COVID-19 in Papua New Guinea: Economic and Social Impacts

Insights from the fourth round of high frequency phone surveys

Data collected in December 2021

Pacific Observatory

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Key findings

Economic recovery was weak with household incomes falling. Low vaccination rates may further hinder recovery and welfare outcomes:

- Consistent with the weak economic recovery in 2021 (GDP growth of 1 percent), the share of employed adults was stable from December 2020 to December 2021. For many households, particularly rural households and those in the bottom 40 percent of the wealth distribution, incomes were under pressure.

- To cope with economic pressures households used coping strategies – such as selling assets, which will not be sustainable in the long run. One in four households experienced moderate or severe food insecurity.

- Community security concerns did not worsen in the six months to December 2021. However, close to half of households perceived alcohol and drug abuse to be worsening.

- Vaccine hesitancy increased over the six months to December 2021.

- Fewer households were worried about their finances in December 2021 than June 2021.
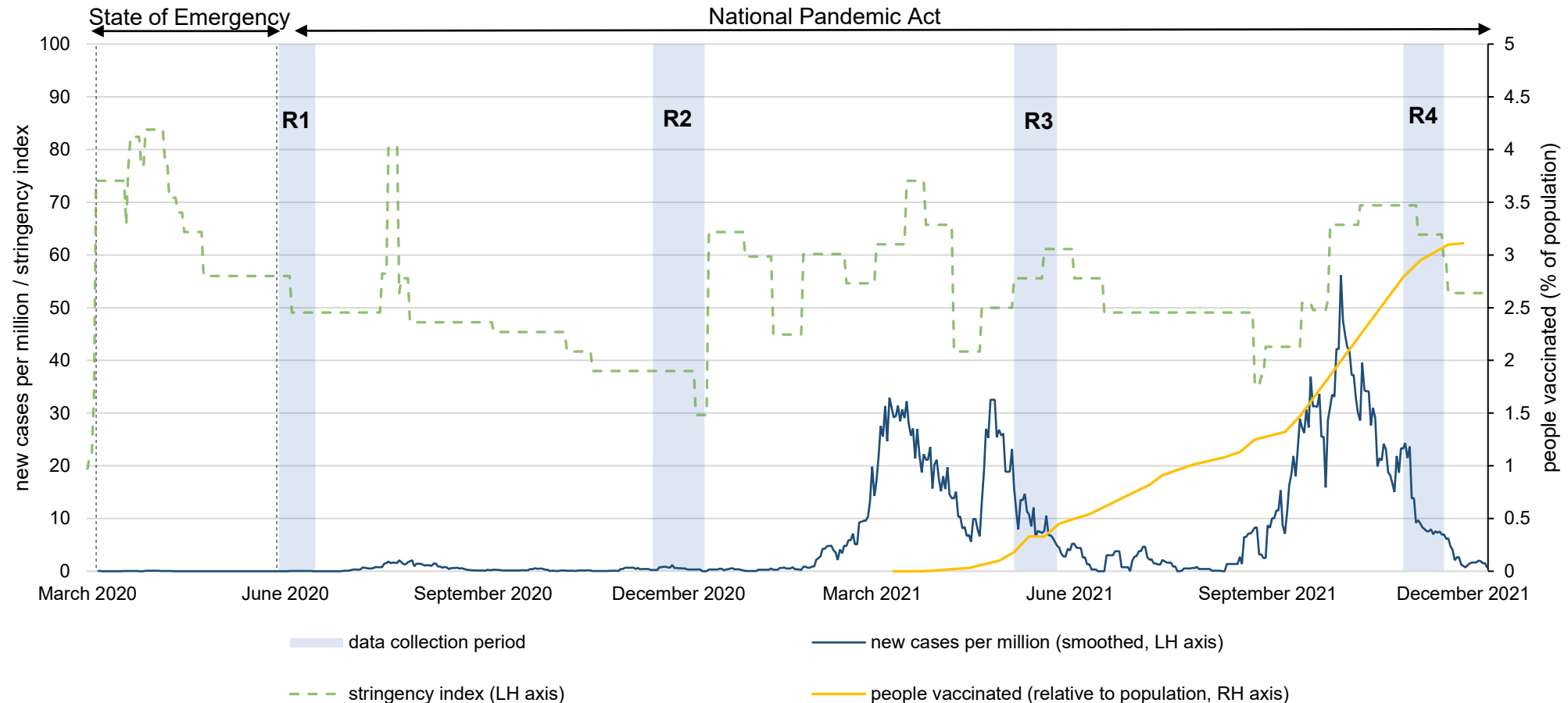
Thinking about policy

Supporting employment and income growth and promoting COVID-19 vaccination should be priorities:

- Supporting employment and income growth for households should be a priority. This hinges on the trajectory of economic growth in 2022 and beyond.
- Programs to mitigate and reduce the need for coping strategies should be considered. Expanding the coverage of formal safety nets and building the foundations for sustainable recovery are critical.
- Programs to reduce vaccine hesitancy are needed if COVID-19 vaccination rates are to increase.
- Alcohol and drug abuse may be both a symptom and a cause of economic hardship. Addressing these issues may have social and economic benefits.
- Provide support for households with school aged children to keep them in school, as a fifth of households reduced the number of children attending school as a coping strategy.

Survey timing: end of the third COVID-19 wave (December 2021)
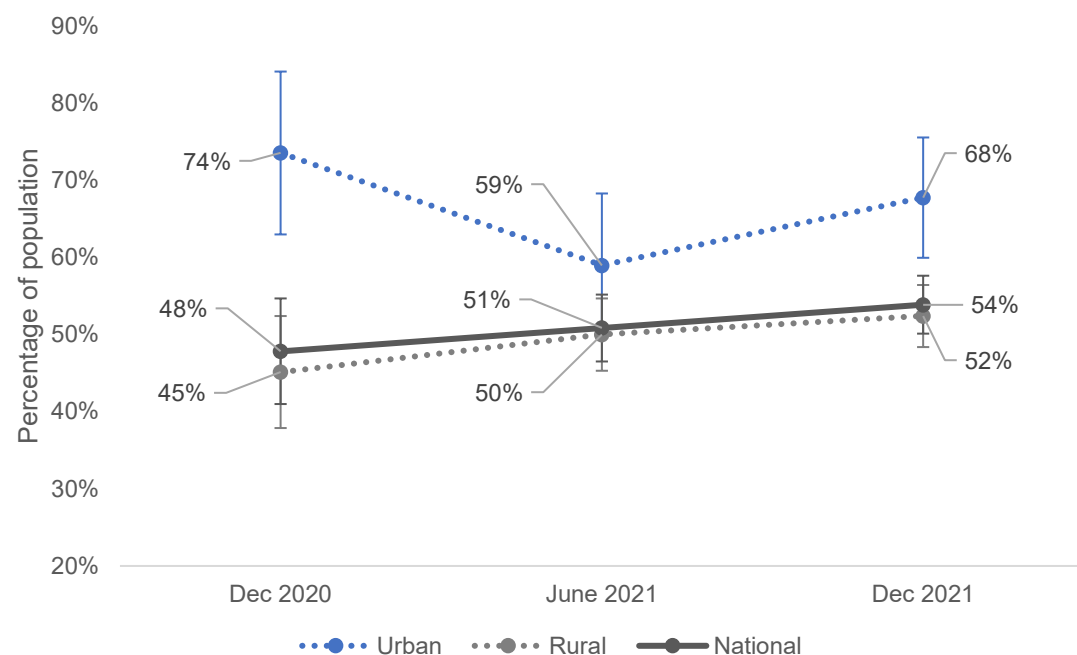

COVID-19 Cases and Vaccinations in PNG

Employment and incomes

Employment was stable, but incomes were under pressure

Employment was stable across 2021

Proportion of people that are working by location

Percentage of population

- 90%
- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%

74%, 59%, 68%
48%, 51%, 54%
45%, 50%, 52%

Dec 2020 | June 2021 | Dec 2021

••• Urban ••• Rural — National

Proportion of people that are working by wealth

Percentage of population

- 90%
- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%

64%, 58%, 66%
49%, 53%, 58%
37%, 45%, 44%

Dec 2020 | June 2021 | Dec 2021
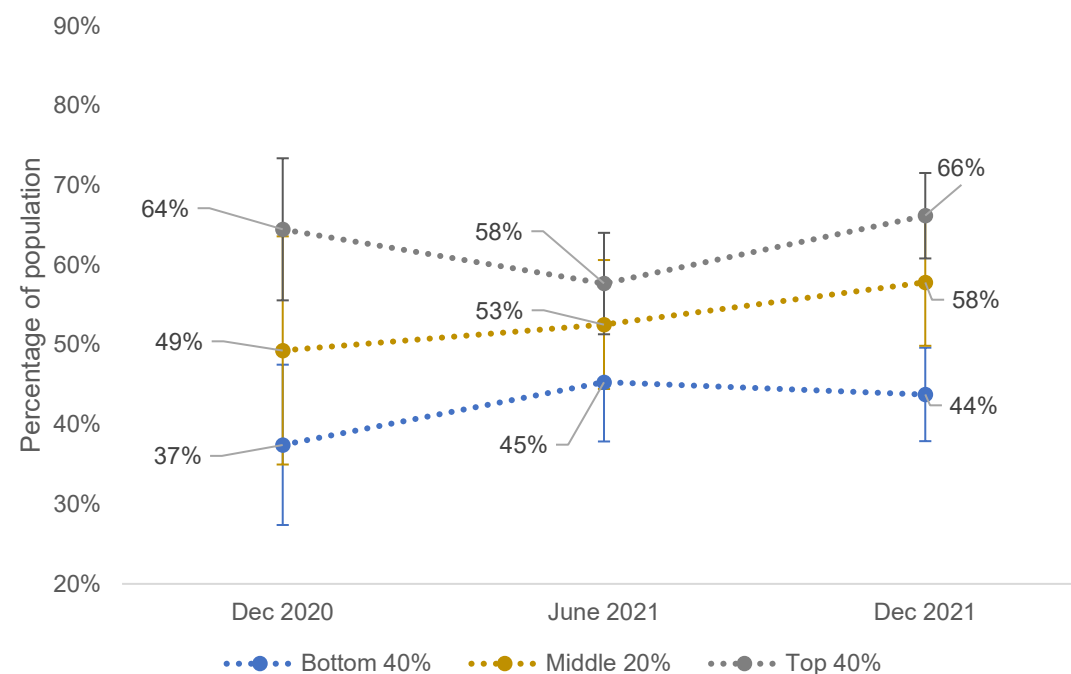
••• Bottom 40% ••• Middle 20% ••• Top 40%

Note: The figures above represent cross-sectional data from round two (December 2020), round three (June 2021), and round four (December 2021)
Note: Vertical lines represent 95 percent confidence intervals.
Note: The proportion of people in PNG who live in urban areas is relatively low, at around 13 percent of the total population.
Source: Rounds two, three, and four of the World Bank high frequency mobile phone surveys.

- Across urban and rural areas, across wealth quintiles, and for men and women, employment was stable
- More people worked in agriculture than services or industry

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One fifth of households expected falls in farming income

Change in expected agricultural income from previous season, in December 2021

Percentage of population

Categories (left to right): National | Urban | Rural | Highland | Islands | Momase | Southern | Bottom 40% | Middle 20% | Top 40% | Male | Female

Groupings: Location | Region | Wealth | HH Head

Legend: ■ No income ■ Less than usual ■ Same as usual ■ Higher than usual

Note: The figures above represent cross-sectional data Round Four (December 2021)
Source: Round four of the World Bank high frequency mobile phone surveys.

Change in non-agricultural enterprise income from January to November 2021

Percentage of population

Categories (left to right): National | Urban | Rural | Highland | Islands | Momase | Southern | Bottom 40% | Middle 20% | Top 40% | Male | Female

Groupings: Area | Region | Wealth | HH Head

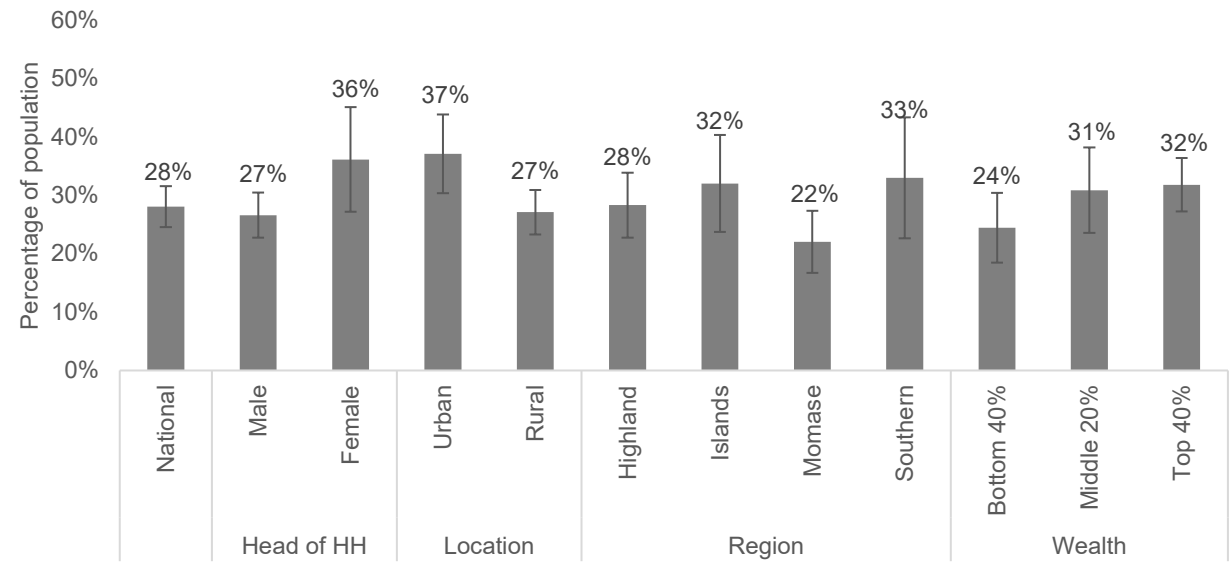Legend: ■ No income ■ Less than usual ■ Same as usual ■ Higher than usual

Note: The figures above represent cross-sectional data Round Four (December 2021)
Source: Round four of the World Bank high frequency mobile phone surveys.

- People in the Southern Region (which includes Port Moresby) were somewhat more likely to have no agricultural income or no income from non-agricultural enterprises than people from other regions
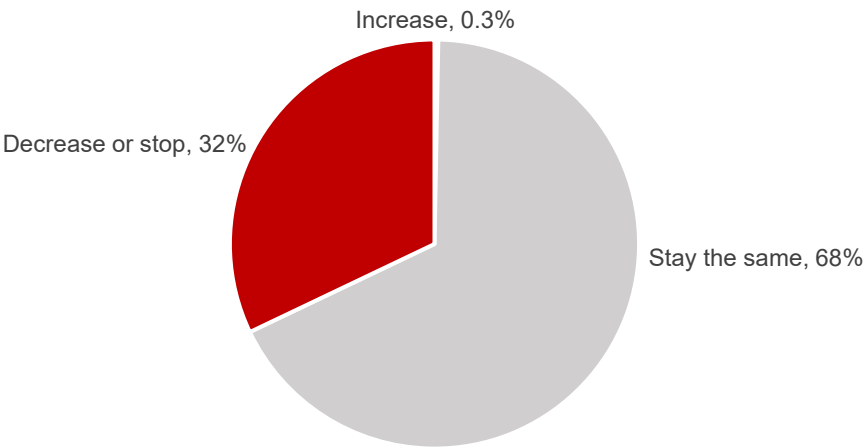
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Remittances fell for some households

Percentage of households receiving remittances in December 2021

Source: Round four of the World Bank high frequency mobile phone surveys.

Change in remittances between June 2021 and December 2021

Increase, 0.3%

Decrease or stop, 32%

Stay the same, 68%

Source: Round four of the World Bank high frequency mobile phone surveys.

- Most people didn't receive remittances, but those who did received less, or the same, as six months prior. For 98 percent of households, remittances were exclusively domestic, implying economic recovery in PNG will be decisive in whether future remittance incomes increase
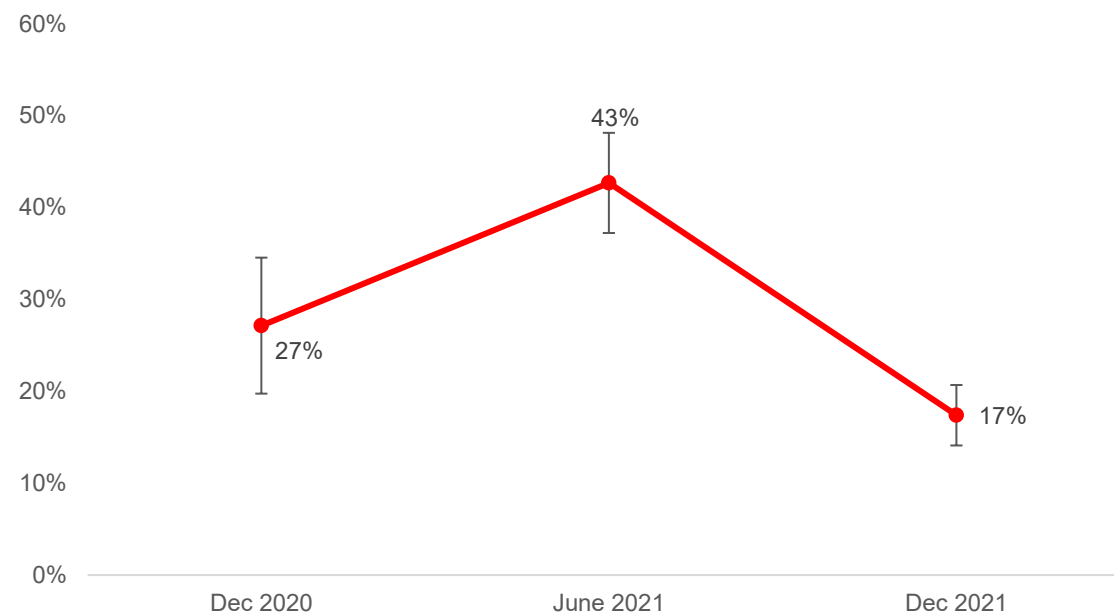
Household incomes fell

Change in total household income from June to December 2021

Percentage of population

Legend: ■ Stopped entirely ■ Reduced ■ Stayed the same ■ Increased

Categories: National | Urban | Rural | Highland | Islands | Momase | Southern | Bottom 40% | Middle 20% | Top 40% | Male | Female

Groupings: Location | Region | Wealth | HH Head

Source: Round four of the World Bank high frequency mobile phone surveys.

Proportion of population that is 'very worried' about their finances over the next month

Dec 2020: 27%
June 2021: 43%
Dec 2021: 17%

Source: Round four of the World Bank high frequency mobile phone surveys.

- A third of households experienced falls in income in the second half of 2021, but financial anxiety fell, which may be a signal of recovery. Incomes of rural households and households in the bottom 40 are particularly under pressure
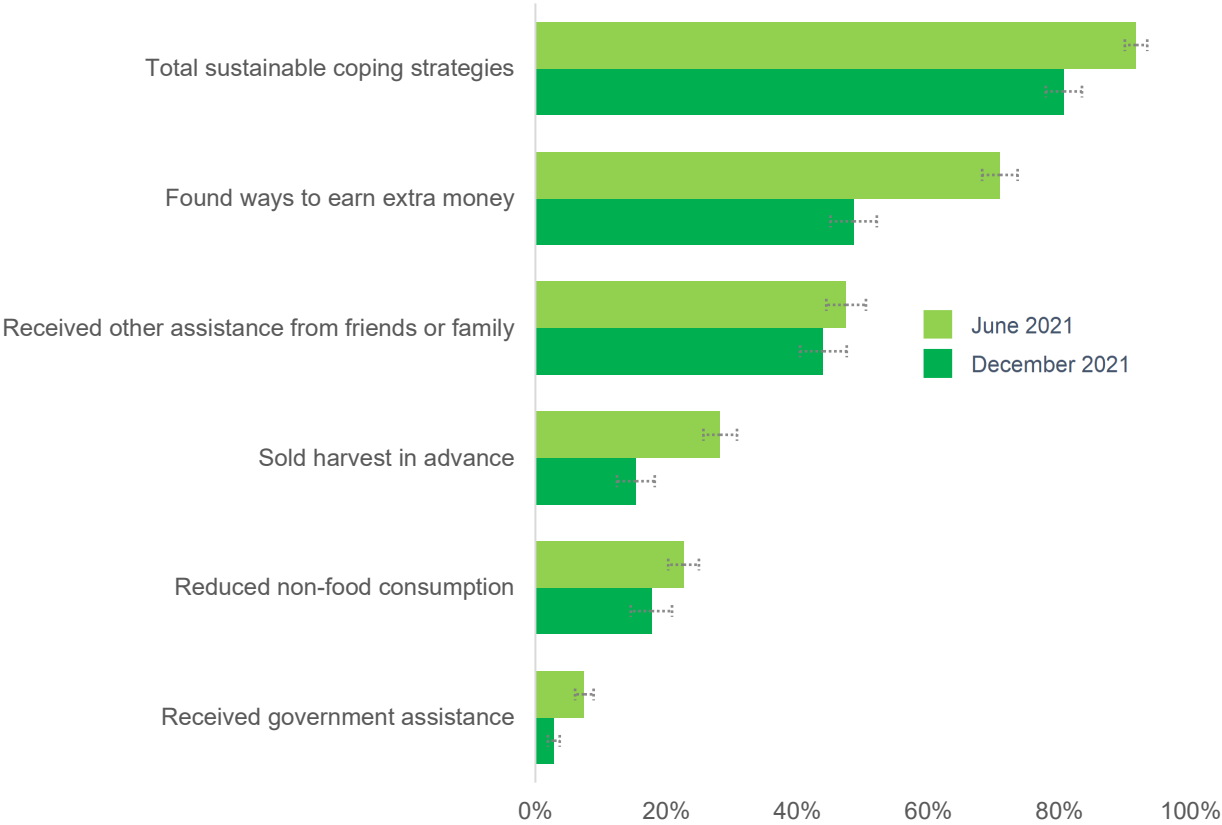- Almost no households reported increased incomes

Coping strategies and food security

Most households are adapting to economic hardships. While food insecurity is common, community trust and security are stable.
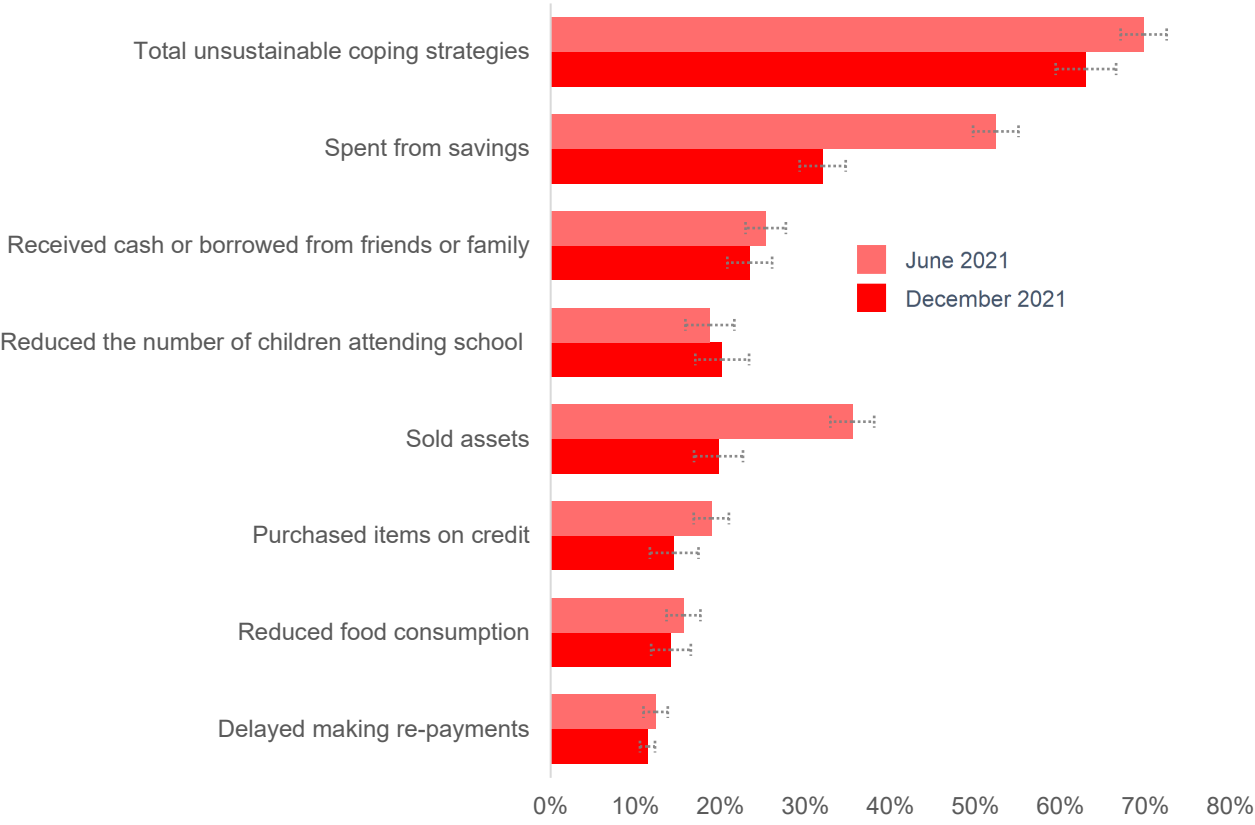
Households made tough choices to make ends meet, which will be hard to keep up

Sustainable coping strategies June 2021 and December 2021

- Total sustainable coping strategies
- Found ways to earn extra money
- Received other assistance from friends or family
- Sold harvest in advance
- Reduced non-food consumption
- Received government assistance

Legend: June 2021, December 2021

X-axis: 0% 20% 40% 60% 80% 100%

Unsustainable coping strategies June 2021 and December 2021

- Total unsustainable coping strategies
- Spent from savings
- Received cash or borrowed from friends or family
- Reduced the number of children attending school
- Sold assets
- Purchased items on credit
- Reduced food consumption
- Delayed making re-payments

Legend: June 2021, December 2021

X-axis: 0% 10% 20% 30% 40% 50% 60% 70% 80%

Note: Horizontal dotted lines at end of bars are 95 percent confidence intervals.
Note: Uncommon coping strategies (selected by fewer than five percent of respondents in June 2021 and December 2021) are excluded from the chart but included in the total for "sustainable coping strategies".
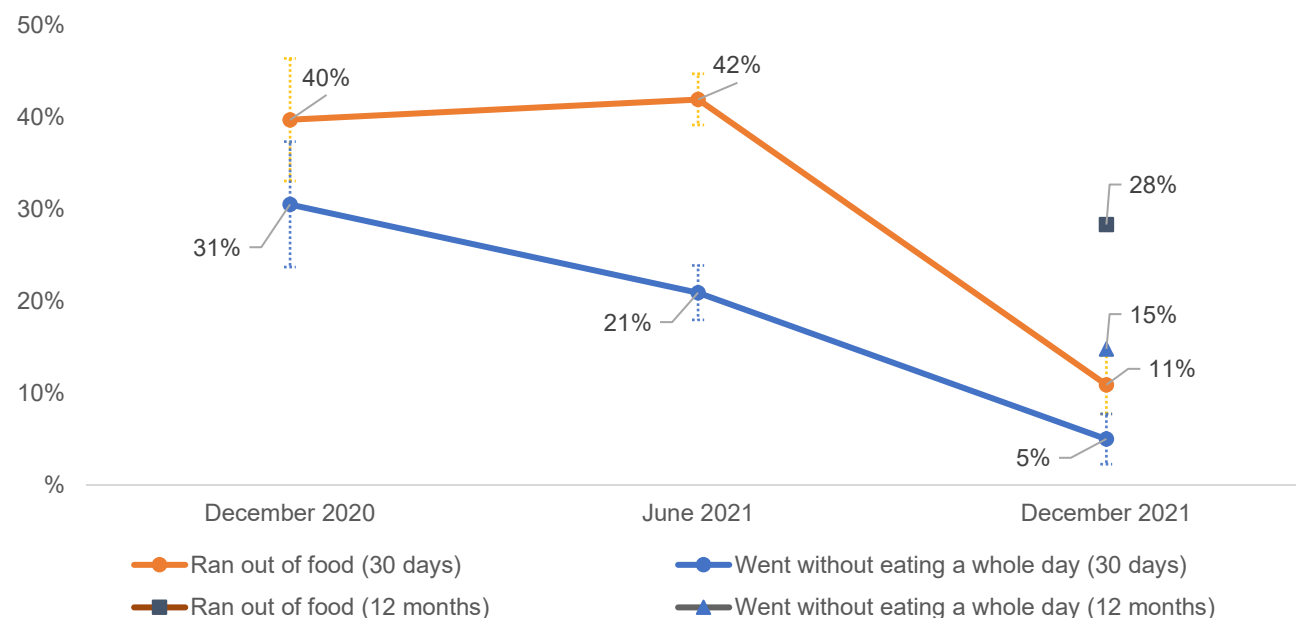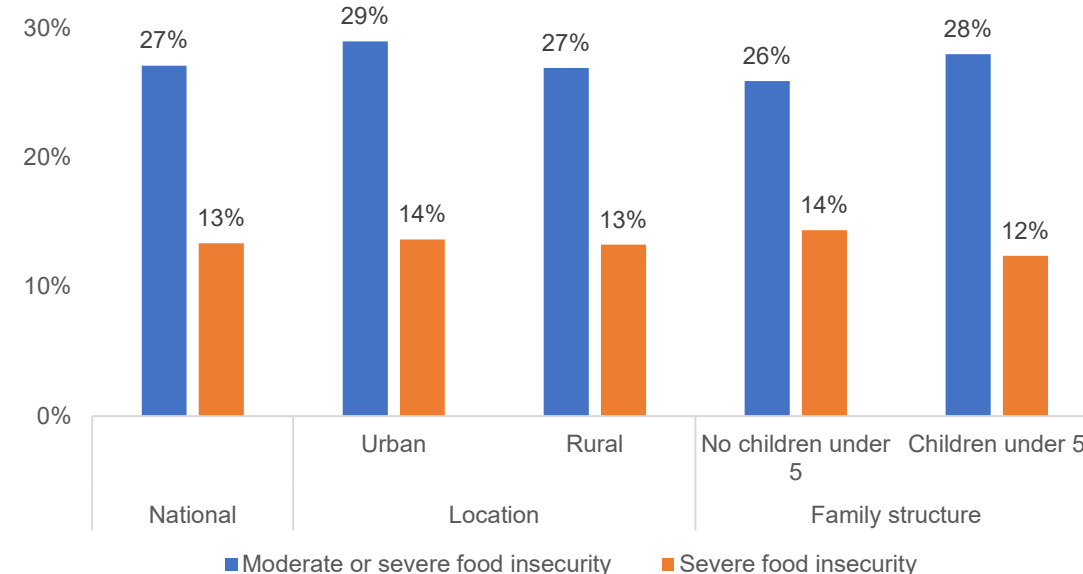Source: Rounds three round four of the World Bank high frequency mobile phone surveys

Note: Horizontal dotted lines at end of bars are 95 percent confidence intervals.
Note: Uncommon coping strategies (selected by fewer than five percent of respondents in June 2021 and December 2021) are excluded from the chart but included in the total for "unsustainable coping strategies".
Source: Rounds three round four of the World Bank high frequency mobile phone surveys.

Many peoples' food needs were not met…

Households that experienced food insecurity over past 30 days

- ●— Ran out of food (30 days)
- ●— Went without eating a whole day (30 days)
- ■— Ran out of food (12 months)
- ▲— Went without eating a whole day (12 months)

Note: Dotted vertical lines indicate 95 percent confidence intervals. The round one survey conducted in June used only a subset of full set of questions recommended by the Food and Agriculture Organization to measure food insecurity, so this chart dropped round one data.
Note: The 12 month measures of food insecurity were only recorded in the fourth round of survey data.
Source: Round two-four of the World Bank high frequency mobile phone surveys

Households that experienced food insecurity over the 12 months to December 2021

- ■ Moderate or severe food insecurity
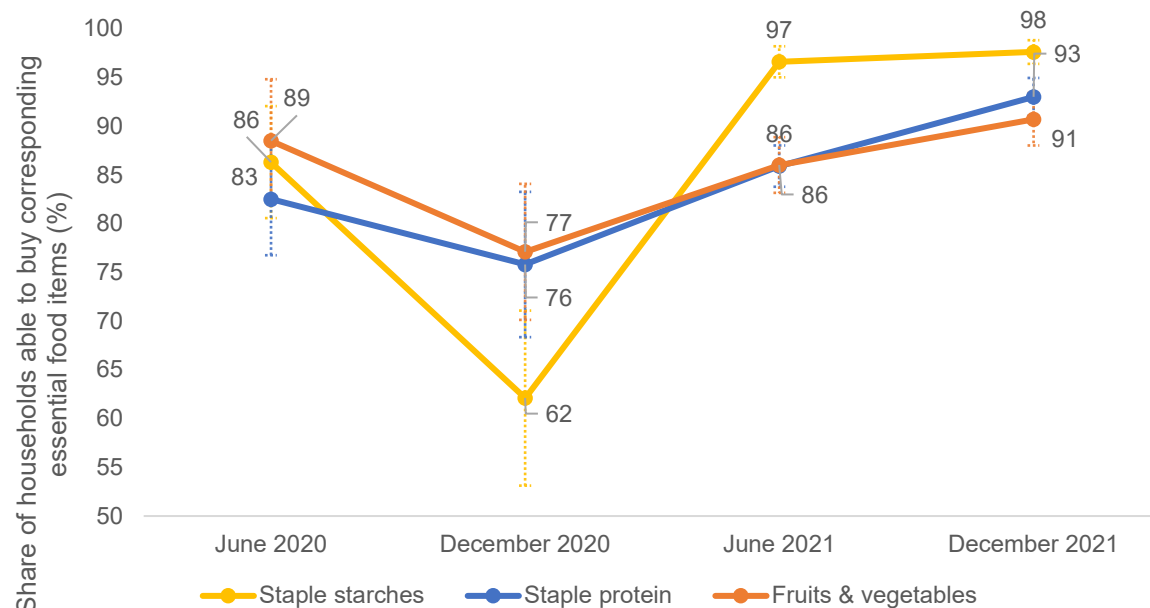- ■ Severe food insecurity

Note: "Hungry but didn't eat" was not collected, so FIES was measured using seven indicators. According to the Food Insecurity Experience Scale (FIES), moderate food insecurity is indicated by there being "a time when they ate less than they thought they should because of a lack of money or resources", while severe food insecurity is indicated by going "without eating for a whole day because of a lack of money or resources"
Source: Round four of the World Bank high frequency mobile phone surveys

▪ While food insecurity fell, moderate and severe food insecurity remained widespread problems, affecting households in rural and urban areas, and households with and without children
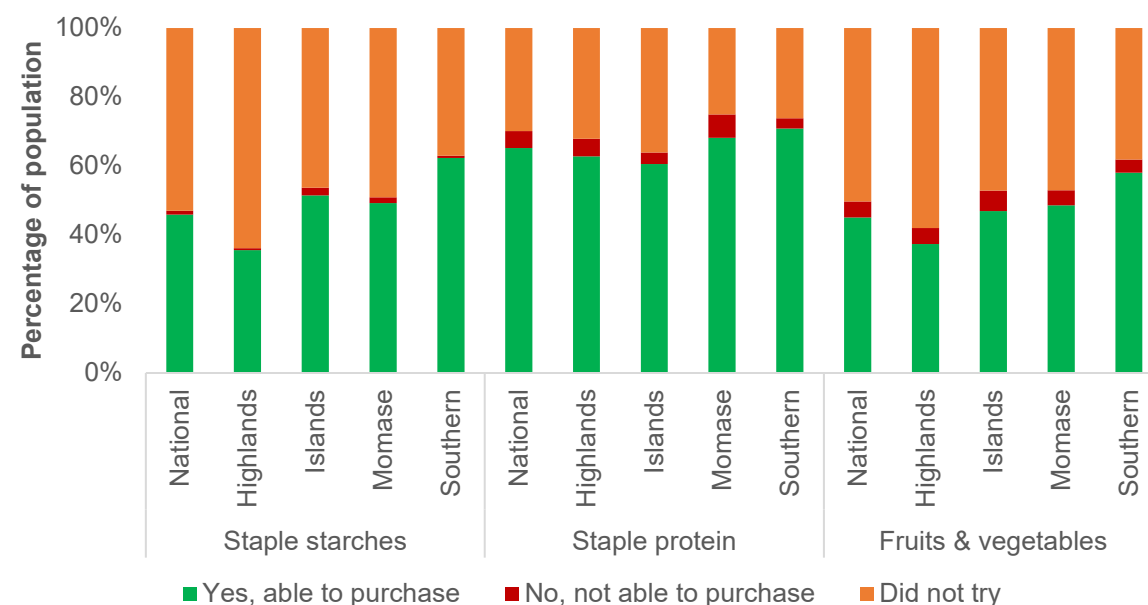
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… even though staple foods were widely available

Share of households able to buy staple food items across round 1-4

Note: Dotted vertical lines indicate 95 percent confidence intervals.
Source: Round one-four of the World Bank high frequency mobile phone surveys

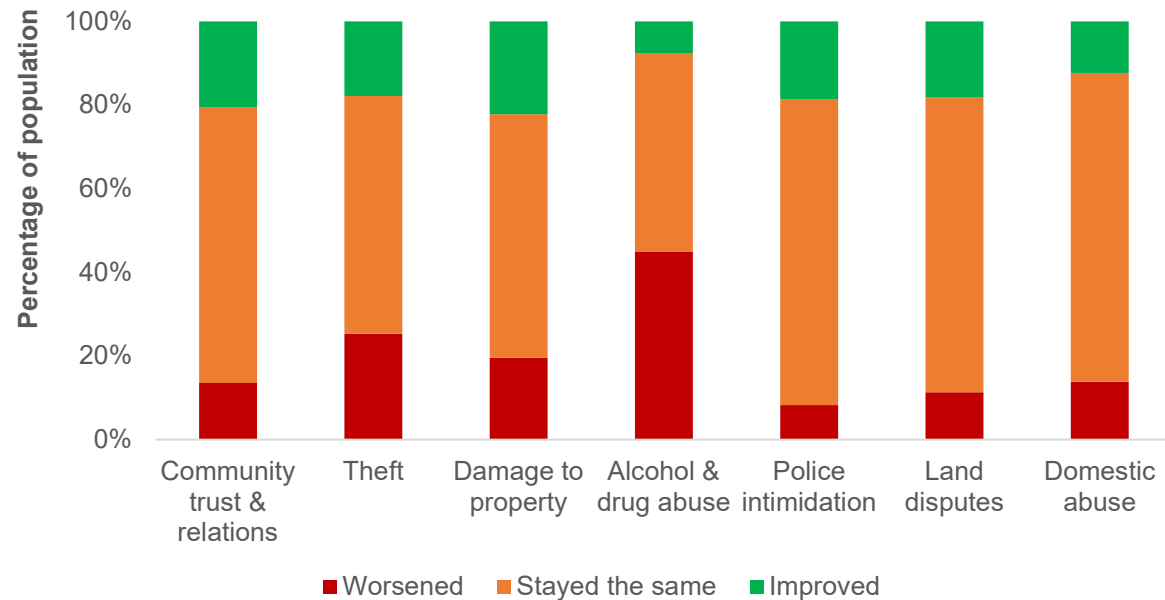### Share of households attempting and able to purchase staple food items in December 2021

Source: Round four of the World Bank high frequency mobile phone surveys.

- The main reason people didn't try to purchase essential food items was because they grew these food items in their home garden
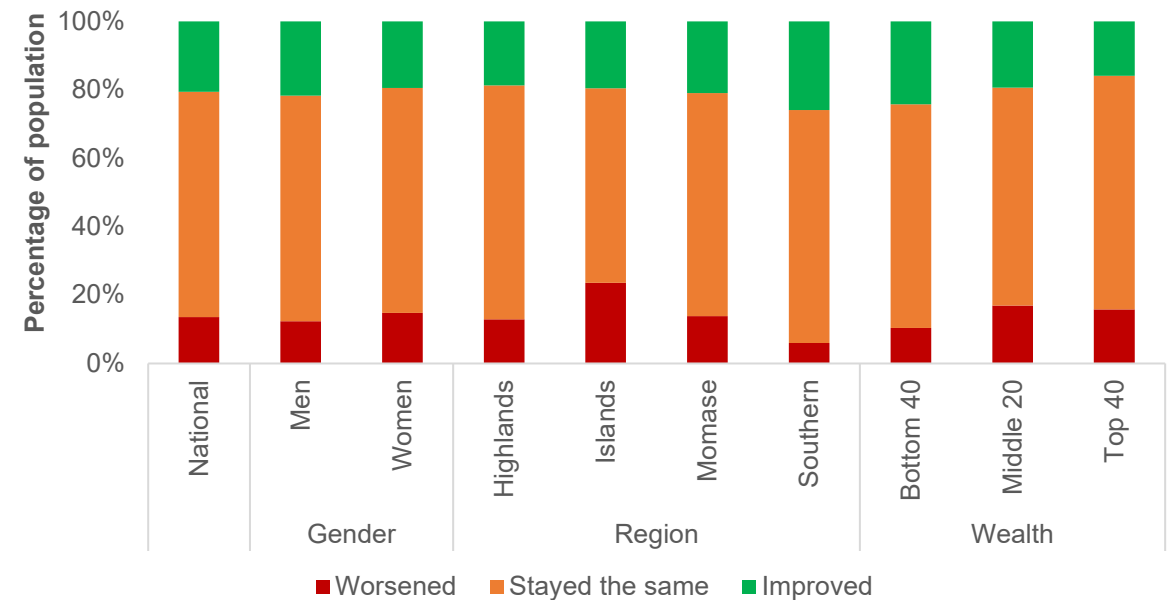
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Community security was stable. Drugs and alcohol remained a problem

Change in community security, by issue, between June and December 2021

Source: Round four of the World Bank high frequency mobile phone surveys.

Change in community trust and social relations between June and December 2021

Source: Round four of the World Bank high frequency mobile phone surveys.

- People in the Islands Region were more likely to say that community trust and social relations worsened than people in the Southern Region
- Drug and alcohol abuse stands out as the issue most likely to be reported as worsening and least likely to be reported as reducing (improving)
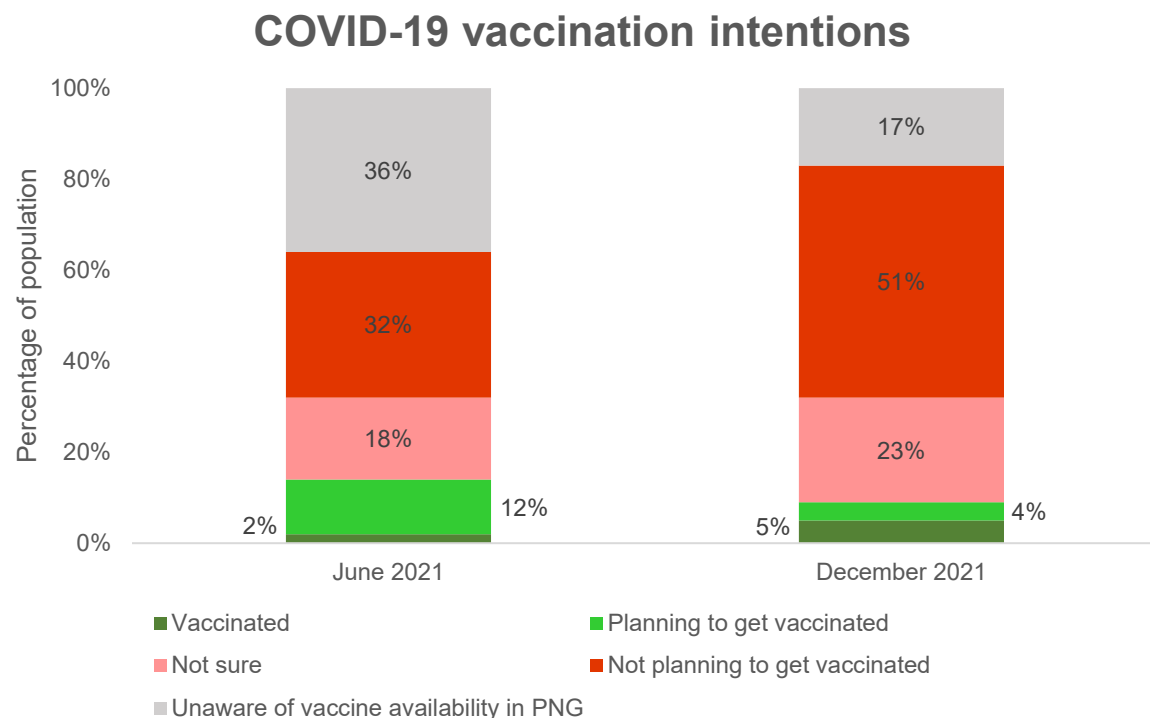
COVID-19 vaccination & health care access
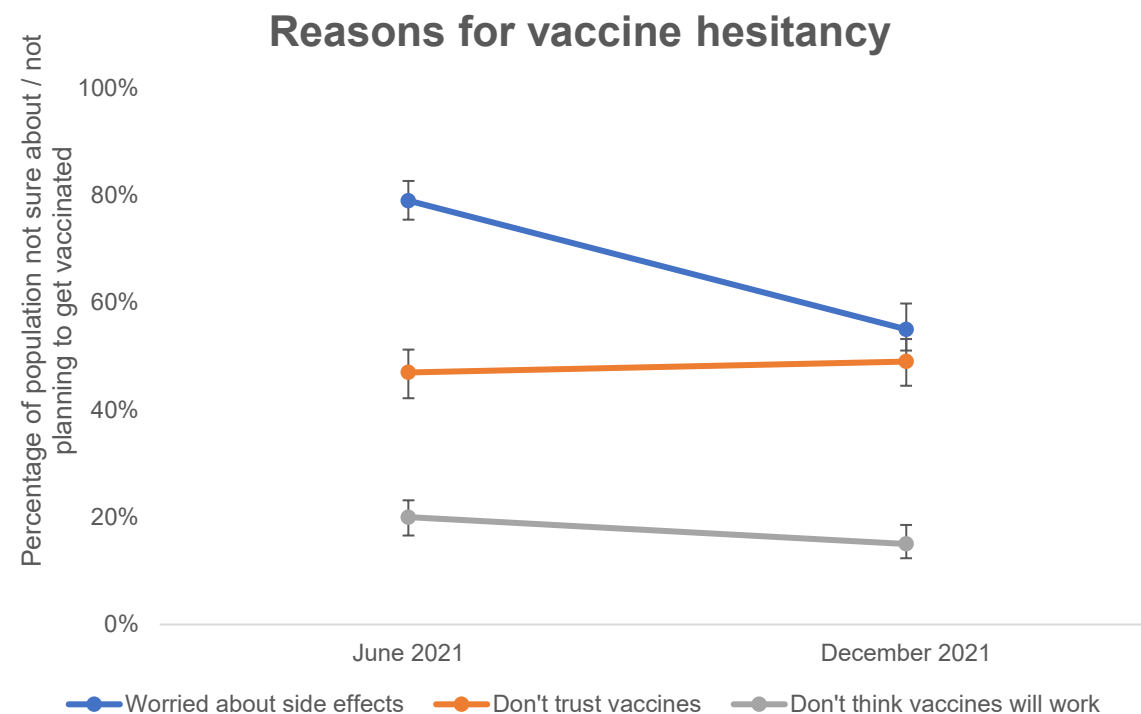
Vaccine hesitancy worsened.
Fewer people could access healthcare when they needed it.

Half of all people did not want a COVID-19 vaccine

COVID-19 vaccination intentions

Percentage of population

	June 2021	December 2021
Unaware of vaccine availability in PNG	36%	17%
Not planning to get vaccinated	32%	51%
Not sure	18%	23%
Planning to get vaccinated	12%	4%
Vaccinated	2%	5%

■ Vaccinated ■ Planning to get vaccinated
■ Not sure ■ Not planning to get vaccinated
■ Unaware of vaccine availability in PNG

Source: Rounds three and four of the World Bank high frequency mobile phone surveys.

Reasons for vaccine hesitancy

Percentage of population not sure about / not planning to get vaccinated

—●— Worried about side effects   —●— Don't trust vaccines   —●— Don't think vaccines will work

Note: vertical lines represent confidence intervals. More than one option was able to be selected.
Source: Round four of the World Bank high frequency mobile phone surveys.

■ Few people are vaccinated. Awareness of COVID-19 vaccine availability increased, but so did vaccine hesitancy, which is associated with concern about side effects and mistrust of vaccines.

Health clinics were a trusted source of COVID-19 vaccine information

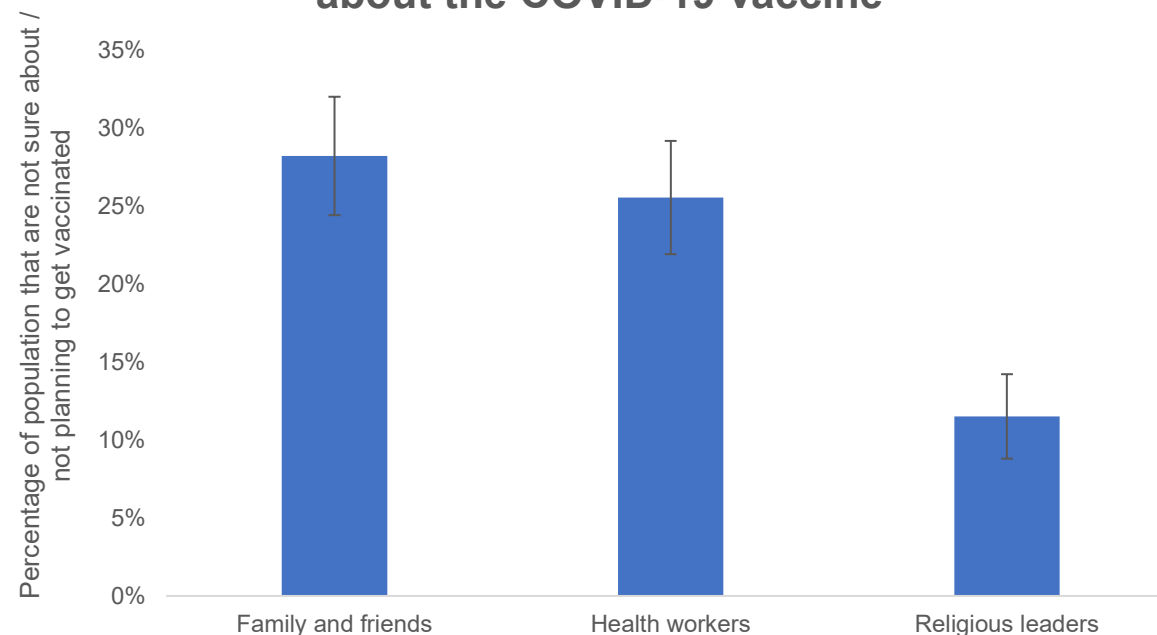### Most trusted source of COVID-19 vaccine information

Note: vertical lines represent 95 percent confidence intervals.
Note: this chart reflects data from respondents who were aware of the availability of the COVID-19 vaccine in PNG.
Source: Rounds three and four of the World Bank high frequency mobile phone surveys.

Groups that could change people's minds about the COVID-19 vaccine

Note: Vertical lines represent 95 percent confidence intervals.
Note: Health workers includes, doctors, nurses, pharmacists and other health workers
Source: Rounds three and four of the World Bank high frequency mobile phone surveys

▪ Health workers could be utilized in an increased push toward vaccination. Family and friends can also help to change minds about the COVID-19 vaccine, which suggests that convincing one person to get vaccinated could lead to others getting vaccinated too
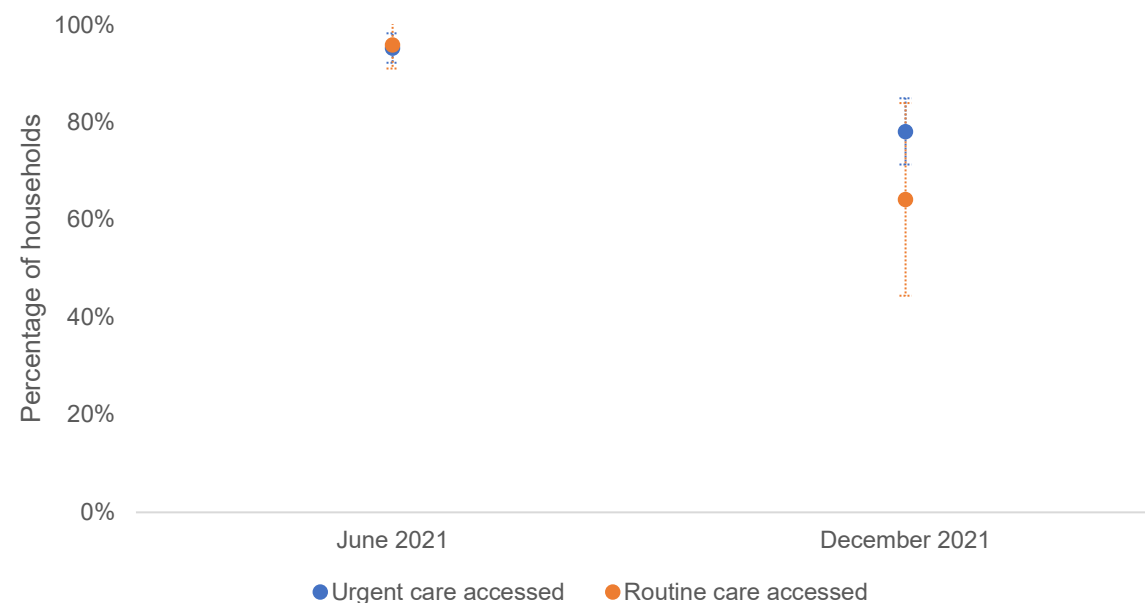
Health care needs were stable, but health care access fell

Proportion of households with a member needing healthcare in the past month

Note: The figures above represent cross-sectional data from round three and round four. Routine care includes preventative care
Note: Vertical lines represent 95 percent confidence intervals
Source: Round three and round four of the World Bank high frequency phone surveys

Proportion able to access health care of various levels (of those who required it)

Note: The figures above represent cross-sectional data from round three and round four, Routine care includes preventative care
Note: Vertical lines represent 95 percent confidence intervals
Source: Round three and round four of the World Bank high frequency phone surveys

- Fewer people could access healthcare when they needed it December 2021 than in June 2021. Travel restrictions were the reason more than half of households were unable to access routine/preventative care. Many people did not access urgent care because they were fearful of catching COVID-19

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Acknowledgements and further information

References

World Bank. 2020. Papua New Guinea High Frequency Phone Survey on COVID-19 : Results from Round 1. World Bank, Washington, DC. © World Bank.
https://openknowledge.worldbank.org/handle/10986/34907 License: CC BY 3.0 IGO.

World Bank; UNICEF. 2021. Papua New Guinea High Frequency Phone Survey on COVID-19, December 2020 to January 2021. World Bank, Washington, DC. © World Bank.
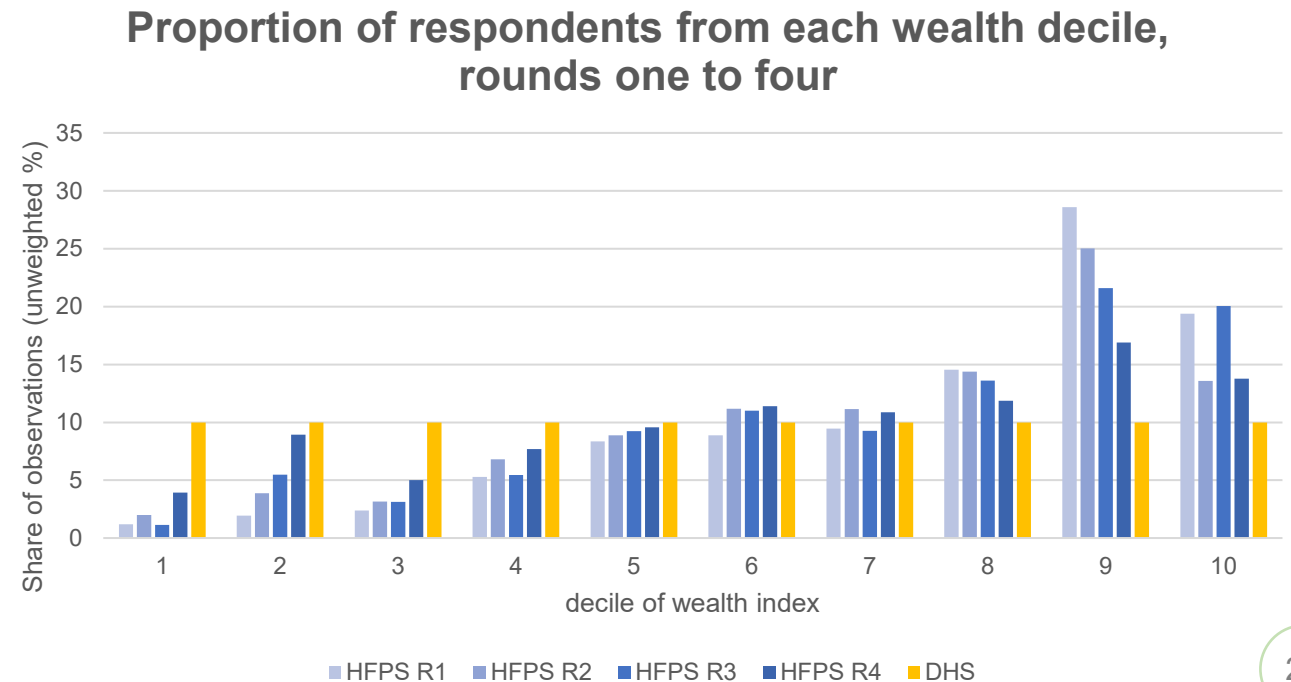https://openknowledge.worldbank.org/handle/10986/35585 License: CC BY 3.0 IGO.

World Bank; UNICEF. 2021. Papua New Guinea High Frequency Phone Survey on COVID-19, May – July 2021. World Bank, Washington, DC. ©

Annex: Survey methods

- Data was collected using a phone survey in December 2021, with a sample size of 2,714. Implementation was led by Digicel in Port Moresby. Each interview took around 15-25 minutes.

- The high attrition was expected because it is common to 'cycle' SIM cards in Papua New Guinea. To maintain sample size number, new households were added in each round to replace the dropping households.

- Given the difficulty contacting people towards the bottom of the wealth distribution, weights have been applied to increase their representation in the results presented.

	Date collected	Household sample size	Attrition (refers to the last round)
Round one	**Jun**/Jul 2020	3,115	NA
Round two	**Dec** 2020/Jan 2021	2,820	67.4%
Round three	**Jun**/Jul 2021	2,533	86.3%
Round four	Nov/**Dec** 2021	2,714	67.0%

Note: Bolded months are those when most data collection occurred, and are the months used as the shorthand to refer to each round in this presentation.

Proportion of respondents from each wealth decile, rounds one to four

Note: Yellow bars reflect that, if phone survey respondents perfectly represented the wealth distribution, 10 percent of respondents would be from each wealth decile.
Source: 2016-18 DHS and Rounds one to four of the World Bank high frequency mobile phone survey