COMPARING "FIXED-SITE" AND "MOBILE-SITE" COVID-19 VACCINE DELIVERY STRATEGIES IN REACHING VULNERABLE PEOPLES IN VANUATU

MARIE LAURE NIRUA AND CHRISTOPHER GAUTHIER-COLES

VANUATU 3RD HEALTH RESEARCH SYMPOSIUM
Luganville, Santo
26-28 October 2022

INTRODUCTION

- On June 2nd 2021 Vanuatu launched its COVID-19 vaccination campaign. As part of this effort, two vaccine delivery strategies were implemented. A "Fixed-Site" strategy was first implemented in provincial centres such as Port Vila and Luganville, whereby vaccinations took place at a central immunization site. A "Mobile-Site" strategy was also adopted later in the campaign particularly in rural and remote areas.
- Here we compare the effectiveness of these two strategies in reaching "vulnerable" peoples (i.e. elderly people 55 years and above, people living with disability and people with known underlying condition)

METHODS

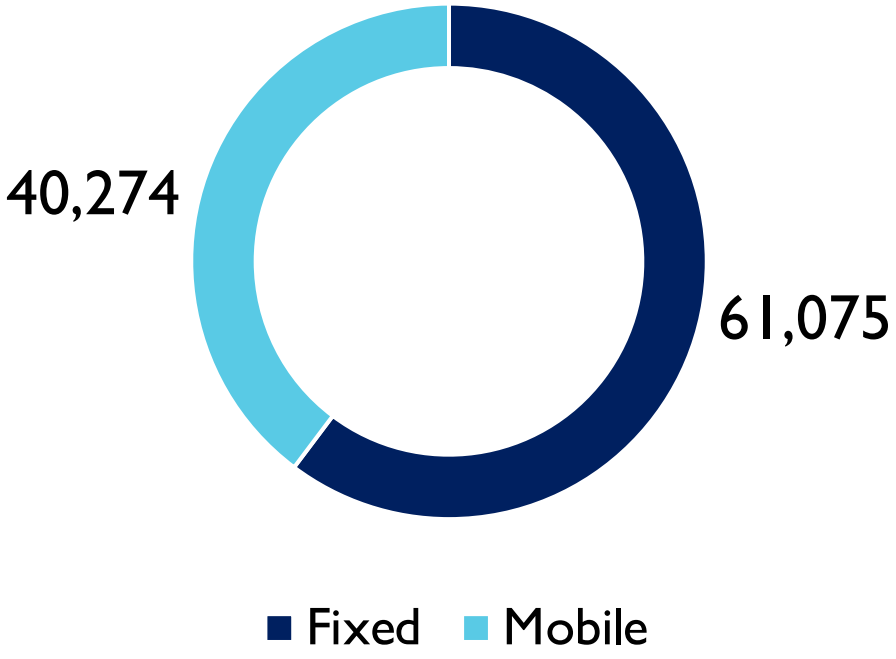
- An integral part of the COVID19 Vaccination campaign has been the electronic immunization registry (EIR) which registered and tracked all vaccine recipients.
- Notably, the EIR collected and stored key demographic information relating to vulnerability status of vaccine recipients including age, disability status and underlying condition status as well as the type of vaccine delivery strategy used. In order to conduct our study, data from the EIR was extracted, de-identified, aggregated and analyzed
- We used a Z-Test to determine statistical significance in comparing proportion of vulnerable groups reached via mobile site vs fixed site across area councils

RESULTS

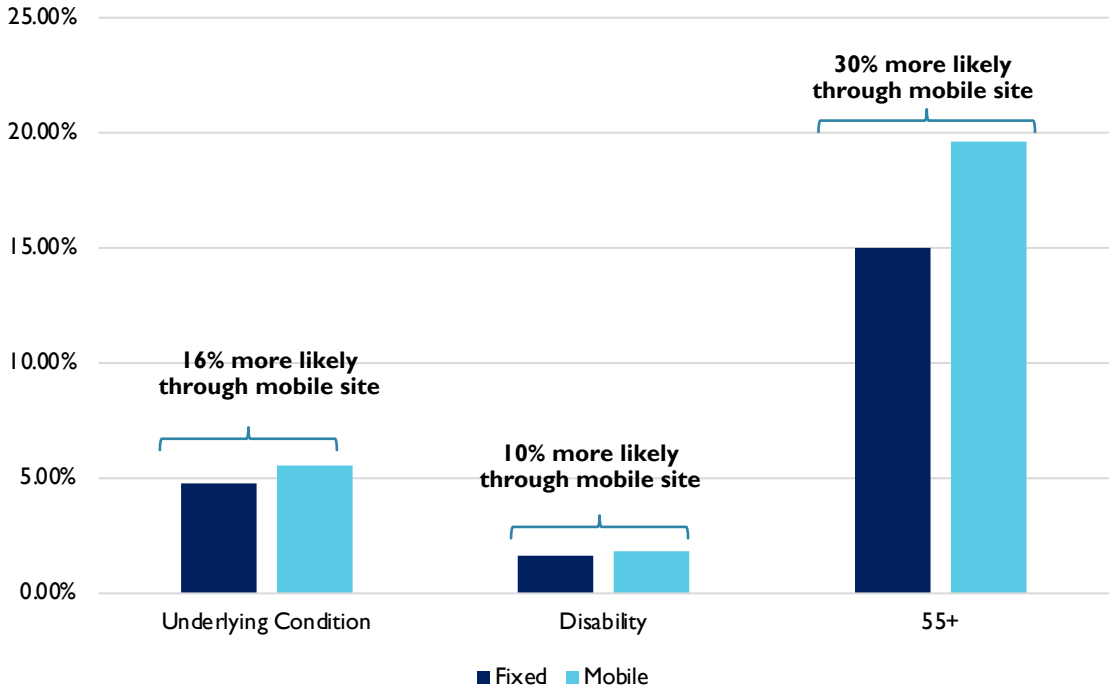
- Approximately 100,000 client registrations were analyzed. Key findings include elderly people (55 years and above) were 30% more likely to be reached through mobile sites. This was even more pronounced for older groups with people over 65 years and above being 50% more likely to be reached through mobile sites. Also of note, people with underlying condition were 16% more likely and people with disability were 10% more likely to be reached through mobile sites respectively.

RESULTS

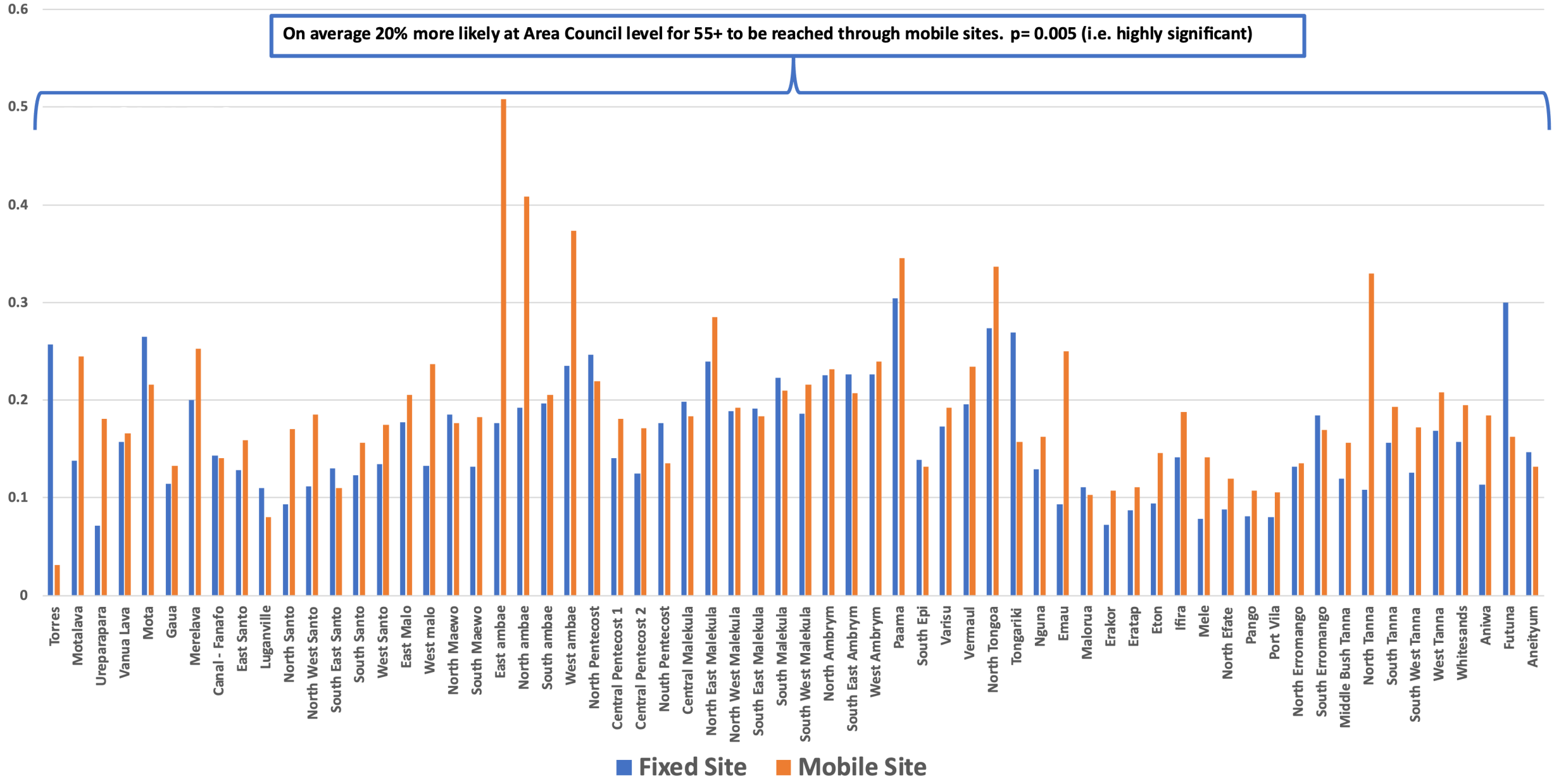
Total number of client registrations by sites

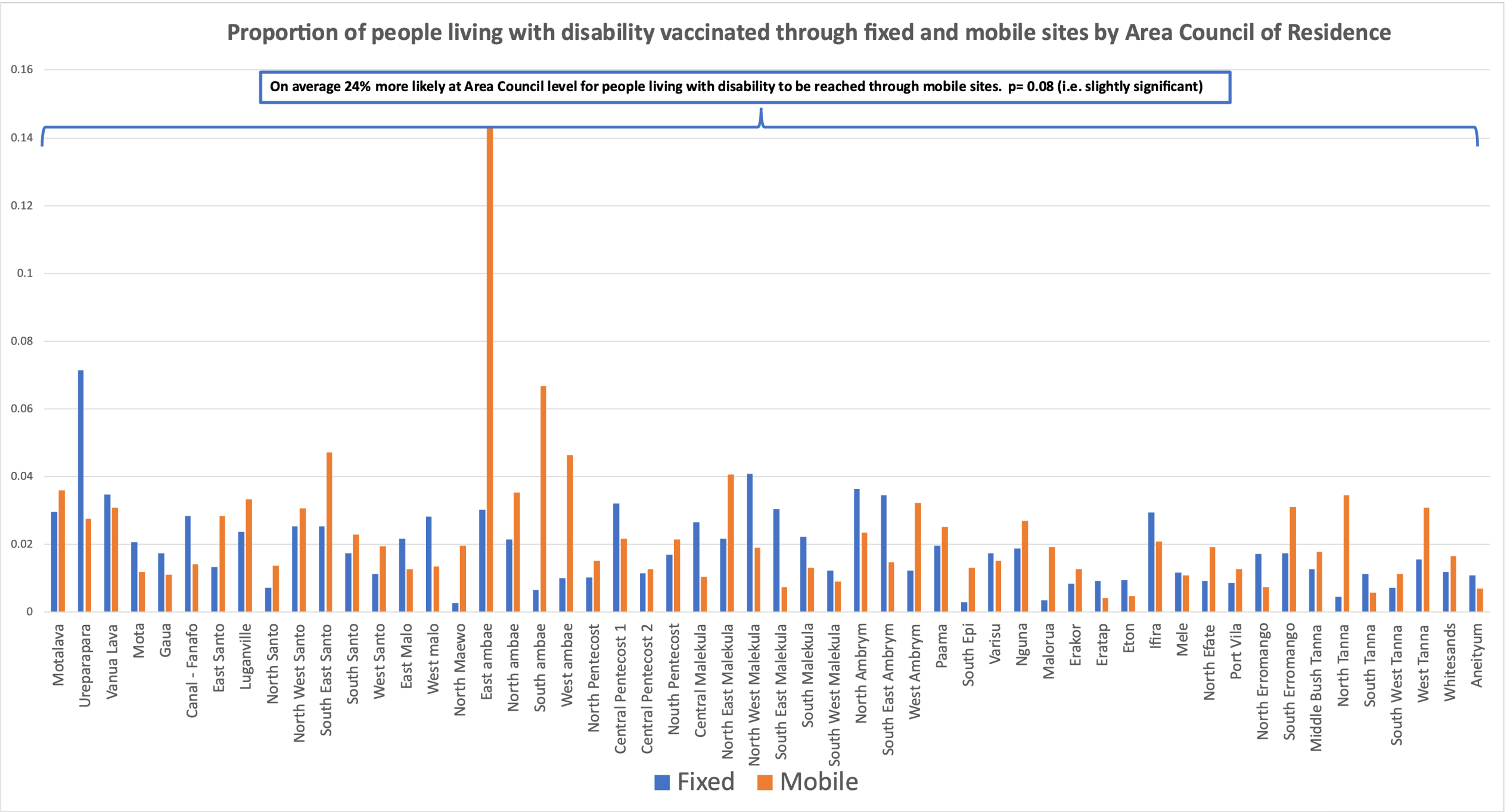


Proportion of vulnerable people reached through mobile sites and fixed sites

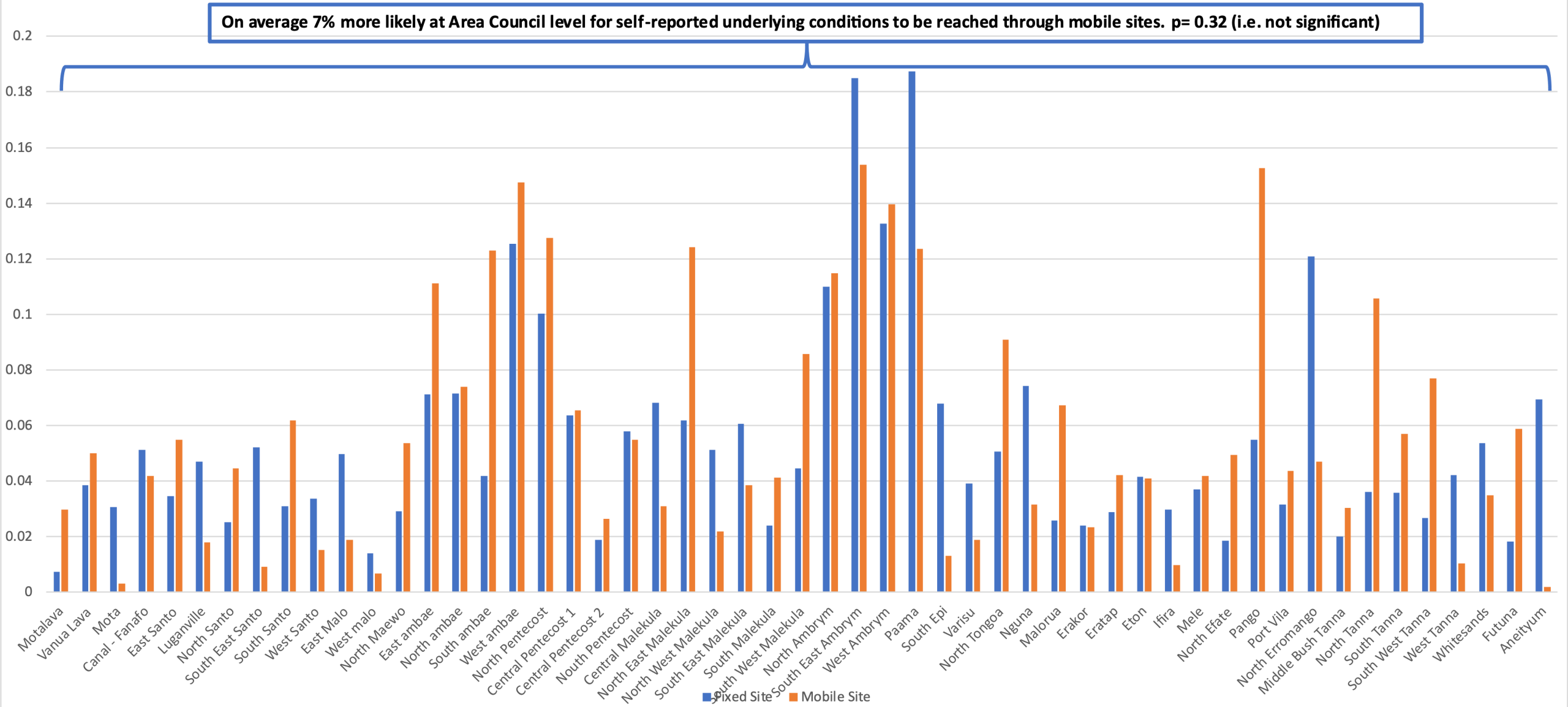


Proportion of Elderly People (55+) Vaccinated through fixed and mobile sites by Area Council of Residence




Proportion of people living with disability vaccinated through fixed and mobile sites by Area Council of Residence
On average 24% more likely at Area Council level for people living with disability to be reached through mobile sites. p= 0.08 (i.e. slightly significant)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Motalava
Ureparapara
Vanua Lava
Mota
Gaua
Canal - Fanafo
East Santo
Luganville
North Santo
North West Santo
South East Santo
South Santo
West Santo
East Malo
West malo
North Maewo
East ambae
North ambae
South ambae
West ambae
North Pentecost
Central Pentecost 1
Central Pentecost 2
Nouth Pentecost
Central Malekula
North East Malekula
North West Malekula
South East Malekula
South Malekula
South West Malekula
North Ambrym
South East Ambrym
West Ambrym
Paama
South Epi
Varisu
Nguna
Malorua
Erakor
Eratap
Eton
Ifira
Mele
North Efate
Port Vila
North Erromango
South Erromango
Middle Bush Tanna
North Tanna
South Tanna
South West Tanna
West Tanna
Whitesands
Aneityum
Fixed
Mobile

Proportion of people self-reporting underlying condition vaccinated through fixed and mobile sites by Area Council of Residence



DISCUSSION

- The higher proportional rate of vulnerable populations vaccinated through mobile sites highlights the importance of implementing diverse vaccine delivery strategies in order to provide health services in an inclusive manner.
- It is worth noting that across provinces mobile sites were only rolled out after fixed sites were launched. If both strategies were launched simultaneously, this would provide a more representational indication of strategy efficacy.

RECOMMENDATIONS / IMPLICATIONS

- In the event of any future mass vaccination campaigns, it is worth considering the increased efficacity of mobile campaigns in reaching more vulnerable populations (i.e. elderly and people living with disability).

- Future research could look into the cost difference between these two types of delivery strategies and make a cost-benefit analysis

ACKNOWLEDGEMENTS

- Vanuatu Ministry of Health
- Provincial Community Health Services
- Shefa Red Cross
- Save the Children