

# A Situational Analysis for Surgical Care Capacity in Vanuatu

Presenter: Margaret T Lehi

Co Authors: M Lim, R Qin, K Park, B Leodoro, E Mcleod,

N Tari, L Boe, P Temakon, R Vagaha,

VANUATU 4TH HEALTH RESEARCH SYMPOSIUM  
PORT VILA, VANUATU  
12-13 OCTOBER 2023



# INTRODUCTION

## THE LANCET

The Lancet Commission on  
Global Surgery  
Abstract booklet

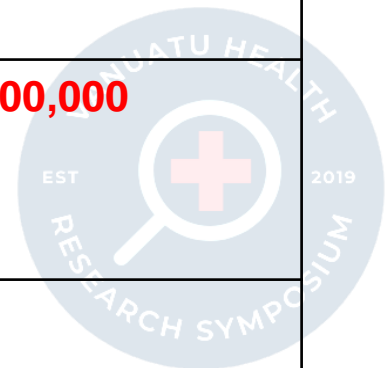


- Worldwide: 5 billion people lack access to safe, timely and affordable surgical care. 9/10 live in LMIC.
- 2015: Lancet Commission on Global Surgery (LcoGS)
- 2019: Pacific Health Ministers at their 13<sup>th</sup> meeting pushed this agenda as a critical component of Universal Health Coverage (UHC), Pacific Health Island Vision
- Development of National Surgical Obstetrics and Anaesthesia Plan (NSOAP)
- 2021: Executive level Endorsement of the NSOAP plan at the Ministry of Health, Vanuatu



# Results of Global Surgical Indicators in Vanuatu

Indicator	Target 2030	Results
1. Access to timely essential surgery	A minimum of <b>80%</b> of the population can access a hospital that can perform the Bellwether procedures ( Caesarean sections, laparotomy and open fracture management) <b>within 2 hours</b>	<b>44%</b>
2. Specialist Surgical Workforce density	At least <b>20 surgical, anesthesia and obstetrics specialists per 100,000 people</b>	<b>3.2/100,000</b>
3. Surgical Volume	A minimum of <b>5,000 procedures per 100,000</b> population being performed in an operating theatre	<b>1,277/100,000</b>
4. Perioperative Mortality	<b>100%</b> of countries are tracking this indicator and have set a national target	<b>0.28%</b>



## Aims & Objectives

- To assess the capacity to provide essential, surgical, obstetric and anesthesia care in Vanuatu
- To understand the key barriers, challenges and solutions for surgical system strengthening perceived by relevant stakeholders.



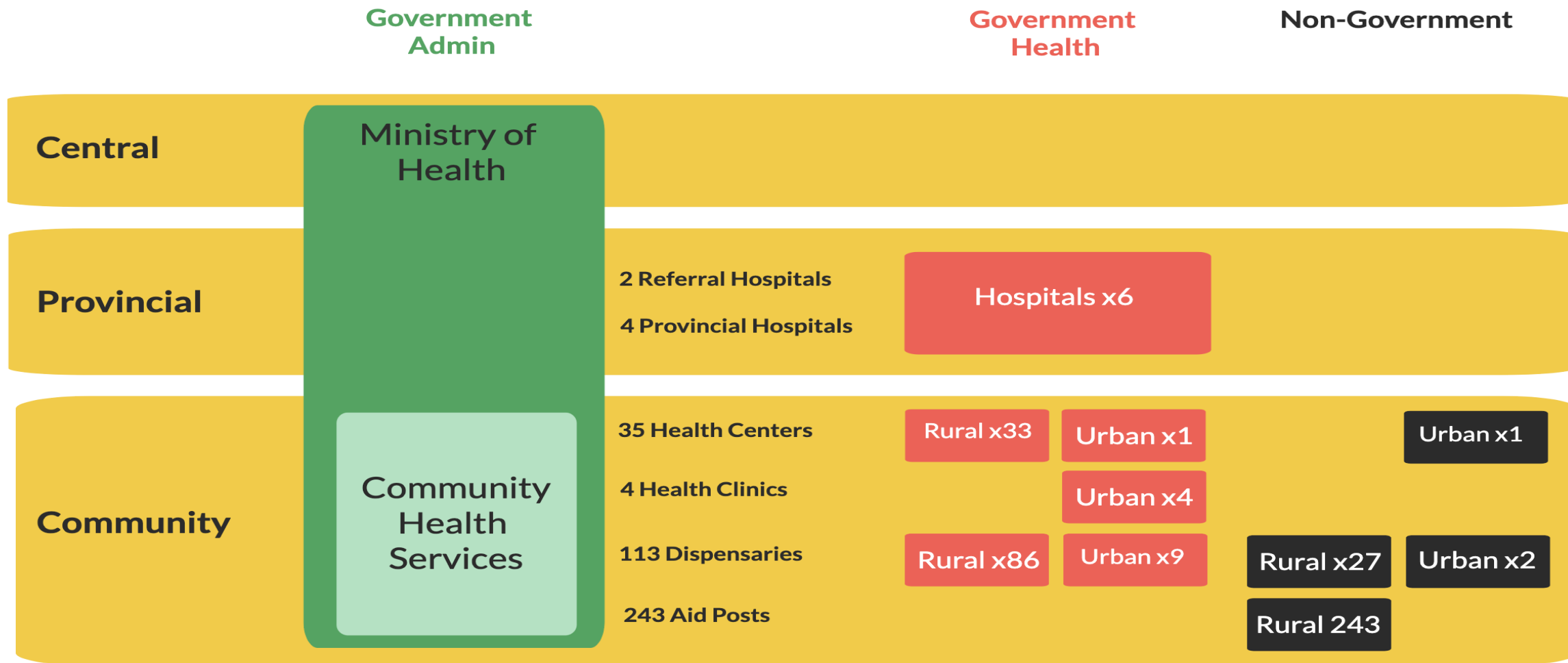
# Methods



- Cross sectional observational study
- Mixed study ( qualitative and quantitative component )
- Data Collection
- Data Analysis
- Ethical Consideration granted from the MoH



# Health System Structure

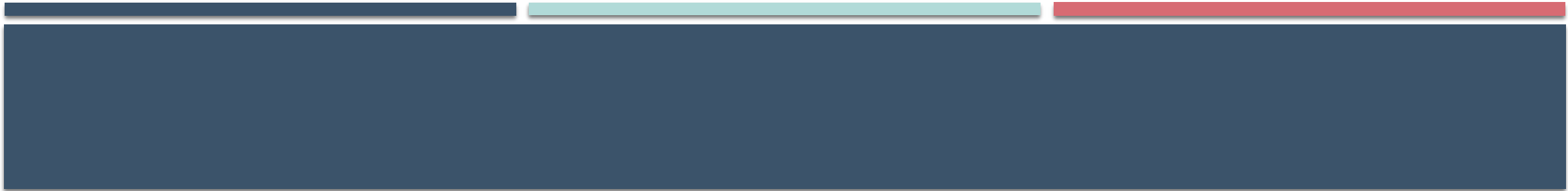


# RESULTS & DISCUSSION

## INFRASTRUCTURE & ACCESS

General	Vila Central Hospital	Northern Provincial Hospital	Lenakel Hospital	Golden Memorial Hospital	Norsup Hospital
Catchment population	50,000	13,000	40,000	10,000	31,500
Annual admissions	6700	4,105	2152	400	790
Annual outpatients	24,500	10,301	19,200	2500-3000	7960
Beds	163	80	37	28	50
Surgical beds	31	24	17	?	4
ORs	2	3	1	1	2
PACU beds	3	2	0	0	0
ICUs	2	1	0	0	0
ICU ventilators	1	1	0	0	0
Anaesthesia machines	2	2	0	0	1
Pulse oximeter	5	2	1	1	1

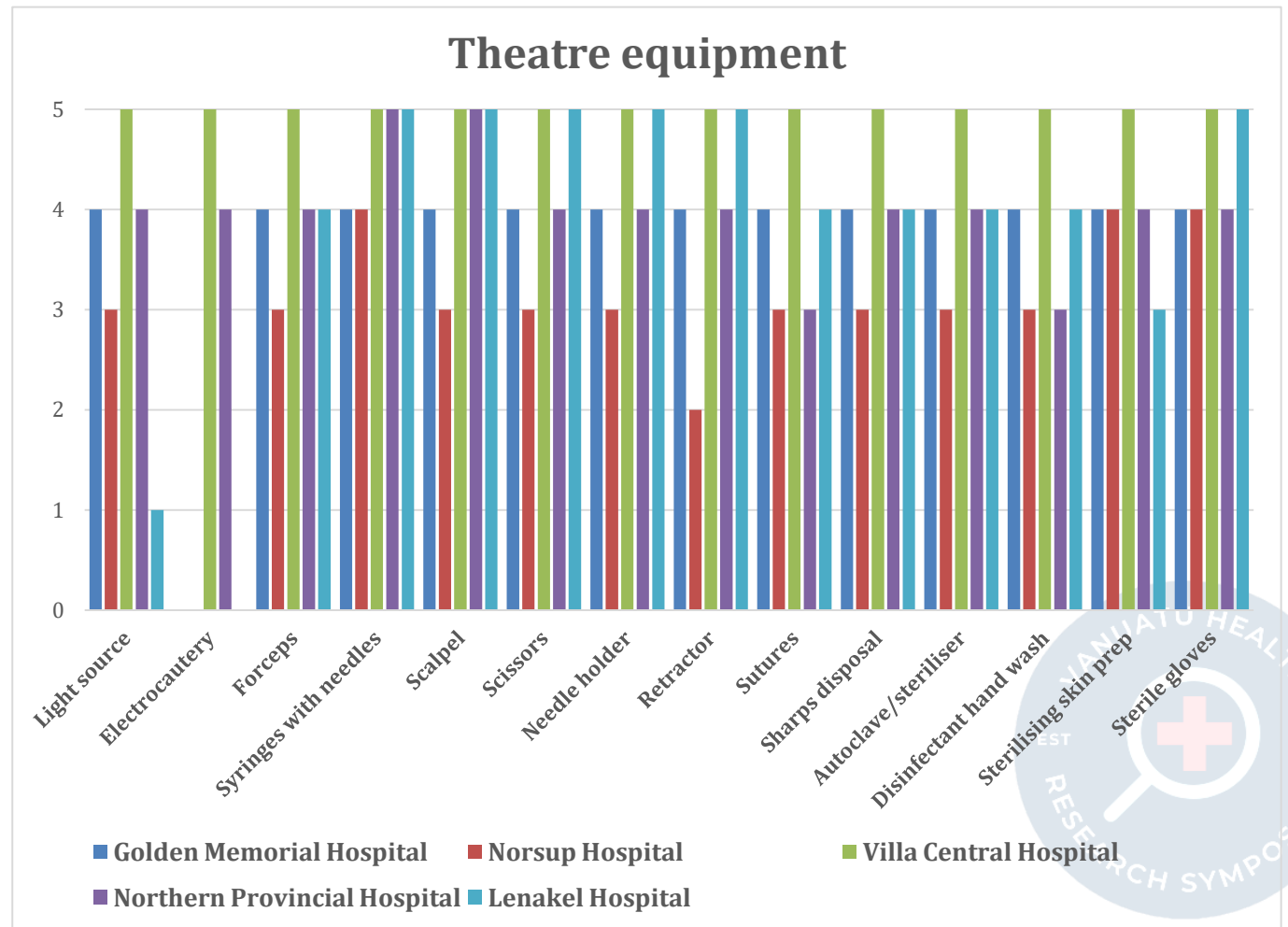
Hospital	Vila Central Hospital	Northern Provincial Hospital	Lenakel Hospital	Golden Memorial Hospital	Norsup Hospital
Facility Type	Tertiary Hospital	Tertiary	Provincial / Secondary	District Hospital/ Rural	Rural Hospital
Catchment population	>50,000	13000	>4000	10,000	31,500
Referrals per month	<10	29	30	30	50-70
2hr access	76-99%	51-75%	26-50%	26-50%	1-25%



Telemedicine

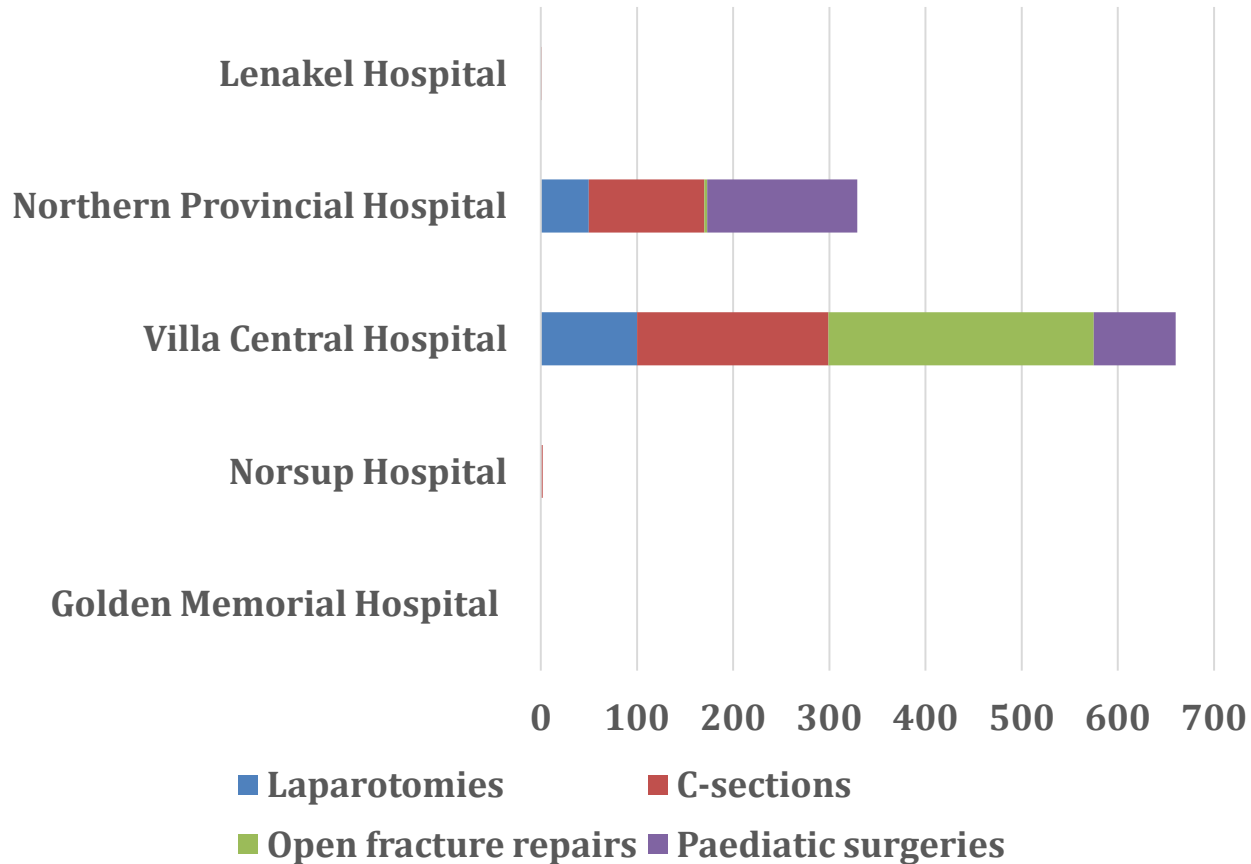
Facility Upgrade and Expansion

Equipment





## Surgical Volume by Procedure and Hospital



- 2 Referral hospitals containing 4 functional theatres
- Surgical volume 863/100,000 population
- Significant proportion do not lie within the 2 hour access to any health facility providing at least 3 bellwether procedures.



# RESULTS & DISCUSSION

## Workforce

- SAO specialist Density **5.35/100,000** population
- Training
- Retention
- Allocation of Clinical Responsibilities
- Leadership

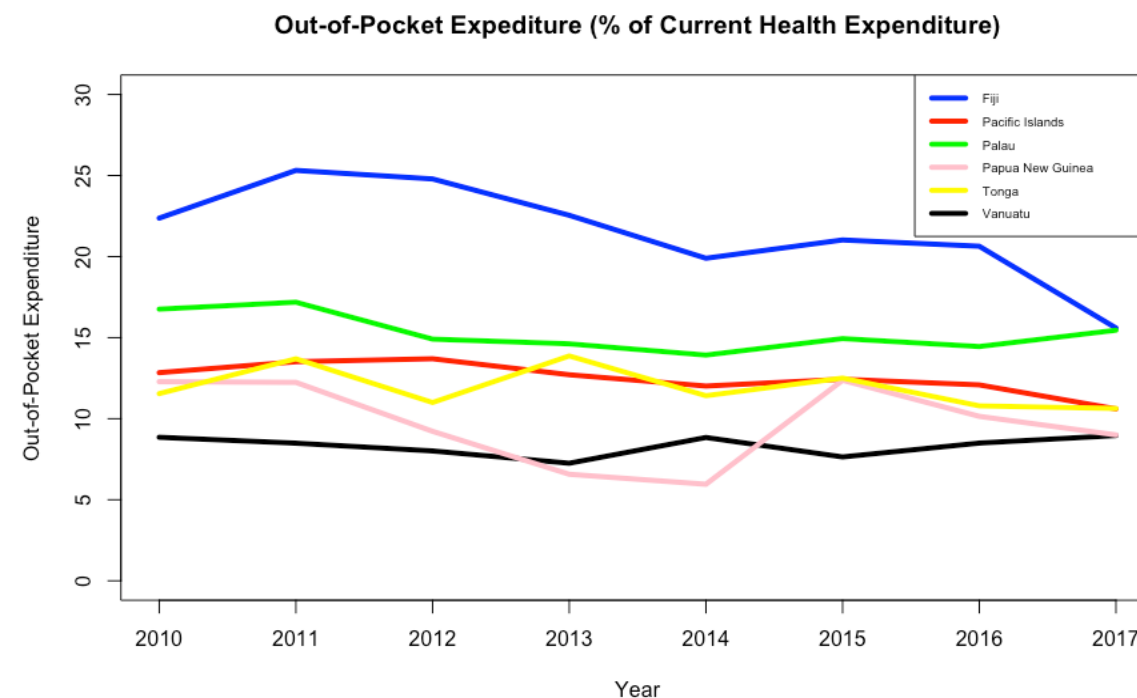


# MONITORING AND EVALUATION

Hospital	Vila Central Hospital	Northern Provincial Hospital	Lenakel Hospital	Godden Memorial Hospital	Norsup Hospital
Method of patient record keeping	Paper/ Electronic	Paper	Paper/ Electronic	Paper	Paper
Are there personnel in charge of maintaining medical record	Yes	Yes	Yes	Yes	Yes
Are charts accessible across multiple visits for the same patient?	Yes	Yes	Yes	Yes	Yes
How often is data collected prospectively for patient outcomes e.g. SSI, DVT	1-25%	1-25%	0%	0%	0%
How often is POMR prospectively collected?	0%	100%	0%	0%	0%
How often are you required to report information to the Ministry of Health?	Monthly	Monthly	Quarterly	Yearly	Yearly

# HEALTH CARE COSTS

Hospital	Vila Central Hospital	Northern Provincial Hospital	Lenakel Hospital	Godden Memorial Hospital	Norsup Hospital
Health Insurance Coverage	1-25%	0%	0%	0%	0%
Annual Budget (USD)	\$ 1,118,442	\$ 2,429,235	\$ 761,224	\$ 100,000	\$ 800,000
SOA budget	1-25%	1-25%	1-25%	1-25%	unknown
Average OOP expenditure (\$)					
C-section	38.20	179.14	143.31	30.00	-
Open fracture repair	63.60	358.29	N/A	30.00	-
Laparotomy	38.20	179.14	103.9	50.00	-
CBC	2.80	8.95	3.58	3.00	-
X-ray	2.80	8.95	3.58	3.00	-
Surgery-associated Lodging	2.80	26.87	3.58	5.00	-
Patient/family transport	76.40	895.68	143.31	50.00	-
Surgery-associated medications	38.20	5.37	68.07	5.00	-



## WAY FORWARD

This situational analysis results provides essential Information that can be used to further inform NSOAP development plan for Vanuatu as a road map for a sustainable and equitable access to surgical care.

- Engaging regional partners and stakeholder involvement in identifying key focus areas to address ( short term and long term goals )
- Needs ongoing MoH support in terms of administration and coordination of NSOAP development at all levels going forward.



# ACKNOWLEDGEMENTS

- Vanuatu Ministry of Health
- Medical superintendants VCH, NPH, Lenakel, Norsup, Lolowai
- Program in Global Surgery and Social Change (PGSSC)
- WHO/WPRO
- SPC

