional model is improving the accuracy, consistency, and comparability of cause of death data across participating countries.**

**This report provides a summary of the main causes of death documented from Medical Certificates of Cause of Death (MCCDs) received from Tuvalu between July 2024 to June 2025. It aims to inform, improve reporting and assess quality of data of deaths generated by medical professionals responsible for certification of death. Additionally, enable feedback, determining quality of certification for medical professional trained during this period and identify policy development intervention requirements.**

## METHODOLOGY

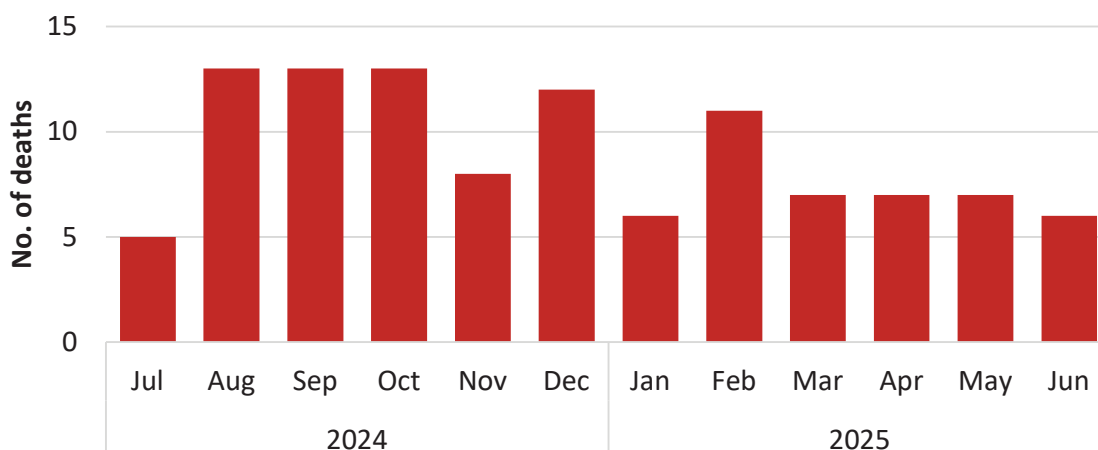
Tuvalu’s cause of death data is de-identified and submitted monthly to the Regional Coding Service (RCS) and coded by Fiji’s mortality coder using Iris software. Iris is an automated coding software which verifies and generate a selected Underlying Cause of Death (UCOD). Upon completion, coded datasets are returned to Tuvalu for record updates and use.

A total of 108 MCCDs were received from Tuvalu; 59.3% (n=64) were deaths recorded in 2024 and 40.7% (n=44) were from 2025.

### Death Records Received for each Month

The monthly trend of medical certificates of cause of death (MCCDs) received by the RCS from Tuvalu varied across the reporting period. August, September and October 2024 recorded the highest numbers, indicating improvements in number of deaths recorded and submitted compared to July 2024 when RCS was piloted. Overall, data collection remained similar with moderate fluctuations through 2025 indicating adherence to changes in process and improved reporting of deaths.

**Figure 1.** Number of MCCDs received from Tuvalu by month



## RESULTS

### Top 5 Causes of Death by ICD-10 Chapter level

Between July 2024 and June 2025, the leading causes of death (COD) in Tuvalu were due to non-communicable diseases (NCDs). The top-ranked category was diseases of the circulatory system (I00-I99), accounting to 26 deaths (24.1%), followed by endocrine, nutritional and metabolic diseases (E00-E90), responsible for 20 deaths (18.5%). The third most common COD were neoplasms (C00-D48), external causes of morbidity and mortality (V01-Y98) ranked fourth with 7 deaths (6.5%). Finally, diseases of the respiratory system (J00-J99) were the fifth leading cause, with 6 deaths (5.6%).

**Table 1.** Top 5 causes of death by ICD-10 chapter level

Rank	ICD-10 Code	Diseases	No. of deaths	Percentage (%)
1	I00-I99	Diseases of the circulatory system	26	24.1
2	E00-E90	Endocrine, nutritional and metabolic diseases	20	18.5
3	C00-D48	Neoplasms	17	15.7
4	V01-Y98	External causes of morbidity and mortality	7	6.5
5	J00-J99	Diseases of the respiratory system	6	5.6

**Key insights:** Top 3 causes; circulatory diseases, endocrine/nutritional/metabolic conditions and cancers account for nearly 60% of all deaths. This indicates a strong burden of chronic conditions like heart disease, diabetes and cancer. Diseases of the circulatory system alone make up **one in four deaths** (24.1) making them the single biggest health care challenge for this period. Endocrine, nutritional and metabolic diseases at 18.5% suggest a high impact from conditions such as diabetes and related complications, often linked to diet and lifestyle. The Top 5 COD suggest prevention efforts and long-term management for heart disease, diabetes and cancer alongside continued attention to injury prevention and respiratory health.

### Major Causes of Death by Sex (three-character code level)

**Table 2.** Major causes of mortality by sex

ICD-10 Code	Female			ICD-10 Code	Male		
	Diseases	No. of deaths	Percentage (%)		Diseases	No. of deaths	Percentage (%)
E10-E14	Diabetes mellitus	10	18.2	E10-E14	Diabetes mellitus	8	15.7
I20-I25	Ischaemic heart disease	6	10.9	I20-I25	Ischaemic heart disease	5	9.8
I60-I69	Cerebrovascular diseases	5	9.1	I60-I69	Cerebrovascular diseases	3	5.9
C76-C80	Malignant neoplasms of ill-defined, secondary and unspecified sites	3	5.5	I10-I15	Hypertensive diseases	3	5.9
C51-C58	Malignant neoplasms of female genital organs	3	5.5	R95-R99	Ill-defined and unknown causes of mortality	2	3.9
C81-C96	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue	2	3.6	L00-L08	Infections of the skin and subcutaneous tissue	2	3.9
C50	Breast cancer	2	3.6	V01-V99	Transport accident	2	3.9
N30-N39	Other diseases of urinary system	2	3.6	I30-I52	Other forms of heart diseases	2	3.9
			-	J40-J47	Chronic lower respiratory diseases	2	3.9
	<b>Total (top 5 causes)</b>	<b>33</b>	<b>60.0</b>		<b>Total (top 5 causes)</b>	<b>29</b>	<b>56.8</b>

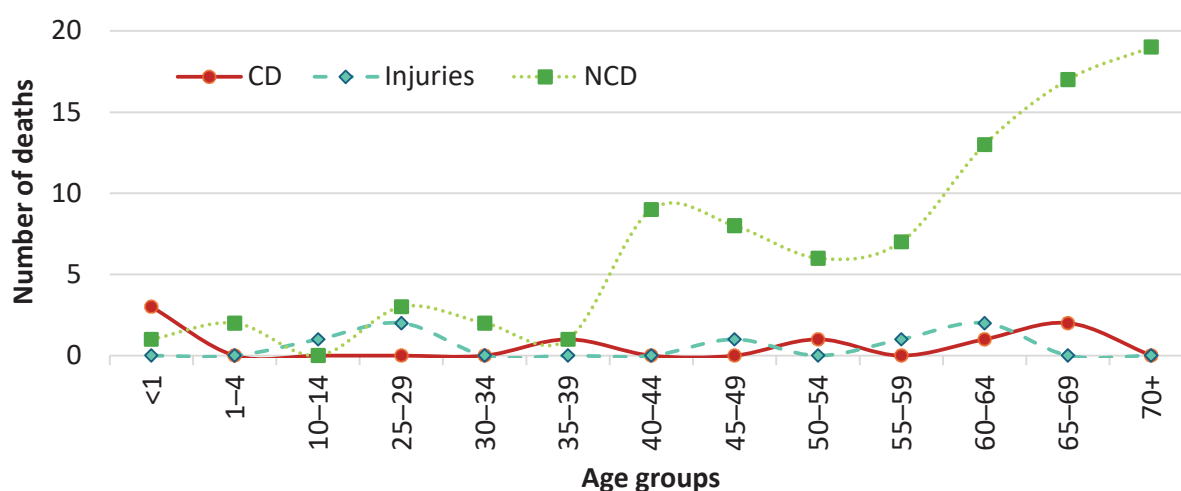
Mortality by sex for both males and females is due to NCDs, with diabetes mellitus as the leading cause. Among males, diabetes accounted for 15.7% of deaths, followed by ischaemic heart disease (9.8%) and cerebrovascular and hypertensive diseases (5.9%). Females had a slightly higher occurrence of these COD,

with diabetes at 18.2%, ischaemic heart disease (10.9%), cerebrovascular diseases (9.1%). Cancer-related deaths were more common among females, including genital organ cancers and breast cancer. Overall, females represented 60.0% of total deaths, reflecting a notable gender difference in cancer and chronic disease patterns.

### NCDs, CDs and Injuries death

**Figure 2** shows that mortality across most age groups in Tuvalu is due to NCDs. NCD-related deaths increase sharply from age 40 onwards, peaking in older age groups (65+), where they account for most deaths. Communicable diseases (CDs) are concentrated among infants under 1 year and appear intermittently in older ages, while injuries are mainly observed in younger adults (10–29 years), with isolated cases in middle age. This pattern highlights the growing burden of NCDs with age, and the need for targeted interventions for injury prevention among adolescent youth and chronic disease management for older adults.

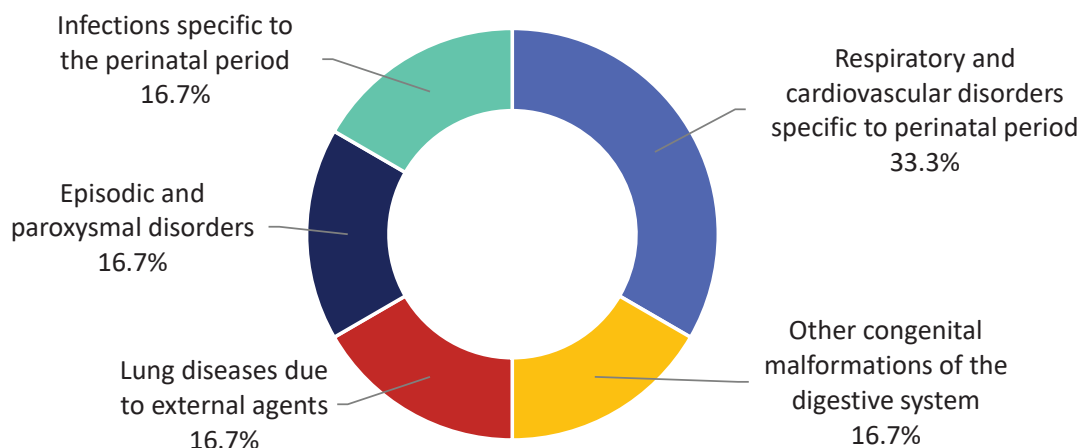
**Figure 2.** Percentage of deaths due to NCD, CD and Injuries by age groups



### Under 5 Causes of death

Among children under five years in Tuvalu, deaths are primarily linked to perinatal and congenital conditions. The leading cause was respiratory and cardiovascular disorders specific to the perinatal period, accounting for 33.3% of under-five deaths. Other causes were evenly distributed at 16.7% each, including congenital malformations of the digestive system, lung diseases due to external agents, episodic and paroxysmal disorders, and infectious specific to the perinatal period. This pattern highlights the vulnerability of infants to complications during birth and early life, as well as congenital and infectious conditions.

**Figure 3.** Under 5 Causes of Death

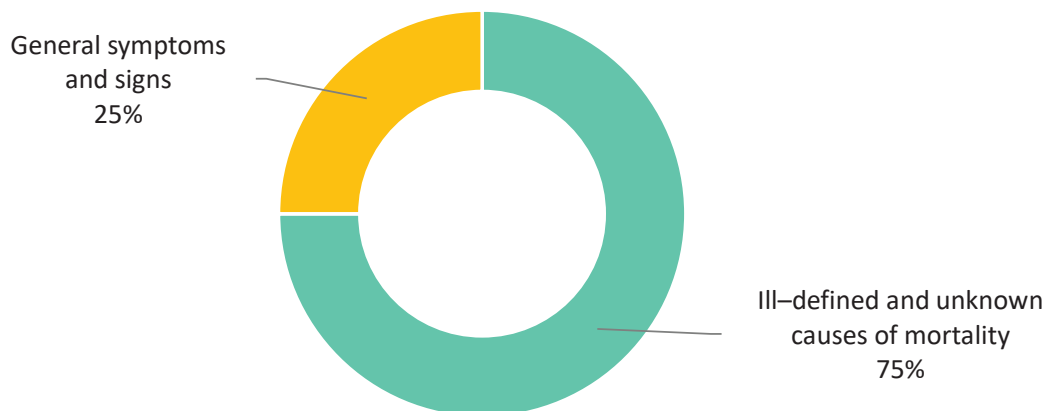


## Teenage Deaths

Teenage age groups as defined by WHO ranges from 10 to 19 years old. During this reporting period, only one teenage death was recorded in Tuvalu and the cause of death was motor vehicle accident, classified under external causes of morbidity and mortality. This indicates that teenage mortality was extremely low, and the single case was injury-related rather than due to disease.

## Ill-defined Causes of Death

**Figure 4.** Figure 4: Ill-defined Causes of Death



Ill-defined causes of death do not provide enough detail to identify a specific underlying cause. In this dataset, 3.7% (n=4) were classified as ill-define causes of death. As shown in the above chart, 75% were classified as ill-defined and unknown causes of mortality and 25% as general symptoms and signs.

## Causes of Death by three Character Code Level (first three character of the ICD 10 code)

**Table 3.** Causes of Death by Three Character code level

Rank	ICD-10 Chapter Code	Disease	Number of deaths	Percentage (%)
1	I00-I99	Diseases of the circulatory system	26	24.1
	I20-I25	Ischaemic heart diseases	11	42.3
	I60-I69	Cerebrovascular diseases	8	30.8
	I10-I15	Hypertensive diseases	4	15.4
	I30-I52	Other forms of heart disease	2	7.7
	I80-I89	Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified	1	3.8
	2	E00-E90	Endocrine, nutritional and metabolic diseases	20
E10-E14		Diabetes mellitus	18	90.0
E70-E90		Metabolic disorders	2	10.0
3	C00-D48	Neoplasms	17	15.7
	C51-C58	Malignant neoplasms of female genital organs	3	17.6
	C76-C80	Malignant neoplasms of ill-defined, secondary and unspecified sites	3	17.6
	C81-C96	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue	2	11.8
	C30-C39	Malignant neoplasms of respiratory and intrathoracic organs	2	11.8
	C50	Malignant neoplasm of breast	2	11.8
	C60-C63	Malignant neoplasms of male genital organs	1	5.9
	C45-C49	Malignant neoplasms of mesothelial and soft tissue	1	5.9
	C15-C26	Malignant neoplasms of digestive organs	1	5.9
	C43-C44	Melanoma and other malignant neoplasms of skin	1	5.9
	C40-C41	Malignant neoplasms of bone and articular cartilage	1	5.9

Rank	ICD-10 Chapter Code	Disease	Number of deaths	Percentage (%)
4	V01-Y98	External causes of morbidity and mortality	7	6.5
	V01-V99	Transport accidents	3	42.9
	Y40-Y84	Complications of medical and surgical care	1	14.3
	W75-W84	Other accidental threats to breathing	1	14.3
	X60-X84	Intentional self-harm	1	14.3
	X58-X59	Accidental exposure to other and unspecified factors	1	14.3
5	J00-J99	Diseases of the respiratory system	6	5.6
	J40-J47	Chronic lower respiratory diseases	3	50.0
	J09-J18	Influenza and pneumonia	1	16.7
	J95-J99	Other diseases of the respiratory system	1	16.7
	J60-J70	Lung diseases due to external agents	1	16.7
6	R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	4	3.7
	R95-R99	Ill-defined and unknown causes of mortality	3	75.0
	R50-R69	General symptoms and signs	1	25.0
6	N00-N99	Diseases of the genitourinary system	4	3.7
	N30-N39	Other diseases of urinary system	2	50.0
	N17-N19	Renal failure	1	25.0
	N40-N51	Diseases of male genital organs	1	25.0
6	L00-L99	Diseases of the skin and subcutaneous tissue	4	3.7
	L00-L08	Infections of the skin and subcutaneous tissue	3	75.0
	L80-L99	Other disorders of the skin and subcutaneous tissue	1	25.0
6	M00-M99	Diseases of the musculoskeletal system and connective tissue	4	3.7
	M60-M79	Soft tissue disorders	2	50.0
	M00-M25	Arthropathies	1	25.0
	M80-M94	Osteopathies and chondropathies	1	25.0
10	G00-G99	Diseases of the nervous system	3	2.8
	G90-G99	Other disorders of the nervous system	1	33.3
	G40-G47	Episodic and paroxysmal disorders	1	33.3
	G80-G83	Cerebral palsy and other paralytic syndromes	1	33.3
10	A00-B99	Certain infectious and parasitic diseases	3	2.8
	A30-A49	Other bacterial diseases	2	66.7
	A15-A19	Tuberculosis	1	33.3
10	P00-P96	Certain conditions originating in the perinatal period	3	2.8
	P20-P29	Respiratory and cardiovascular disorders specific to the perinatal period	2	66.7
	P35-P39	Infections specific to perinatal period	1	33.3
13	D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	2	1.9
	D50-D53	Nutritional anaemias	1	50.0
	D65-D69	Coagulation defects, purpura and other haemorrhagic conditions	1	50.0
13	Q00-Q99	Congenital malformation, deformation and chromosomal abnormalities	2	1.9
	Q38-Q45	Other congenital malformations of the digestive system	1	50.0
	Q90-Q99	Chromosomal abnormalities, not elsewhere classified	1	50.0
15	F00-F99	Mental and behavioural disorders	1	0.9
	F00-F09	Organic, including symptomatic, mental disorders	1	100.0
15	K00-K93	Diseases of the digestive system	1	0.9
	K90-K93	Other diseases of the digestive system	1	100
15	BLANK	Unknown	1	0.9
		<b>Total</b>	<b>108</b>	

Circulatory diseases (I00–I99) remain the leading cause of death (24.1%), driven by ischaemic heart disease and stroke, underscoring the need for cardiovascular risk reduction strategies. Endocrine and metabolic disorders (18.5%) are dominated by diabetes mellitus, with half the cases classified to unspecified type, highlighting gaps in clinical documentation that hinder targeted interventions. Neoplasms (15.7%) show a concerning pattern of female cancers and ill-defined classifications (17.6%), suggesting both a gendered bias and diagnostic limitations. External causes (6.5%), mainly transport accidents, point to preventable injury risks, while respiratory diseases (5.6%) add to the chronic disease load. Other categories including ill-defined conditions, genitourinary, musculoskeletal, and congenital disorders, each contributed  $\leq 4$  deaths, indicating smaller but diverse health challenges.

## KEY RECOMMENDATIONS

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To reduce mortality and improve health outcomes in Tuvalu, possible actions include:

- Strengthen NCD prevention and management, focusing on circulatory diseases, diabetes and cancer through screening and community programs.
- Enhance cancer detection and treatment, especially for female cancers, with improved diagnostic access and awareness campaigns.
- Implement injury prevention strategies, including road safety measures targeting youths
- Address under-five mortality by improving maternal and neonatal care and managing perinatal complications.
- Adopt an integrated health system approach in developing a multi-sectoral NCD strategy combining health promotion, early detection and treatment, ensuring resources align with the dominant disease burden.
- Improve data quality and certification practices through refresher training of health professionals in accurate cause of death certification
- Strengthen monitoring and evaluation by regular analysis of mortality trends and link with civil registration with health data for comprehensive surveillance and evidence-based policy.

## CONCLUSION

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The analysis confirms that non-communicable diseases, particularly circulatory disorders, diabetes, and cancer, account for most deaths in Tuvalu, reflecting a growing chronic disease burden. External causes and respiratory diseases contribute smaller proportions, while under-five mortality is mainly linked to perinatal and congenital complications. Females show a higher cancer-related mortality, indicating gender-specific health challenges. The low proportion of ill-defined causes suggests improved certification practices, yet gaps remain in diagnostic precision and documentation. These findings underscore the urgent need for integrated NCD prevention, enhanced maternal and child health services, and strengthened data quality to guide evidence-based policy and resource allocation.

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