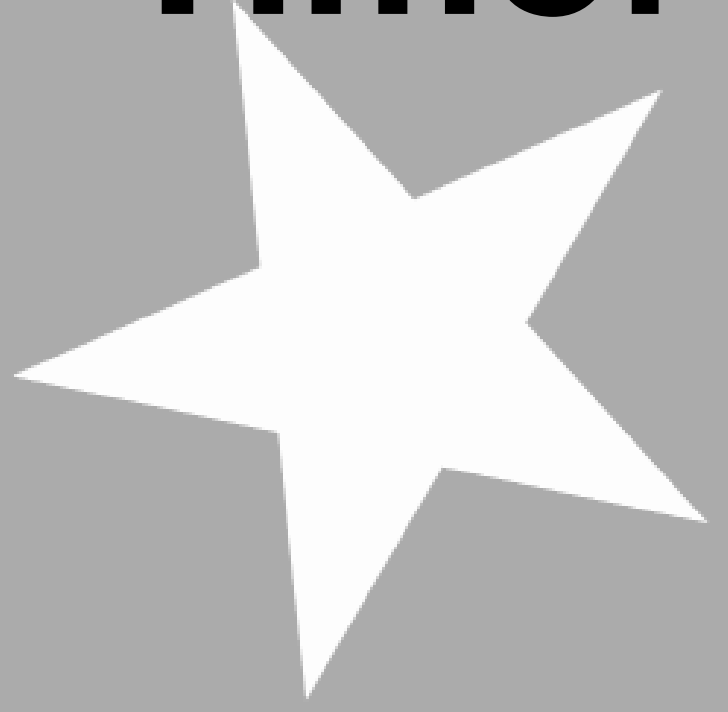


# Serviço Nacional de Ambulâncias e Emergências Médicas – Timor-Leste Ambulance Service Today



Location of Timor-Leste

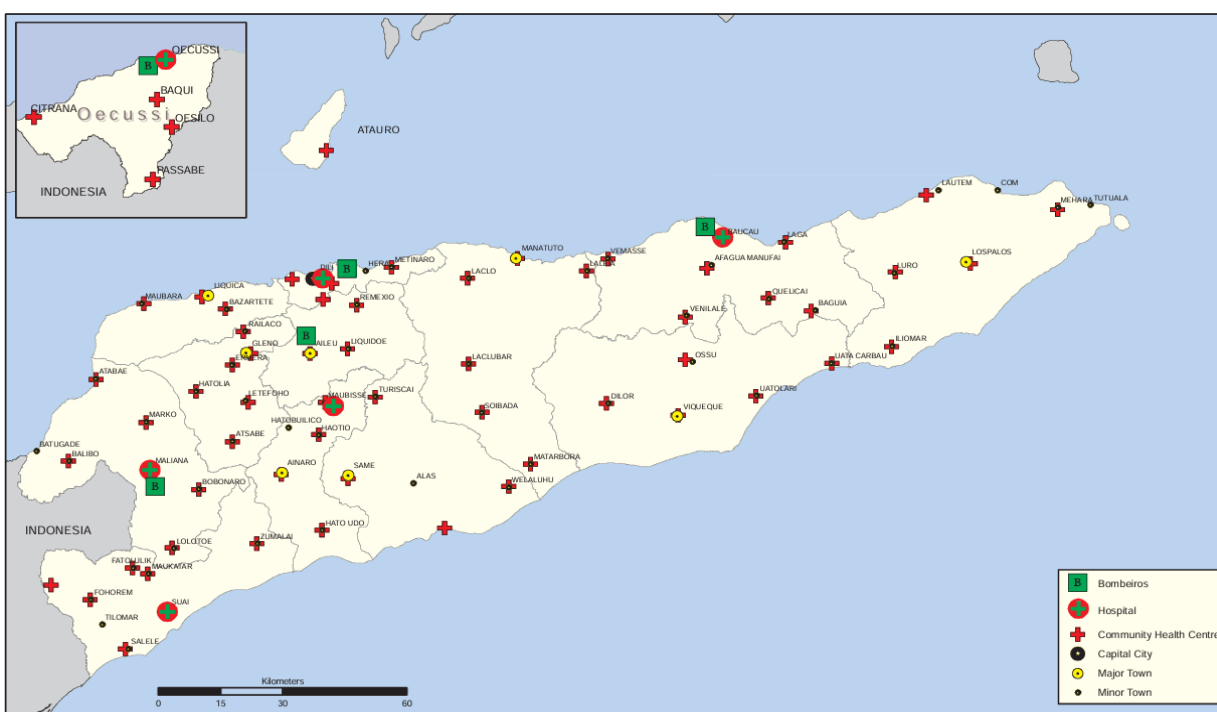
Scott Stewart<sup>1</sup> & Francisco Borges<sup>2,3</sup>

<sup>1</sup> School of Nursing, Midwifery and Paramedicine, Australian Catholic University, [scott.stewart@acu.edu.au](mailto:scott.stewart@acu.edu.au)  
<sup>2</sup> Serviço Nacional de Ambulâncias e Emergências Médicas, <sup>3</sup> Faculty of Public Health, Universidade da Paz

## Background

Timor-Leste became an independent country in 2002<sup>1</sup> after 400 years of colonization<sup>2</sup> and a destructive occupation<sup>3</sup>. The population of 1.38 million is mostly young (median 21.2y) with high fertility rate<sup>4</sup> and mostly rural (74%)<sup>5</sup> with a median income of \$1.25 USD/day<sup>6</sup>.

Serviço Nacional de Ambulâncias e Emergências Médicas (SNAEM) was established in June 2020 and is staffed by doctors, nurses, midwives and drivers<sup>7</sup>.



Location of SNAEM centres in Timor-Leste <sup>8</sup>

## Current response

- Calls are manually triaged to determine optimum crewing response <sup>7</sup>. High rate of Midwifery cases<sup>9</sup>, trauma including domestic violence, and tropical diseases such as dengue <sup>10</sup>.
- Patients are assessed, treated and transported as needed to local health centre or Guido Valadares National Hospital.
- New CPGs and drugs being trailed.
- Aeromedical retrieval with assistance from Mission Aviation Fellowship <sup>11</sup>



SNAEM Call takers and dispatchers



SNAEM jump bag



SNAEM demonstrating non-pneumatic anti shock garment for PPH



Donated ambulances form part of the SNAEM fleet



Multifunction SNAEM ambulance



Prime minister Xanana Gusmão in SNAEM multifunction ambulance

## Challenges

- Funding limits staff numbers, infrastructure and available of consumables <sup>5,7,12</sup>
- Limited out-of-hospital specific education for doctors, nurses and midwives
- Geographical barriers hinder prompt emergency response <sup>5, 13</sup>.
- Climate change will exacerbate disasters and disease outbreaks <sup>13</sup>
- Cultural barriers to health care <sup>14</sup>



SNAEM liaising with Mission Aviation Fellowship for an aeromedical retrieval

## Conclusion

Budget challenges result in limited paid staff, vehicles, stations, and equipment. The ability to provide analgesia is also hampered by legislation restricting administering opiates by medical staff on ambulance. These factors result in long emergency response times, extended patient transport distances, and oligoanalgesia.

The SNAEM is looking to recruit health professionals with EMS experience and improve its funding and legislative environment. It is considering developing a paramedic level of health care professional.

## References

1. Morrow J and White R. The United Nations in transitional East Timor: international standards and the reality of governance. *Aust YJIL* 2002; 22: 1.
2. Kingsbury D. East Timor. *The Southeast Asia Handbook*. Routledge, 2013, pp.110-120.
3. Dunn J. Genocide in East Timor. *Centuries of Genocide*. Routledge, 2012, pp.278-315.
4. Henderson H, Soares Xavier HA, da Silva M, et al. 'If we take the engine out, how will the car go?': beliefs, understanding and access to vasectomy services in Timor-Leste. *Cult Health Sex* 2024; 1-17. 20240418. DOI: 10.1080/13691058.2024.2341847.
5. United Nations Development Programme. *Human Development Report 2023-24: Breaking the gridlock: Reimagining cooperation in a polarized world*. 2024.
6. Jendrissek D. Measuring poverty in Timor-Leste: using census data to develop a national Multidimensional Poverty Index. *Asia-Pacific Sustainable Development Journal* 2021; 28: 32.
7. da Costa F, Rangel G and Sarmento R. The Emergency Medical Service in Timor-Leste. *Timor-Leste Journal of Medical Sciences* 2023; 10.
8. Office for the Coordination of Humanitarian Affairs. Timor-Leste: Bombeiros and Community Health Centre Locations. United Nations Office for the Coordination of Humanitarian Affairs, 2007.
9. Moores J and de Jesus GA. Management of post-partum haemorrhage in the Timor Leste National Ambulance Service. *Emerg Med Australas* 2018; 30: 814-819. 2018/09/04. DOI: 10.1111/1742-6723.13153.
10. Manel Yapabandara AMG, do Rosario de Fatima Mota M, Sarmento R, et al. From malaria control to elimination within a decade: lessons learned from Timor Leste, a newly independent country. *Malar J* 2020; 19: 104. 20200304. DOI: 10.1186/s12936-020-03162-3.
11. Mission Aviation Fellowship. Overcoming isolation in Timor-Leste. <https://timorleste.mafint.org/> (2024).
12. Kleine-Bingham MB, Rangel G, Sarakbi D, et al. Country learning on maintaining quality essential health services during COVID-19 in Timor-Leste: a qualitative analysis. *BMJ Open* 2023; 13: e071879. 20230421. DOI: 10.1136/bmjopen-2023-071879.
13. The World Bank Group and the Asian Development Bank. *Climate Risk Country Profile: Timor-Leste*. 2021. Washington, DC: The World Bank Group and the Asian Development Bank.
14. Guinness L, Paul RC, Martins JS, et al. Determinants of health care utilisation: the case of Timor-Leste. *Int Health* 2018; 10: 412-420. 2018/07/15. DOI: 10.1093/inthealth/ihy044.
15. Price JA, Soares AI, Asante AD, et al. 'I go I die, I stay I die, better to stay and die in my house': understanding the barriers to accessing health care in Timor-Leste. *BMC Health Serv Res* 2016; 16: 535. 2016/10/08.

