



# UNITED NATIONS DEVELOPMENT PROGRAMME

Socio-Economic Impact Assessment of COVID-19 on  
Households in Guyana

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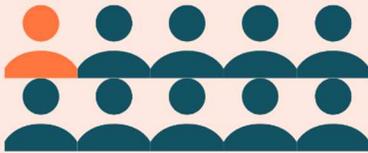
## **Acknowledgements**

UNDP Guyana acknowledges the technical input provided by the Civil Defence Commission and the United Nations Country Team for this assessment.

31 December 2020

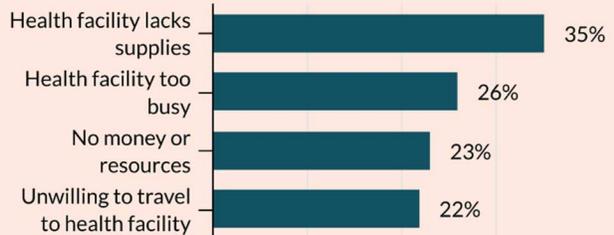
## At a Glance

# COVID-19 is hindering access to basic goods and services



1 in 10 respondents is unable to access medical services or treatments when needed

### Why?



↑ Prices of food and other items have increased



according to 71% of respondents (in food markets) and 64% of respondents (in non-food markets)

↓ While quantities have decreased



according to 22% of respondents (in food markets) and 13% of respondents (in non-food markets)



58% worry about not having enough food during the pandemic



22% have skipped meals since the pandemic

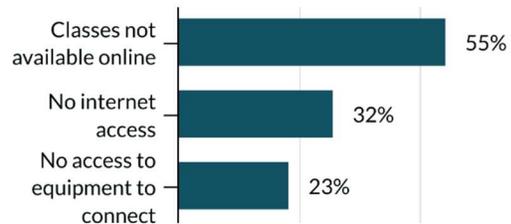


18% spend over 60% of household income on food



The average number of children attending school has more than halved during the pandemic

### Why?



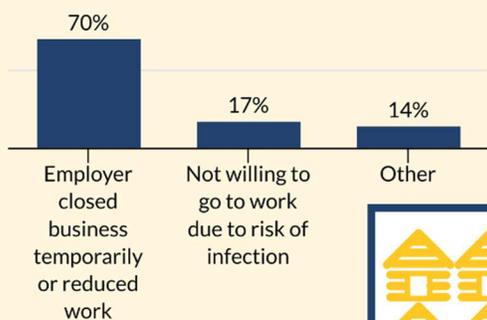
Data based on a telephone survey of Guyanese households between 8-25 September 2020



# Livelihoods are being threatened by the pandemic


 1 in 5 adults reported **earning less** due to the COVID-19 outbreak

## Why?



## Household income (median)

GY\$100,000  GY\$67,000


 Remittances from abroad have remained stable, while **money sent home within Guyana has halved**

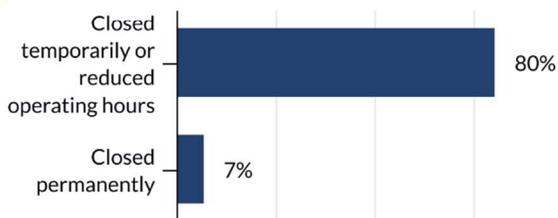
## Household expenditure (median)

GY\$60,000



**7 in 10 households** indicated a need for **priority assistance**, including cash, food and hygiene products

## Household businesses face decreasing demand for their goods and services




 have gone into their savings



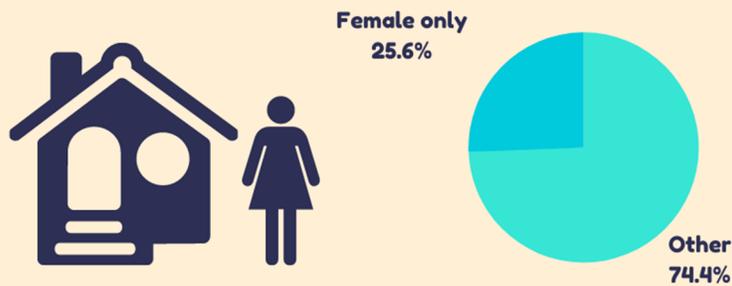

 buy cheaper, less preferred brands of food and other items




 have started growing their own food

Data based on a telephone survey of Guyanese households between 8-25 September 2020

## FEMALE-HEADED HOUSEHOLDS



A quarter of households in the national sample is headed exclusively by a female

63.2%

worried about not having enough food

30%

had to skip meals since the Covid-19 outbreak

61%

had difficulty accessing sanitiser & detergents

Access to food and services has been more challenging for female-headed households since the Covid-19 outbreak



The three most severe problems faced by female-headed households nationally



76% of female-headed households indicated that priority assistance was needed for their household

DATA BASED ON A TELEPHONE SURVEY OF GUYANESE HOUSEHOLDS BETWEEN 8-25 SEPTEMBER 2020

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## Acronyms

CDC	Civil Defence Commission
COVID-19	Coronavirus Disease-2019
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
LGBTI	Lesbian, Gay, Bisexual, Transgender and Intersex
PLHIV	Persons Living with HIV
RBLAC	Regional Bureau for Latin America and the Caribbean
SEIA	Socioeconomic Impact Assessment
TCG	The Consultancy Group Inc
UN	United Nations
UNDP	United Nations Development Programme
WHO	World Health Organisation

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## 1.0 Executive summary

### Context and background

Coronavirus Disease 2019 (COVID-19), which was declared a pandemic by the World Health Organization (WHO) on 11 March 2020, has created humanitarian and economic crises across the world. Because of its highly contagious nature, countries were forced to implement partial or total lockdowns of their economies and borders to reduce the rate of infection. More specifically, containment policies, such as lockdowns to flatten the medical curve steepen the recession curve. A policy paper facilitated by UNDP's Regional Bureau for Latin America and the Caribbean (RBLAC) posited that "extended periods of wide social distancing measures could be extremely costly" and called for a global multilateral cooperative approach to containing the epidemic.

The Co-operative Republic of Guyana is the only English-speaking country on the South American continent. It covers an area of approximately 220,000 square kilometres, with a total population of 746,955 (Guyana Lands & Surveys Commission, 2020; Bureau of Statistics, 2012) and is divided into ten administrative regions for effective governance. Guyana has an average poverty rate of 41.2% (Inter-American Development Bank, 2017). With the discovery of commercial quantities of oil in 2015, Guyana is classified as an upper-middle income country (The World Bank, 2016). With a projected growth rate of 26.21% in 2020, Guyana is considered to be the fastest growing economy in the world.

As of 14 June 2020, when considerations to undertake this assessment were underway, the total number of persons tested was 1,959 with 159 positive cases, 12 deaths and 99 medically cleared recoveries; 22 persons were in institutional quarantine while 48 were in institutional isolation. As of 30 December 2020, the total number of persons tested was 38,018 with 6,319 confirmed cases, 164 deaths and 5,809 recovered cases; 26 persons were in institutional quarantine whilst 1 person was in institutional isolation. The country's population is highly concentrated along the coastal regions with mainly Indigenous people living in the hinterland and remote communities.

In terms of the social and economic impacts, an online survey was implemented by the Inter-American Development Bank in April 2020, with about 1,700 respondents from Guyana. The results showed that there were job losses, reduced income and loss of remittances. In addition, the impact is expected to be severe on vulnerable groups including female headed households and Indigenous peoples. To this end, based on a request from the Civil Defence Commission (CDC), UNDP sought to conduct a Socio-Economic Assessment of impacts of COVID-19 on households across the 10 Regions of Guyana so that evidence-based response and recovery measures can be crafted and implemented. The Consultancy Group Inc (TCG) was employed on a consultancy basis to design and execute the requisite survey and to provide a report on the analysis of the data collected.

## Objectives

The purpose of the Socio-economic Impact Assessment (SEIA) is to inform Government's prioritization and use of relief resources in the most affected sections of the population including vulnerable communities during the surge and recovery phase of COVID-19.

The objectives were to:

- (1) Collect a nationally representative, probabilistic sample of data to support a socio-economic assessment of household during COVID-19
- (2) Utilise the data at (1) to produce national and regionally disaggregated analyses of
  - i. the impact of COVID-19 on household socio-economic realities;
  - ii. household access to food and services during COVID-19; and
  - iii. the need for priority assistance to cope with the COVID-19 environment.

## Scope

The survey and the report based on the data collected provide a national overview and also a regionally disaggregated perspective on the issues addressed. The national overview is based on a nationally representative sample whereas the regional disaggregated analyses are based on independent representative samples of each of the ten administrative regions of Guyana. In addition, the report provides disaggregation for households headed by single females versus other household headship for key variables.

## Method

The data used in the report were collected using a combination of telephone (mobile) and face-to-face interviews between 8 to 25 September 2020. The telephone numbers were determined using random digit dialling and were stratified by mobile service providers in the country. A nationally representative sample of 1200 with proportional allocation to the geographic regions is employed for national level analysis and an augmented sample of 1500 with 300 oversampled units in hinterland regions for regionally disaggregated analysis wherein the regional samples are regarded as independent. The response rate for the survey is 67.1%.

The survey instrument was adapted from a UNDP tool for use in Guyana in a consultative process by UNDP, the CDC and TCG. The survey instrument and procedures received ethical approval from the Internal Review Board of the Ministry of Public Health.

## Results

### Household characteristics

At the national level, the households are occupied by an average of 4.26 individuals with an average of 1.28 of them being children. At the regional level, the average household size varies between 3.89 (region 3) and 5.23 (region 9) and appears to be somewhat smaller in the coastal than the hinterland regions. The average number of children per household is also higher in the hinterland regions. The average age per household stands at 32.23 years and the regional averages tend to be lower in the hinterland regions than the coastal regions.

Approximately 19.7% of the households at the national level have at least one university graduate in them. The percentage varies between 10% and 17% at the regional level with the larger values occurring in the more urbanised regions (regions 3 and 4).

Approximately 5.1% of the households are either migrant (4.2%) or refugee (0.9%) households. The largest regional proportion of migrant household is 9.2% for region 5 whereas the largest regional proportion of refugee households is 2.8% which occurs in region 9.

Just about one-quarter (25.6%) of the households are headed exclusively by females<sup>1</sup> with the regional values varying between 14.4% (region 9) and 32.75 (region 7). The ethnic composition of the households reflects a mixture with mixed ethnicity (36.3%) being the largest group.

Approximately 9.1% of the households experienced some permanent change in composition since the start of the COVID-19 pandemic. The main change indicated is that someone joined the household (28.4%).

### Household health

Approximately 1.3% of the households have indicated that at least one member tested positive for COVID-19. The regional percentage is largest for region 1 (16.4%) and was 0% in regions 2,3, 5, 6, 7, and 10. Region 1 seems to have been hit the hardest by the pandemic by the time the data were collected. An average of 20.6% of household members are pregnant or lactating women. The regional averages range from 2.8% in region 8 to 37.9% in region 9. The national averages for the number of males and females per household with disability are 1.4 and 1.7 respectively. Females with disability appear to be relatively most concentrated in region 9 (2.5%) and least concentrated in region 8 (0.5%). Males with physical disability appear to be relatively most concentrated in region 9 (2.5%) and least concentrated in region 10 (0.4%). The averages for males (0.4) and females (0.7) with mental health issues are lower.

The average number of females (3.3) and males (2.9) that are chronically ill per household are the largest when compared to the other health conditions (excludes pregnant or lactating women). The regional proportions for chronically ill females range from 1.1% in region 7 to 4.6% in region 5 whereas the proportions for males range from 0.9% in region 2 to 6.4% in region 8.

Up to the time the data were collected members of 10.9% of the households had the experience of being unable to access needed medications, treatments and therapies. The problem of being

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<sup>1</sup> Absence of a spouse or partner

unable to access medications, treatments and therapies is more pronounced in the hinterland regions than in the coastal regions, with up to 31.2% of the households in region 9 reporting such problems. That such problems are more pronounced in the hinterland regions might be related to remoteness and may reflect an ongoing hinterland-coastland differential in access to healthcare exacerbated by COVID-19. The reasons cited most often for lack of access to needed medications, treatments and therapies were that the health facilities lacked the necessary medication or equipment (~35%), were too busy to serve all patients (~26%), the persons lacked the money to access medicine and healthcare (~23%) and that the persons were unwilling to travel to facilities during the pandemic (~22%).

There were no reports of pregnant women missing regular health check-ups, but immunizations were missed by children under five years old in approximately 5% of the households with children during the pandemic. The regional proportions for this were largest in region 8 (18.3%) and 9 (11.7%). However, this occurred in each region albeit at lower rates.

## Income and economic activity

### Employment

At the aggregate level, approximately 63.43% of the adults per household contribute to the household income. The percentage varies between 58.64% (region 6) and 95% (region 10) between the regions. A larger percentage of members of female headed households (69.8%) contribute to household income than other households (61.4%).

An average of approximately 4.13% of the adults in the households lost their jobs permanently due to the COVID-19 outbreak whereas approximately 9.26% lost their jobs temporarily. For permanent loss of job, the regional percentage varies between 0.4% (region 8) and 14% (region 10) whereas for temporary loss of job the regional percentage is highest in region 10 (29%) and is between 6% and 10% for regions 2, 4, 5, 6, and 7. In addition, approximately 21.37% of the adults in the households earned less due to the COVID-19 outbreak. The values range from 14.16% (region 9) and 58.00% (region 10) in the regionally disaggregated data. Temporary or permanent loss of job was due mainly to employers closing temporarily or reducing the working hours at both the national and regional levels.

There are no significant differences in the percentages of female headed versus other households for members having lost jobs permanently or earned reduced salaries. However, there is an inconsistent relationship with temporary loss of employment. Permanent loss of employment is negatively related to the presence of children and the average age of household members whereas the likelihood of temporary job loss appears to increase with the size of the household and reduced income is negatively related to average age of the household and the presence of a university graduate and is less likely among hinterland households compared to those on the coast.

The employment sector/category of the household heads prior to the COVID-19 outbreak is quite varied and remains so during the pandemic. Though there were changes in sector/category, such changes occurred for fewer than 4% of the household heads.

## Income and expenditure

Household income decreased noticeably during the pandemic compared to the level in January 2020. At the aggregate level, median income decreased from G\$100,000 to G\$67,000 between January 2020 and the month prior to data collection. Such reduction in income were experienced in both households headed by females and other households, in each region without exception. Female headed households earned less than other households to begin with and this continued to be true after the decreases in income due to the pandemic.

In contrast to income, the median household expenditure remained stable at G\$60,000 and at G\$55,000 for female headed households but decreased from G\$70,000 to G\$60,000 in other households. At the regional level, the median household expenditure remained the same in regions 6 and 10, increased in regions 2, 5, 8 and 9 and decreased in regions 1, 3, 4, and 7 with the difference exceeding G\$5000 only in regions 2, 3 and 7. Household expenditure therefore changed in some regions but not in others, and the change was an increase or decrease depending on which region is considered. Household expenditure was stable for female headed households but declined in other households.

Approximately 8.2% of the households receive remittance. However, 12.6% of households headed exclusively by females and 6.7% of those with other headship arrangements receive remittance. The proportion of households that receive remittance varies between 0% in region 8 and 12.8% in region 5. Remittance is obtained mainly from the USA (74.2%) but Canada is also an important source for especially households in regions 1, 2, and 3. At the aggregate level, remittance remained relatively stable during the COVID-19 pandemic with a median of G\$20,000 for the month. However, at the regional level there were noticeable increases in regions 7 and 10 and noticeable decreases in regions 1, 2, and 9.

Approximately 4.91% of all households have members that work in other regions and who stay there for extended periods. Money sent home by such individuals had a median of G\$60,000 in January 2020 and this was cut in half by the month prior to data collection. This was due mainly to noticeable and sometimes substantial decreases in the amount sent home to each region except regions 4 and 5. More than half of these household members send money home in the form of cash (53.4%) but there is some evidence of the use of transfers to bank accounts (12.1%). Cash is the most used method by a long way in each region, whereas bank transfers appear to be used by some in regions 4, 5 and 10.

## Other sources of income during the COVID-19 pandemic

A large majority of the households (69%) had no other sources of income during the pandemic. Of the other sources, pension (18.9%) was most popular followed by receipt of hampers/ food supplies (6%). Hampers and food supplies were obtained mainly in the hinterland regions (17% to 19%) and in region 10 (13.6%). Approximately 1.4% of the households received loans but loans were uncommon within the regions.

## Household business

Businesses were owned by household members for approximately 20.4% of the households at the aggregate level and the percentage ranges from 15.8% (region 6) and 29.2% (region 1) at the regional level with more than one-quarter of the households in regions 1, 8, and 9 indicating business ownership. Approximately 17.8% of female headed households owned businesses compared to 21.3% of other households. Demand for business products and services declined in general (81.5%) but a few households indicated that it remained the same (12%) and fewer indicated that it increased (6.4%). A similar pattern is observed for female headed versus other households. Though there were some instances of increase in demand and others remaining the same at the regional level, the overwhelming trend was that demand for products and services decreased for businesses owned by the households within each region.

As it relates to employees in these businesses, the pandemic appears to have resulted in reduction in workforce including family members that were employed in the businesses. Furthermore, except for region 5 in which the small businesses appear to have retained their employees, it is primarily the smaller businesses in the respective regions that had to let their employees go during the pandemic.

Approximately 7.1% of the respondents indicated that the businesses owned by their households had to close due to the COVID-19 pandemic whereas approximately 80.3% indicated that they reduced operating hours. Therefore, only approximately 12% of the businesses escaped closure or reduction in operating hours. Except for region 5 in which 23.1% of the businesses escaped this, less than 20% of the businesses in each region were able to avoid being closed or working reduced hours during the pandemic.

Closure of the businesses resulted mainly from government regulations (69.7% reported this) but reduced demand (34.6%), decreased sales (34.1%) and management choice to reduce infection risk (30.8%) were also fairly salient reasons. The regional percentage for government regulations range from 53.3% in region 10 to 80.6% in region 3; for reduction in demand range from approximately 20% (region 10) to 50% (region 5); and for decrease in sales from 18.2% (region 10) to 61.5% (region 2).

Household owned businesses in regions 2, 5, and 8 appear to have been able to avoid permanent closure but up to one-third of the businesses in region 9 did not. Apart from this, less than 16% of the businesses per region were permanently closed.

## Financial and non-financial decisions

Many households within the regions have had to make financial and non-financial decisions since the start of the COVID-19 pandemic. Approximately 32.3% and 37.4% of the households indicated that they had to make no financial or non-financial decisions respectively due to COVID-19. The likelihood of having to make financial decisions are reduced with increased average household age and with the presence of a university graduate in the household whereas the likelihood of having to make non-financial decisions is higher in the hinterland regions.

The main financial decision was to spend their savings (51.7%) which was done by many households (at least 42.6%) within each region. Purchasing food on credit was done by 11.6%

of the households at the aggregate level and mainly by households in the hinterland regions except region 7. Borrowing money was done by 15.2% of the households at the aggregate level and the largest regional proportions of households that borrowed money were 21.6%, 21.2% and 21.4% for regions 5, 8 and 1 respectively.

None of the non-financial decisions were made by as many as half of the households. At the aggregate level, the most frequently identified non-financial decisions were that households bought cheaper, less preferred brands or products (~37.1%), grew food for themselves (~24.8%), reduced the portions for meals (~23.7%) and reduced the number of meals per day (~15%). At the regional level, between 21.1% (region 9) and 50.3% (region 3) of the households per region purchased cheaper, less preferred brands and products and the hinterland regions have led the way as it relates to growing more food.

### Access to food and services

Prior to the COVID-19 pandemic, approximately 95.8% of the households purchased food from markets whereas 17% of them obtained food from farming and livestock production. Each of the other sources were identified by fewer than 7.5% of the households. Approximately 18.2% of the households indicated that there have been changes in the sources of food during the COVID-19 pandemic and similar percentages of female headed and other households indicated that there were such changes. Changes were made most often in region 9 but there were changes in the common sources of food in each of the other regions.

Purchasing from markets and stores remained the main source of food during the pandemic with the regional proportions of households that identified it ranging from 56% (region 9) to 98.3% (region 3). However, some households in some regions (particularly regions 8 and 9) reduced emphasis on purchasing from markets and stores since the COVID-19 pandemic began. During the pandemic, the regional percentages of households for which farming and livestock production are common sources of food increased for many regions (regions 1, 3, 4, 7, 10) and held constant or had small fluctuations in others (regions 2, 5, 6 and 8) but declined somewhat in region 9. Other sources of food which are unpopular at the aggregate level appear important depending on the region. In particular, fishing is a common source in region 9 (53.9%), whereas hunting and gathering is done by many households in regions 8 (24.6%) and 9 (34.8%) and by relatively fewer in region 7 (19%).

The most salient effect of COVID-19 on nearby food and non-food markets is increased prices. This was identified at the aggregate level by 70.8% and 63.7% of the respondents for food and non-food markets respectively. All other responses were given by fewer than 25% of the respondents for either food or non-food markets. Nevertheless, there is evidence of decrease in the quantity and the quality of products and unavailability of some essential items amongst others in both food and non-food markets.

The prices in food markets increased for at least 59.4% (region 7) and at most 77.3% (regions 5 and 8) of the households in each region and reduction in the quantity of food available was identified by more than 14% of the households in each region and by more than 20% of them in region 1, 3, 4 and 8. Some households in each region indicated that some essential food items were unavailable but lack of availability of essential food items appears to have affected

households mainly in regions 8, 9 and 10. Difficulty accessing food markets altogether was experienced mainly in region 9 (20.4%).

Similar to food markets, increase in prices is the most consistent and frequently identified effect of COVID-19 on non-food markets per region. This was identified by between 59.2% (region 9) and 68.5% (region 3) of the households per region. No other effect of COVID-19 was identified by as many as one-quarter of the households within any region.

In the survey, the respondents were presented with a set of items and asked to indicate whether they had difficulty accessing them during the pandemic. The items identified most often at the aggregate level were hand sanitizer (42.4%), household cleaning liquid/ detergent (~31.2%) and face masks (~23.9%). The only other item identified by more than 10% of the households is soap (12.1%). The female headed households had greater difficulty accessing hand sanitizers and cleaning liquids/ detergents than households with at least one male head.

Hand sanitizer was difficult to obtain in each region and difficulties obtaining face masks were reported by more than one-quarter of the households per region in each region except regions 2, 6 and 7. Difficulty accessing household cleaning supplies was experienced in each region, but relatively more so in the hinterland regions and region 10 where between one-third and just over half (50.5%) indicated such difficulty. The difficulties in accessing soap, hand sanitiser, face masks and cleaning supplies would have limited the ability of the households to protect themselves from COVID-19 infection in general, and it appears that this limiting effect would have been especially evident in the hinterland, particularly in regions 8 and 9.

A general result is that difficulty accessing one or more of the items was more pronounced in the hinterland regions but the likelihood of experiencing difficulty with such items is lower for households with higher average age.

Approximately 57.8% of the households at the aggregate level worried about not having enough food and a larger percentage of female headed households compared to other households worried about not having enough food. Furthermore, a majority of the households in each of the regions worried about not having enough food since the pandemic began with the larger percentages of households occurring in the hinterland regions and in regions 2 and 10.

At the aggregate level, approximately 21.8% of all the households skipped meals since COVID-19 emerged in Guyana and a larger percentage of female headed households (30%) did so than other households (20.4%). Households in each region have skipped meals during the pandemic and more than one-quarter of the households in regions 1, 7, 9 and 10 have done so. When households skip meals, they typically skip one to seven meals per week, but the number skipped is typically larger in region 7.

During the pandemic, the amount of household income spent on food remained the same for 30.1% of the households, increased for 46% of them and decreased for 23.9% of the households. At the aggregate level, the percentage of the households that spent more than 60% of their income on food during rose from 10.37% before the pandemic to 18% during the pandemic. At the regional level, between 38% (region 7) and 52.4% (region 9) of the households within each region indicated that the percentage increased during the pandemic. That notwithstanding, between 17.4% (region 1) and 28.9% (region 3) of the households per region indicated that the

percentage of income spent on food decreased. However, when all the shifts are considered, a large expansion of the percentage is observed in each of the regions for households that spent more than 60% of their incomes on food during the pandemic compared to the percentage of households that did this before.

## Access to education

In Guyana, the buildings of public schools were closed to students on March 16, 2020 and students have not returned to the schools at the time of this report (October 2020). In the meantime, public and private schools have moved to varying degrees to adopt the use of technology to deliver education.

Among households with children, the average of 1.53 children per household who attended public schools prior to the pandemic dropped substantially to 0.6 during the pandemic. Substantial reductions in the average number of children per household attending public school during the pandemic occurred in each region with the largest differences occurring in the hinterland regions.

Private schools fared somewhat better insofar as it relates to the differences in averages per region before and during the pandemic. At the aggregate level, the mean for children per household with children attending private schools also dropped from 0.25 before the pandemic to 0.14 during the pandemic. And though there were declines in the averages for private school students attending school during the pandemic, it seems safe to conclude that except for the hinterland regions, the private schools per region were largely better able to respond to the realities of the COVID-19 pandemic than the public schools.

At the aggregate level the most salient reason identified for non-attendance at school is the unavailability of classes online (~55.2%). However, lack of access to the internet (32%) and to equipment (22.9%) were also fairly frequently cited reasons. At the regional level, unavailability of online classes was identified by the largest proportion of households in each region except regions 1 and 10 where larger percentages of the households indicated that no internet access was a factor. A lack of internet access was also cited in each region and the proportion of households that indicated this range from 18.4% in region 4 to 66.3% in region 1. Though a lack of equipment was identified in each region by some households, this appears to have been problematic especially in regions 8 and 9 where the regional percentage of households exceed 44%.

On average 0.12 persons per household were attending university locally prior to the emergence of COVID-19 in Guyana. The average per region ranges from 0.00 in region 8 to 0.31 in region 9, and apart from the observation for region 9, values for the coastal regions are generally larger than those for the hinterland regions. Of the households with members who were attending university, approximately 0.24 students per household dropped courses during the pandemic. The highest averages of persons per households with university students per region that dropped courses occur in region 9 (1.33), 7 (0.33) and region 5 (0.20). Unavailability of classes online is the main reason identified for dropping university courses.

## Priority assistance

The three worst and most consequential problems faced by households during the pandemic are loss of income to cover housing costs (~54.6%), loss of income to pay for food (~51.7%) and lack of good internet connection (~34.8%). Loss of income to buy food was identified by at least 22.4% (region 9) and by at most 59.5% (region 2) of the households in each region. A loss of income to cover the cost of housing was identified by least 53.8% (region 4) and by at most 68.2% (region 10) of the households in each of the coastal regions but by relatively lower percentages of the households in the hinterland regions, ranging from 22.4% in region 9 to 50.3% in region 1. This problem appears to have been less severe in the hinterland regions. A lack of internet connection, though cited by large percentages of households in each region appears to have been problematic for larger percentages of households in regions 7 (44.6%), 8 (47%) and 10 (43.9%).

The top three most severe problems are the same for female headed and other households with similar percentages of the households per group indicating the various problems except for internet access. With respect to this problem, lack of access to the internet is a somewhat greater problem among households headed exclusively by females.

Approximately 71.4% of the respondents indicated that they believe that priority assistance is needed for their respective households, and large percentages of both households headed by females (~75.6%) and other households (~70%) indicated that priority assistance is needed. However, female headed households were more likely to have indicated such a need as were households with children in them compared to household without children. Nevertheless, households with at least one university graduate were less likely than those without to indicate a need for priority assistance. At the regional level, between 65% (region 4) and 88.3% (region 9) of the households per region indicated a need for priority assistance.

When the respondents were asked about specific assistance needed, cash transfer (~75.4%), food (~73.3%) and hygiene products (~41.1%) emerged as the top three choices. At the regional level, cash transfer was identified by between 74.1% (region 5) and 87.5% (region 10) of the households in the coastal regions and by between 57.4% (region 8) and 81.7% (region 7) of the households in the hinterland regions. Except for region 7 the households of the hinterland regions appear to place less emphasis on cash as assistance though this is not unneeded in those regions.

The percentage of households in the coastal regions that identified food as a form of priority assistance needed range from 70% (region 2) to 80.4% (region 10) whereas the corresponding range for households in the hinterland regions is 38% (region 7) to 78.7% (region 8).

The percentage of households in the hinterland regions that indicated that they needed hygiene products the most range from 43.7% in region 7 to 70.2% in region 8. The corresponding range among the coastal regions is 33.9% (region 10) to 51.7% (region 5).

As it relates to medical supplies, there is clearly a need for this in the hinterland regions given that more than 30% of the households in each of these regions identified medical supplies. However, less than 20% of the households in each coastal region indicated a need for medical supplies. The need for medical supplies in the coastal regions is not as clearly established as for the hinterland regions.

In response to this question about the means of delivering assistance, four means emerge as most popular. These are cash (~68.8%), delivery of food (~49.6%), delivery of hygiene items, medical supplies, medicine and drugs (~33.3%) and voucher (~28.8%). The same means emerge as popular when female headed households are compared with other households though a larger percentage of the household headed by at least one male identified cash compared to the household headed by females.

At the regional level, transmission of cash was the delivery mechanism indicated most consistently by large regional percentages of the households. However, other methods still seem relevant. Except for region 7 where the percentage is 22.5%, delivery of food was identified by more than 44% of the households in each of the other regions and by as much as 74.5% of the households in region 8. Delivery of food is therefore a fairly popular option in the regions. Delivery of hygiene items and medical supplies is also fairly popular in both coastal and hinterland regions whereas vouchers appear to be relevant in the coastal regions (region 10 to a lesser extent) but not in the hinterland regions.

Transfer to bank account, cheque and mobile money transfers and cash card are generally unpopular as delivery mechanisms for priority assistance.

## Conclusion

Fewer than 20% of the households have a university graduate living in them and university graduates are concentrated in the more urbanised regions than elsewhere.

Confirmed COVID-19 cases have low prevalence (1.3%) among households but Region 1 appears to be a COVID-19 hotspot up to the time of data collection.

Chronically ill males and females are relatively more abundant in the households than males and females with disability and males and females with reported mental health issues.

Approximately 10.9% of the households had experienced lack of access to medications, treatments and therapies. This problem appears to be exacerbated by remoteness. However, the COVID-19 pandemic does not appear to have affected pre- or post-natal visits to the doctor.

The pandemic has impacted negatively on employment with some losing their jobs permanently and others temporarily. Households in Region 10 have been most affected by this.

The pandemic affected household income negatively overall and within each region with the median income of female headed households continuing to be lower than that of other households. Reduced income is more prevalent in the coastal regions. Household expenditure changed in some regions but not in others, and the change was an increase or decrease depending on which region is considered.

Approximately 12% of the households received remittance and at the aggregate level, the amount of monthly remittance remained relatively stable (median of G\$20,000) during the COVID-19 pandemic. There were increases in remittance in regions 7 and 10 and decreases in regions 1, 2, and 9. However, the median amount of money sent home by household members in other regions was cut in half and was reduced in each region except regions 4 and 5. Other sources of income

during the pandemic were not very popular but, food hampers were received by households mainly in the hinterland and region 10.

Business ownership was not especially popular in general and members of female headed households were less likely than their counterparts to own businesses. Notwithstanding some divergent experiences, COVID-19 appears to have resulted in decline in demand for business products and services, and reduction in the business workforce and operating hours with some permanent closures. Closures and reduction of operating hours resulted mainly from the need to conform to government regulations in response to COVID-19 and reduction in demand and sales experienced during the pandemic and also actions taken to mitigate the risk of infection on the part of the business operators.

Most of the households have had to make financial and non-financial decisions during the pandemic. Financial decisions were more likely among household with lower average age and those without university education whereas non-financial decisions were more likely to be made by households in the hinterland compared to the coastal regions. The main financial decision made was to spend savings and this was done in each region at high rates. Non-financial decisions were made by less than half of the households with the most popular such decisions being to purchase cheaper, less preferred brands, growing food and reducing the portions of meals. Purchasing alternative brands was most popular in region 3 whereas the hinterland regions led the way in growing food.

Purchasing food from markets was and remained the most popular source of food. Nevertheless, approximately 18.2% of the households changed the major sources of food during the pandemic with such changes reported mostly by households in region 9.

The most salient effect of the COVID-19 pandemic on nearby food and non-food markets was increase in prices. In addition, households in each region identified the unavailability of desired essential food items as an issue encountered, but households in regions 8, 9 and 10 were the ones mainly affected by this.

The non-food items with which households had the greatest difficulty accessing were hand sanitizers, household cleaning detergents and face masks. Difficulties in accessing these items were much more pronounced in the hinterland regions and region 10. An obvious consequence of scarcity of the items identified is a greater challenge for households to protect themselves from COVID-19.

More than half of the households worried about not having enough food during the pandemic. This was more prevalent among female headed households and among households in the hinterland regions and regions 2 and 10 than their counterparts. Approximately 21.8% of the households skipped meals during the pandemic. Skipping meals was more prevalent among female headed households.

The measures taken in Guyana to control the spread of COVID-19 included closing the schools. There was therefore a substantial drop in school attendance and significant disruption of the education process. The private schools were largely better able to respond to the situation than the public schools and to continue education online. The main reason cited for non-attendance

at school during the pandemic is unavailability of online classes. This reason was the most often cited in each region except regions 1 and 10 where the lack of internet access was most salient.

Approximately 0.12 persons per household were attending university just prior to the pandemic. Some of these individuals dropped university courses during the pandemic and the unavailability of online classes was the main reason cited.

Loss of income to cover housing costs, loss of income to pay for food and lack of good internet connection were on average the three worst and most consequential problems faced by households during the pandemic.

A large majority of the households indicated the need for priority assistance. The need for priority assistance appears to be more prevalent among female headed households, households with children and households wherein completed university education is absent.

Cash transfers, food and hygiene products emerged as the top three choices for priority assistance. However, households in the hinterland regions placed less emphasis on cash than households in other regions and the need for medical supplies is more clearly established in the hinterland regions than the coastal regions.

For delivery of priority assistance, cash, delivery of food and delivery of hygiene items, medical supplies, medicine and drugs and vouchers were the four most popular selections by the households.

## 2.0 Context and Background

Coronavirus Disease 2019 (COVID-19), which was declared a pandemic by the World Health Organization (WHO) on 11 March 2020, has created humanitarian and economic crises across the world. Because of its highly contagious nature, countries were forced to implement partial or total lockdowns of their economies and borders to reduce the rate of infection. This is projected to lead to significant loss of income that can have dire consequences on economies and households. More specifically, containment policies, such as lockdowns to flatten the medical curve steepen the recession curve. A policy paper facilitated by UNDP's Regional Bureau for Latin America and the Caribbean (RBLAC) posited that "extended periods of wide social distancing measures could be extremely costly" and called for a global multilateral cooperative approach to containing the epidemic.

The Co-operative Republic of Guyana is the only English-speaking country on the South American continent. It covers an area of approximately 220,000 square kilometres, with a total population of 746,955 (Guyana Lands & Surveys Commission, 2020; Bureau of Statistics, 2012) and is divided into ten administrative regions for effective governance. Guyana has an average poverty rate of 41.2% (Inter-American Development Bank, 2017). With the discovery of commercial quantities of oil in 2015, Guyana is classified as an upper-middle income country (The World Bank, 2016). With a projected growth rate of 26.21% in 2020, Guyana is considered to be the fastest growing economy in the world.

As of 14 June 2020, when considerations to undertake this assessment were underway, the total number of persons tested was 1,959 with 159 positive cases, 12 deaths and 99 medically cleared recoveries; 22 persons were in institutional quarantine while 48 were in institutional isolation. The country's population is highly concentrated along the coastal regions with mainly Indigenous people living in the hinterland and remote communities. Measures that were taken at the time to stop the spread of the virus included closure of the two International Airports (with few exceptions); closure of Sea Ports to international vessels, except merchant ships; closure of schools; waiver of taxes on medical supplies associated with the testing, prevention and treatment of COVID-19; social distancing; curfews from 6pm – 6am; closure of non-essential businesses; reduced hours for service delivery for banking and other institutions and operation of markets; and telecommuting among others. As of 30 December 2020, the total number of persons tested was 38,018 with 6,319 confirmed cases, 164 deaths and 5,809 recovered cases; 26 persons were in institutional quarantine whilst 1 person was in institutional isolation. Social distancing remains in place, airports have been reopened to commercial flights, physical attendance at schools is expected for grades 10 to 12, face masks should be worn when leaving homes, curfew is in place from 22:30 – 04:00hrs and non-essential travel to Region 7 is restricted, among other measures.

In terms of the social and economic impacts, an online survey was implemented by the Inter-American Development Bank in April 2020, with about 1,700 respondents from Guyana. The results showed that there were job losses, reduced income and loss of remittances. In addition, the impact is expected to be severe on vulnerable groups including female headed households and Indigenous peoples. To this end, based on a request from the Civil Defence Commission (CDC), UNDP sought to conduct a Socio-Economic Assessment of impacts of COVID-19 on households across the 10 Regions of Guyana so that evidence-based response and recovery

measures can be crafted and implemented. The Consultancy Group Inc was employed on a consultancy basis to design and execute the requisite survey and to provide a report on the analysis of the data collected.

## 2.1 Objectives

The purpose of the Socio-economic Impact Assessment (SEIA) is to inform Government's prioritization and use of relief resources in the most affected sections of the population including vulnerable communities during the surge phase of COVID-19.

The objectives were to:

1. Collect a nationally representative, probabilistic sample of data to support a socio-economic assessment of household during COVID-19.
2. Utilise the data at (1) to produce national and regionally disaggregated analyses of
  - i. the impact of COVID-19 on household socio-economic realities.
  - ii. household access to food and services during COVID-19.
  - iii. the need for priority assistance to cope with the COVID-19 environment.

## 2.2 Scope

The survey and the report based on the data collected provide a national overview and also a regionally disaggregated perspective on the issues addressed. The national overview is based on a nationally representative sample whereas the regional disaggregated analyses are based on independent representative samples of each of the ten administrative regions of Guyana. In addition, the report provides disaggregation for households headed by single females versus other household headship for key variables.

## 3.0 Method

### 3.1 Survey instrument

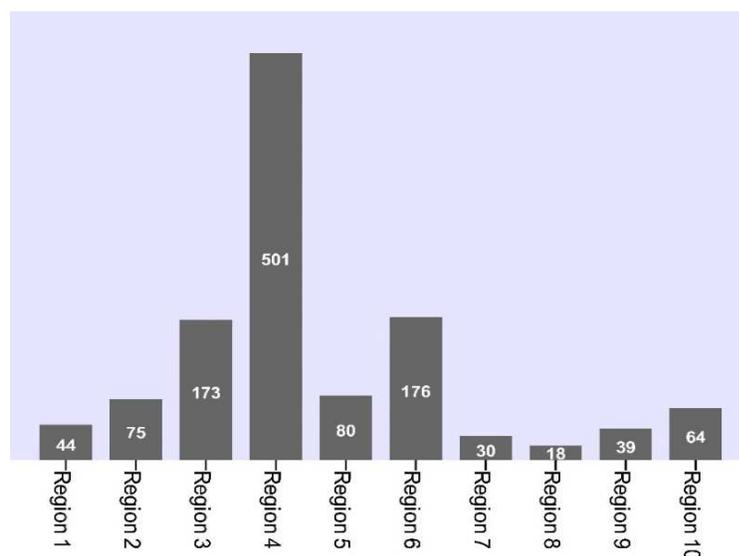
The survey instrument was adapted from a UNDP tool for use in Guyana in a consultative process by UNDP, the CDC and TCG. The instrument was hosted online using the KoBo Toolbox platform and interviewers interfaced with it through a web browser.

### 3.2 Sample

The sample approach began with proportional allocation of 1,200 to the various regions to form a national base sample then an additional proportional allocation of 300 to the hinterland regions (regions 1, 7, 8, 9) thus taking the total sample size to 1,500 (Table 1).

**Table 1 Sample allocation to regions**

Region	Population	Sample 1200	Sample 1500
1	27,643	44	146
2	46,810	75	75
3	107,785	173	173
4	311,563	501	501
5	49,820	80	80
6	109,652	176	176
7	18,375	30	98
8	11,077	18	59
9	24,238	39	128
10	39,992	64	64
<b>Total</b>	<b>746,955</b>	<b>1,200</b>	<b>1,500</b>



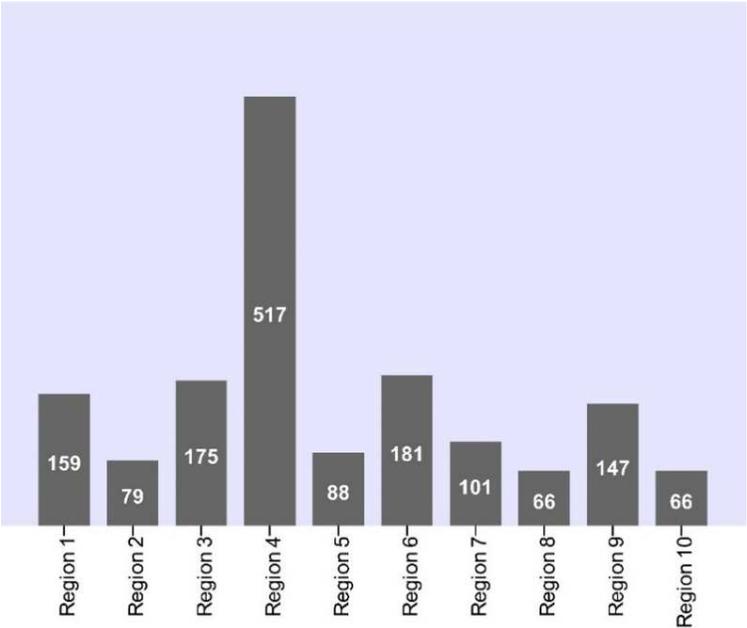
**Figure 1 Actual regional composition of national sample**

The additional 300 to hinterland regions resulted in oversampling of those areas which was done to ensure that there were enough units within each region to support regional analysis. Whenever the full sample of 1,500 is used in the analysis, no national level statistics are determined. Nationally representative results are determined from the national sample of 1,200. This base sample is estimated to facilitate estimating with 95% confidence while maintaining a margin of error of at most 2.83% given the adult population total of 746,955<sup>2</sup>.

### 3.3 Data collection

Respondent identification was based on a probabilistic selection of mobile telephone numbers that were determined to be active using random digit dialling. The telephone numbers dialled during data collection were stratified by service provider. This approach was selected given the need to provide a good representation of the population against the backdrop of the ongoing COVID-19 pandemic wherein social/physical distancing protocols were in place and given the potential for use of the results in a substantial way to guide real interventions.

In the COVID-19 context, a large face-to-face survey, on the one hand, would involve movement of people and would likely increase the risk of infection for interviewers and the people with whom they come into contact as they move around and conduct such interviews. A web survey, on the other hand, would likely lead to overrepresentation of urban residents and people of higher socio-economic status who might be more comfortable and familiar with online interaction. Such an approach would also involve snowballing and self-selection given the absence of a national register of contact details for respondents.



**Figure 2 Actual regional composition of regional samples**

<sup>2</sup> In reality, each person interviewed in the survey will represent a household. The use of the household data from the 2012 census results in quite small differences in the allocations and the required sample size.

A telephone survey was selected because it facilitated observance of social/physical distancing while at the same time allowing the potential respondents to be determined (using their telephone numbers). The most recent International Telecommunication Union data for Guyana indicate that there is an approximate 83% mobile phone penetration<sup>3</sup>. It was however anticipated that mobile phone coverage in some hinterland regions would be poor and hence, the telephone survey approach was supplemented by limited numbers of face-to-face interviews in those areas. For such face-to-face interviews, the interviewers needed to be members of the communities in which they worked to avoid inter-community commuting. That notwithstanding, while interviewers conducted face-to-face interviews, they were required to use personal protective equipment provided and observe social distancing protocols.

The data were collected in the period 8 to 25 September 2020. Because the region of the respondent could not be determined beforehand, this information emerged from the data. It was therefore important to track the quotas and to suspend completion of further interviews in areas once the regional quotas had been met. Nevertheless, there were some overshooting of the targets and this was addressed using random selection for the national sample. However, all the data were employed in the regional analyses (see Figure 2) since the regional samples were regarded as independent.

Face-to-face interviews were conducted in some areas of regions 7, 8 and 9 where due to remoteness, telephone interviews would prove to be difficult if not impossible. Telephone interviewing was employed in all the other regions and also some areas of regions 7, 8 and 9.

Excluding non-contacts, the response rate for the survey is 67.1%. If non-contacts wherein telephone numbers were not answered are included in the calculation, the response rate drops to 39.2%.

### 3.4 Data analysis

The data were analysed mainly through the use of charts and tables of means, medians and percentages as appropriate. This approach satisfies the need for the kinds of insights needed to potentially guide interventions intended to address the impacts of COVID-19. The results were generated using a combination of the SPSS and Stata software.

### 3.5 Ethics and quality control

Prior to commencement of the survey, sensitization messages were sent out through the press and text message blasts so that citizens would be aware of the survey effort. This was anticipated to improve cooperation when potential respondents were eventually contacted.

Participation in the survey was voluntary for the respondents and they could refuse to participate without consequences. Upon contacting a potential respondent, the interviewer indicated the purpose of the survey and requested participation. Participants who completed the interviews were provided with an incentive in the form of G\$500 mobile phone credit. The survey instrument and procedures were approved by the Internal Review Board of the Ministry of Public Health on the 25<sup>th</sup> August 2020.

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<sup>3</sup> See <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>

For the survey, the telephone numbers assigned to interviewers were randomised and the interviewers kept logs of the call attempts made and the outcomes. The call logs were inspected daily, and a 10% call-back of the numbers was done to verify that the interviews were conducted and to ask the respondent about the experience. The data submitted by the interviewers were also checked to ensure that any issues encountered could be addressed.

### 3.6 Survey limitations

The face-to-face component of the survey was affected by COVID-19 in a community in the hinterland. This led to selection of an alternative area with attention to the key variable of remoteness. The community of Monkey Mountain in region 8 was replaced by the community of Kurukabaru in the same region. Nevertheless, the fact that a change had to be made to the initial selection of communities can potentially affect the outcomes.

The data collection approach requests information from individuals. The extent to which the responses were factual affects the extent to which the results presented represent reality. This is a general issue that affects survey research that involves asking about factual information. In addition to this, some items especially those on income might be regarded as sensitive and some respondents might be uncomfortable providing responses or otherwise provide distorted figures. In fact, there was notable nonresponse to such items in the data. If such missing data are not missing at random, there would be consequences for the results.

## 4.0 National Analysis

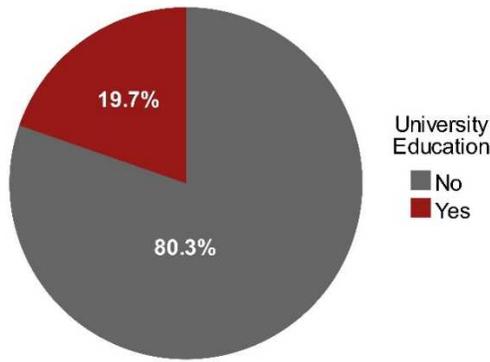
Located on the northern coast of South America, the Co-operative Republic of Guyana is the only English-speaking country on the continent and covers an approximate area of 83,000 square miles or 220,000 square kilometres, with a total population of 746,955 (Guyana Lands & Surveys Commission, 2020; Bureau of Statistics, 2012). With the discovery of commercial quantities of oil in 2015, Guyana is classified as an upper-middle income country, a move from a lower middle-income classification (The World Bank, 2016). Based on data from the Guyana Labour Force Survey 2017, Guyana has an average poverty rate of 41.2% (Inter-American Development Bank, 2017). However, with a projected growth rate of 26.21% in 2020, Guyana is considered to be the fastest growing economy in the world, with its Gross Domestic Product (GDP) of \$6.81 billion (2020 Rank: 150) expected to more than double by 2025 to reach \$14.08 billion (Nasdaq, 2020). Apart from oil, Guyana’s exports include gold, bauxite, sugar, rice, timber, and shrimp (Nasdaq, 2020).

### 4.1 Household characteristics

The households are occupied by approximately 4.26 individuals on average (Table 2) and the total number of household members range from 1 to 18. These households are composed on average of approximately 2.17 females and 2.09 males with an average of 1.28 of the occupants being children under the age of 18. The average age of the household members is approximately 32.23 years (Table 2).

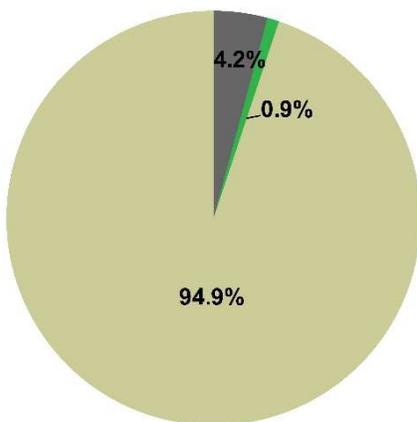
**Table 2 Household demographics**

	n	Mean	SD	95% Confidence	
				Lower	Upper
Household size	1200	4.26	2.12	4.14	6.27
Household female composition	1200	2.17	1.36	2.09	3.98
Household male composition	1200	2.09	1.40	2.01	3.99
Children in household	1200	1.28	1.42	1.20	3.75
Age of household members	1200	32.23	13.02	31.49	36.72
<i>SD – standard deviation</i>					

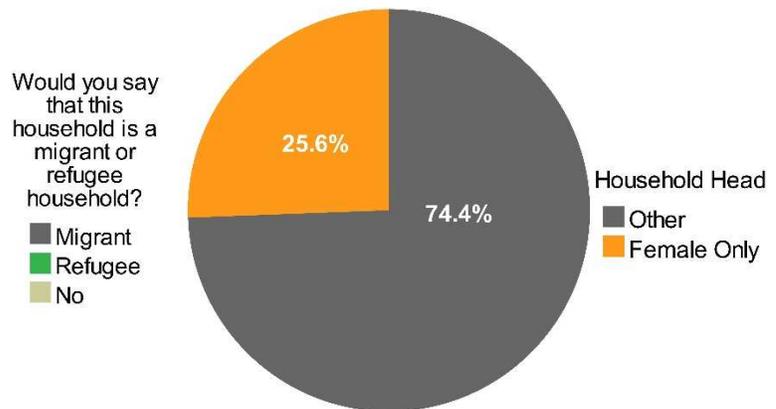


**Figure 3 At least one household member completed university education**

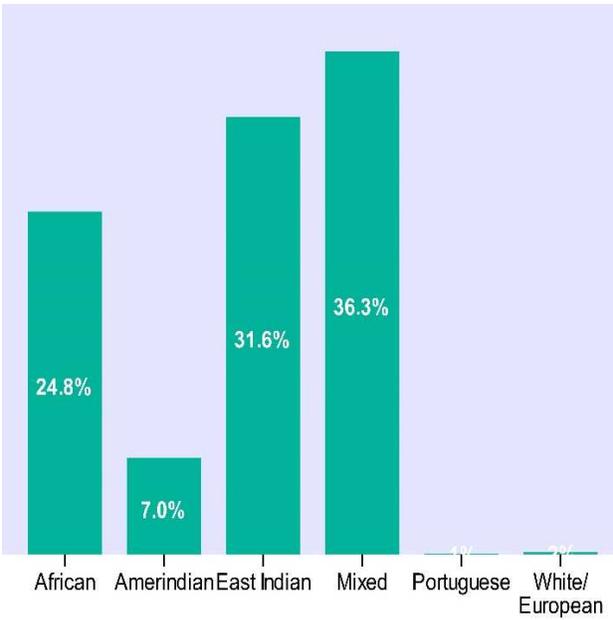
Completed university education is relatively scarce among the households. In particular, approximately 19.7% of them have at least one university graduate as a resident (Figure 3). University education is not compulsory in the country but up to secondary education is mandatory. In this latter case, approximately 92.8% of the households have at least one person with completed secondary education residing in them. This means that in approximately 7.2% of the households there are no individuals who have completed secondary education.



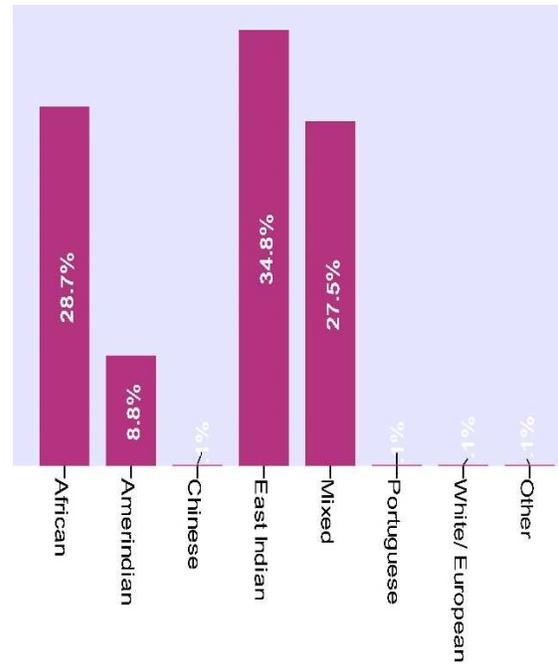
**Figure 4 Household type**



**Figure 5 Household headship**



**Figure 6 Household ethnicity**



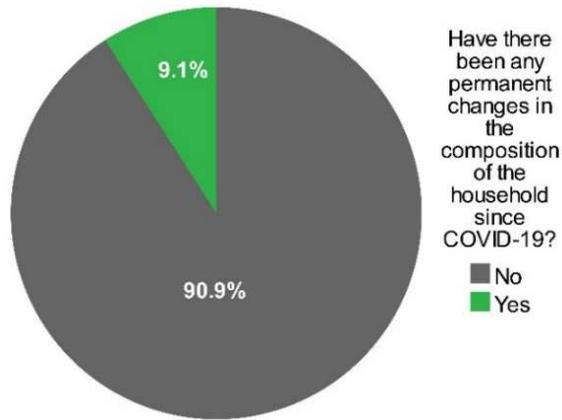
**Figure 7 Respondent ethnicity**

When asked about the status of their respective households as refugee or migrant<sup>4</sup>, approximately 94.9% of the respondents indicated that neither of those two categories were relevant (Figure 4). The remaining 5.1% of the respondents indicated that their households fell into one of the categories. In particular, approximately 4.2% of the households are considered to be migrant households and approximately 0.9% of them are considered to be refugee households. Migrant and refugee households were thought to be of interest in the survey because they were expected to be vulnerable during the COVID-19 pandemic. The results here indicate that there are relatively few such households.

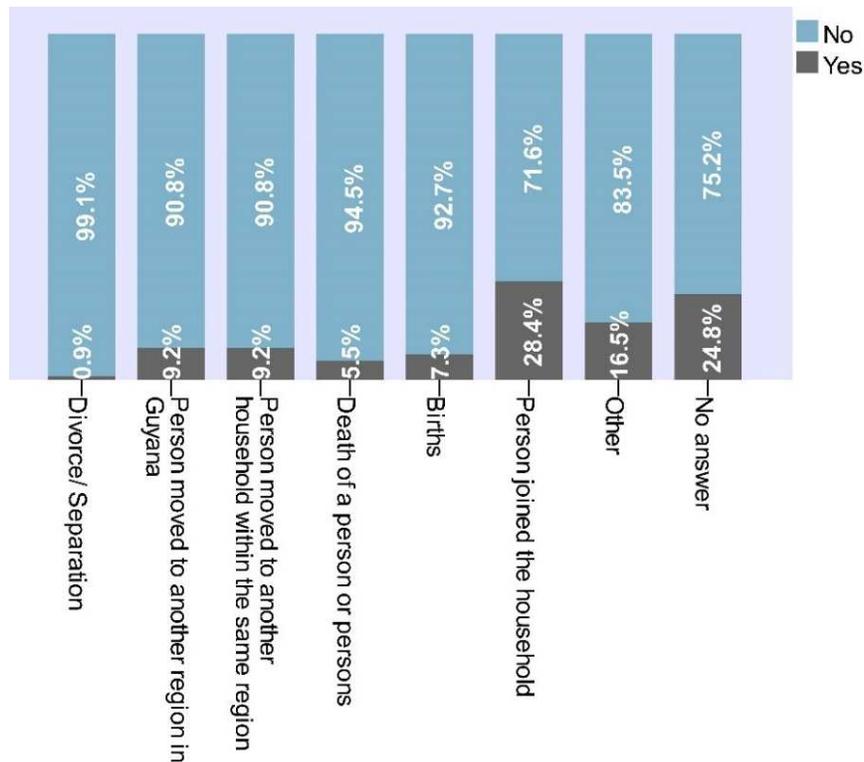
<sup>4</sup> The UN Migration Agency (IOM) defines a migrant as a person who moves away from his or her place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons.

The 1951 Refugee Convention is a key legal document and defines a refugee as:

“someone who is unable or unwilling to return to their country of origin owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion.”



**Figure 8 Change in household composition since COVID-19**



**Figure 9 Types of changes in household composition since COVID-19**

Approximately 25.6% of the households in the national sample is headed exclusively by a female (Figure 5). This means that 74.4% of the households is headed by at least one male. Households headed by a combination of male and female members are included in the “other” category.

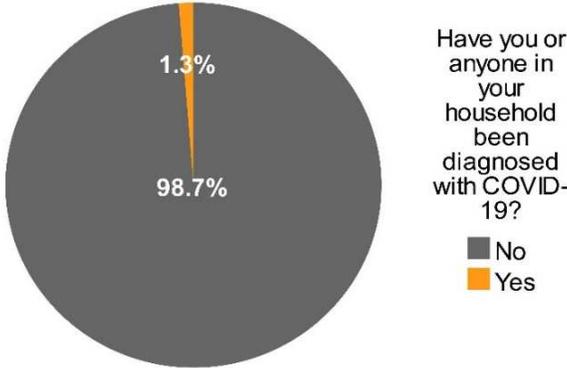
The largest grouping of households based on ethnicity is mixed. This is followed in descending order of size by East Indian, African and Amerindian with European and Portuguese households registering especially small percentages (see Figure 6). These ethnicity identifications were made by the respondents and are based on an assessment of all the individuals who live in the

household. Given that the profile of the respondent ethnicity (see Figure 7) is different from that of the household ethnicity in relation to the rank ordering of the groups, the respondents were not always of the same ethnicity by which the household as a collective is described. In such a case, it is expected that the group of mixed households would be larger than the group of mixed individuals who responded to the survey. The largest groups of respondents who represented their households in the survey were East Indian, African, Mixed and Amerindians respectively in descending order with Chinese, Portuguese, European and Other ethnicity registering small percentages for the respondents themselves.

Approximately 9.1% (less than 10%) of the households experienced some permanent change in composition since the COVID-19 outbreak in Guyana. The largest percentage of the households that experienced some change in composition (~28.4%) had someone joining them since the pandemic began. Fewer than 10% of them experienced any of the other changes in composition, and 5.5% experienced the death of someone due to COVID-19. Notably, approximately 24.8% of the respondents did not answer the question about the kind of change in composition after indicating that there was a permanent change.

**4.2 Health and safety**

Based on the reports of the respondents, approximately 1.3% of the households have confirmed that at least one member tested positive for COVID-19 since the start of the pandemic (Figure 10). Of these households in which at least one person has tested positive for COVID-19, 6.7% of them have the experience of a female member dying as a result of the illness whereas no deaths of males were reported (Table 3). In addition to this, whereas approximately 26.7% of the affected households indicated that at least one female member (one or two in reality) recovered from the infection, approximately 60% of them indicated that at least one male member (one to four in reality) recovered after testing positive (Table 3). Though the male household members might appear to fare better when a household is affected, it is not clear that this conclusion can be made based on the data since the males and females under consideration were not necessarily from the same households and were not necessarily under comparable conditions.



**Figure 10 Household member diagnosed with COVID-19**

**Table 3 COVID-19 Outcomes for affected households**

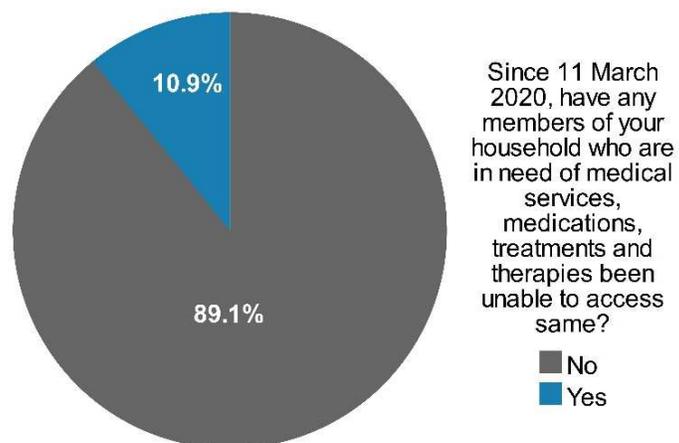
Household Member	Female	Male
Deceased	6.7%	0.0%
Under Isolation	0.0%	20.0%
Under Quarantine	20.0%	26.7%
Recovered	26.7%	60.0%

**Table 4 Household health**

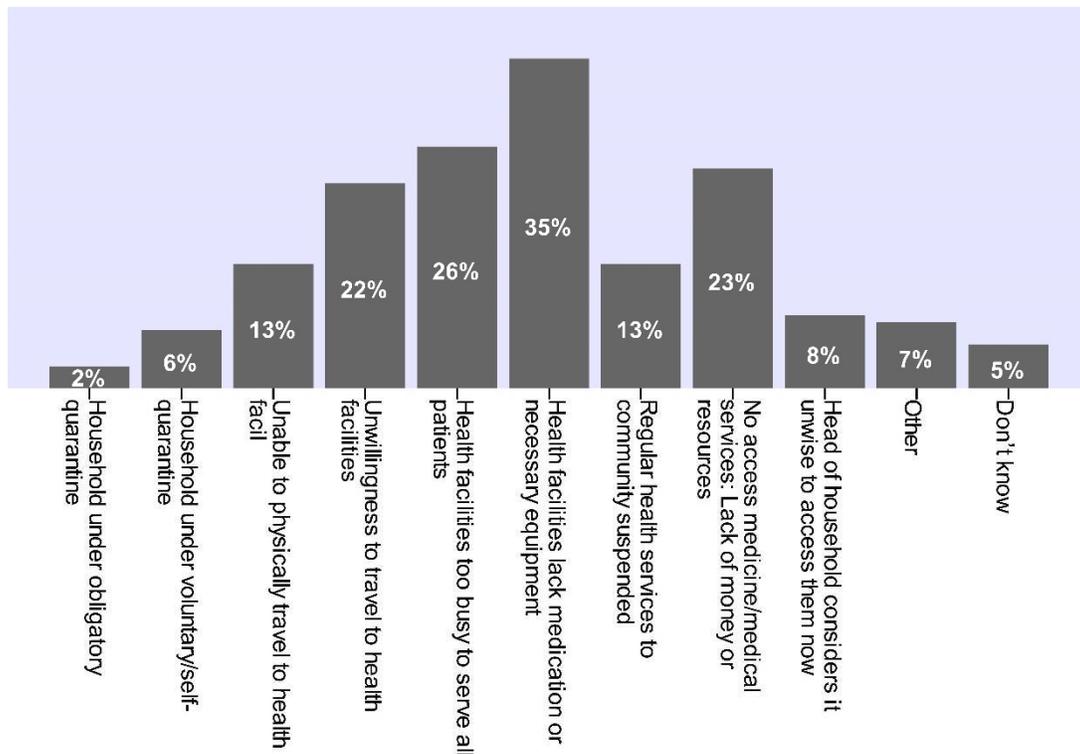
Health Conditions	Percent
Pregnant or lactating women	20.6%
Females with physical disabilities	1.7%
Males with physical disabilities	1.4%
Females with mental disabilities or mental health issues	0.7%
Males with mental disabilities or mental health issues	0.4%
Chronically ill females	3.3%
Chronically ill males	2.9%

*The table shows the average percentage per household*

At the time the survey was conducted, no females of households with at least one confirmed case of COVID-19 infection were under isolation, whereas approximately 20% of the affected households had at least one male under isolation. Also, approximately 20% of the affected households had at least one female under quarantine, whereas approximately 26.7% of the affected households had at least one male under quarantine.



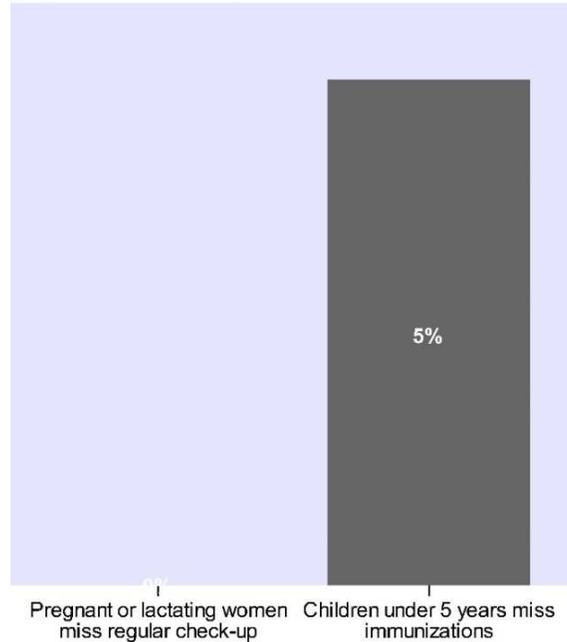
**Figure 11 Lack of access to medicine or medical care**



**Figure 12 Reasons for lack of access to medicine or medical care**

Across the country, an average of approximately 20.6% of the household members were, at the time the survey was conducted, pregnant or lactating females (Table 4). An average of approximately 1.7% and 1.4% were females and males respectively with one or more physical disability, whereas an average of approximately 0.7% and 0.4% household members were females and males respectively with mental disabilities or mental health issues. Finally, approximately 3.3% and 2.9% of the household members were chronically ill females and males respectively. These results are all based on the reports of the respondents of the survey.

Since the arrival of COVID-19 in Guyana, approximately 10.9% of the households have experienced problems accessing medical services or medications or treatments and therapies of some kind (Figure 11). This might have been due to a number of factors and when asked specifically about the reasons for this, several issues emerged as relevant (see Figure 12). The reasons cited most often by the respondents were that the health facilities lacked the necessary medication or equipment (~35%), were too busy to serve all patients (~26%), the persons lacked the money to access medicine and healthcare (~23%) and that the persons were unwilling to travel to facilities during the pandemic (~22%). More than 20% of the respondents cited each of these reasons, while more than 30% cited the first reason in this list. Approximately 13% of the respondents indicated that the inability of household members to access medicine or health care was due to suspension of regular health services in their areas and that the person was physically unable to travel to the health facilities. All other reasons were cited by fewer than 10% of the respondents.



**Figure 13 Missed medical check-up or immunization**

Two final questions about access to healthcare in general were about whether pregnant and lactating women in the household missed regular check-ups and whether children under five years missed immunizations during the COVID-19 pandemic. Whereas none of the respondents indicated that pregnant or lactating women missed their check-ups, approximately 5% of the households with children in them had the experience of those children missing immunizations since COVID-19 arrived in Guyana. The coronavirus therefore does not appear to have impacted on the health check-ups for pregnant and lactating women, but it does appear to have affected access to immunization for some children.

### 4.3 Income and economic activity

#### 4.3.1 Employment

On average, approximately 63.43% of the adults per household contribute to the household income based on the respondent reports (Table 5). This means that an average of approximately 36.57% of adults in the households do not contribute to the household income and this could result from them being unemployed or employed but yet not seen by the respondent as contributing to the income of the household.

**Table 5 Contributions to household income**

	Combined	Household Head		P-value
		Female	Other	
Household members contribute to household income	63.43%	69.84%	61.35%	0.00
Household members lost jobs permanently due to COVID-19	4.13%	4.78%	3.90%	0.38
Household members lost jobs temporarily due to the COVID-19 outbreak	9.26%	9.95%	7.15%	0.07
Household members received lower salary or earnings due to the COVID-19 outbreak	21.37%	20.16%	21.73%	0.44
<i>The table shows the average percentage per household over all adults in household P-value is the significance level for the 2-tailed test</i>				

The COVID-19 outbreak in Guyana appears to have had some impact on employment and earnings of individuals. In particular, it appears to have resulted in loss of employment for some and reduction in earnings for others. Approximately 4.13% of the adults in the households were reported as having lost their jobs permanently due to the outbreak whereas approximately 9.26% lost their jobs temporarily. In addition, an average of approximately 21.37% of the adults in the households were reported as having earned less due to the COVID-19 outbreak (Table 5).

There is no significant difference between female headed and other households in relation to members having lost jobs or having reduced salaries due to COVID-19. It does appear, however, that households that are not headed exclusively by a female have on average a larger percentage of its members contributing to its income.

Logistic regression models for permanent and temporary loss of employment and for reduced earnings provide some further insights into the potential relationships of these outcomes with household characteristics (see Table 6). The results for each predictor variable are described below.

- **Household size.** The number of persons living in the household is unrelated to permanent loss of employment and reduced earnings by household members during the pandemic. However, larger households appear to have a somewhat greater likelihood of having members who lost employment temporarily. This latter result would seem to be consistent with expectations.
- **Average age of household members.** Households with higher average age among its members are less likely to have members who lost their jobs permanently or who earned less due to the pandemic. This variable however, does not appear to affect temporary loss of employment. It is not immediately clear why these relationships might emerge but perhaps older individuals in the households might have had more time to engage in more secure employment and earning positions though it needs to be emphasised that the average age is measured at the household rather than at the individual level.

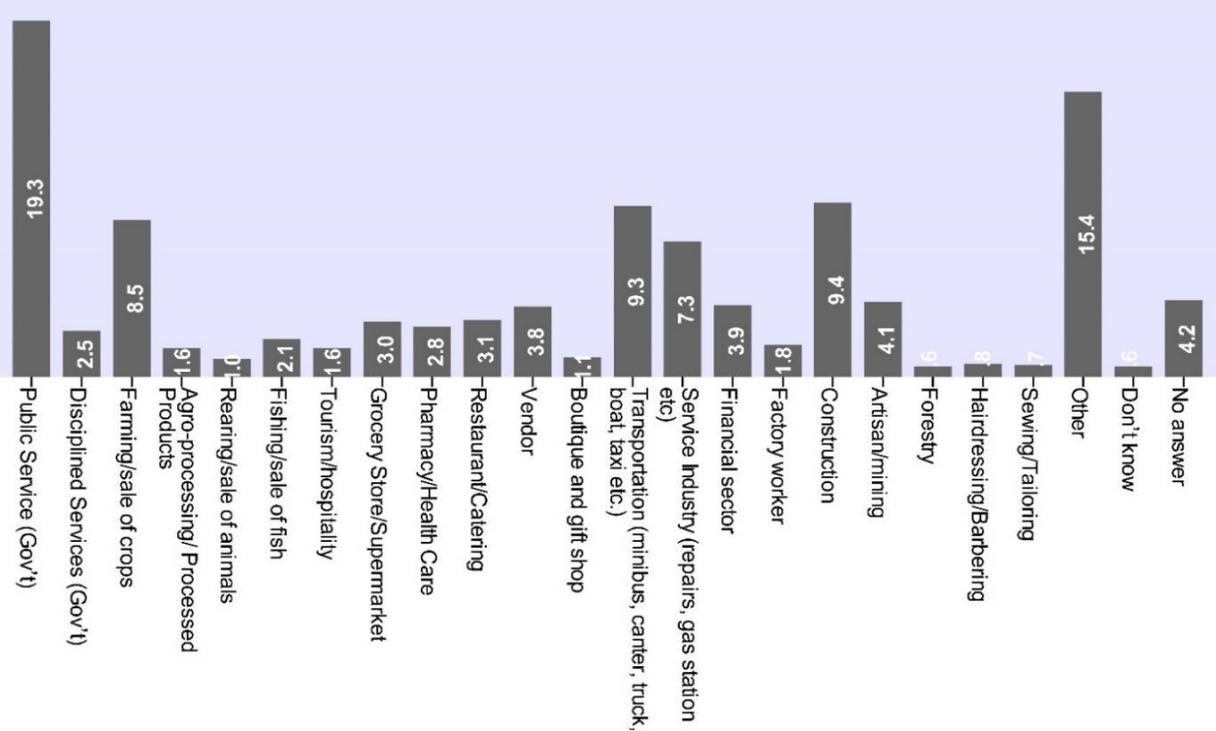
**Table 6 Logistic regression models for loss of employment and income**

Independent Variables	Dependent Variable		
	Permanent Loss of Employment	Temporary Loss of Employment	Reduction in Earnings
Household size	0.07 (0.05)	0.08* (0.04)	0.03 (0.03)
Average age of household members	-0.02* (0.01)	-0.01 (0.01)	-0.01* (0.01)
University graduate in household (yes =1, No =0)	-0.16 (0.27)	-0.31 (0.20)	-0.31* (0.15)
Household head (female only =1, Other =0)	-0.12 (0.24)	-0.40* (0.18)	-0.17 (0.14)
Location (hinterland =1, coastland =0)	0.08 (0.32)	-0.09 (0.24)	-0.60* (0.20)
Children in household (Yes =1, No =0)	-0.65* (0.27)	-0.17 (0.21)	-0.13 (0.16)
Intercept	-1.49* (0.48)	-1.34* (0.37)	0.18 (0.29)
Likelihood Ratio Chi Square (df=6)	8.93	13.47	21.51
P-value	0.18	0.04	0.00
Pseudo R-squared	0.01	0.01	0.01

*\*Significant at the 5% level.*

- University graduate in household.** The presence of at least one university graduate in the households does not appear to be related to loss of employment but it appears to have led to a lower likelihood of reduced earnings during the pandemic. It is important to keep in mind that just approximately 19.7% of the households have at least one such graduate living in them.
- Household head.** Although when checked separately there is no significant difference in loss employment and income for female headed versus other households, a significant relationship emerges for temporary loss of income when the other variables included in the regression model are controlled. In particular, it appears that female headed households are less likely to have members who experienced temporary loss of income than other households.
- Location.** The location variable has two categories that identify hinterland households and coastland households. Whereas there is no relationship with loss of employment, hinterland households appear to be less likely than their coastland counterparts to have experienced reduce income during the COVID-19 pandemic.
- Children in household.** Based on the information provided by the respondents, households with at least one child seem less likely than households without children in them to have members who lost their jobs permanently during the pandemic.

As one might expect, the employment sector/category of the household heads prior to the COVID-19 outbreak is quite varied (see Figure 14). However, employment in the public service has the largest share of the employment categories. Since the outbreak, approximately 72.5% of the household heads remained in the same employment category as before the virus outbreak in Guyana, whereas approximately 11.1% have become self-employed and 6.9% were seeking employment (see Figure 15). Though there have been other changes in employment category, each of those changes were each made by fewer than 4% of the household heads.



**Figure 14 Employment sector/ category of main income earner**

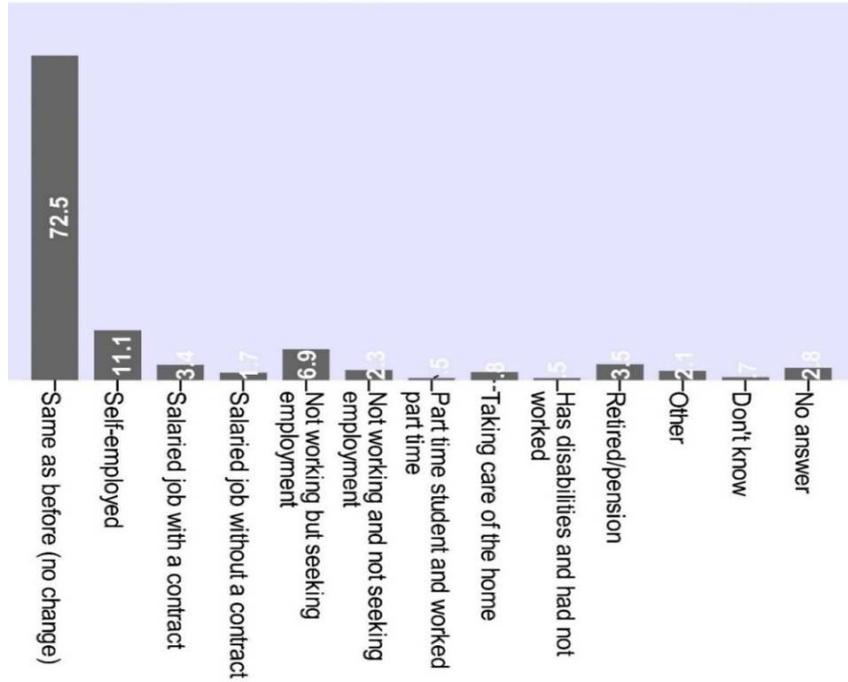


Figure 15 Employment sector/ category of main income earner since COVID-19

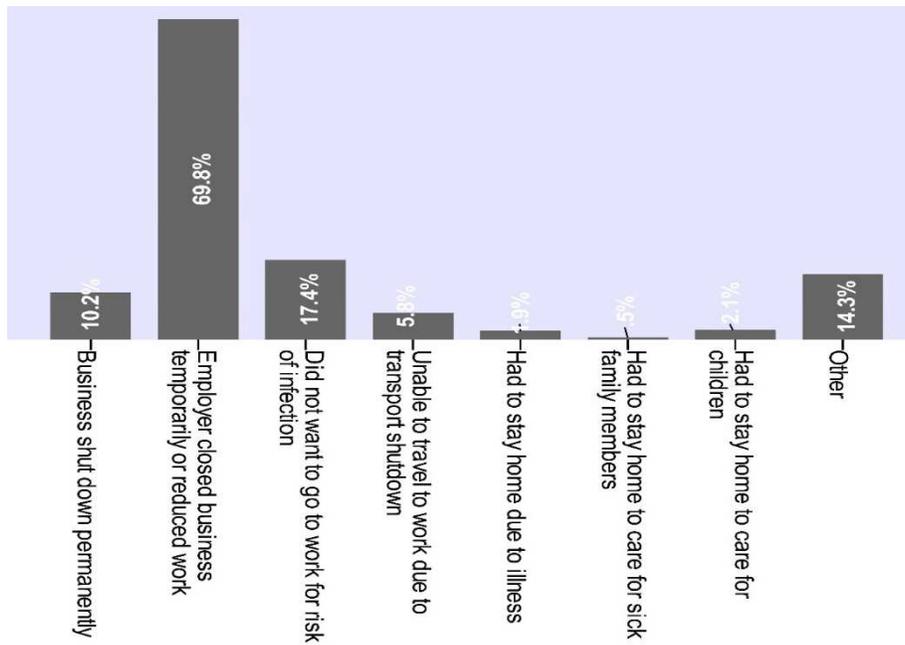


Figure 16 Reasons for loss of jobs or reduced salaries by household members

The most salient reason for household members having lost jobs since the emergence of COVID-19 in Guyana is that the employer closed the business temporarily or reduced the working hours (Figure 16). This reason was cited by approximately 69.8% of the respondents who indicated that members of their household experienced loss of jobs or reduced salary. In addition to this, approximately 17.4% of the respondents indicated that the loss of job and reduced salary were due to household members deciding not to go to work as a means of avoiding COVID-19 infection, whereas 10.2% of them said that the businesses or places where they worked closed permanently due to the pandemic. 5.8% indicated that they were unable to travel to work due to shutdown of the transportation system. All other substantive reasons were identified by fewer than 3% of the respondents.

#### 4.3.2 Income and expenditure

Questions about income and expenditure are usually sensitive in surveys, especially that of income, leading to higher rates of nonresponse than for other items. This needs to be taken into account as the results of this subsection are considered.

In January 2020 before COVID-19 arrived in Guyana, the average reported household income was G\$ 146,046.42 and income had a median of G\$100,000. These dropped to G\$110,549.11 and G\$67,000.00 respectively in the month prior to the data collection (Table 7) when the COVID-19 pandemic had been ongoing for some time. When the results are considered for female headed versus other households, there appears to have been reductions in total household income for both groups during the pandemic (Table 7). A notable additional observation is that household income was and remains significantly lower among households headed exclusively by females. Based on the respondents' reports, there was therefore a drop in household income which might have been due to several factors including loss of employment, reduced working hours and the attendant remuneration and businesses closing or experiencing reduced demand as encountered in the employment data discussed in this document.

**Table 7 Income and Expenditure before and during the COVID-19 Pandemic**

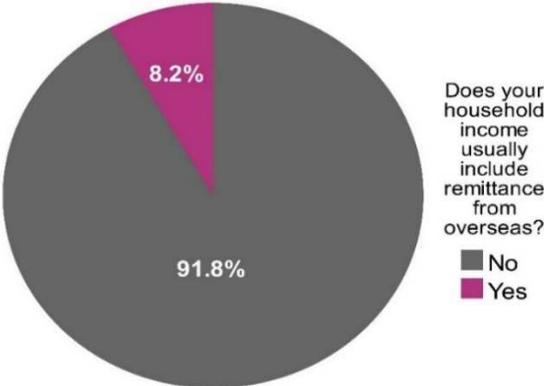
Group	Variable	Total Household Income in January 2020 (G\$)	Total Household Income Last Month (G\$)	Total Household Expenditure in January 2020 (G\$)	Total Household Expenditure Last Month# (G\$)
Combined	n	817	866	793	900
	Mean	146,046.42	110,549.11	92,206.42	83,003.23
	Median	100,000.00	67,000.00	60,000.00	60,000.00
Female Headed Households	n	206	217	201	234
	Mean	122,498.70*	87,420.91*	71,262.35*	70,800.57*
	Median	87,000.00*	60,000.00*	55,000.00*	55,000.00*
Other Households	n	611	649	592	666
	Mean	153,985.60*	118,282.30*	99,317.50*	87,290.65*

Group	Variable	Total Household Income in January 2020 (G\$)	Total Household Income Last Month (G\$)	Total Household Expenditure in January 2020 (G\$)	Total Household Expenditure Last Month# (G\$)
	Median	100,000.00*	70,000.00*	70,000.00*	60,000.00*

*Non-response to these items was between 25% and 34%.*

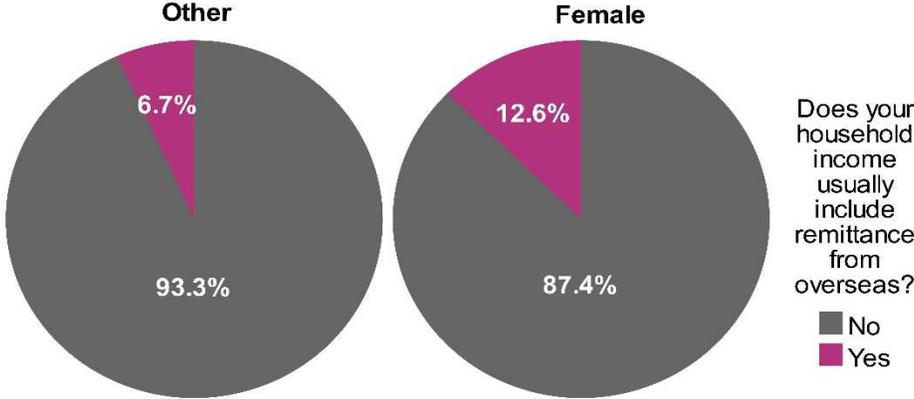
*\* significant difference between female and male headed households at the 5% level*

#The 'last month' referred to here and subsequently would be the last month before the survey i.e. August 2020



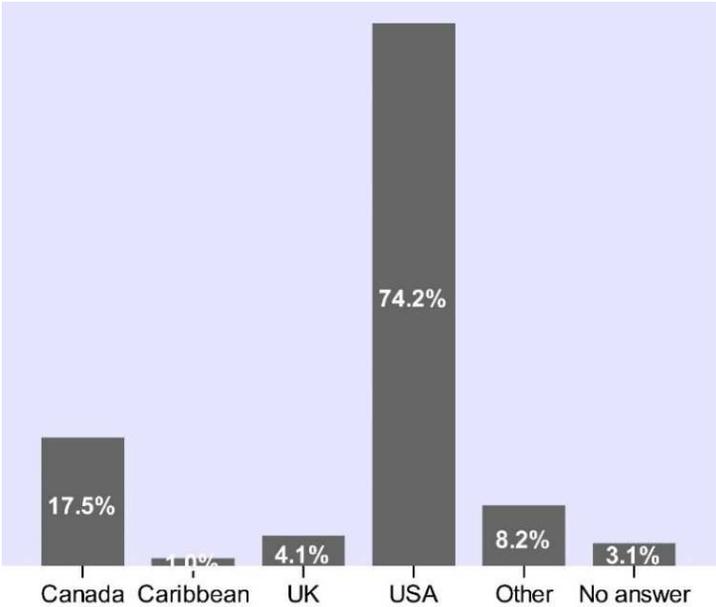
**Figure 17 Household receives remittance**

Unlike the reduction in household income, a reduction in household expenditure is not clearly established. Whereas the mean expenditure in the combined data is lower in the last month (month before data collection) compared to January 2020 the median value is the same (Table 7). The median is likely a better measure since the distribution of income is skewed with fewer households having larger income and this leads to the conclusion that at the aggregate level household expenditure was unaffected by the COVID-19 pandemic.



**Figure 18 Remittance for female headed versus other households**

Household expenditure appears to have remained stable during the pandemic for female headed households with a median of G\$55,000.00 but there appears to have been some reduction for other households (with at least one male as head) with the median moving from G\$70,000.00 to G\$60,000.00. One potential explanation for this is that perhaps households headed exclusively by females tended to focus more on essential items even before the pandemic. It should be noted though that this particular explanation has not been tested. As in the case of overall income, household expenditure remained significantly lower among female headed households (Table 7). The female headed households therefore earn less and spend less as a continuing trend.



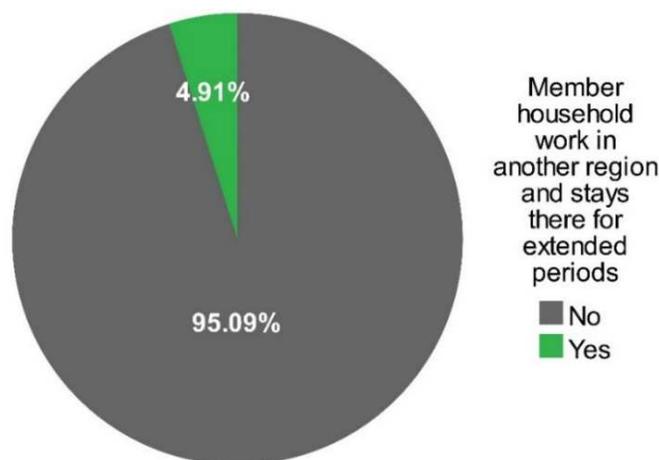
**Figure 19 Country from which remittance is received**

Approximately 8.2% of the respondents indicated that their households usually receive remittance (Figure 17). The percentage for female headed households is somewhat higher than the percentage for households headed by at least one male (Figure 18).

The main country from which remittance is received is the USA, which accounts for approximately 74.2% of the cases. Next in line is Canada, which accounts for 17.5% of the cases (Figure 19). The amount of remittance received remained relatively stable during the COVID-19 pandemic. Though the mean shows an increase of G\$2,068.12, the median value remained as G\$20,000 (Table 8). In any event, an increase of G\$2,068.12 is rather small with respect to the additional value. Hence it is concluded that the amount of the remittance was not changed substantially during the pandemic.

**Table 8 Remittance received before and during the COVID-19 pandemic**

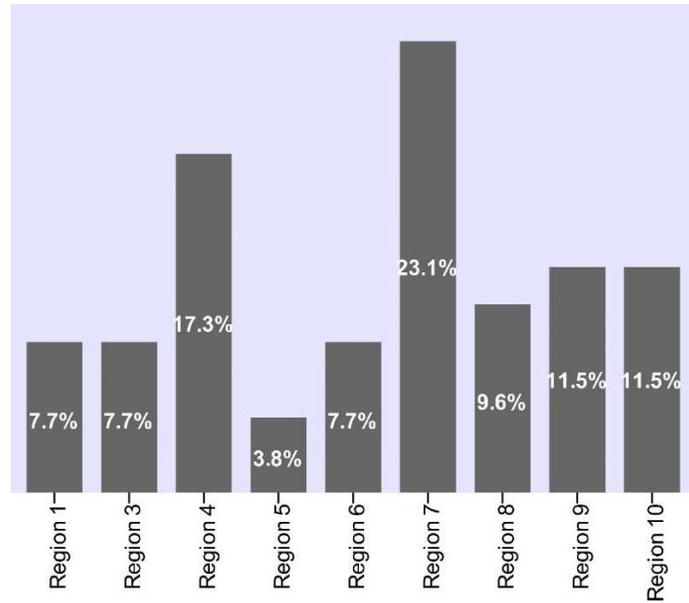
	Amount of Remittance in January 2020 (G\$)	Amount of Remittance Last Month (G\$)
N	65	75
Mean	43,953.91	46,022.03
Median	20,000.00	20,000.00



**Figure 20 Household member works in another region**

There was a small increase in the number of respondents who indicated that remittance was received during the COVID-19 pandemic. This could mean that more households began to receive remittance after the pandemic began. The increase in the number of households is nevertheless small.

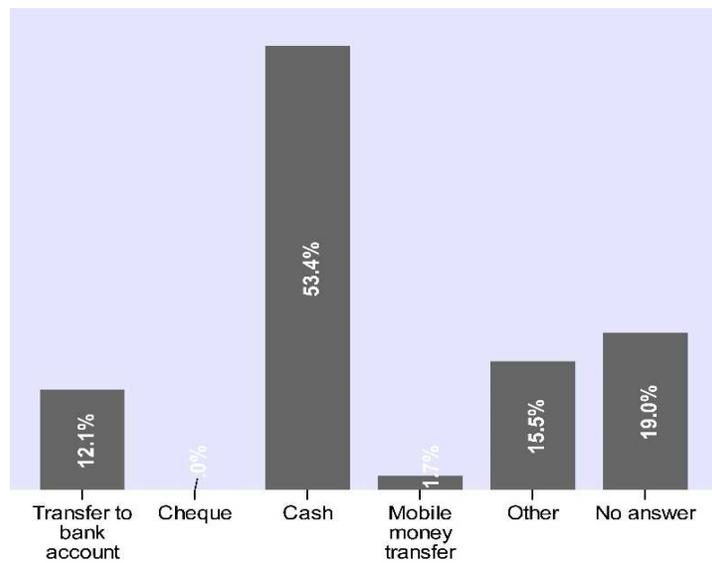
Approximately 4.9% of the respondents indicated that at least one member of their respective households works in another region in Guyana and would usually stay there for extended periods. Such household members have a presence in each of the administrative regions of the country (Figure 21). However, regions 7 (~23.1%) and 4 (~17.3%) are the most popular destinations for household members who work away from their home region with temporary living arrangements there. Next in line are regions 9 and 10, each of which account for approximately 11.5% of the cases and region 8 which accounts for 9.6% of the cases.



**Figure 21 Region in which household member works**

**Table 9 Money sent home before and during the COVID-19 pandemic**

	Money Sent Home in January 2020 (G\$)	Money Sent Home Last Month (G\$)
N	35	39
Mean	104,571.54	69,794.97
Median	60,000.00	30,000.00



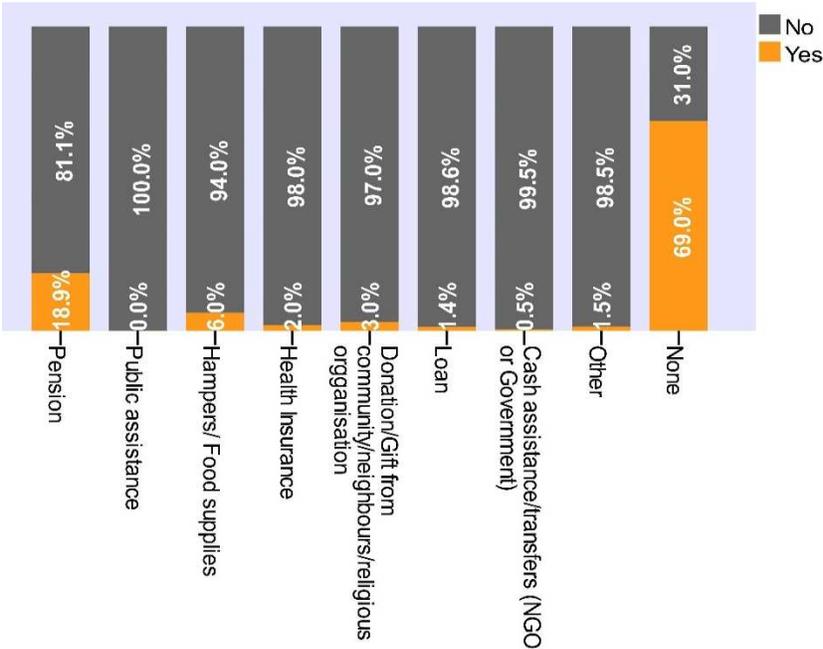
**Figure 22 Method of sending money home**

It is well known that Region 4 is the economic centre of the country, and is the location of the capital city, Georgetown. This might explain, to a large extent, the popularity of Region 4 as a destination for such individuals. The occurrence of regions 7, 8 and 9 which are regarded as interior regions among the more popular destinations might be explained to some extent by the mining and forestry activity within them. Nevertheless, temporary living arrangements in regions outside of the regions in which individuals live substantively might also be needed for several professional occupations including administrative positions within the public service.

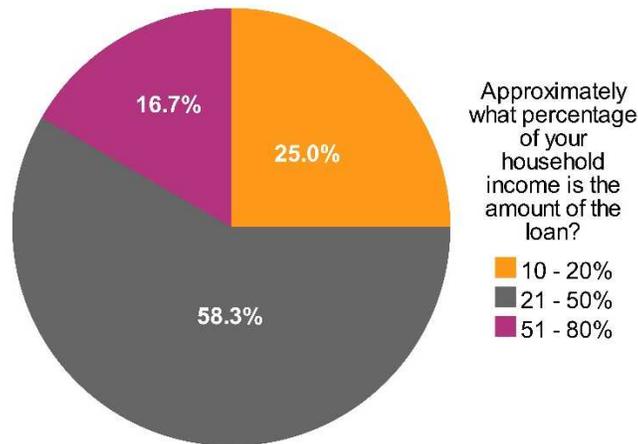
For the household that received money from members who work in other regions and have temporary living arrangements there, cash is the most popular form in which the money is transmitted. In particular, more than half of the respondents (~53.4%) indicated that they received cash (Figure 22). Cheque and mobile money transfers are especially unpopular for this purpose but there is some evidence for transfers to bank accounts.

**4.3.3 Other sources of income during COVID-19 pandemic**

The survey respondents were asked about sources of household income apart from paid employment. A large majority of them (~69%) indicated that they had no other source of income. Except for those who indicated that one or more individuals received pension (~18.9%) and those who indicated that their households received hampers, food or household supplies (~6%), each of the other sources of income was indicated by at most 3% of the households (Figure 24).



**Figure 23 Other income during the COVID-19 pandemic**



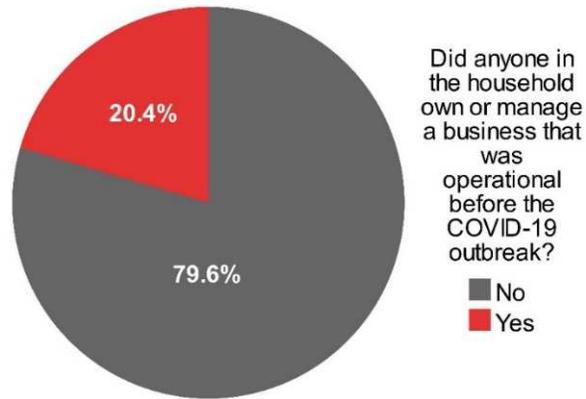
**Figure 24 Loan percentage of income**

Specifically, as it relates to having received a loan during the period, approximately 1.4% of the households received such income (Figure 23). Approximately 29.4% of the households received loans from commercial banks, 23.53% from other formal financial institutions and 23.5% from other non-formal sources which were not friends and family. The size of the loans was between 10 and 80% of total household income. In particular, the loans were between 21 and 50% of household income in 58.3% of the cases, between 10 and 20% in 25% of the cases and between 51 and 80% in 16.7% of the cases.

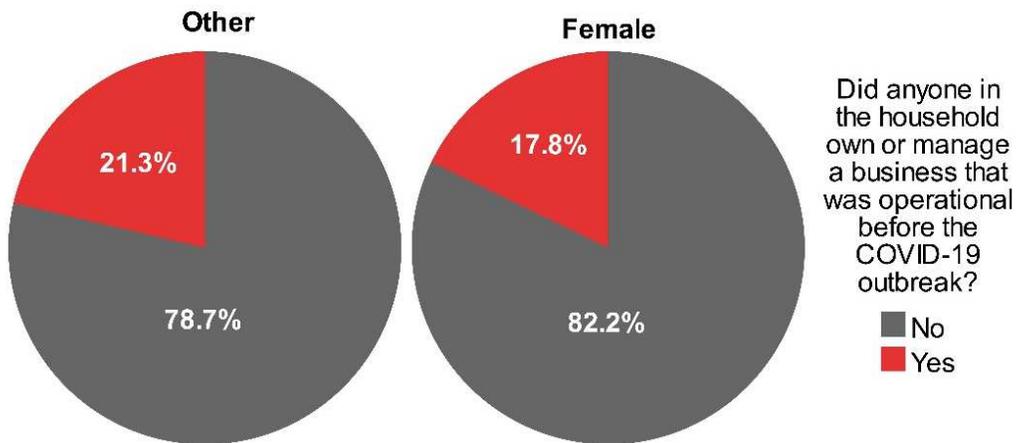
#### 4.3.4 Household business

Approximately 20.4% of the households have at least one member who owns a business that was operational prior to COVID-19 (Figure 25). When female headed households are compared with the others, the percentage is significantly lower. The implication of this is that there are fewer female headed households with members owning businesses (Figure 26).

The businesses owned by members of the households operate in many sectors with wholesale and retail (~20.6), food processing and production (~16.8%) and agriculture, fishing and forestry (~11.8%) accounting for the largest proportions of the businesses (Figure 27).



**Figure 25 Business owner in household**



**Figure 26 Business owner in female headed versus other households**

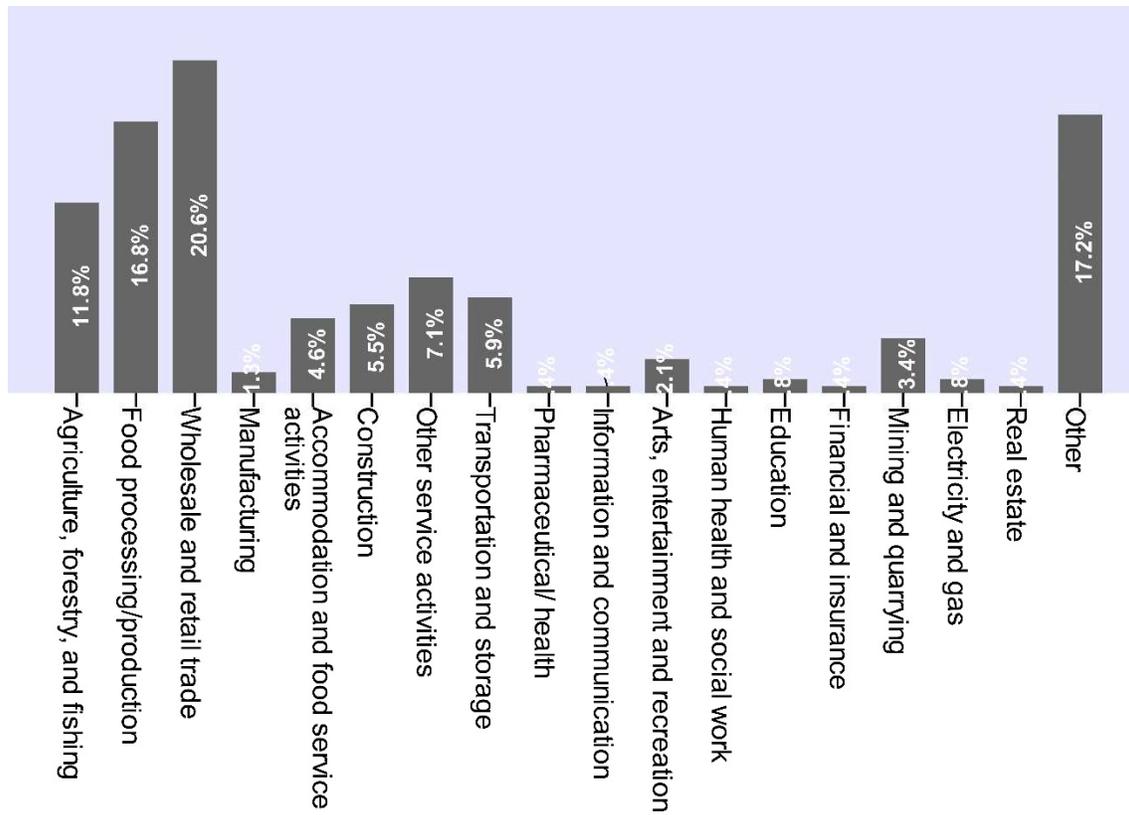


Figure 27 Business category

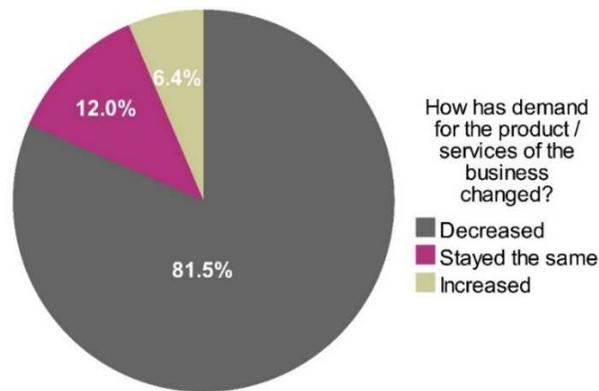
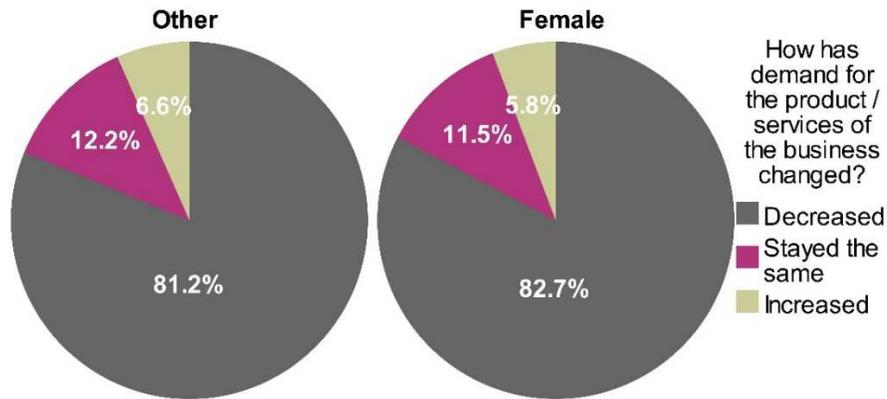


Figure 28 Demand for business products and services

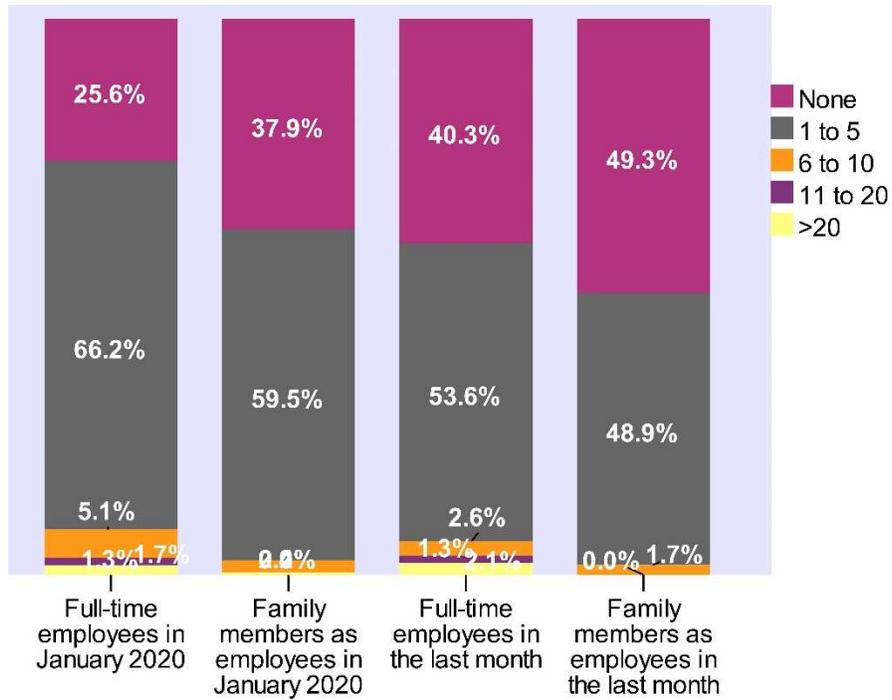


**Figure 29 Demand for business products and services from female headed versus other households**

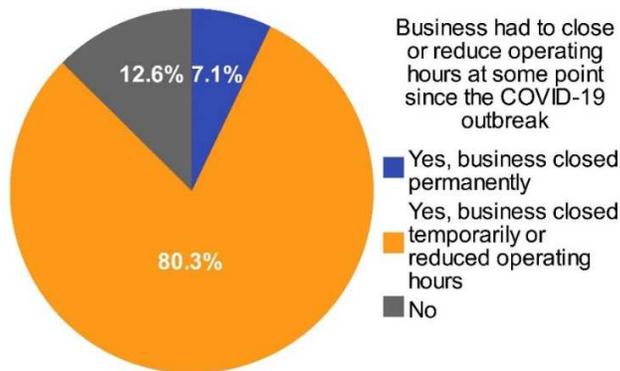
Many of the businesses owned by members of the households were impacted by COVID-19. In particular, just approximately 12% of the respondents indicated that demand for the products and services of the businesses remained the same since the COVID-19 pandemic began in Guyana (Figure 28). This means that for approximately 88% of the cases, there has been a change in the level of demand. Demand increased for approximately 6.4% and decreased for approximately 81.5% of the household businesses. A large majority of the household businesses therefore experienced a decline in the demand for their products and services.

The decline in demand for business products and services has also evidently been similar between businesses owned by members of female headed households and households headed by at least one male (Figure 29).

The businesses owned by the members of the households typically had 1 to 5 employees before the pandemic. Nevertheless, there is evidence of much fewer businesses having more than five employees and even greater evidence for the businesses having no employees (see Figure 30). The businesses are therefore typically small businesses with respect to the number of persons that they employed. This trend for the businesses to have 1 to 5 employees and to employ largely family members continued during the COVID-19 pandemic. However, there is a noticeable increase in the percentage of cases that indicated that they had no employees during the pandemic. The pandemic therefore appears to have led to reduction in the business workforce by leading to reduced numbers of employed persons and even in the number of family members employed in the businesses.

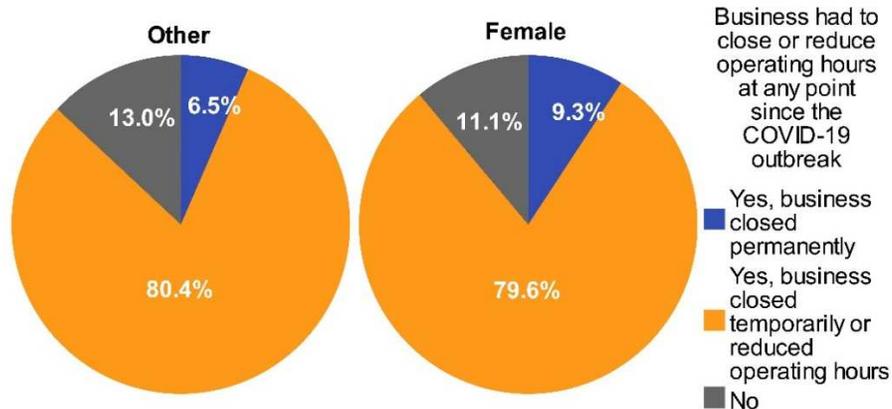


**Figure 30 Number of business employees**

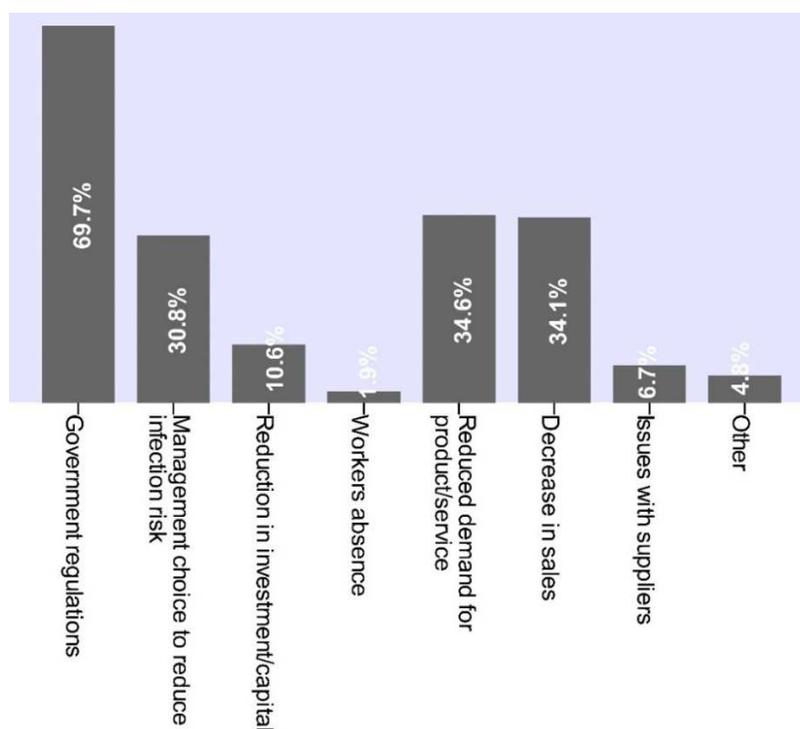


**Figure 31 Business closure or reduction of operating hours**

One of the more direct causes of the reduction in employees is perhaps closure of businesses owned by members of the households. Approximately 7.1% of the respondents indicated that the businesses owned by members of their households had to close permanently due to the COVID-19 pandemic whereas approximately 80.3% reduced operating hours or closed temporarily (Figure 31). Only approximately 12% of the businesses owned by household members escaped these consequences.



**Figure 32 Business closure for female headed versus other households**



**Figure 33 Reasons for closure of business**

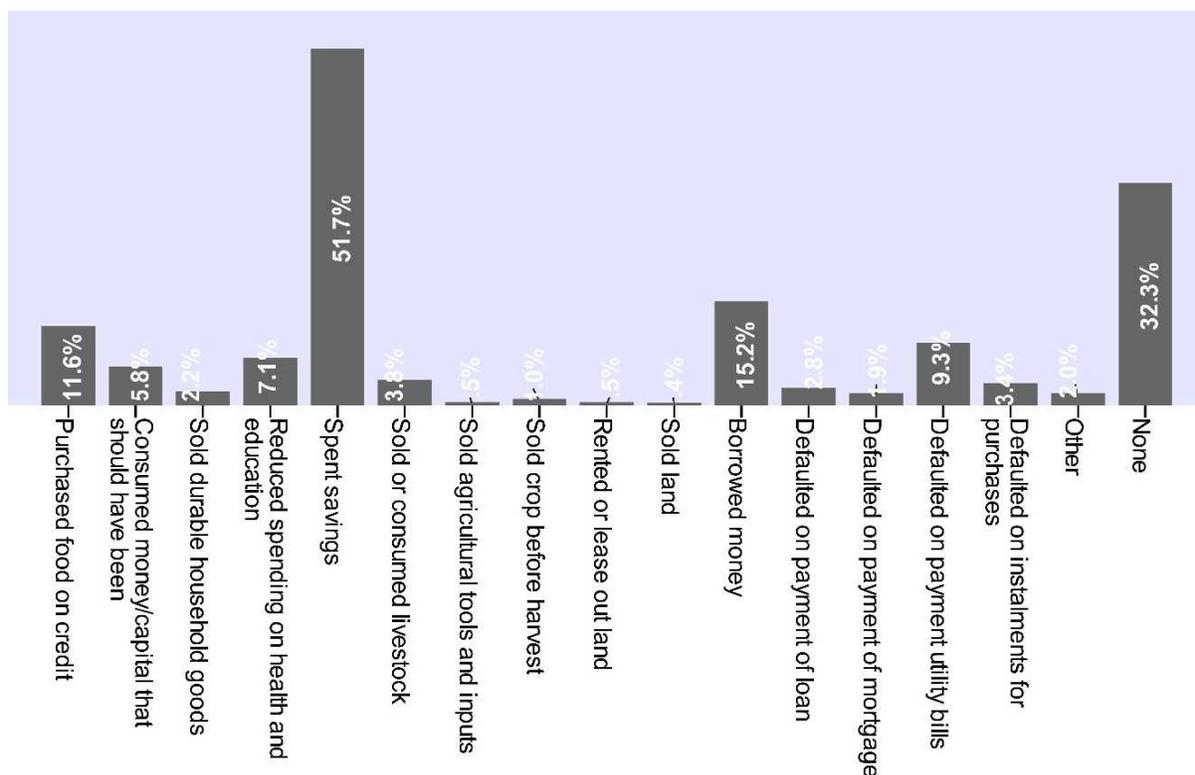
The percentages for each of the outcomes are fairly similar between female headed and other households (Figure 32).

Closure of the businesses owned by members of the households resulted from several issues but mainly from the need to adhere to government regulations as reported by the respondents (Figure 33). This reason was identified by approximately 69.7% of the respondents. Next in line are reduced demand (~34.6%), decrease in sales (~34.1%) and management choice to reduce infection risk (30.8%). In addition, some cited reduction in investment capital (~10.6%),

problems with suppliers (~6.7%) and absence of workers (~1.9%). It should be noted that households could have indicated multiple reasons for closure of the businesses.

#### 4.4 Financial and non-financial decisions since COVID-19

The onset of COVID-19 resulted in many households having to make both financial and non-financial decisions in the interest of their welfare, but there are some households that have not had to make such decisions in response to the impact of the pandemic. Approximately 32.3% and 37.4% of the households indicated that they had to make no financial and non-financial decisions respectively in response to the impacts of COVID-19. This means that large majorities of the households needed to do so.



**Figure 34 Financial decisions during COVID-19 pandemic**

More than half of the households (~51.7%) indicated that they spent their savings, 15.2% borrowed money, 11.6% purchased food on credit and 9.3% defaulted on payment of utility bills (Figure 34). A small percentage of the household (~7.1%) even reduced spending on health and education. Each of the other financial decisions was made by less than 7% of the households. Disaggregation of these data to allow inspection of results for female headed versus other households does not reveal any peculiar patterns (see Figure 35). Both groups of households made the respective decisions at similar rates.

None of the non-financial decisions was made by as many as half of the households. The largest percentage of households bought cheaper though less preferred brands or products (~37.1%) which would include food and other items. This is followed by growing food for themselves (~24.8%), reducing the portions for meals (~23.7%), reducing the number of meals per day

(~15%), borrowing food from relatives (~7.2%) and skipping days without eating (~4.2%). When households headed exclusively by females are compared to those headed by at least one male, the results are similar for almost all of the decisions. The main difference observed is that female headed households began growing their own food at a lower rate (~16.9%) than the other households (~27.4%).

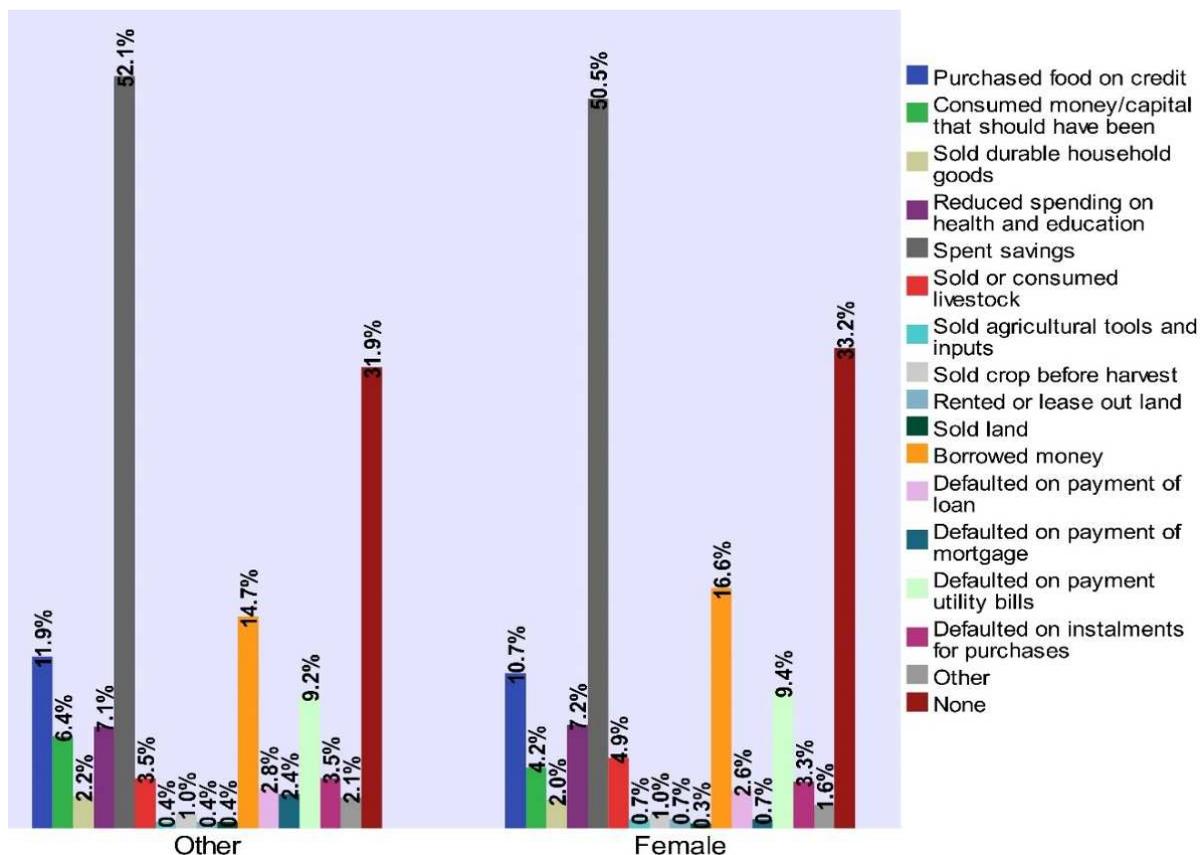


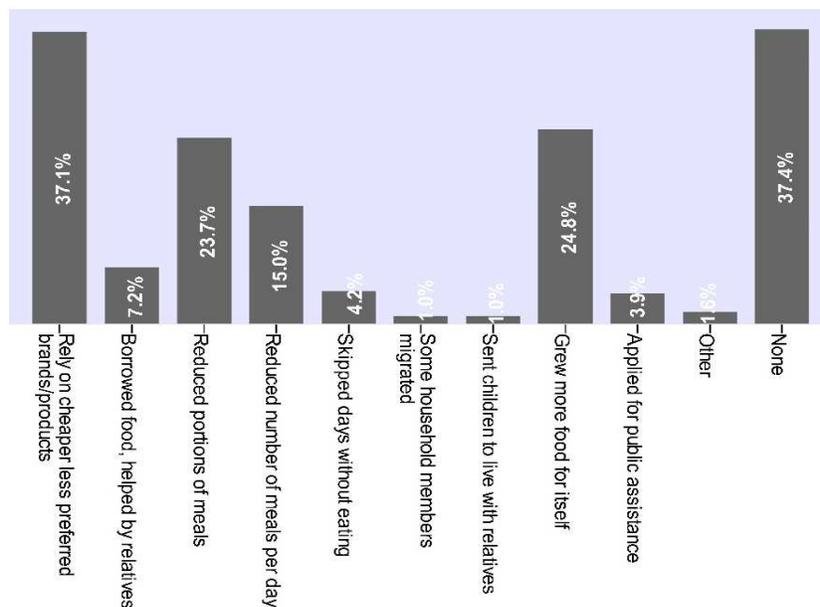
Figure 35 Financial decisions by female headed versus other households

Table 10 Logistic regression for having made financial decisions during COVID-19

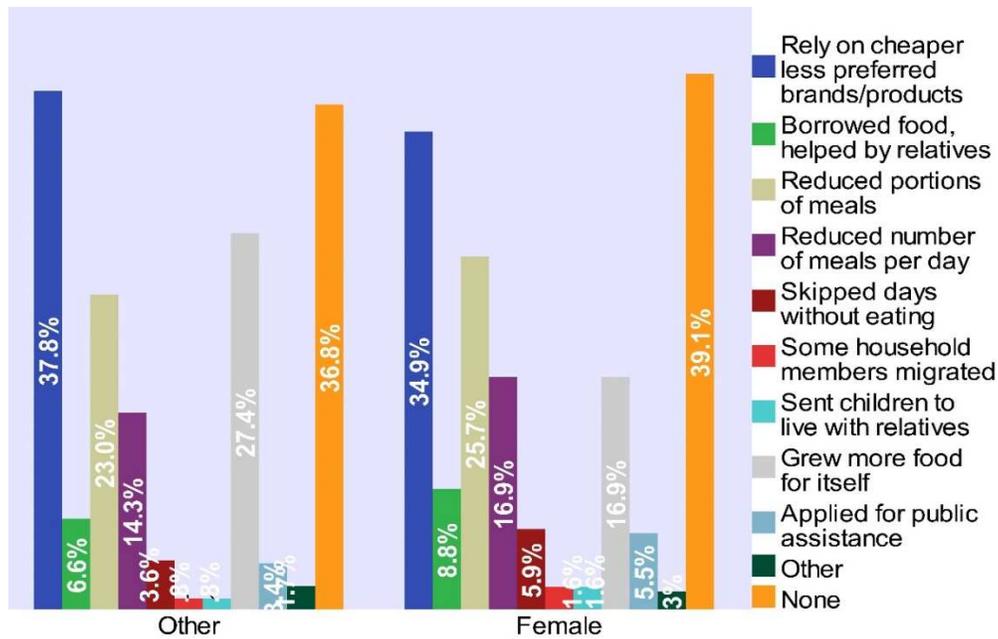
Independent Variable	Coefficient (Std. Error)
Household size	0.00 (0.04)
Average age of household members	-0.02* (0.01)
University graduate in household (yes =1, No =0)	-0.38* (0.15)
Household head (female only =1, Other =0)	-0.07 (0.14)
Location (hinterland =1, coastland =0)	0.17 (0.21)

Children in household (Yes =1, No =0)	-0.08 (0.17)
Intercept	1.41* (0.31)
Likelihood Ratio Chi Square (df =6)	17.85
P-value	0.01
Pseudo R-squared	0.01
<i>* Significant at the 5% level</i>	

Whether or not the households had to make at least one financial decision appears to be related to the average age of the members of the household and to whether or not a university graduate resides in the household (see Table 10). Specifically, larger household average age is associated with a reduced likelihood of having had to make a financial decision and households with at least one university graduate residing in them are less likely than other households to have had to make such a decision.



**Figure 36 Non-Financial decisions during COVID-19**



**Figure 37 Non-financial decisions by female headed versus other households**

The need to reduce the size of portions and the number of meals altogether and skipping days without eating appear as very important and noteworthy consequences of the COVID-19 pandemic for some households, as is the finding that many households began to grow their own food.

**Table 11 Logistic regression for non-financial decision during COVID-19**

Independent Variable	Coefficient (Std. Error)
Household size	-0.01 (0.03)
Average age of household members	-0.01 (0.01)
University graduate in household (yes =1, No =0)	-0.19 (0.15)
Household head (female only =1, Other =0)	-0.11 (0.14)
Location (hinterland =1, coastland =0)	0.50* (0.21)
Children in household (Yes =1, No =0)	-0.02 (0.17)
Intercept	0.93* (0.30)
Likelihood Ratio Chi Square (df=6)	14.22
P-value	0.03
Pseudo R-squared	0.01
<i>* Significant at the 5% level</i>	

The need to have made non-financial decisions during the pandemic is related to only one variable of the set included the explanatory model. Only the location variable has a significant relationship with having made at least one non-financial decision. Households in the hinterland regions are more likely than households in the coastal regions to have had to make at least one non-financial decision during the pandemic.

### 4.5 Access to food and services

Access to food and other essential items has been a topical issue since the emergence of the COVID-19 pandemic. In fact, there were many images and videos capturing the behaviour of people at markets and other food and non-food items points of sale since that time. Apart from this, this report uncovered impacts of the pandemic on businesses some of which would provide food and other essential items and services. It is therefore important to understand the experiences of Guyanese households in relation to these matters.

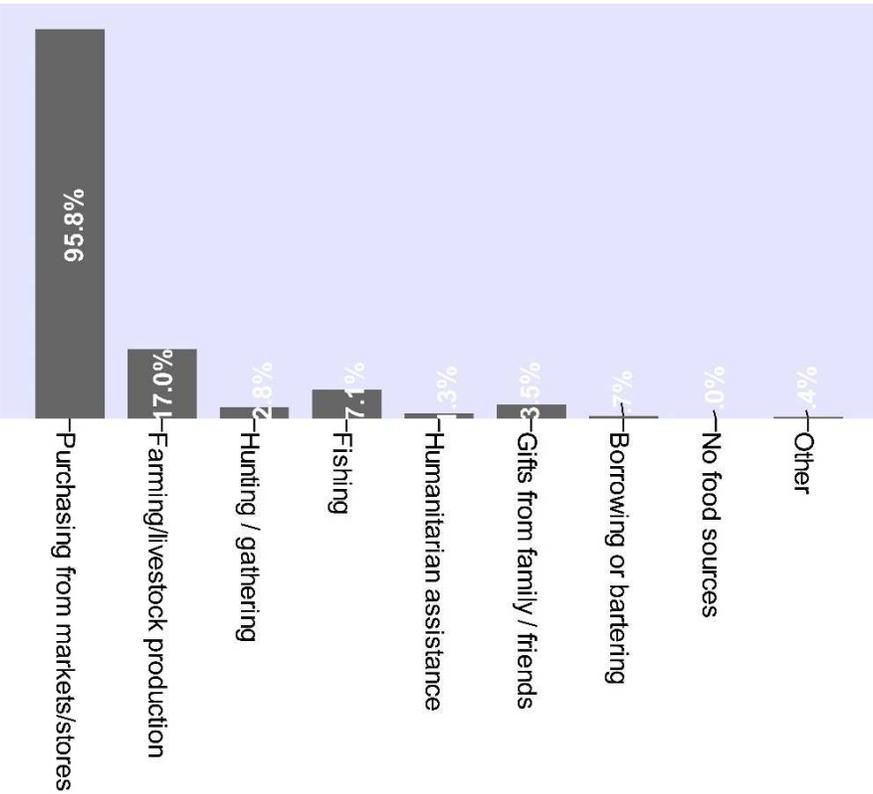
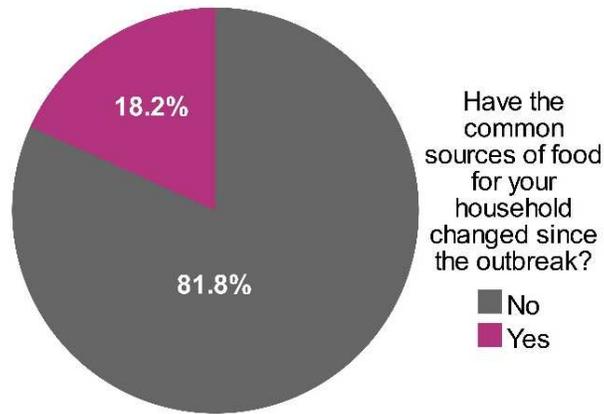
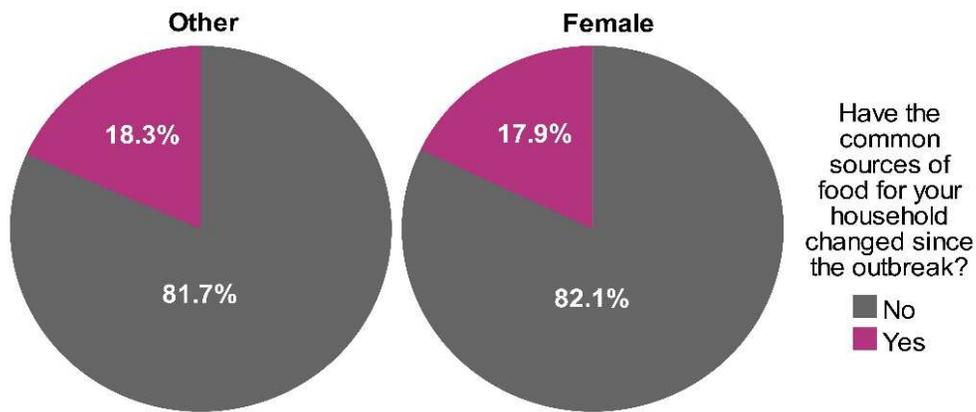


Figure 38 Source of food before COVID-19

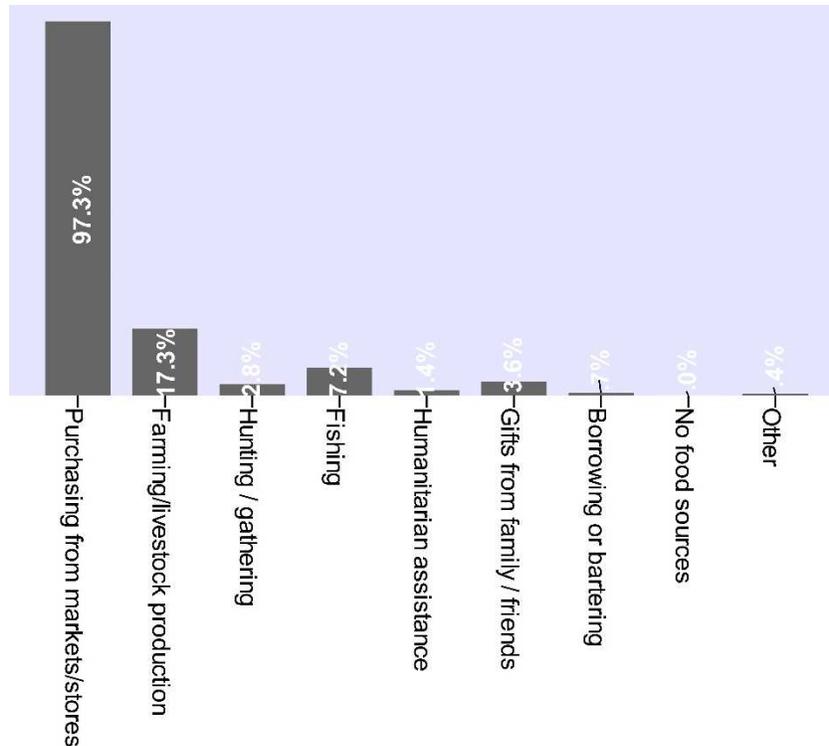


**Figure 39 Changes in sources of food during COVID-19**



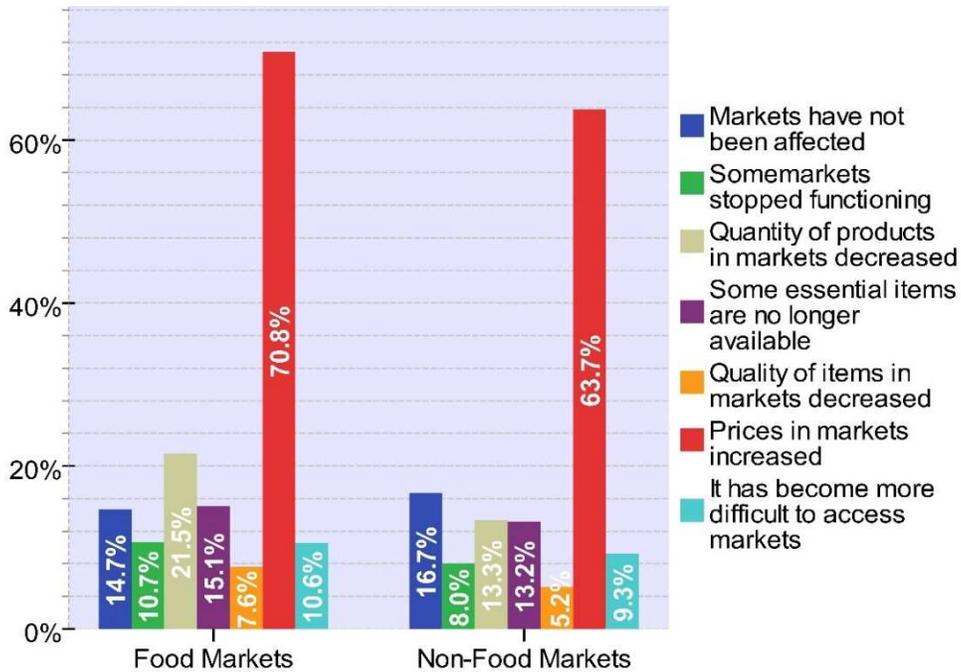
**Figure 40 Changes in sources of food for female headed versus other households**

Prior to the COVID-19 pandemic, approximately 95.8% of the households purchased food from markets and stores, whereas approximately 17% of them obtained food from farming and livestock production. Each of the other sources were identified by fewer than 7.5% of the households (see Figure 38). During the COVID-19 pandemic, there were changes in the sources of food for approximately 18.2% of the households (Figure 39) and similar percentages of female headed and other households indicated that there were such changes (Figure 40). The changes in sources of food resulted in relatively small shifts in the distribution of households over the various sources (see Figure 41). There were small increases in the percentage of households that purchased from markets or stores and in the percentage of households that obtain food from farming and livestock production.



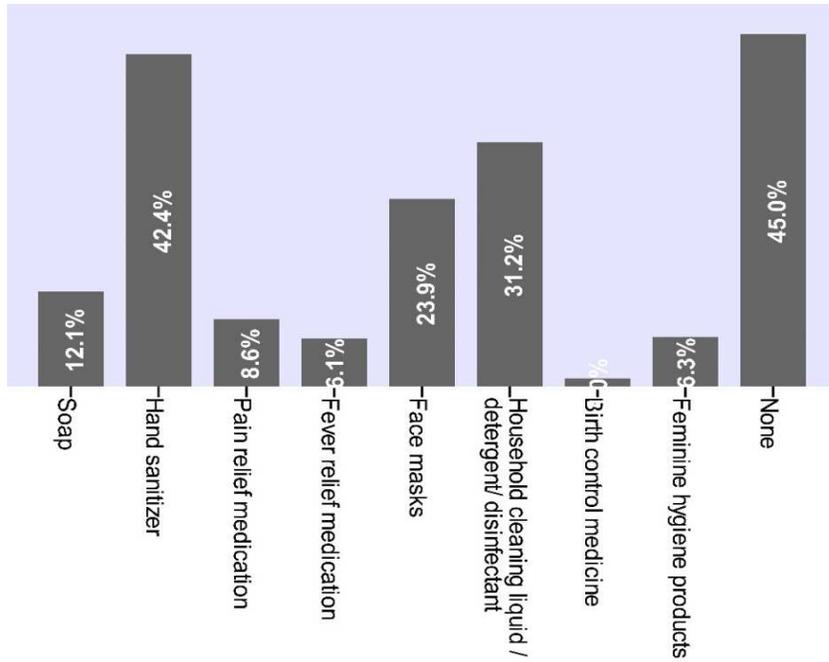
**Figure 41 Sources of food during the COVID-19 pandemic**

When asked about how nearby food and non-food markets have been affected by the COVID-19 pandemic, the respondents indicated several relevant effects with the effects appearing to be more pronounced for food markets than for non-food markets. Most noticeable among the effects is that for both food and non-food markets, prices were increased (see Figure 42). Approximately 70.8% and 63.7% of the respondents said this about food markets and non-food markets respectively. Next in line is a decrease in the quantity of the products which was cited by 21.5% and 13.3% for food and non-food items respectively. The third observation is that approximately 15.1% and 13.2% respectively of the respondents indicated that some food and non-food items are no longer available altogether. When this is viewed in combination with the preceding observations about increasing prices and decreasing quantities of what is available, a picture of increased difficulties in accessing the needed items for households emerge. Yet there are still other consequences inclusive of some markets disappearing altogether, decreased quality of products and more difficulty accessing the markets themselves though they were each reported by fewer than 10.7% of the respondents. In spite of the above observations, these effects were not felt by all. In particular, approximately 14.7% and 16.7% indicated that there were no effects on the nearby food and non-food markets respectively.

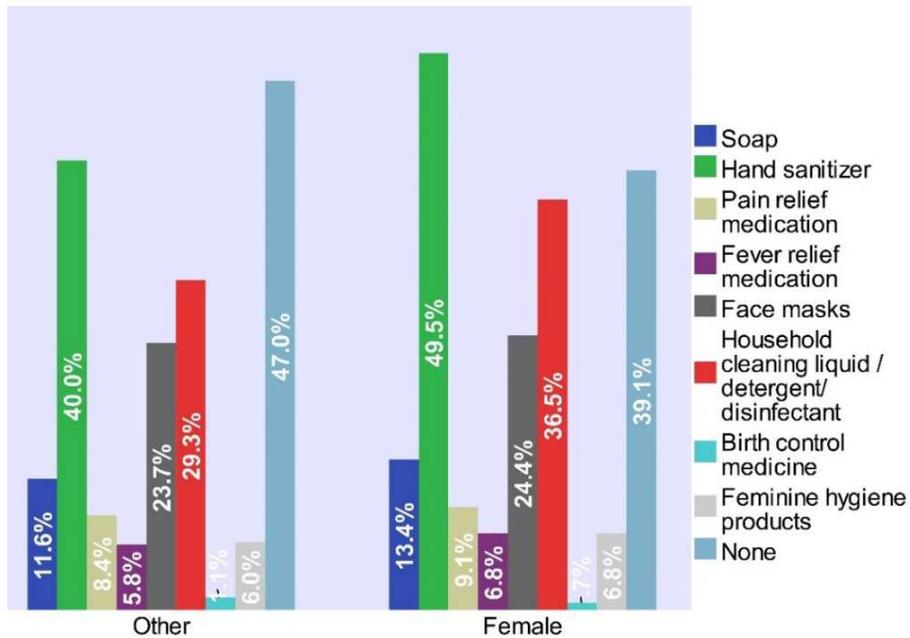


**Figure 42 Effects of COVID-19 on nearby food and non-food markets**

Some specific non-food items were presented to the respondents and they were asked to indicate which of them their households had difficulties accessing during the pandemic (see Figure 43). Approximately 45% of the respondents indicated that they did not have difficulty accessing any of the items. This response was made by both those who use the items and those who do not use the items. The main items for which households had difficulties accessing relate to cleaning and sanitation and personal protection from COVID-19. The specific items are hand sanitizer (42.4%), household cleaning liquid/ detergent (~31.2%) and face masks (~23.9%). The only other item which more than 10% of the households had difficulty accessing is soap, which was identified by approximately 12.1% of the respondents. Pain medicine, fever medicine and feminine hygiene products were identified by between 6 and 9% of the respondents whereas birth control medicine was identified by 1% of the respondents.



**Figure 43 Difficulty accessing non-food item**

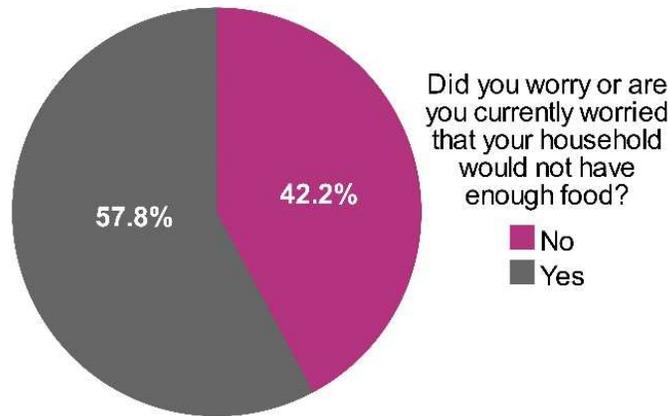


**Figure 44 Difficulty accessing non-food items for female headed versus other households**

When households headed exclusively by females are compared to other households with respect to the items with which they had difficulty accessing during the COVID-19 pandemic, it is first observed that whereas 47% of the other households had no difficulties obtaining the items, 39.1% of the female headed households had no such difficulties. This means that female headed households are more likely to have had difficulties obtaining one or more of the items. The main items with which they had greater challenges are hand sanitizers and cleaning liquids/ detergents and disinfectants. Whereas approximately 40% and 29.3% of the households headed by at least one male had challenges sourcing hand sanitizers and cleaning liquids/detergents and disinfectants respectively, approximately 49.5% and 36.5% of the households headed by females experienced such challenges (Figure 44).

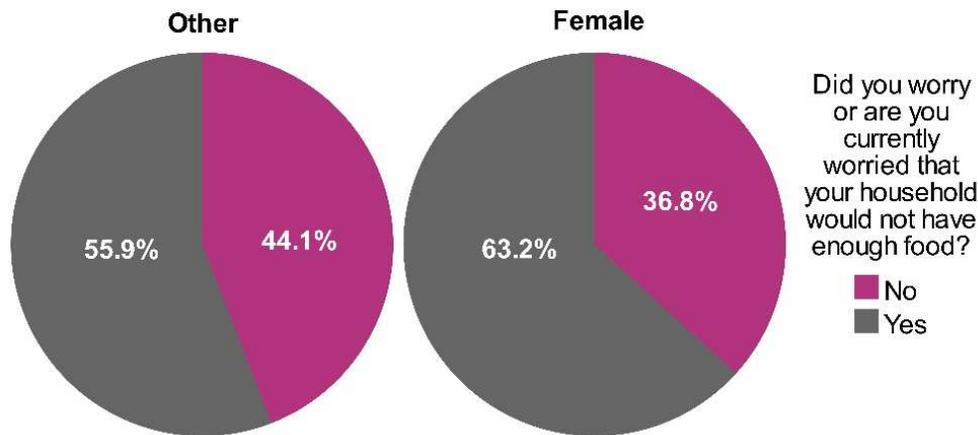
**Table 12 Logistic regression for difficulty accessing non-food items**

<b>Independent Variable</b>	<b>Coefficient (Std. Error)</b>
Household size	0.04 (0.03)
Average age of household members	-0.01* (0.01)
University graduate in household (yes =1, No =0)	0.16 (0.15)
Household head (female only =1, Other =0)	0.31* (0.14)
Location (hinterland =1, coastland =0)	0.54* (0.20)
Children in household (Yes =1, No =0)	-0.16 (0.16)
Intercept	0.43 (0.29)
Likelihood Ratio Chi Square (df=6)	25.57
P-value	0.00
Pseudo R-squared	0.02
<i>* Significant at the 5% level</i>	



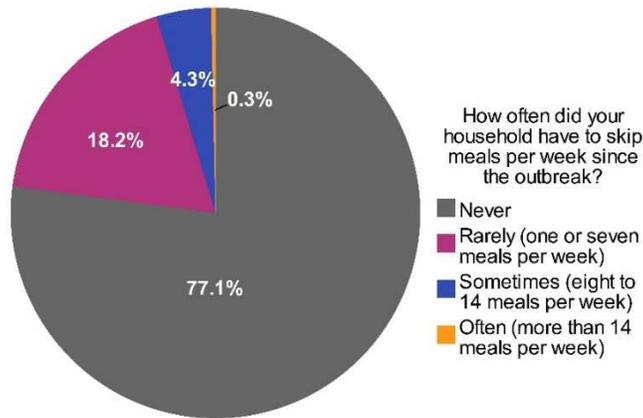
**Figure 45 Worried about household would not have enough food**

When difficulty accessing non-food, items is examined more closely, the average age of the household members and whether or not the household is located in the hinterland or coastland are found to have significant relationships with it and the relationship with female headed versus other households is confirmed. Whereas, households with a higher average age among their members are less likely to have had difficulties accessing the non-food items, female headed households are more likely to have experienced such difficulties and households in the hinterlands are more likely than their coastal counterparts to have had difficulties accessing non-food items during the pandemic (Table 12).

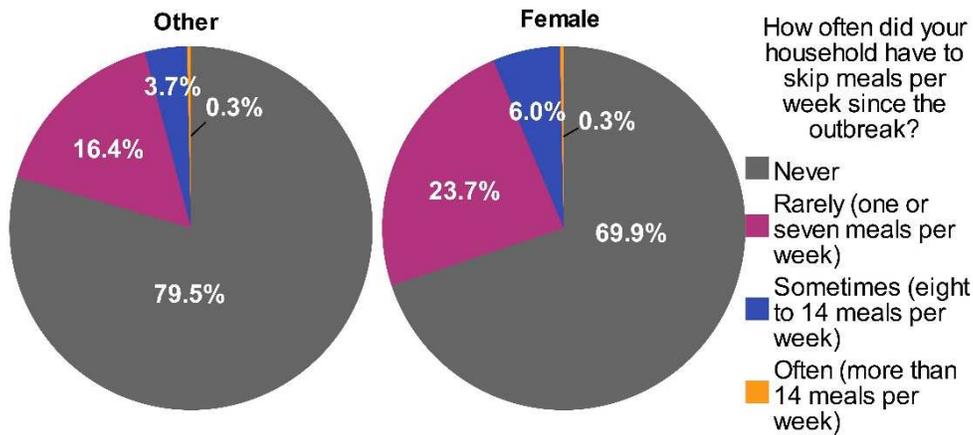


**Figure 46 Worry about enough food for female headed versus other households**

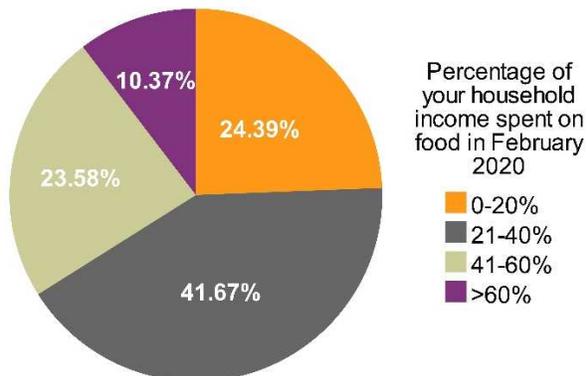
Approximately 57.8% of the respondents indicated that they worried or are worried that their households would not have enough food during the pandemic (Figure 45). It also appears that significantly more female headed households worried about this ( $z=-2.23$ ,  $p\text{-value} = 0.03$ ). In particular, whereas approximately 55.9% of the representatives of the other households confirmed that they worried about food, approximately 63.2% of the representatives of households headed by females indicated that they worried about not having enough food (see Figure 46).



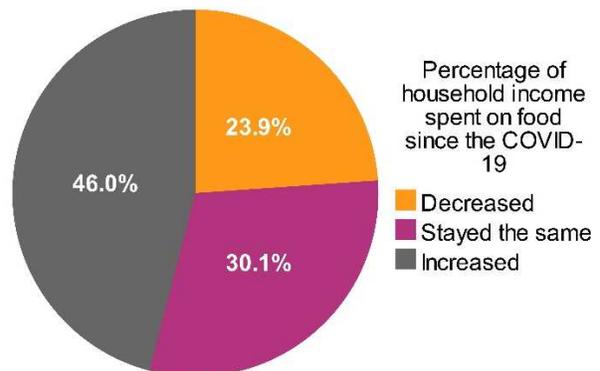
**Figure 47 Skipping meals during COVID-19**



**Figure 48 Skipping meals for female headed versus other households**



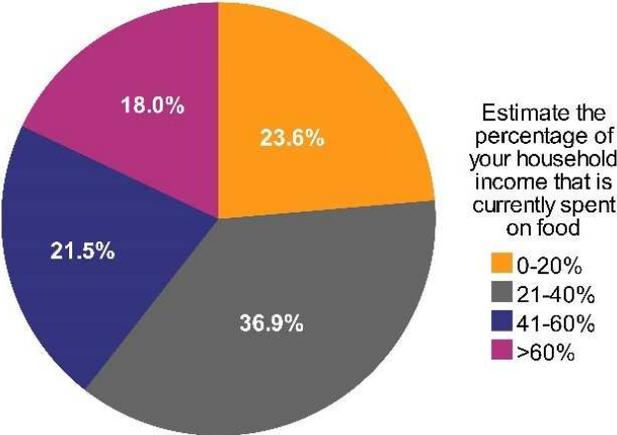
**Figure 49 Percentage of household income spent on food before COVID-19**



**Figure 50 Change in percentage of household income spent on food during COVID-19**

At the aggregate level, approximately 22.8% of all the households skipped meals since COVID-19 emerged in Guyana (Figure 47). When female headed households are compared to other households, the percentages that skipped meals are 30% to 20.4% (Figure 48) which means that this occurred in more female headed households than other households.

At the aggregate level, approximately, 18.2% of the households skipped seven meals per week whereas 4.3% of them skipped eight to fourteen meals per week and much fewer (~0.3%) reportedly skipped more than fourteen meals per week. The difference between female headed households and others is that larger percentages skipped seven and fourteen meals per week during the pandemic (Figure 48).



**Figure 51 Percentage of household income spent on food during COVID-19**

Prior to COVID-19, approximately 24.4% of the households spent up to 20% of their income on food whereas 41.6% spent 21-40%, 23.6% spent 41-60% and 10.37% spent more than 60% of their income on food (Figure 49). The amount spent on food remained the same for 30.1% of the households, increased for 46% of them and decreased for 23.9% of the households (Figure 50). This resulted in small reductions in the percentages for each of the categories except the category for households that spent more than 60% of their income on food. In this case, the share of households increased markedly to 18% (Figure 51). A larger percentage of the households therefore began spending more than 60% of their income on food during the COVID-19 pandemic.

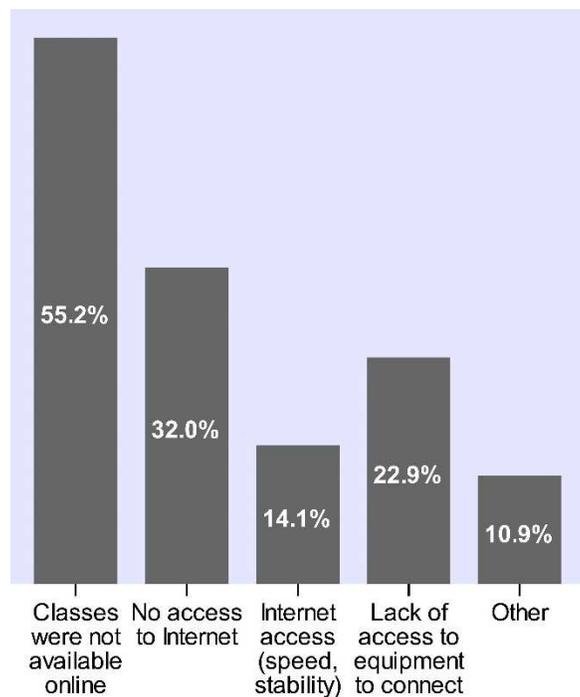
#### 4.6 Access to education

COVID-19 has affected the education process throughout the world and Guyana has not been an exception. In Guyana, the buildings of public schools were closed to students on March 16, 2020 and students have not physically returned to the schools except for grades 10-12 students as of December 2020. In the meantime, public and private schools have moved to varying degrees to adopt the use of technology to deliver education.

**Table 13 Average number of children attending school for households with children**

	n	mean	SD	p-value
Public School: Before March 11, 2020	692	1.53	1.28	0.00
Public School: After March 11, 2020	690	0.60	0.97	
Private School: Before March 11, 2020	673	0.26	0.65	0.00
Private School: After March 11, 2020	676	0.14	0.49	

*SD- Standard deviation. P-value is the p-value for a test for equality of means. Df – degrees of freedom for the t-test*



**Figure 52 Reasons for not attending school during the COVID-19 Pandemic**

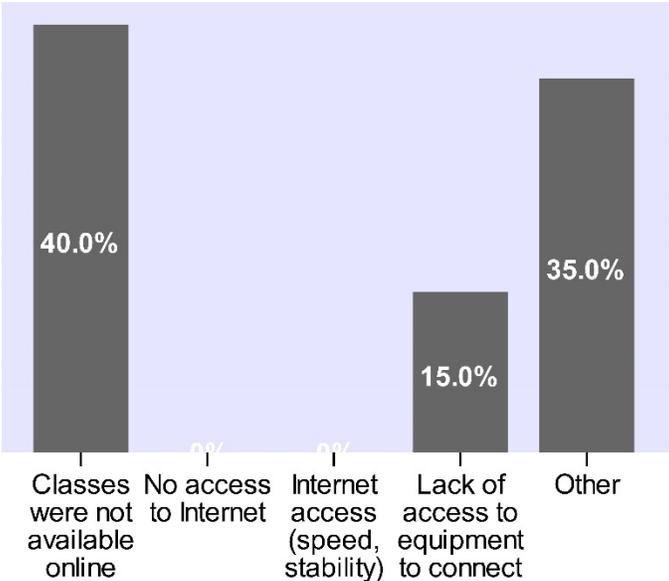
Among households with children, an average of 1.53 children per household attended public schools prior to the pandemic. This average dropped significantly to 0.6 (see Table 13) during the pandemic. The mean number of children per household with children attending private schools also dropped significantly during the pandemic from 0.25 to 0.14 (see Table 13). There has therefore been a reduction in the number of children attending schools during the COVID-19 pandemic.

More than half of the respondents representing households in which children stopped attending school during the pandemic (~55.2%) indicated that this was because classes were not available online (Figure 52). However, approximately 32% of them indicated that they had no access to the internet, and 22.9% said that the children lacked access to the equipment necessary to attend school online. In addition to this, 14.1% indicated problems with stability of internet connection, while 10.9% said that there was some other problem. It is clear that multiple reasons applied to the households with the most salient ones being that school was not available online, and that there were problems with internet access.

**Table 14 Attendance at university during the COVID-19 pandemic**

	n	Mean	SD
How many individuals in your household were attending university locally before March 11, 2020?	1127	0.12	0.41
How many of them [persons attending university] dropped courses due to COVID-19?	103	0.24	0.53

*SD – Standard deviation*

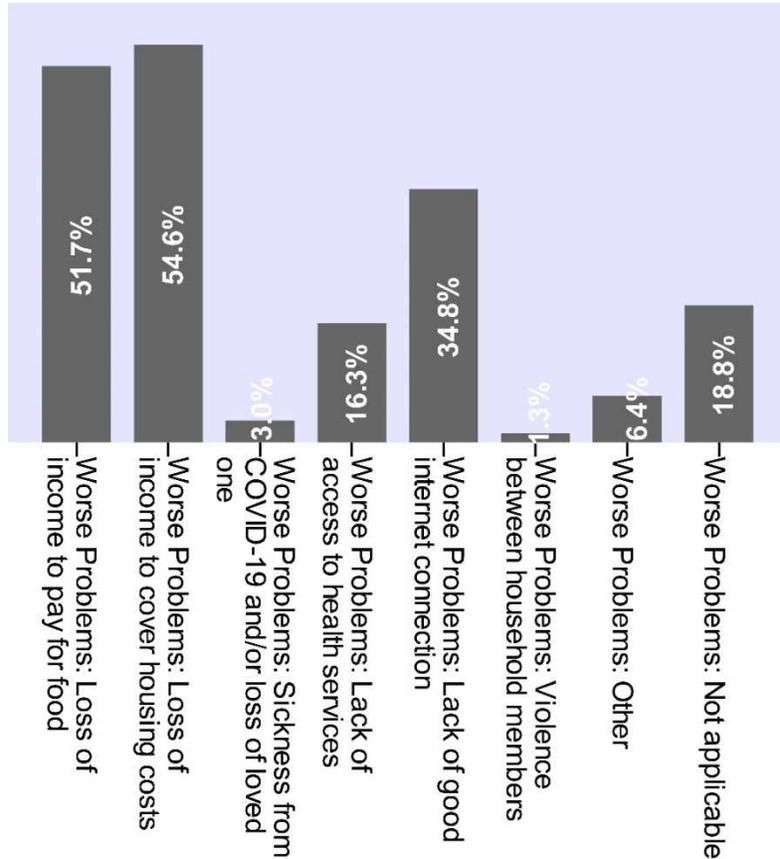


**Figure 53 Reasons for dropping university courses during the COVID-19 pandemic**

On average 0.12 persons per household were attending university locally prior to the emergence of COVID-19 in Guyana (Table 14). This is the average number of persons per household over all households. Of the households with members who were attending university, approximately 0.24 students per household dropped courses during the pandemic. This dropping of courses does not necessarily mean that the individuals left the universities altogether. Some might have left universities altogether, but others might have just dropped courses to reduce their load. The COVID-19 pandemic therefore also appears to have affected participation in education at the university level.

## 4.7 Priority assistance

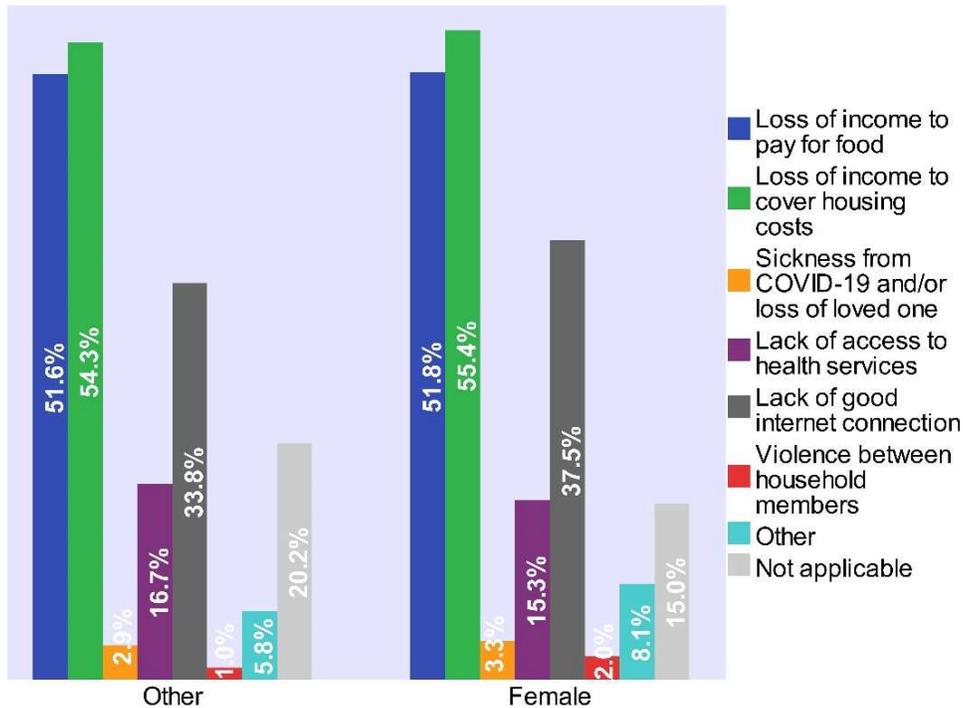
In the survey, the respondents were asked to indicate three problems experienced by their households that were the worst or most consequential of all the problems experienced during the COVID-19 pandemic so far. Based on the responses obtained, the worst and most consequential problems are loss of income to cover housing costs (~54.6%), loss of income to pay for food (~51.7%) and lack of good internet connection (~34.8%) (Figure 54). In addition to these three that were identified most often, lack of access to health services was identified as one of the top three by 16.3% of the respondents. Each of the other problems was identified by fewer than 4% of the respondents as one of the top three.



**Figure 54 Three most severe problems faced by households since COVID-19**

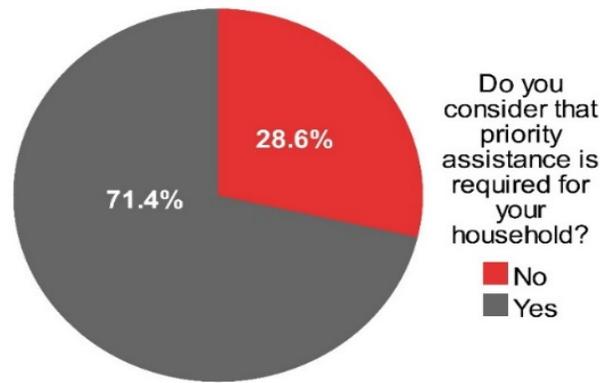
The top three problems at the aggregate level relate to income and internet access. It was discussed in this report that households experienced loss of employment and reduced income as two of the consequences of the COVID-19 pandemic. It appears that this resulted in important consequences for the affected households. Apart from this, the identification of poor internet access as one of the most consequential problems is understandable given that COVID-19 has forced many businesses and schools to go online as the primary means of engaging in their activities. Whereas internet access might have previously been a secondary consideration for many households, it would have emerged as essential during the pandemic.

The top three most severe problems encountered are the same for female headed and other households and the percentage of households in these groups that identified the issues in their top three are fairly similar except perhaps for lack of internet connection (Figure 55). For a lack of internet connection there is a percentage point difference of 3.7 with female headed households having the larger value. This means that lack of internet access is a somewhat greater problem among households headed exclusively by females.

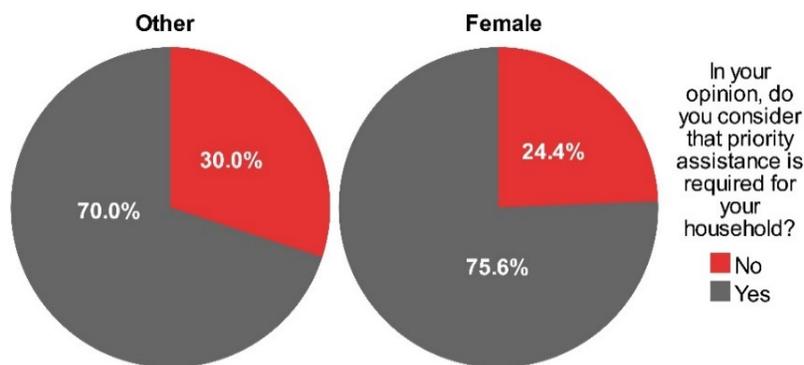


**Figure 55 Three most severe problems for female headed versus other households**

Approximately 71.4% of the respondents indicated that they believe that priority assistance is needed for their respective households (Figure 56), with large percentages of both households headed by females (~75.6%) and other households (~70%) indicating that priority assistance is needed (Figure 57). However, a larger percentage of the households headed by females indicated the need for priority assistance.



**Figure 56 Need for priority assistance**



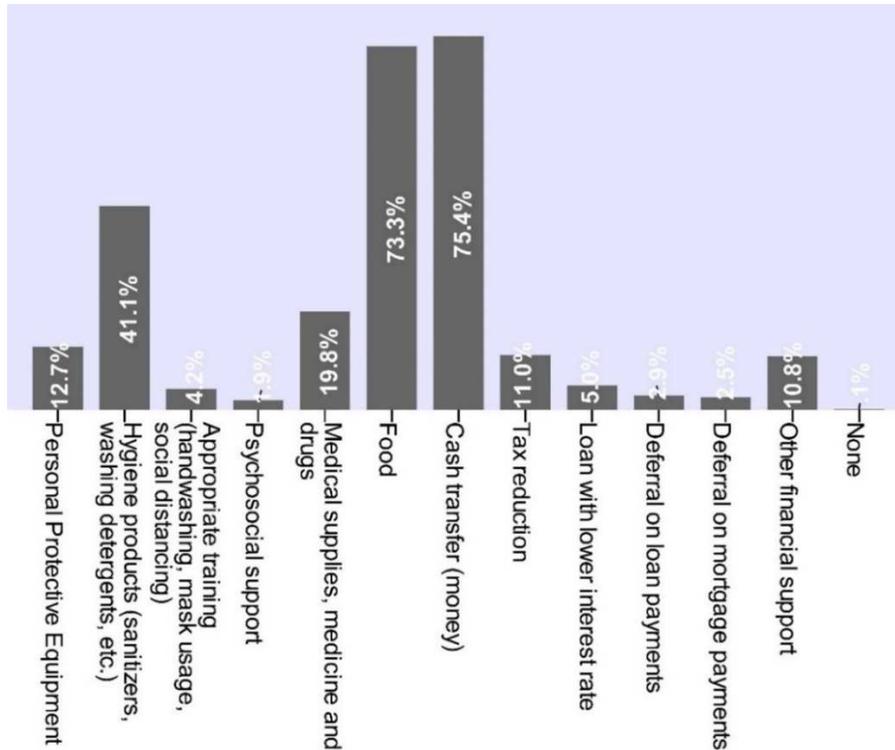
**Figure 57 Need for priority assistance by female headed versus other households**

**Table 15 Logistic regression of need of priority assistance**

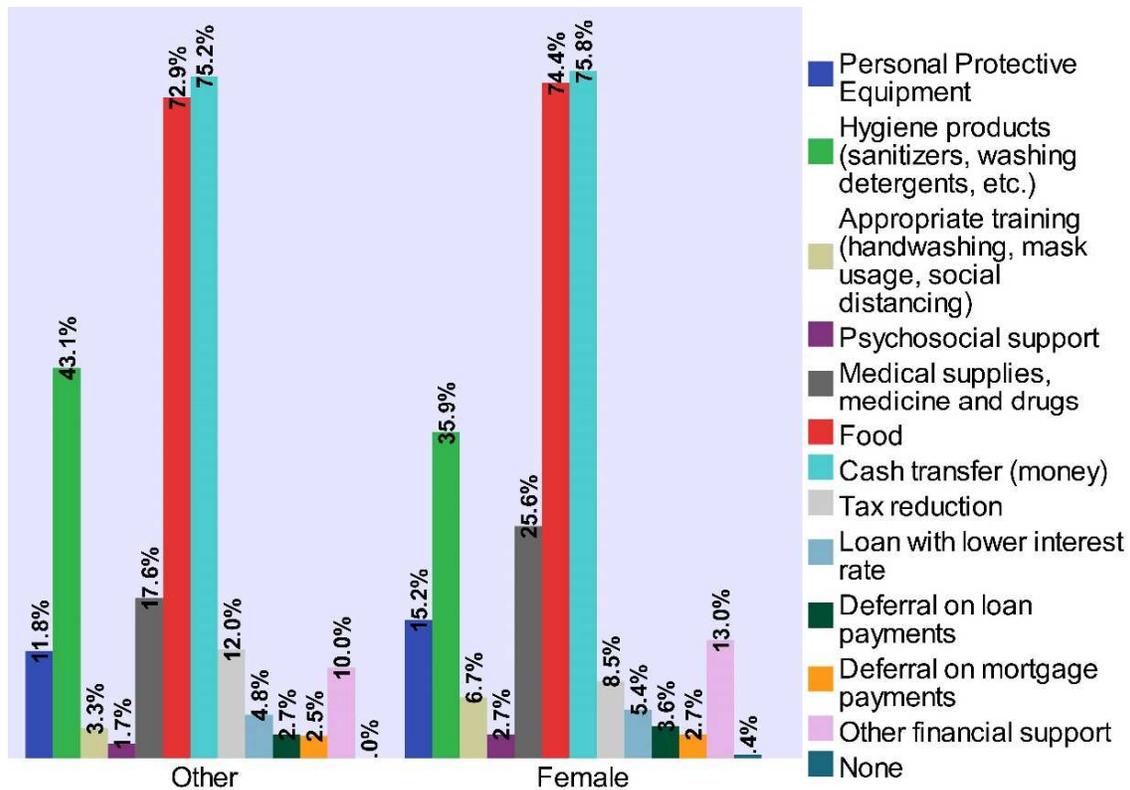
Independent Variable	Coefficient (Std. Error)
Household size	0.06 (0.04)
Average age of household members	0.01 (0.01)
University graduate in household (yes =1, No =0)	-0.94* (0.16)
Household head (female only =1, Other =0)	0.33* (0.16)
Location (hinterland =1, coastland =0)	0.09 (0.23)
Children in household (Yes =1, No =0)	0.46* (0.18)
Intercept	0.20 (0.33)
Likelihood Ratio Chi Square (df=6)	57.12
P-value	0.00
Pseudo R-squared	0.04

*\* Significant at the 5% level*

The logistic regression model for priority assistance confirms that female headed households are more likely than their counterparts to have indicated such a need (Table 15). In addition, it indicates that households with children were also more likely than those without to have indicated such a need but that households with at least one university graduate were less likely to have identified a need for priority assistance (Table 15). Female headed households and those with children below the age of 18 years therefore appear to be appropriate targets of COVID-19 relief interventions though they are not the only households with such needs.



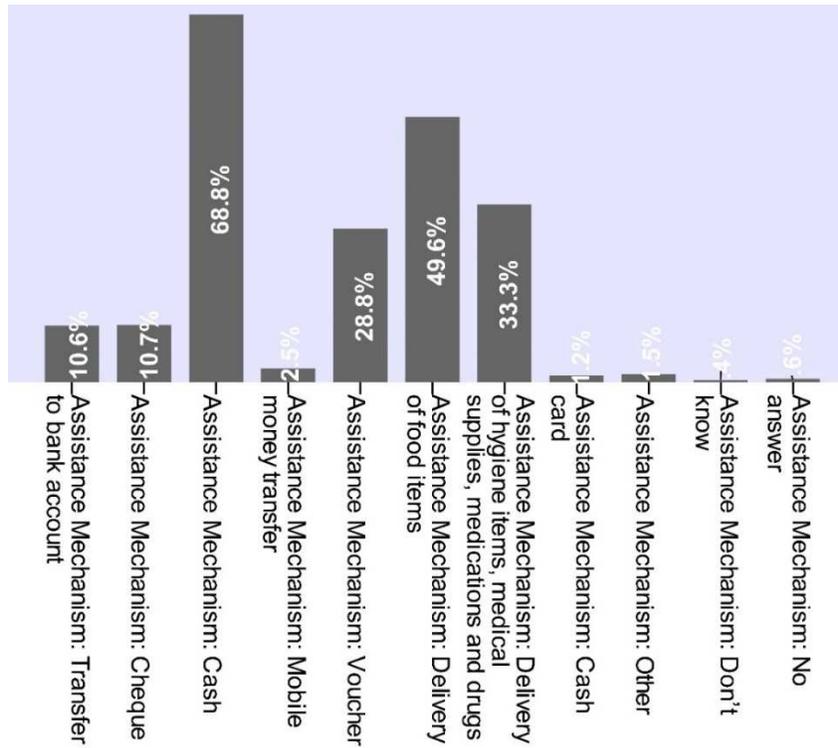
**Figure 58 Priority assistance needed**



**Figure 59 Priority assistance for female headed versus other households**

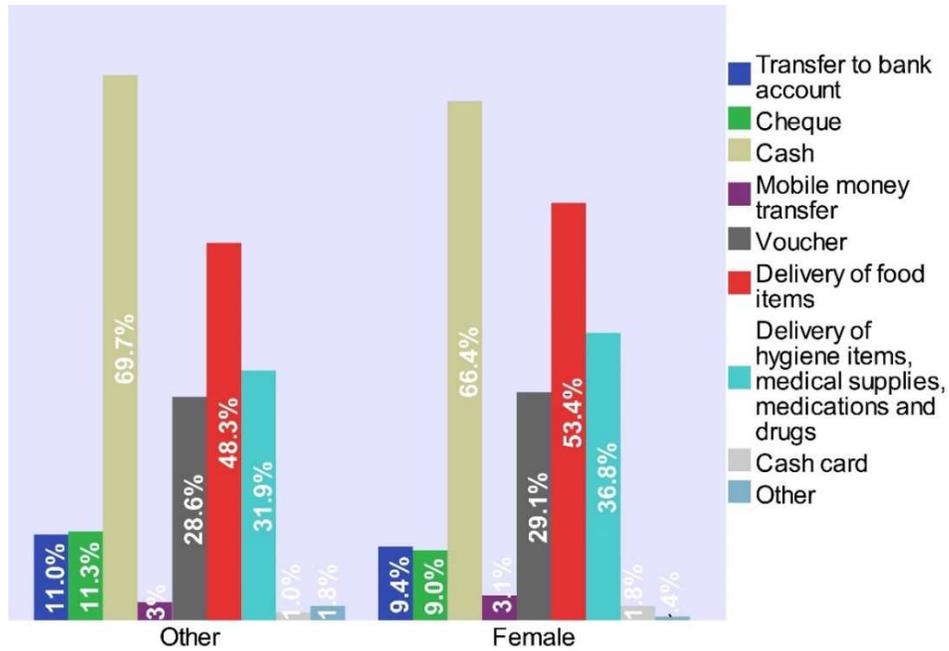
When asked further to select three kinds of assistance that are needed, the respondents tended to settle on cash transfer (~75.4%), food (~73.3%) and hygiene products (~41.1%) as the top three choices as the aggregate level (Figure 58). These top choices appear to be direct results of the previously discussed reduction in household income combined with increased prices at the aggregate level and of the shortages of both food and non-food items experienced during the pandemic. Relief packages that include cash, food and hygiene products would therefore appear to find favour with the largest proportions of the households given that these have been identified as the top areas for assistance. Apart from the top three choices, more than 10% of the respondents selected medicine and medical supplies (~19.8%), personal protective equipment (~12.7%) and tax reduction (~11%). These choices would help the households to protect their health and obtain some more economic freedom during the pandemic.

Disaggregation of the data into female headed and other households reveals fairly similar patterns in the choices with the top three remaining as cash, food and hygiene products in each group (see Figure 59). The percentages of households within the groups that chose these items are similar for cash and food, however, a notable difference is observed for hygiene products. Whereas the value is 35.9% for female headed households, it is 43.1% in other households, thereby indicating lower demand among female headed households. Another notable difference is observed in relation to medical supplies, medicine and drugs which are not among the top three choices. In this case, there appears to be a higher demand among the female headed households (~25.6%) than the other households (~17.6%).



**Figure 60 Preferred methods of receiving assistance**

The respondents were also asked about the means by which they would prefer to receive priority assistance. In response to this question, four means emerge as most popular. These are cash (~68.8%), delivery of food (~49.6%), delivery of hygiene items, medical supplies, medicine and drugs (~33.3%) and voucher (~28.8%) (Figure 60). These can in reality be narrowed to three approaches, with one being delivery to homes and the remaining two being cash and voucher. The popularity of cash versus say cheque or transfer to bank account is consistent with the cash-based economy. In addition to this, and perhaps a substantive justification for cash could be that provision of cash would enable the households to decide on what they would prioritise given that they understand their own circumstances.



**Figure 61 Preferred methods of receiving assistance for female headed versus other households**

The four most popular answers remain as such for both households headed exclusively by females and other households but there are some differences in the rate at which they were given by households in the two groups (see Figure 61). A larger percentage of households headed by at least one male (~69.7%) identified cash compared to households headed by females (~66.4%). The larger percentages are observed for female headed households in relation to the other three approaches that are among the most popular four. Vouchers and delivery of food and medicine and medical supplies were therefore identified more often by female headed households than by other households.

## 5.0 Regional analysis

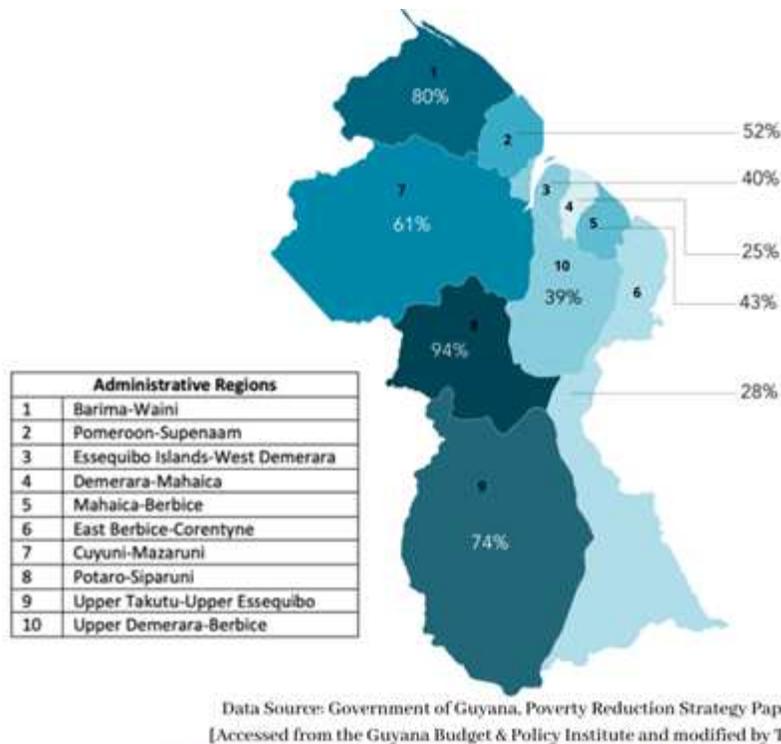
This section of the report focuses on regionally disaggregated analysis of the data. For this purpose, all the data collected are included and the regional samples are regarded as independent. The results provided here are representative of the individual regions but not necessarily of the national perspective.

Guyana is divided into ten administrative regions for effective governance. Some basic information about the regions and their respective poverty rates are provided in the Regional Profile and Figure 62 as an introduction to the regional analysis presented.

### Regional Profile

Region	Population	Size (Sq km)	Poverty Rate (2015)
Region 1: Barima-Waini	27,643	19,580	80%
Region 2: Pomeroon-Supenaam	46,810	5,560	52%
Region 3: Essequibo Islands-West Demerara	107,785	3770	40%
Region 4: Demerara-Mahaica	311,563	2,165	25%
Region 5: Mahaica-Berbice	49,820	3,814	43%
Region 6: East Berbice-Corentyne	109,652	37,000	28%
Region 7: Cuyuni-Mazaruni	18,375	47,650	61%
Region 8: Potaro-Siparuni	11,077	20,330	94%
Region 9: Upper Takutu-Upper Essequibo	24,238	55280	74%
Region 10: Upper Demerara-Upper Berbice	39,992	16,700	39%

*Poverty estimates taken from the Guyana Poverty Reduction Strategy Paper: 2011-2015*



**Figure 62 Poverty profile by region**

- **Region 1: Barima-Waini**

With a total population of 27,643 (Guyana Census 2012), Region 1 extends from the Atlantic Ocean at its northern extremity, borders a narrow strip of coastal plain and continues to the tributaries of the Cuyuni and Waini Rivers (Guyana Lands & Surveys Commission). Region 1 covers an area of 7,650 square miles (19,580 square kilometres) and has a population density of 1.3 people per square kilometre (GLSC; Guyana Census 2012). Economic activities consist mainly of logging, gold and diamond mining, and agriculture (coffee, ground provisions, fruits). According to the Guyana Poverty Reduction Strategy Paper: 2011-2015, Region 1 has a poverty rate of 80%.

- **Region 2: Pomeroon-Supenaam**

Covering 2,140 square miles (5,560 square kilometres), Region 2 extends from the north-west by the Pomeroon River to the south-west by the Supenaam River along the coast (Guyana Lands and Surveys Commission). The region's total population is 46,810, with a population density of 7.6 people per square km (Guyana Census 2012). Main economic activities comprise agriculture (rice cultivation, coconuts, ground provisions, vegetables), cattle rearing and small-scale timber production. The Guyana Poverty Reduction Strategy Paper: 2011-2015 estimates a poverty rate of 52% for this region.

- **Region 3 – Essequibo Islands-West Demerara**  
 Occupying a total area of 1,460 square miles (3,770 square kilometres), the Essequibo Islands-West Demerara region extends from the east bank of the Essequibo River to the west bank of the Demerara River, in addition to a number of islands at the mouth of the Essequibo River (Guyana Lands and Surveys Commission). The total population of Region 3 is 107,785, with a population density of 28.6 persons per square km. Economic activities include rice cultivation, agriculture, and beef and dairy farming. The Guyana Poverty Reduction Strategy Paper: 2011-2015 estimates a poverty rate of 40% for this region.
- **Region 4: Demerara-Mahaica**  
 Home to Guyana's capital city, Georgetown, Region 4 extends from the East Bank of the Demerara River to the West Bank of the Mahaica River along the coast, and to the south by the Moblissa River (Guyana Lands and Surveys Commission). Despite its relatively small land mass of 835 square miles (2,165 square kilometres), this region is the most heavily populated within Guyana, with a population density of 140.4 persons per square km, and a total population of 311,563 (GLSC; Guyana Census 2012). Besides being the seat of government and main financial activities, economic activities in this region include agriculture and manufacturing. The Guyana Poverty Reduction Strategy Paper: 2011-2015 estimates a poverty rate of 25% for Region 4.
- **Region 5: Mahaica-Berbice**  
 The Mahaica-Berbice Region extends from the east bank of the Mahaica River to the west bank of the Berbice River and has a total area of 1,472.47 square miles (3,813.67 square kilometres) (Guyana Lands and Surveys Commission). According to the Guyana Census 2012, 49,820 persons live in Region 5, with a population density of 11.9 people per square km. Main economic activities include rice and sugar production, coconut farming, dairy cattle rearing and production of vegetables, ground provisions and fruits. The Guyana Poverty Reduction Strategy Paper: 2011-2015 estimates a poverty rate of 43% for this region.
- **Region 6: East Berbice-Corentyne**  
 With a total population of 109,652 (Guyana Census 2012), Region 6 extends from the east bank of the Berbice River to the west bank of the Corentyne River (Guyana Lands and Surveys Commission). Region 6 covers an area of 14,290 square miles (37,000 square kilometres) and has a population density of 3 people per square km (GLSC; Guyana Census 2012). Economic activities consist mainly of rice and sugar production, and other agricultural production such as vegetables, ground provisions, coconuts, and cattle rearing. The Guyana Poverty Reduction Strategy Paper: 2011-2015 estimates a poverty rate of 28% for this region.
- **Region 7: Cuyuni-Mazaruni**  
 The Cuyuni/Mazaruni Region is bordered on the east by Venezuela and by the Essequibo River on the western side and occupies a total area of 18,400 square miles (47,650 square kilometres) (Guyana Lands and Surveys Commission). Region 7's population comprises 18,375 people, with a population density of 0.4 persons per square km (Guyana Census

2012). Main economic activities are gold and diamond mining, logging and agriculture. The Guyana Poverty Reduction Strategy Paper: 2011-2015 estimates a poverty rate of 61% for this region.

- **Region 8: Potaro-Siparuni**

With a total area of 7,850 square miles (20,330 square kilometres), Region 8 is named after the Potaro and Siparuni tributaries of the Essequibo River (Guyana Lands and Surveys Commission). The region's main economic activity is gold and diamond mining. This region is the most sparsely populated within Guyana, with a total population of 11,077, and a population density of 0.5 people per square km (Guyana Census 2012). The Guyana Poverty Reduction Strategy Paper: 2011-2015 estimates a poverty rate of 94% for this region.

- **Region 9: Upper Takutu-Upper Essequibo**

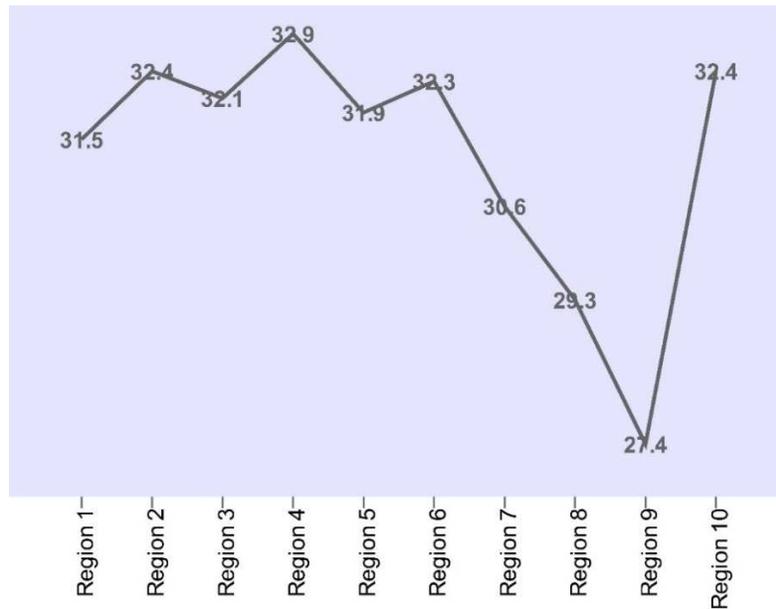
The largest region in Guyana, Region 9 covers 21,340 square miles (55,280 square kilometres) and is made up vast savannahs and the Kanuku and Kamoia highlands, with the international border between Guyana and Brazil marking its southern and western boundaries (Guyana Lands and Surveys Commission). Economic activities include mining, cattle ranching, agriculture (ground provisions, rice and peanuts) and tourism. Region 9 has a total population of 24,238, and a population density of 0.4 persons per square km. The Guyana Poverty Reduction Strategy Paper: 2011-2015 estimates a poverty rate of 74% for this region.

- **Region 10: Upper Demerara-Upper Berbice**

Situated within the eastern centre of Guyana and bordered by all regions except Regions 1, 2 and 9, Region 10 covers an area of 6,450 square miles (16,700 square kilometres) and is the only region that does not have a coastal boundary or international frontier (Guyana Lands and Surveys Commission). Main economic activities include bauxite mining, logging, and agriculture (vegetables, legumes, ground provisions). Region 10's total population comprises 39,992 persons, with a population density of 2.3 people per square km (Guyana Census 2012). The Guyana Poverty Reduction Strategy Paper: 2011-2015 estimates a poverty rate of 39% for this region.

## 5.1 Household characteristics

The average age of the household members per region ranges from approximately 27.4 in region 9 to 32.9 in region 4 (Figure 63). Furthermore, the average age of the household members appears to be somewhat lower in the hinterland than the coastal regions. For the coastal regions, the average age ranges between 31.9 and 32.9 and for the hinterland regions the average ranges between 27.4 and 31.5.

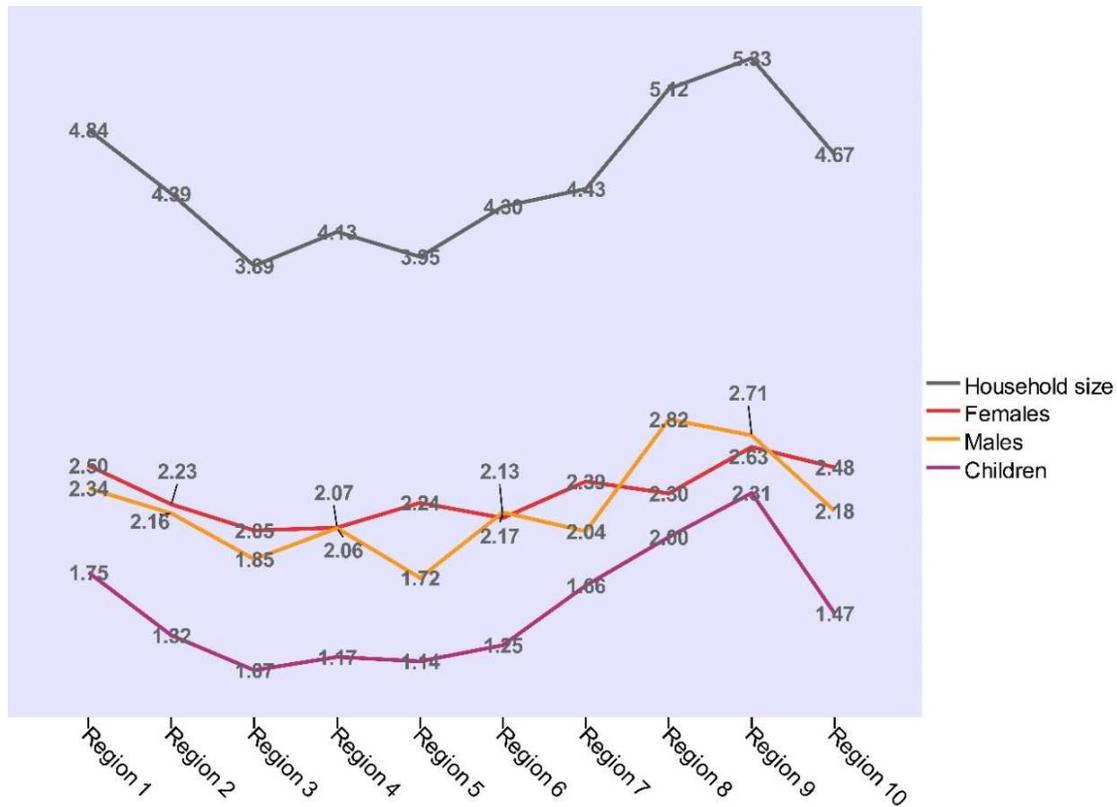


**Figure 63 Average age of household members**

The size of the households in terms of the average number of persons in them range between 3.89 and 5.23 among the regions (Figure 64). As a general trend the average household size appears to be somewhat smaller in the coastal regions than the hinterland regions. This general pattern in the graph of the average household sizes is interrupted by only regions 2 and 10, which stand as the only coastal regions with larger averages than at least one hinterland region. Based on the results obtained, it might be that household size increases with distance from the main economic centre.

The households consist of more females than males for six of the ten regions with the exceptions being regions 4, 6, 8 and 9 (see Figure 64). The male to female ratios per household in regions 4 and 6 are quite close to being equal with females having a slightly higher average than males in region 4 and a slightly lower average than males in region 6. Males appear to be in the majority in the households in regions 8 and 9.

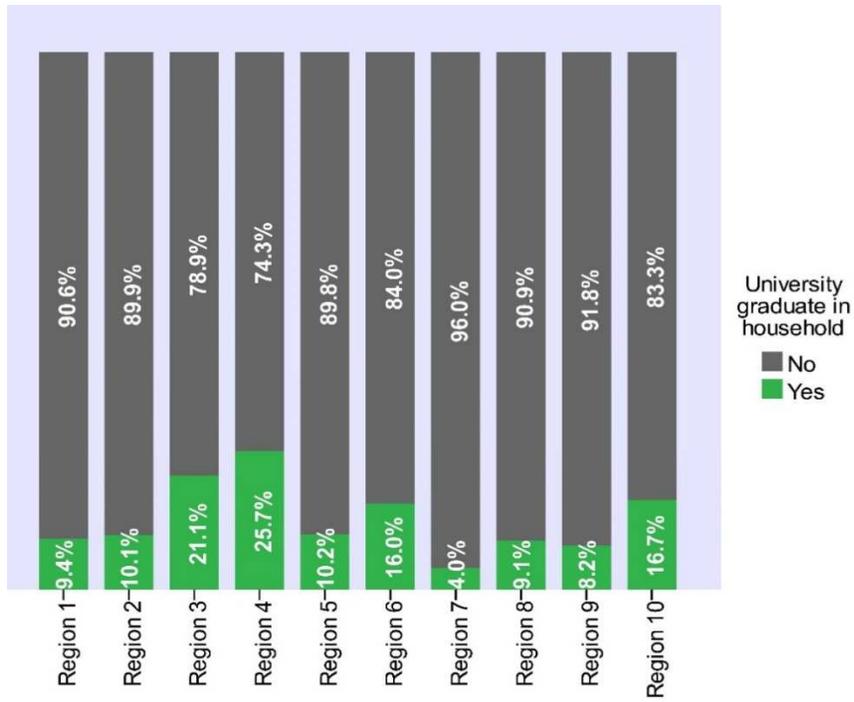
The average number of children per household range from 1.07 to 2.31 (Figure 64). The average number of children per household is somewhat higher in the hinterland regions where it ranges from 1.66 to 2.31, than in the coastal regions where it ranges from 1.07 to 1.47.



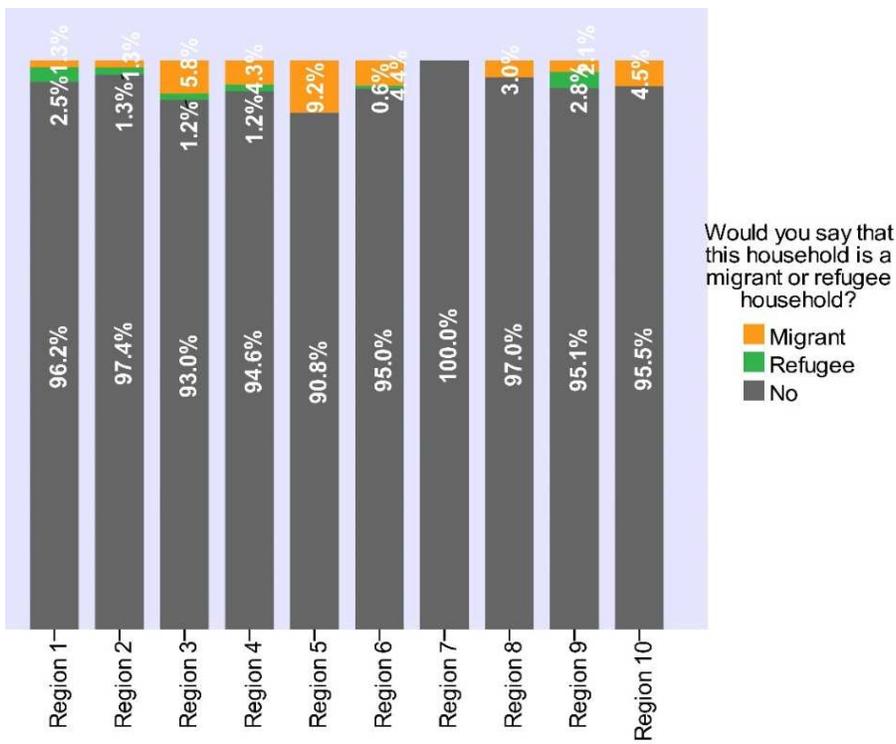
**Figure 64 Household demographics**

Relatively small minorities of the households within each region have a university graduate residing in them. The percentage of households with a university graduate in them rises above 20% in only regions 3 and 4 which are perhaps the most urbanised regions notwithstanding the existence of areas of greater rurality within them. The percentage lies between 10% and 17% for each of the remaining coastal regions (that is regions 2, 5, 6, and 10) but drops below 10% for each of the hinterland regions with the lowest registered percentage occurring for region 7 where the value is just 4% (see Figure 65). The percentage of households with at least one university graduate residing in them is low generally but largest in the most urban regions and lowest in the hinterland regions.

At least 93% of the respondents per region (except for region 5) indicated that their household is neither considered to be a migrant household nor a refugee household (see Figure 66). Additionally, none of the households in regions 5, 7, 8 and 10 identified as refugee. Furthermore, there were no migrant households in region 7 based on the responses provided. The largest percentage of migrant households appear to be in region 5 in which 9.2% of the respondents identified their households as such. The largest percentage of refugee households appear to be in region 9 wherein approximately 2.8% of the respondents identified their households as such.



**Figure 65 At least one university graduate in household**



**Figure 66 Household type**

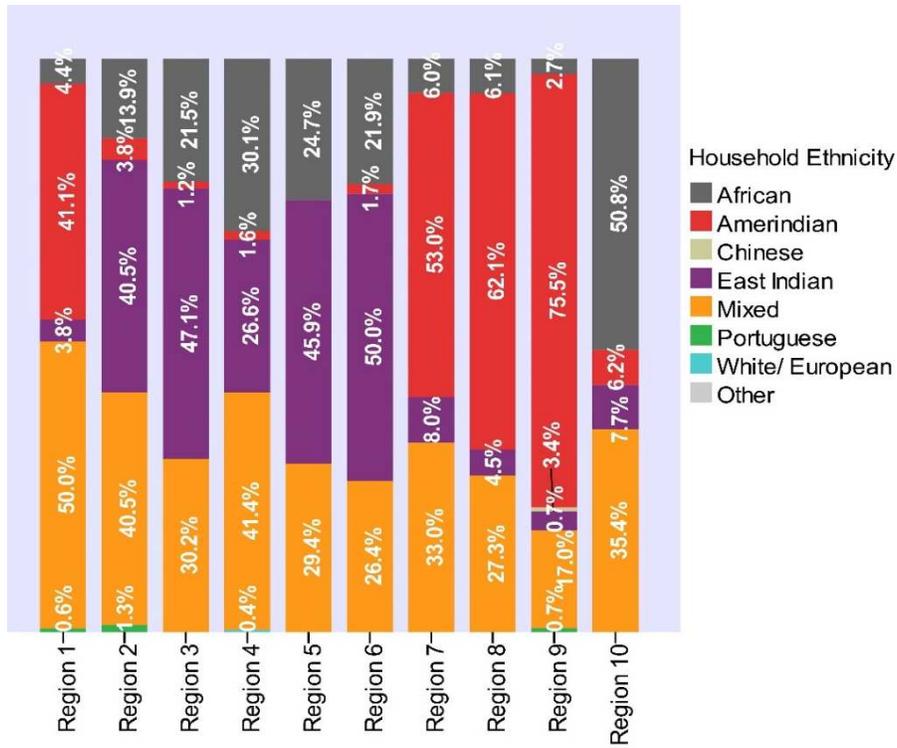


Figure 67 Household ethnicity

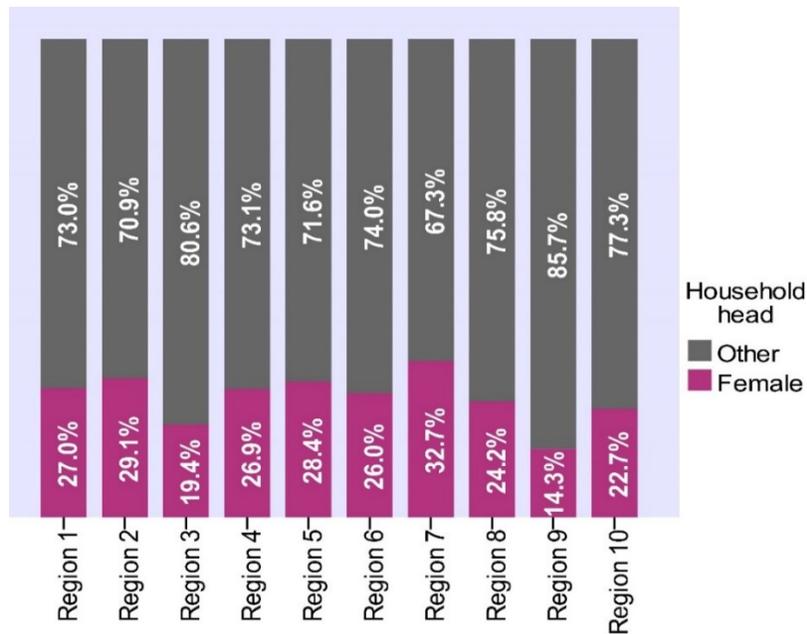


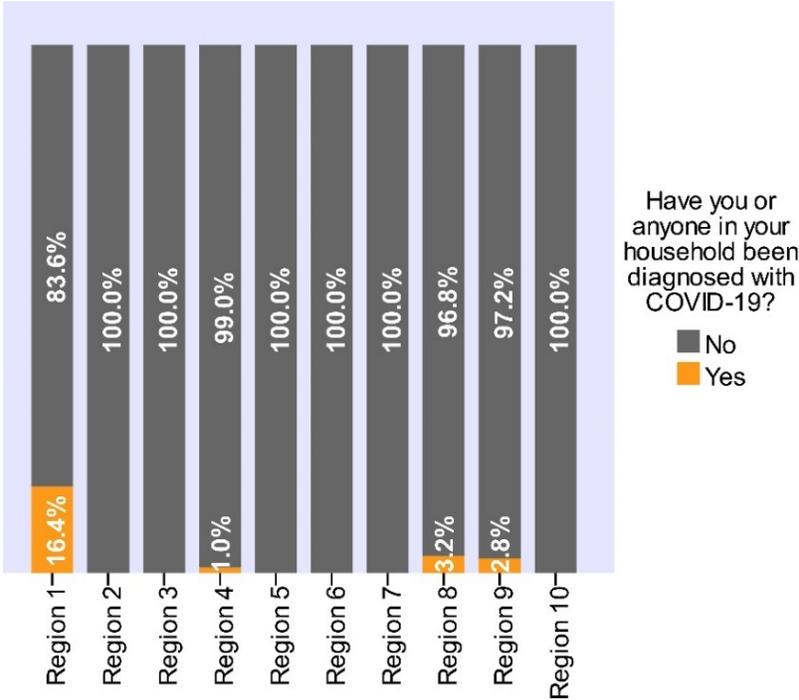
Figure 68 Household headship

The ethnic composition of the regions with respect to household ethnicity as identified by the respondents confirm what might be expected of the regions (see Figure 67). The hinterland regions (regions 1, 7, 8, and 9) show large percentages of households identified as Amerindian. Nevertheless, there is a large representation of mixed households in region 1. The coastal regions have large proportions of East Indian, Mixed and African households.

Households headed exclusively by females are in the minority in each region (see Figure 68). Such households account for less than one-third of the regional complements. The lowest percentage appears in region 9 where approximately 14.3% of the households are headed exclusively by females and is highest in region 7 where the corresponding value is 32.7%. Excluding region 3 in which the value drops below 20% to 19.4% and regions 7 and 9 which were previously described, the proportion of households that are headed exclusively by females range between 22.7% and 29.1%.

**5.2 Health and safety**

Based on the respondents’ reports, members of some households in regions 1, 4, 8 and 9 have been diagnosed with COVID-19. This points to these regions being the main hotspots for the pandemic up to the time of the data collection. However, these results are based on respondents’ reports and not on official statistics and the extent to which respondents might have understated the COVID-19 infections cannot be determined from the data.

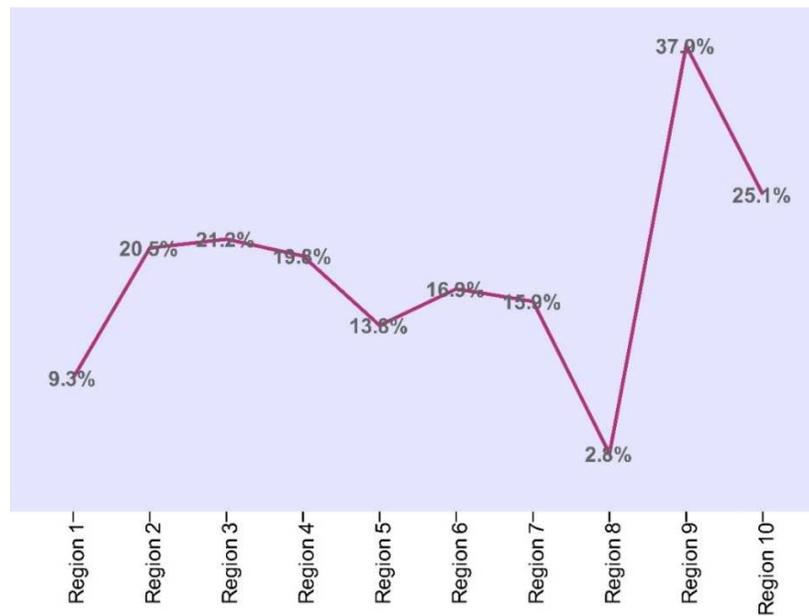


**Figure 69 Diagnosed with COVID-19**

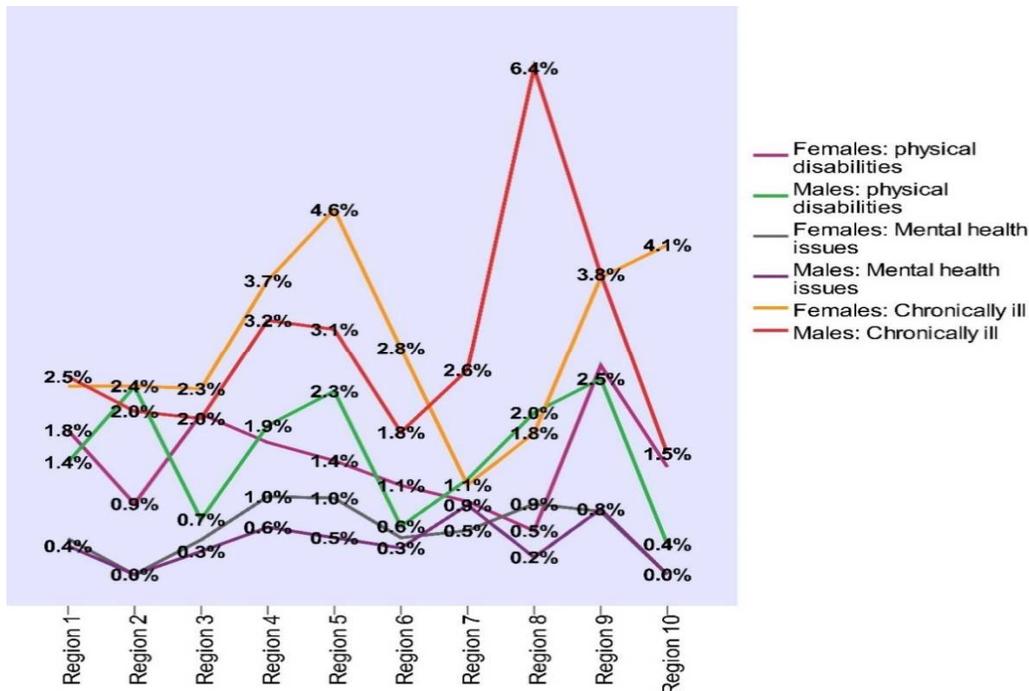
Of the regions in which positive COVID-19 test results have been reported, region 1 appears to have been the hardest hit up to the time of data collection with respect to the percentage of households with confirmed positive cases (Figure 69). However, it is important to consider that

region 4 is much larger in population size and its 1% of households can easily surpass the total number of cases of region 1 notwithstanding what the percentage of households might seem to indicate. Overall, it appears that up to the time the data were collected, the hinterland regions (except region 7) and the main urban centre in the country (region 4) were the COVID-19 hotspots.

The regional average percentages of household members that are pregnant or lactating women range from 2.8% in region 8 to 37.9% in region 9. Seven of the ten regions have between 13.8% and 25.1%, with the percentage appearing to be relatively low in region 1 (~9.3%) in addition to region 8 (Figure 70).



**Figure 70 Pregnant or lactating women in the households**



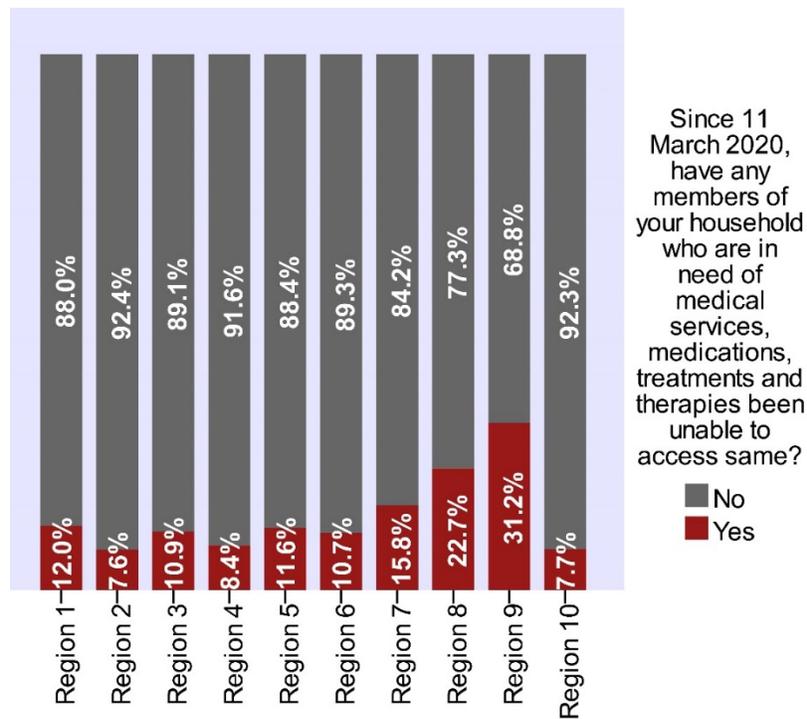
**Figure 71 Household health**

Females with physical disability appear to be relatively more concentrated in regions 9 (2.5%), 3 (2.0%), 4 (1.9%) and 1 (1.8%) than elsewhere where 1.5% is not exceeded (Figure 71). The lowest concentrations appear to occur in regions 8 (0.5%) and regions 2 and 7 (0.9%). The distribution for males with physical disabilities is different with the highest concentrations occurring in 9 (2.5%), 2 (2.4%), 5 (2.3%) and 8 (2.0%). The regions with the lowest concentrations of households with males with physical disabilities are regions 10 (0.4%), 6 (0.6%) and 3 (0.7%). The values for the other regions range between 1.1% in region 7 and 1.9% in region 4. Notably, region 9 repeats among the regions with the highest concentrations for both male and female whereas region 8 has a high concentration for males and a low concentration for females and region 7 a relatively high concentration for females and a low concentration for males.

Mental health issues record the lowest regional average percentage per household for all the conditions except for reported mental health in females in region 8 where the average percentage per household (0.9%) is a bit larger than that for females with physical disabilities. Mental health issues among members of the households were reported by at most 1% of the respondents in any region (see Figure 71).

The regional percentages for males and females with chronic illnesses are among the largest of all the conditions for most of the regions. This holds for regions 1, 3, 4, 5, 6, and 10 wherein chronic illnesses in household members is the most salient reported condition (see Figure 71). On average, more than 3% of the respondents per region indicated that at least one male and at

least one female member of his/her household is chronically ill in regions 4, 5 and 9. In addition, approximately 6.4% of the households in region 8 indicated that there is at least one chronically ill female within the household, whereas approximately 4.6% of the households in region 5 indicated that there is at least one chronically ill male within. These are the two largest observations.



**Figure 72 Lack of access to medicine and health care**

The percentage of households per region that have experienced problems accessing medical services, medications or treatments and therapies of some kind varies across the regions with the largest percentages, hence the greatest burden on households with respect to this matter occurring in the hinterland regions (regions 1, 7, 8 and 9) (Figure 72). For these regions the proportions of households that reported such problems range from 12% (region 1) to 31.2% (region 9) with the largest percentages occurring in regions 8 (22.7%) and 9. For the coastal regions, the percentages range between 7.6% (region 2) and 11.6% (region 5). That problems with accessing medical services, medication or treatments and therapies are more pronounced in the hinterland regions is likely related to their remoteness and may reflect ongoing hinterland-coastland differential in access to healthcare though the COVID-19 realities might have exacerbated the differences.

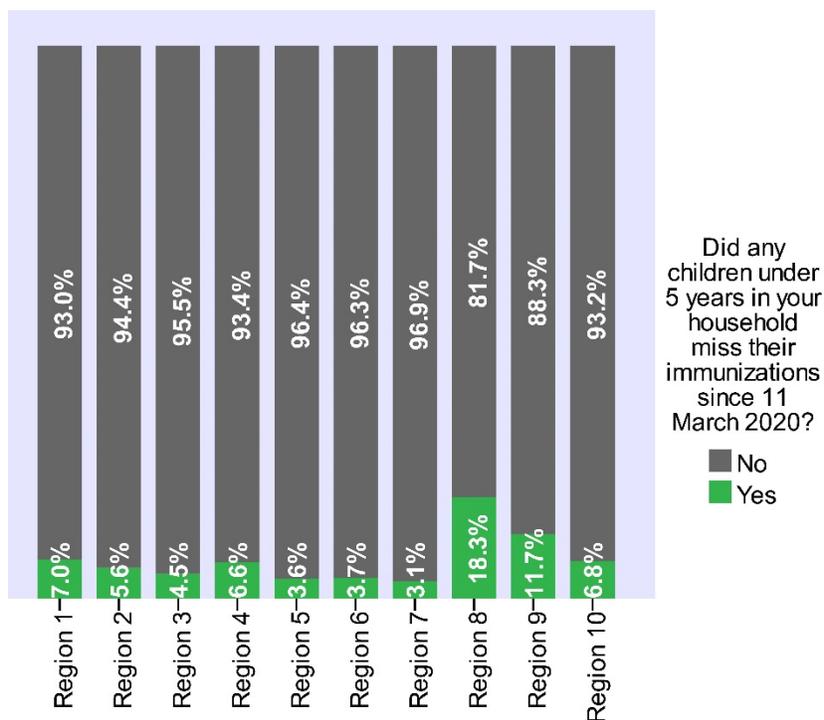


**Figure 73 Reasons for lack of access to medicine and health care**

That health facilities lack medication or necessary equipment was cited consistently at high rates within the regions 3, 5, 8, 9 and 10 (40% to 73.3%), at relatively high rates in regions 1 (36.8%) and 2 (33.3%) at somewhat lower rates in regions 4 (18.6%), 6 (21.1%) and at a low rate in region 7 (6.3%) by those who experienced some lack of access (see Figure 73). The lower rates at which problems with such access were cited in regions 4 and 6 especially might be related to quality of health facilities in those regions as might the largest rates observed for the hinterland regions 8 and 9. That notwithstanding, a lack of medication and equipment was cited as a reason in several regions at rates that might cause concern about availability to the populations there, but this needs to be considered in conjunction with the regional percentages that experienced lack of access to medicine, and medical care.

A large percentage of those who experienced lack of access to medicine and medical care in region 10 (~40%) cited the reason that health facilities were too busy to serve all patients and relatively large regional percentages of those who experienced lack of access cited this reason in regions 1, 2, 3, 4, 5, and 6 (21.1% - 36.8%). This latter observation essentially means that the

capacities of the health facilities in those regions were overwhelmed. This latter observation appears to have been largely a coastal phenomenon with the notable exception of region 1. In a somewhat similar manner, unwillingness to travel to health facilities accounting for lack of access to medicine and medical care appears to have been a largely coastal phenomenon. This might have been a reaction to a heightened sense of COVID-19 risk in the more urban areas and anticipated larger volume of people to visit the medical facilities in such areas.



**Figure 74 Children missed immunizations**

Based on the responses provided, it appears that regular health services were suspended particularly in region 7 (62.5%) and region 1 (31.6%) leading to lack of access to people from those areas. This was however, not entirely confined to hinterland regions since somewhat lower percentages of individuals cited this reason in regions 3 (21.1%) and 5 (20%) (see Figure 73).

A lack of money or resources was among the top four cited reasons in the national analysis. This lack of resources was cited mainly by households in regions 9 (31.8%), 3 (31.6%) and 4 (21.3%). The occurrence in regions 3 and especially 4 which have much larger representation in the population and in the national data is likely the reason this was among the most popular four in the aggregate analysis.

Children under five years missing immunization during the COVID-19 pandemic was indicated by the largest percentages of households in regions 8 (18.3%) and 9 (11.7%) (Figure 74). Nevertheless, this appears to have occurred in all regions albeit at lower rates. It is not clear whether this is related to the lack of equipment and medication that was also reported at high rates in these two regions (see Figure 73).

## 5.3 Income and economic activity

### 5.3.1 Employment

On average between 57.32% (region 2) and 95% (region 10) of the adults in the households per region contribute to the household income (**Table 16**). The observed percentages for regions 2 and 6 (58.64%) are the only two that fall below 60% whereas the percentage for region 10 is the only one that exceeds 71%. This means that the percentages for the remaining seven regions are within an 11 percentage points spread. It is not immediately known what accounts for the comparatively low percentage of adults contributing to household income in regions 2 and 6 and the relatively high percentage of adults contributing to household income in region 10.

**Table 16 Contributions to household income**

Region	Contribute to household income	Lost job permanently due to COVID-19	Lost job temporarily due to COVID-19	Received lower salary or earnings due to COVID-19
Region 1	60.93%	4.72%	8.88%	19.02%
Region 2	57.32%	2.97%	7.04%	22.55%
Region 3	68.03%	3.15%	10.36%	23.17%
Region 4	65.22%	4.58%	8.59%	22.32%
Region 5	61.75%	1.07%	8.95%	20.63%
Region 6	58.64%	3.98%	9.22%	18.84%
Region 7	70.67%	5.00%	6.20%	23.33%
Region 8	62.25%	0.40%	11.32%	18.79%
Region 9	69.46%	4.56%	12.12%	14.16%
Region 10	95.00%	14.00%	29.00%	58.00%

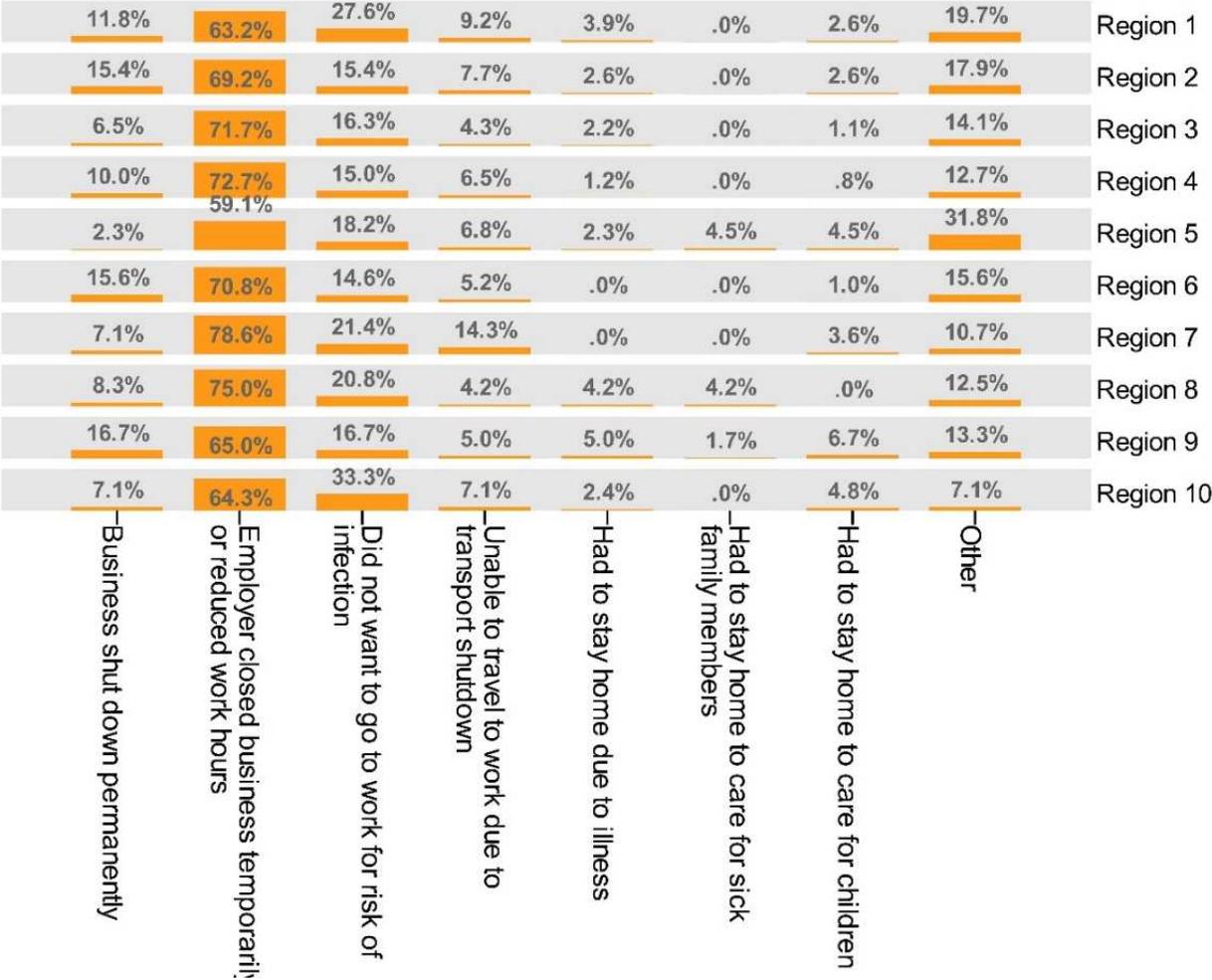
*The table shows the average percentage per household over all adults in the household*

Between 0.4% (region 8) and 14% (region 10) of the adults in the households lost their jobs permanently. These values are somewhat extreme given the remaining regional percentages which range from 1.07 (region 5) to 5.00 (region 7) (**Table 16**). Permanent loss of job appears to have been especially severe in region 10 and relatively high in regions 1, 4, 9 and 7 where in each case, the proportion is larger than 4%. There is not an immediately discernible coastal-hinterland pattern in the percentages with respect to having lost jobs permanently.

Temporary loss of employment due to COVID-19 occurred generally at higher rates than permanent loss of employment within the respective regions (**see Table 16**). Region 10 again leads the way with the highest regional average percentage of household members which stands at 29%. The respective averages are above 10% but less than 13% for each of regions 3, 8, and 9, and between 6% and 10% for regions 1, 2, 4, 5, 6, and 7. Given these observations, it seems likely that the combination of permanent and temporary loss of employment would have affected households in region 10 especially and particularly so if permanent and temporary loss of employment for various household members occurred concurrently.

Nevertheless, the impact on household income elsewhere should not be overlooked in preference to the case of region 10 since the percentage of persons losing jobs might not tell the complete story. It might be that elsewhere relatively fewer household members account for larger shares of household income so that fewer persons losing their jobs would likely have similar impact on the economic circumstances of the household as a unit.

Between 14.16% (region 9) and 58.00% (region 10) of the members of the households on average per region received lower salaries or earnings since the COVID-19 outbreak (see Table 16). The percentage for region 10 is much larger than the percentage observed in the other regions given that the second largest percentage is 23.33% (region 7). Excluding these two largest observations, there is a 4.54 percentage points spread among the values for the other regions.



**Figure 75 Reasons for lost jobs and reduced salaries**

The main reason for loss of employment and reduced income is temporary closure of business by employers (see Figure 75). The proportion of households that identified this reason per region is larger than 59% within each region and above 64% everywhere except in region 5. Next in line is that people did not want to go to work because of the risk of COVID-19 infection insofar as it

was identified by more than 14% of the households in which jobs were lost and in which income declined within each region. As many as one-third of the households in region 10 which had the largest percentage of households that experienced loss of jobs and decreased earnings cited this reason. It is therefore safe to conclude that at least some persons lost jobs and had their income reduced as a consequence to attempting to protect themselves by staying away from work.

Permanent closure of businesses impacted on some households in each region. In particular regional percentages of households ranging between 10% and 16.7% identified this reason in regions 1, 2, 4, 6, and 9 (see Figure 75) representing a cross-section of both coastal and hinterland regions. Though other reasons for loss of employment and reduced income are relevant (see Figure 75) they tend to have impacted on relatively fewer households in the regions (less than 10%) with the exception of transportation shutdown in region 7.

### 5.3.2 Income and expenditure

Prior to the COVID-19 pandemic in Guyana, the median household income ranged between G\$70,000 (region 5) and G\$120,000 (region 4) (Table 17). However, since the pandemic began, a decline in the median occurred in each region with the result that the new regional range became G\$40,000 (region 5) to G\$80,000 (regions 4 and 7). Household income therefore decreased in each region during the pandemic.

The results for household expenditure are more complex though the variations are much smaller than that which occurred for household income. Whereas the median household expenditure remained the same in regions 6 and 10, it became higher in regions 2, 5, 8 and 9 and lower in regions 1, 3, 4, and 7 with the difference exceeding G\$5000 only in regions 2, 3 and 7 (Table 17). The regional median household expenditure ranged between G\$41,000 (region 5) and G\$77,500 (region 7) before COVID-19 and between G\$45,000 (region 5) and G\$70,000 (regions 4 and 8) during the COVID-19 pandemic. Household expenditure therefore changed in some regions but not in others, and the change was an increase or decrease depending on which region is considered.

**Table 17 Median income and expenditure by region**

Region	Total income in January 2020	Total Income Last Month	Total Expenditure in January 2020	Total Expenditure Last Month
Region 1	\$ 90,000.00	\$ 62,500.00	\$ 65,000.00	\$ 62,500.00
Region 2	\$ 80,000.00	\$ 60,000.00	\$ 50,000.00	\$ 60,000.00
Region 3	\$ 100,000.00	\$ 73,500.00	\$ 70,000.00	\$ 60,000.00
Region 4	\$ 120,000.00	\$ 80,000.00	\$ 74,000.00	\$ 70,000.00
Region 5	\$ 70,000.00	\$ 40,000.00	\$ 41,000.00	\$ 45,000.00
Region 6	\$ 80,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00
Region 7	\$ 100,000.00	\$ 80,000.00	\$ 77,500.00	\$ 69,500.00
Region 8	\$ 100,000.00	\$ 78,000.00	\$ 65,000.00	\$ 70,000.00
Region 9	\$ 80,000.00	\$ 47,500.00	\$ 47,000.00	\$ 50,000.00
Region 10	\$ 100,000.00	\$ 65,000.00	\$ 60,000.00	\$ 60,000.00

*The table shows the median in Guyanese dollars*

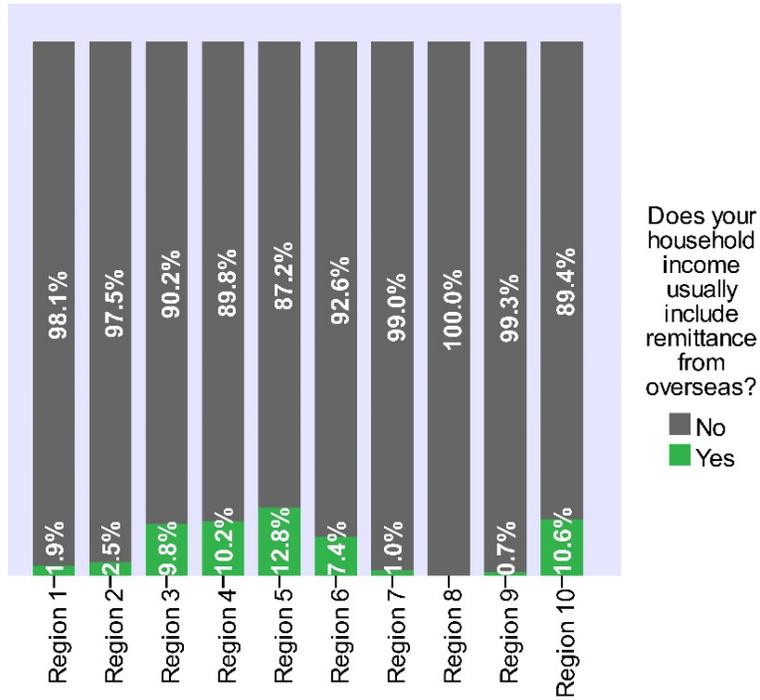


Figure 76 Remittance

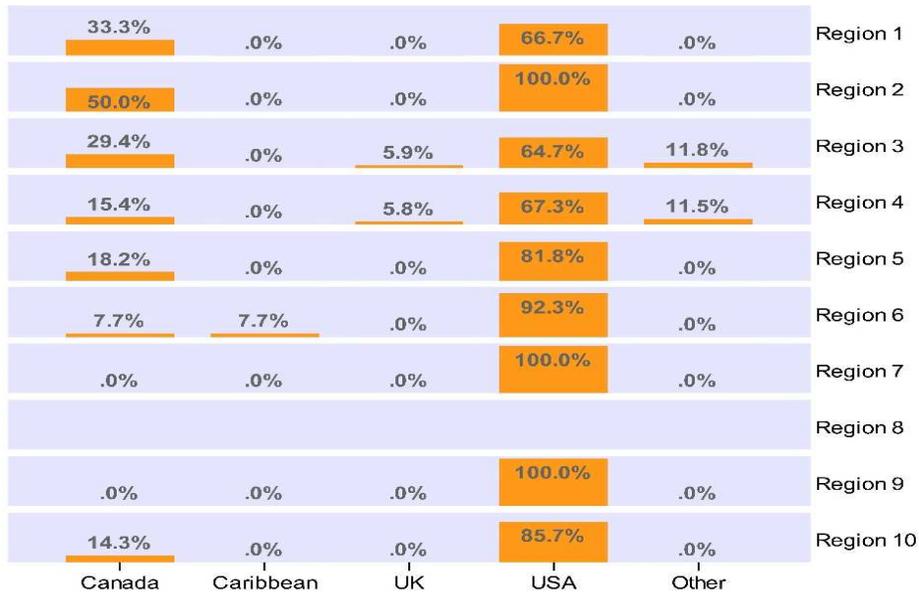
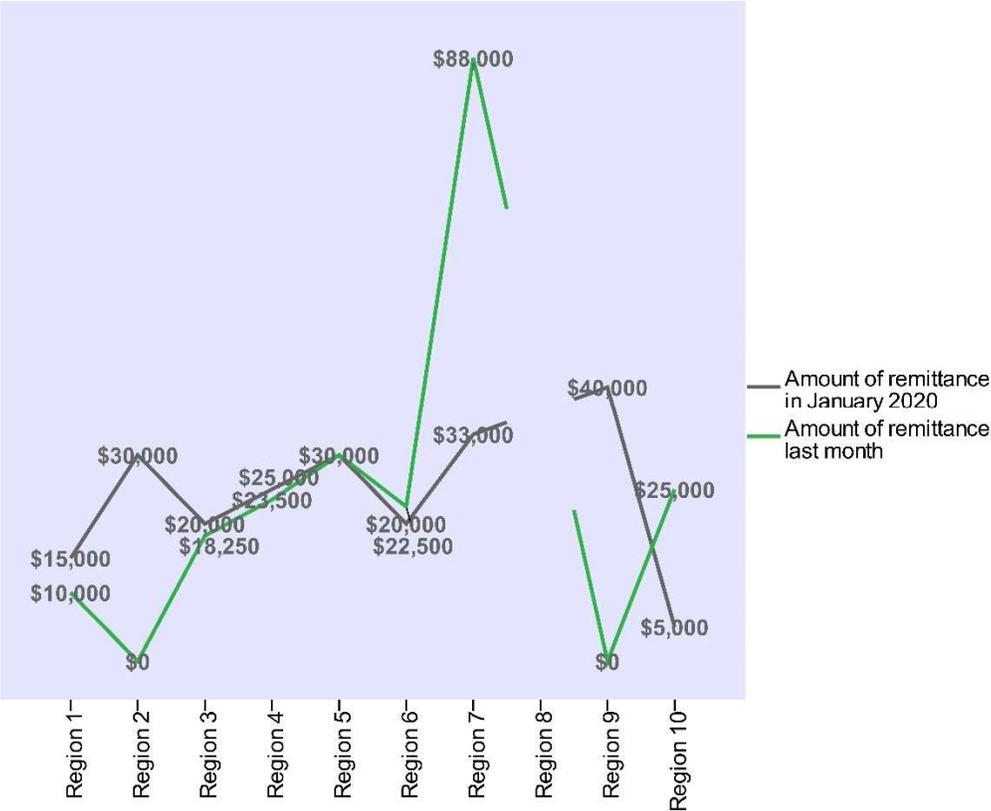


Figure 77 Countries from which remittance is received

Remittance from overseas appears to be a largely coastal phenomenon with the percentages of households indicating that they receive remittance rising to at most 1.9% for any hinterland region (Figure 76). The percentage of households receiving remittance is also low in region 2 (2.5%). For the other coastal regions, the respective percentages of households receiving remittance range between 7.4% (region 6) and 12.8% (region 5).

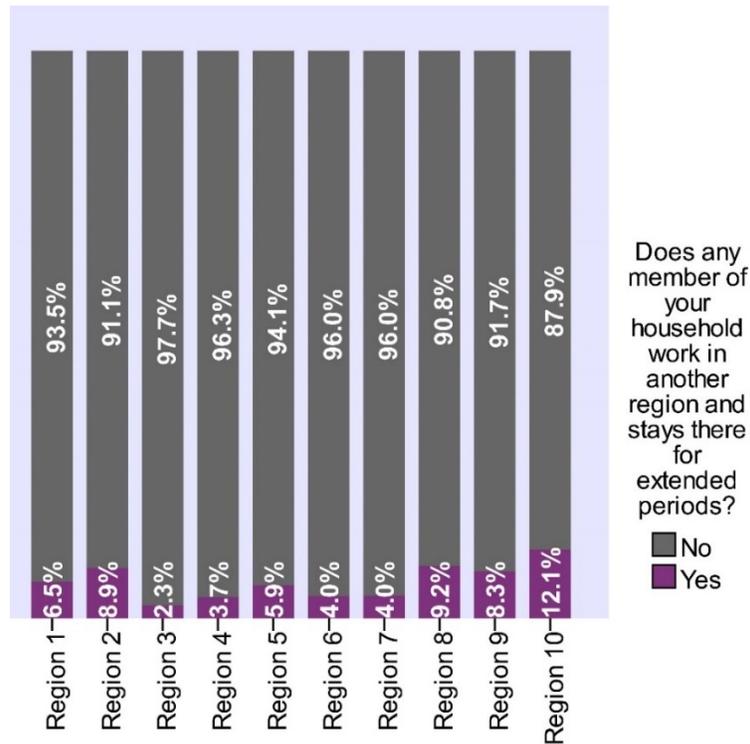
Large percentages of households per region (more than 60%) that receive remittance gets such from sources in the USA (Figure 77). While Canada is a source of remittance in each region except regions 7, 8 and 9, it is a source for more than one-third of the households that receive remittance in region 1 (33%), half of them in region 2 (50%), and approximately 29.4% of them in region 3. Evidently, some households receive remittance from multiple countries as is clearly the case in region 2. Remittance from the UK and the Caribbean are received by small regional percentages of the households in regions 3 and 4 (in the case of the UK) and in region 6 (in the case of the Caribbean).



**Figure 78 Remittance received before and during the pandemic**

The median amount of remittance received by households in regions 3, 4, 5, and 6 remained relatively stable between G\$18,000 and G\$30,000 in January 2020 and in the month before the data were collected, with a small decline from G\$15,000 to G\$10,000 in region 1 in the same period (Figure 78). Larger declines are observed for regions 2 and 9 in which the median fell to G\$0.00 from G\$30,000 and G\$40,000 respectively. However, there were increases in region 7

from G\$33,000 to G\$88,000 and in region 10 from G\$5,000 to G\$25,000 in the two months. There is therefore no uniform pattern among the regions with respect to how COVID-19 might have impacted on remittance given that there were some regional increases, some regional decreases and relative stability in some regions with respect to the median.



**Figure 79 Household member works in another region**

Some members of households in each region work in other regions and stay there for extended periods. With the exception of region 10, the percentages of households of which at least one member works in another region and stays there for extended periods do not exceed the percentage in any of the hinterland regions and in most cases, the percentages for the hinterland regions exceed that of the coastal regions, except for region 10 which has the highest percentage overall (Figure 79). This phenomenon appears to be the least salient in region 3. It should be noted that while many individuals in region 3 might work in region 4, the criterion of staying there for extended periods excludes them from consideration.

The median amount of money sent home by household members who work in other regions remained the same (G\$10,000) for region 5 before and during the COVID-19 pandemic but was changed in each of the other regions. The median amount of money sent home declined from G\$100,000 to G\$5,000 in region 1, from G\$50,000 to G\$27,500 in region 3, from G\$80,000 to G\$30,000 in region 6, from G\$200,000 to G\$100,000 in region 7, from G\$100,000 to G\$25,000 in region 8 and from G\$150,000 to G\$22,500 in region 10. In the cases of regions 3 and 9, the median amount of money sent home moved from G\$10,000 and G\$12,500.00 respectively to G\$0.00 (Figure 80).

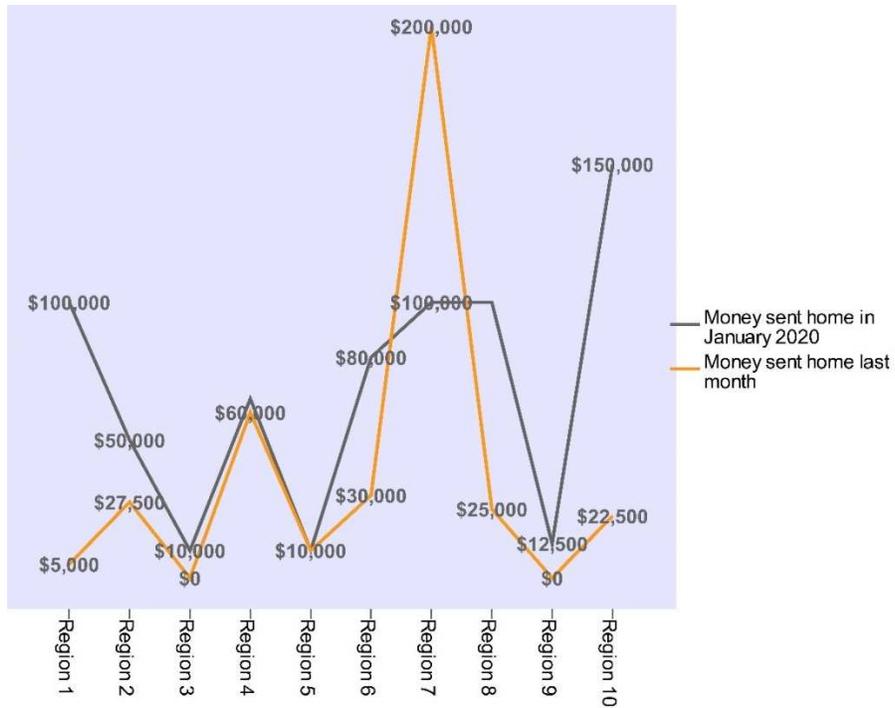


Figure 80 Money sent home before and during the pandemic

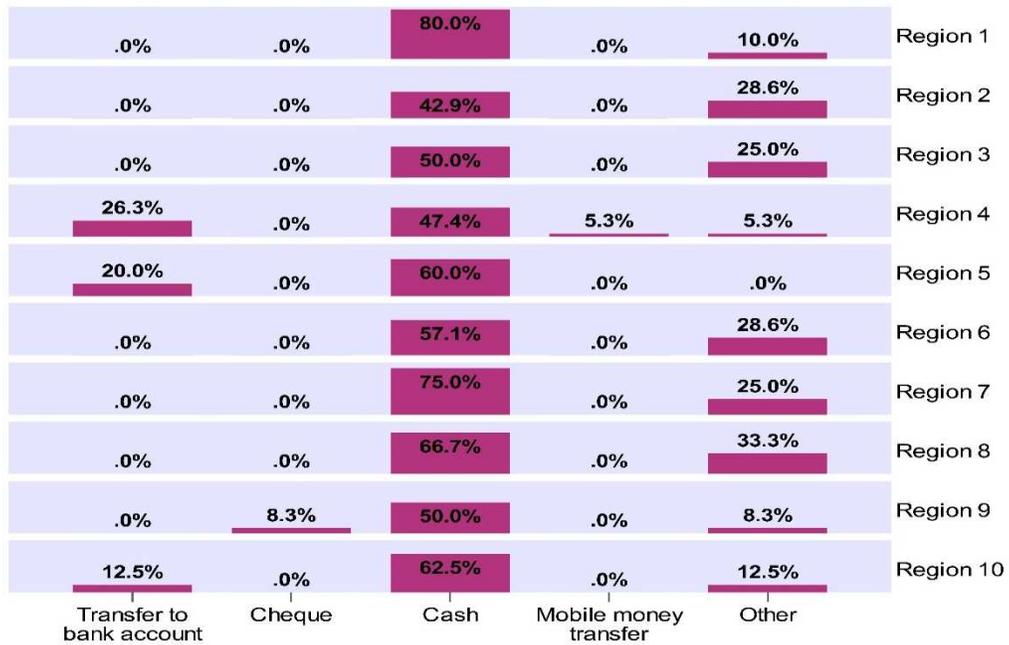


Figure 81 Method of sending money home

The main method of sending money home in each region is cash (see Figure 81). Transfers to bank accounts were done in some cases in regions 4 (26.3%), 5 (20%), and 10 (12.5%) whereas cheque was identified only in region 9 (8.3%) and mobile money transfer was mentioned only in region 4 (5.3%).

### 5.3.3 Other sources of income during the COVID-19 pandemic

Most of the households did not have any source of income other than paid employment since the COVID-19 pandemic arrived in Guyana (Figure 82). The only source that was mentioned consistently with respect to the regional percentages within each region, is pension. Apart from this, some households received hampers and food. This latter source appears to have been received mainly in the hinterland regions and region 10. Between 17% and 19.7% of the households in regions 1, 8 and 9 received hampers and food supplies whereas approximately 13.6% of the households in region 10 received such assistance (Figure 82). Notably, loans were very uncommon for households within the regions since between 0% and 3.8% of the households per region indicated that they received loans.

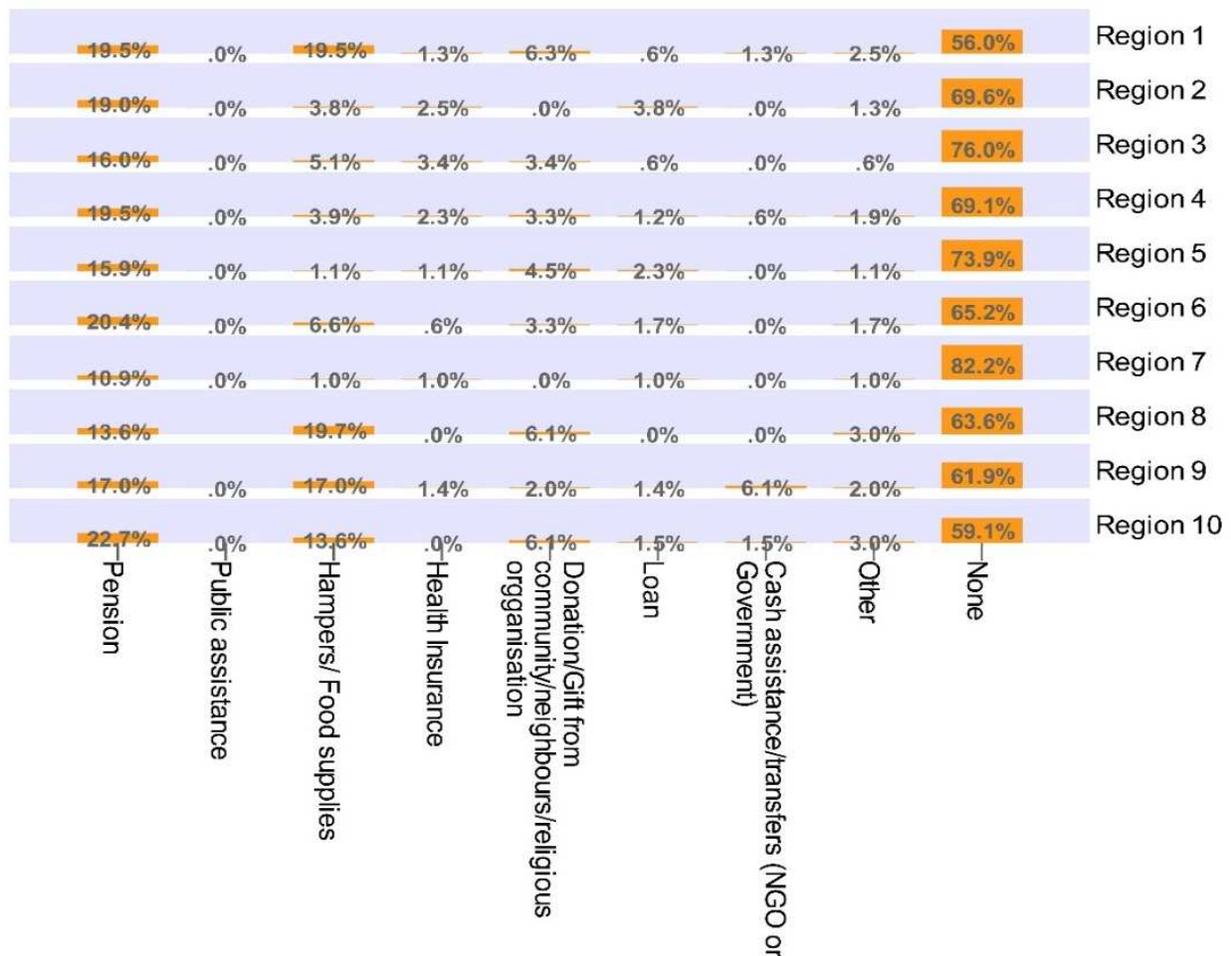
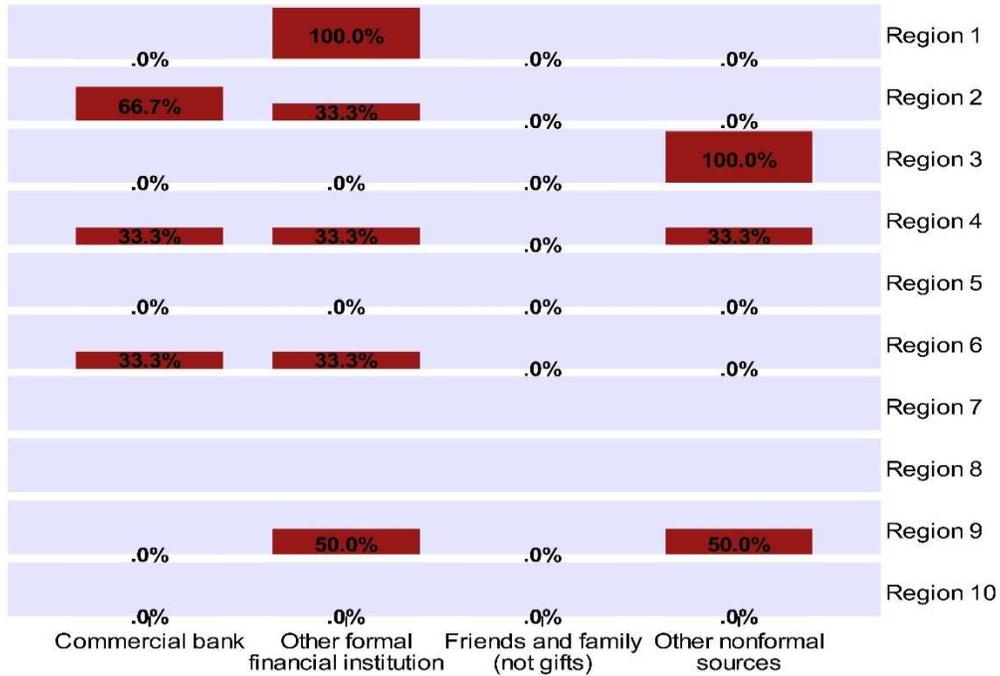
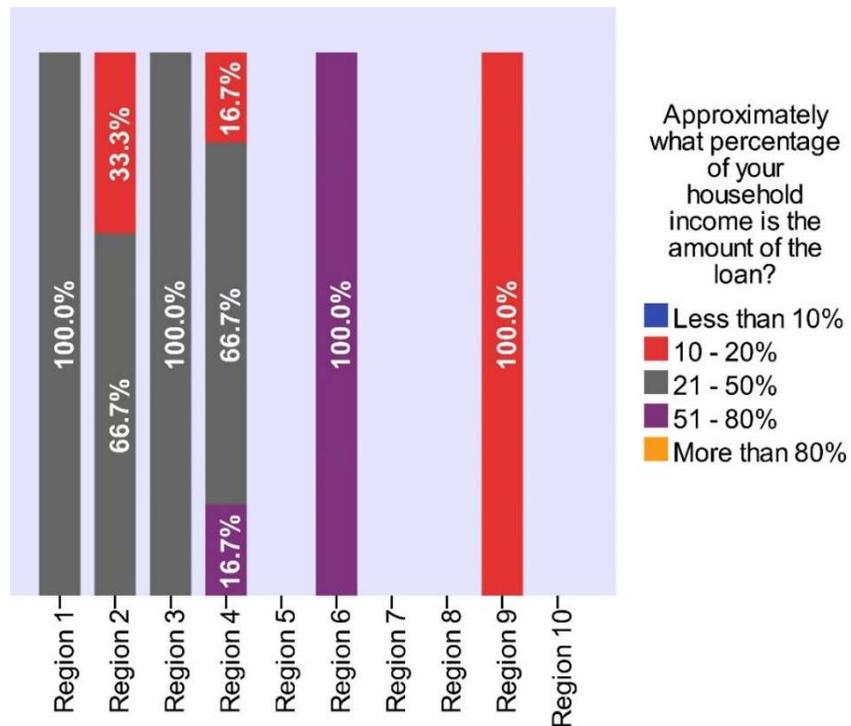


Figure 82 Other sources of income during the COVID-19 pandemic



**Figure 83 Source of loan obtained**



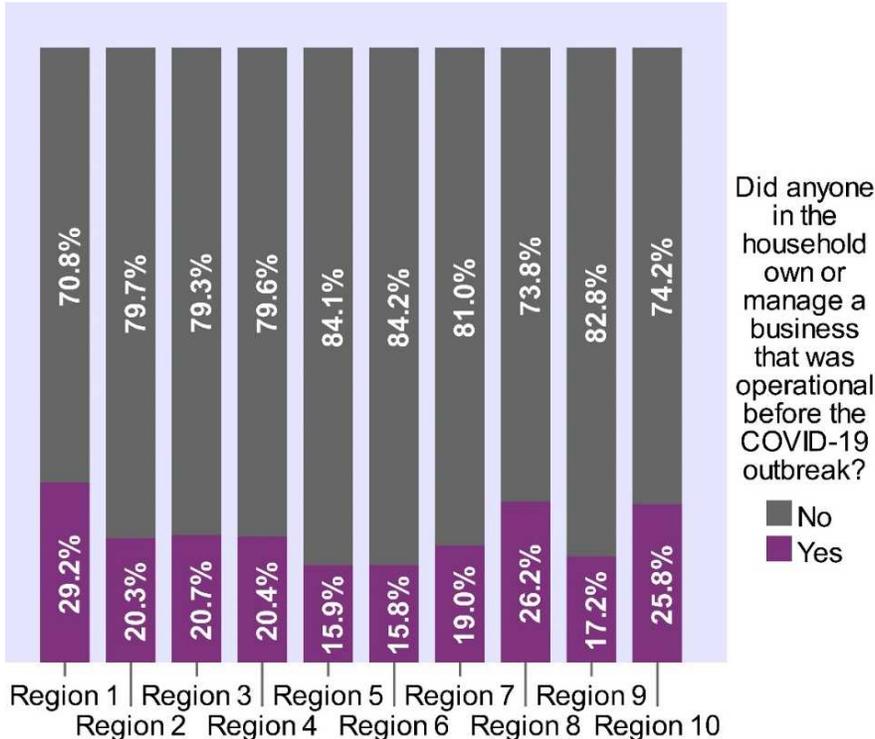
**Figure 84 Loan percentage of household income**

The loans received in region 1 were all from a formal financial institution other than a bank whereas all the loans received in region 3 were from nonformal sources and half the loans received in region 9 were from each of these sources (Figure 83). In region 2, 66.7% of the loans were from banks and the remainder were from another formal financial institution, whereas in region four one-third of the loans were from banks, other formal financial institutions and nonformal sources. 33.3% of the loans in region 6 were from commercial banks and other formal financial institutions with the source of the remainder of the loans received in this region not specified.

The largest percentage of the loans obtained by households in regions 1, 2, 3 and 4 (more than 66% of them) accounted for 21-50% of the household incomes whereas the loans obtained in region 6 accounted for 51-80% of the household income and the loans obtained in region 9 accounted for 10-20% of the household income (see Figure 84).

**5.3.4 Household business**

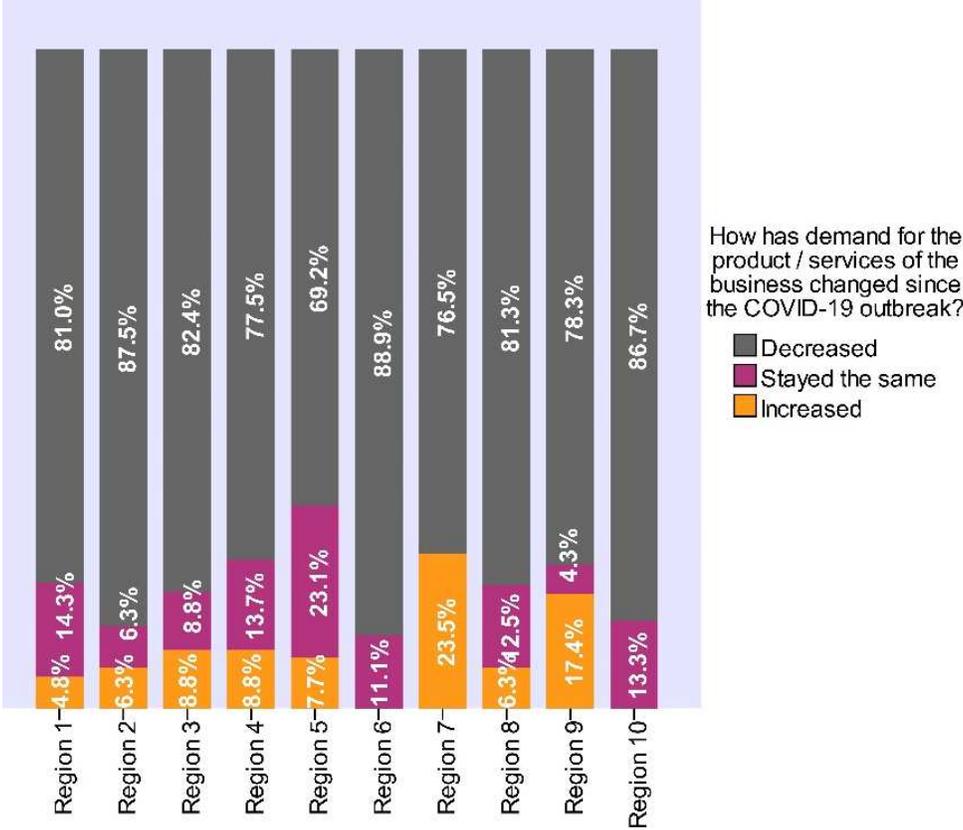
Between 15.8% (region 6) and 29.2% (region 1) of the households per region have at least one person in them who owned a business that was operational before the COVID-19 outbreak in Guyana (Figure 85). More than one-quarter of the households in regions 1, 8 and 9 reported owning businesses, whereas the proportions range between 19% and 20.7% for regions 2, 3, 4, and 7 and between 15.8% and 17.2% in regions 5, 6 and 9.



**Figure 85 Business owner in household**

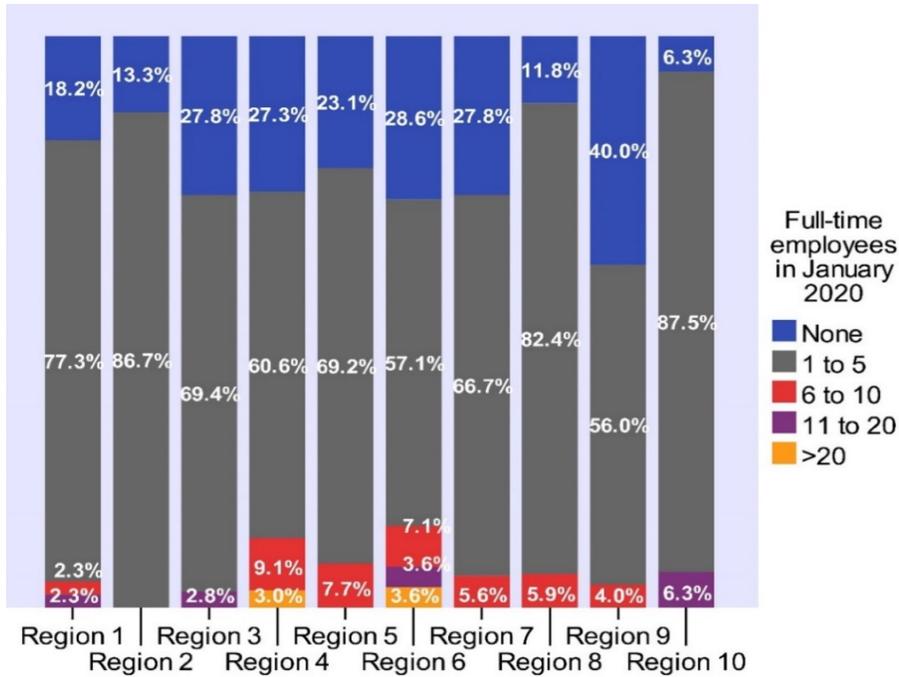
A large majority of the households that own businesses in each of the regions (69.2% in region 5 to 89.9% in region 6) indicated that demand for their products and services decreased since

the COVID-19 outbreak in the country (Figure 86). The percentage of such households that indicated that demand increased exceed 9% in only two regions- region 9 (17.4%) and region 7 (23.5%). With the exception of region 7, some households that owned businesses in each of the other regions indicated that demand for their goods and services remained the same. These percentages range between 4.3% and 8.8% in regions 9, 2 and 3; between 11.1% and 13.7% in regions 6, 7, 10, 4 and 1 and is 23.1 % in region 5. There is nevertheless an overwhelming tendency for demand for products and services to have decreases for businesses owned by the households within each region.

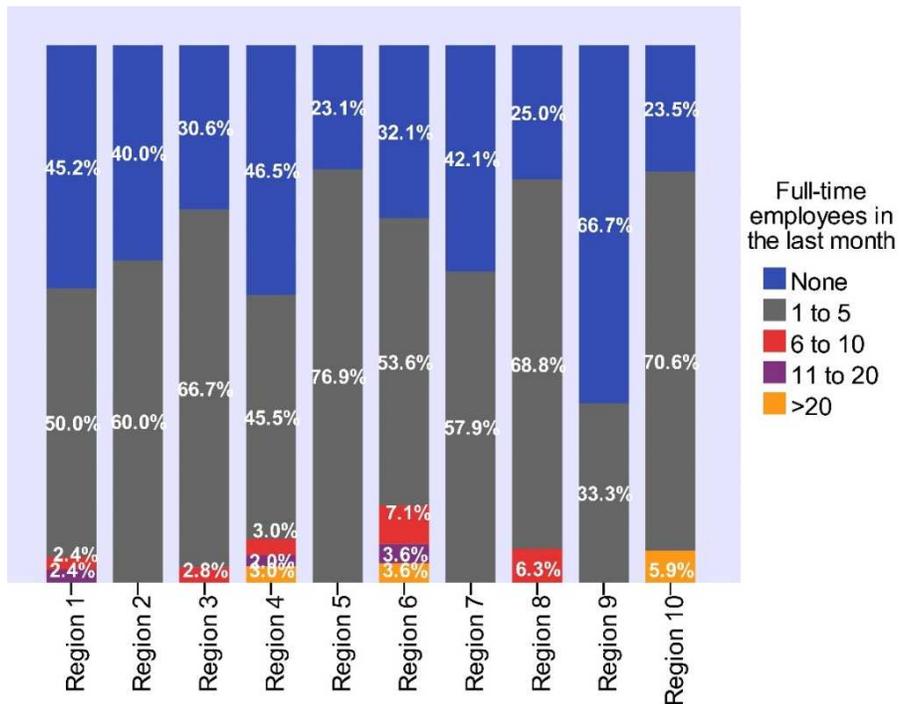


**Figure 86 Demand for business products and services before and during the COVID-19 pandemic**

With the notable exception of region 5, there were clear increases in the regional percentages of businesses owned by the households with no full-time employees since the COVID-19 pandemic began (see Figure 87 and Figure 88). Some of the increases are quite dramatic as in the case of region 1 where the value moved from 18.2% to 45.2% and region 4 where the value moved from 27.3% to 46.5% for example. These changes stem mainly from reductions in businesses that had 1 to 5 employees but there is also evidence of shifts in the regional proportions of businesses with more than five employees for many of the regions. This means that to a large extent, the businesses owned by the households either lost or had to let their employees go during the pandemic. Furthermore, it also means that except for the case of region 5 in which the small businesses appear to have retained their employees, it is primarily the smaller businesses in the respective regions that had to let their employees go during the pandemic.



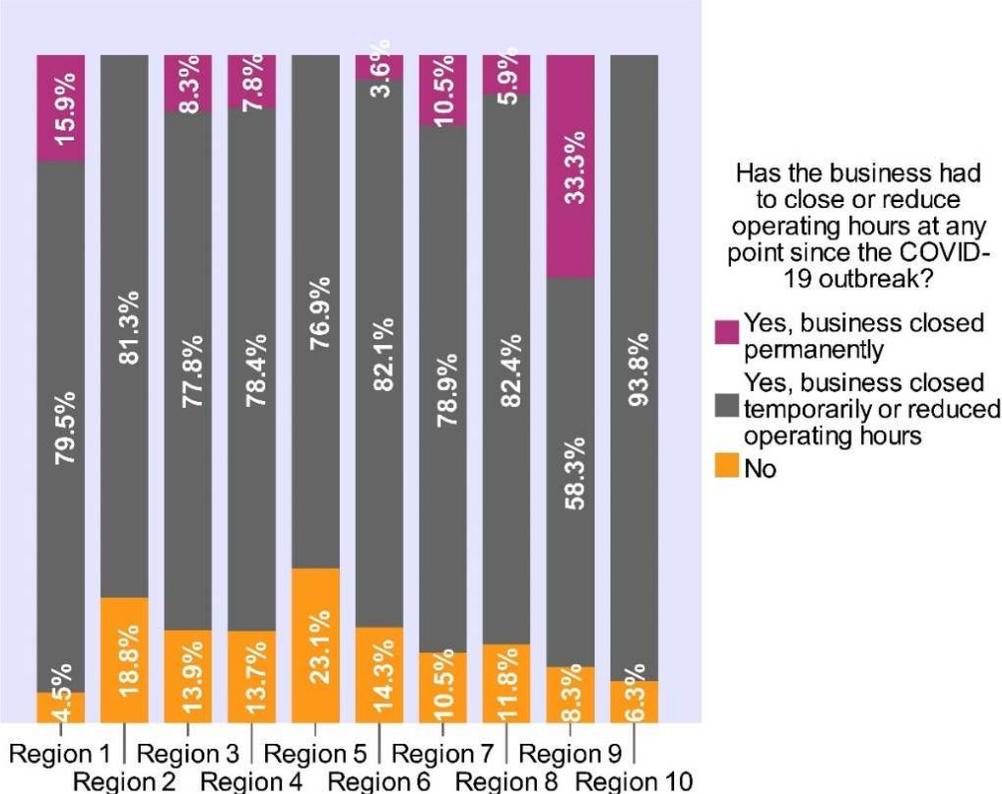
**Figure 87 Full time employees before COVID-19 pandemic in Guyana**



**Figure 88 Full time business employees during the COVID-19 pandemic**

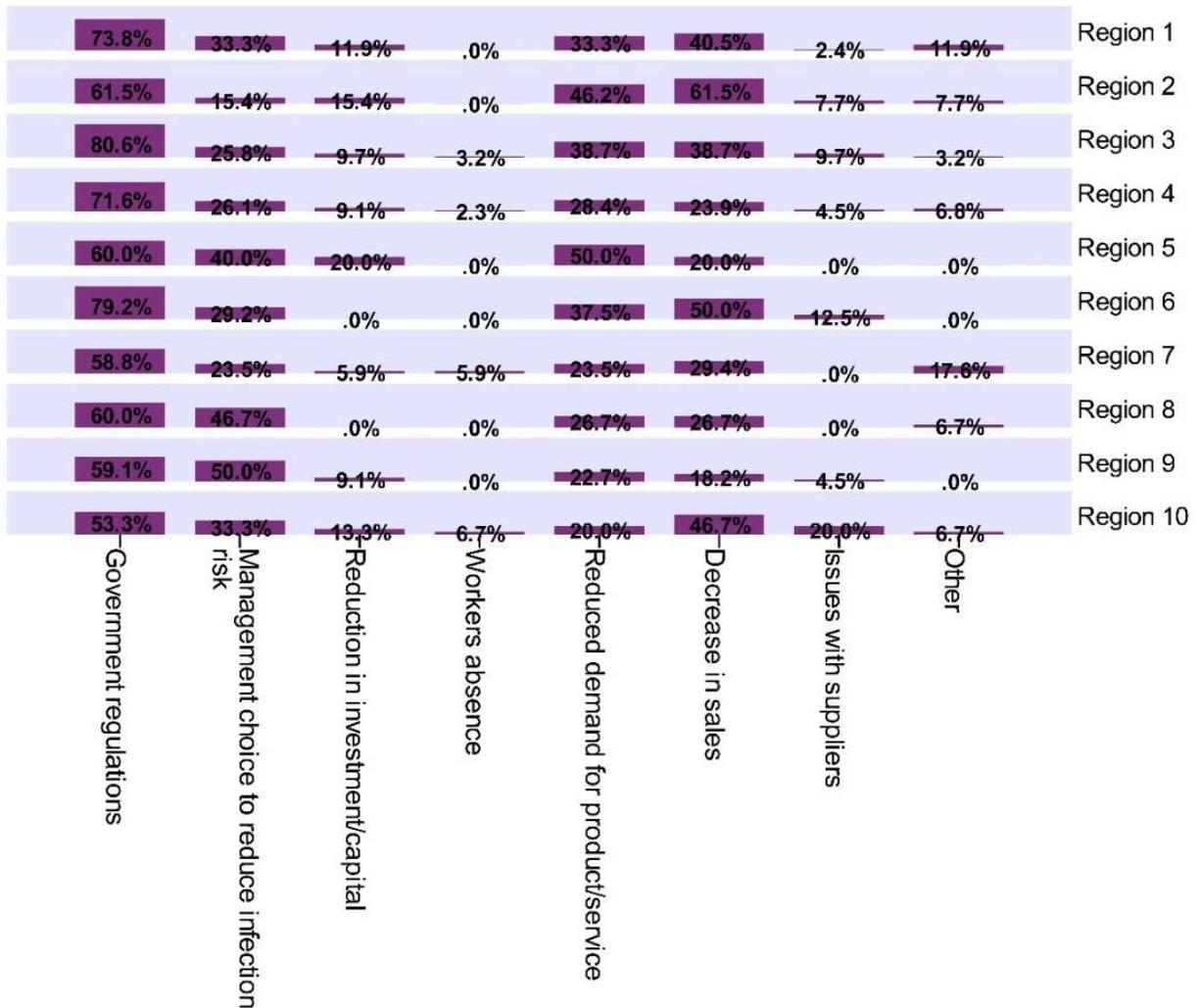
Large majorities of the businesses per region had to close either temporarily or permanently due to COVID-19 (see Figure 89). The largest regional percentage of businesses owned by the

households that were able to escape the need for any kind of closure is 23.1% which describes the situation in region 5. Within each of the other regions, the percentage of businesses owned by the households which were able to avoid having to close either temporarily or permanently is below 20%. This means that with the exception of region 5 in which case the proportion is 76.9%, more than 80% of the business per region that are owned by members of the households had to close either permanently or temporarily during the COVID-19 pandemic.



**Figure 89 Business closure or reduction in operating hours**

Businesses owned by households in regions 2, 5 and 10 appear to have avoided permanent closure up to the time that the data were collected (Figure 89). However, some permanent closure occurred in each of the remaining seven regions. Notably, approximately one in three households that owned businesses in region 9 indicated that the businesses were permanently closed. Next in line is region 1 with 15.9% of the households indicating that their businesses became permanently closed, followed by region 7 with 10.5% of the households there that owned businesses indicating that there were such closures. The percentage of households that reported that the businesses owned were closed permanently is lowest in region 6 (3.5%). This is without taking into account regions for which there is an absence of permanent closure of businesses owned by the households.

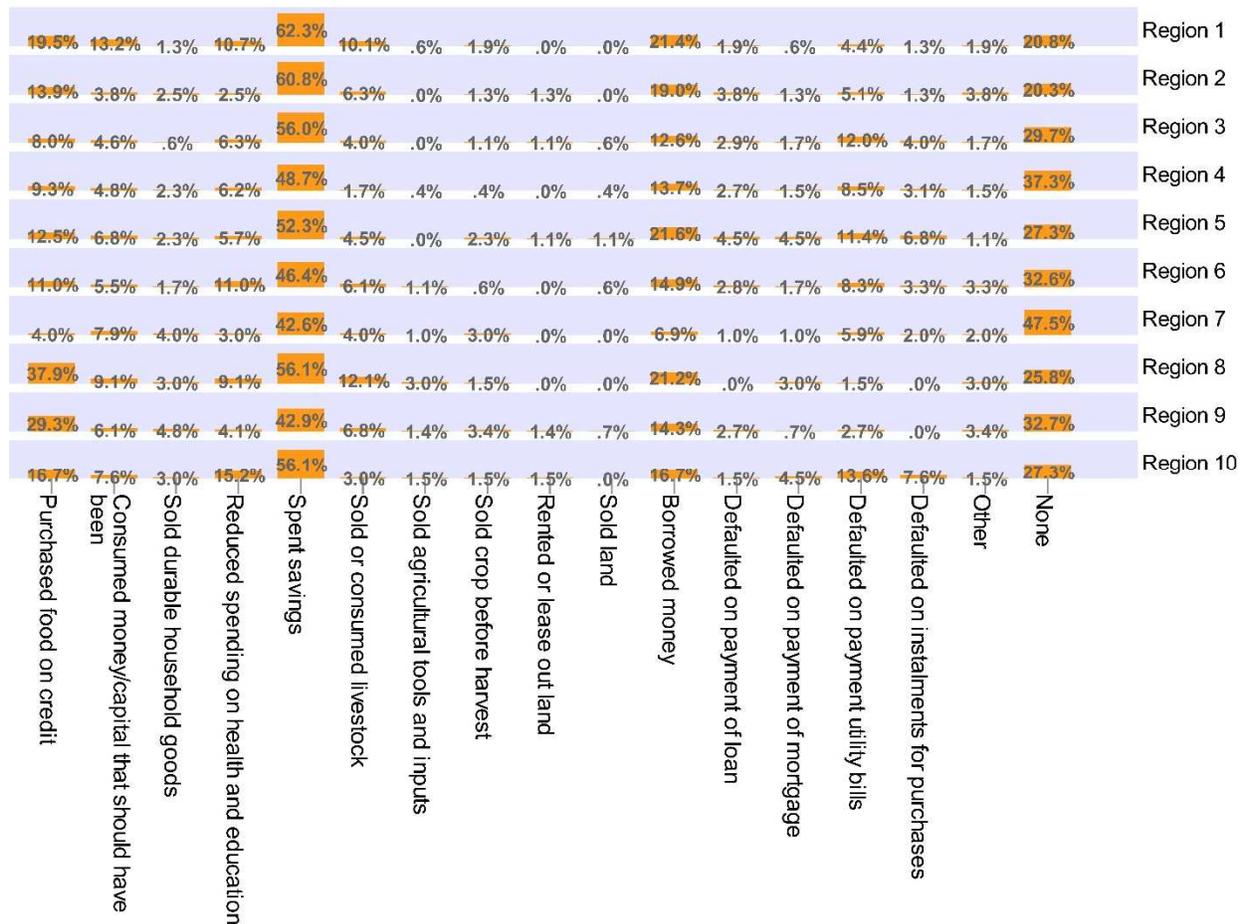


**Figure 90 Reasons for closure of business**

The reason cited most often by the households in each region for either temporary or permanent closure of businesses that they owned is government regulations, for which the regional percentages range from 53.3% in region 10 to 80.6% in region 3 (Figure 90). Reduction in demand leading to temporary or permanent closure of the business was indicated by at least 20% (region 10) and by as much as 50% (region 5) of the households per region that had to close a business during the pandemic. A similar statement could be made for decrease in sales except that the lowest regional value would be 18.2% (region 10) and the highest 61.5% (region 2). That management made a choice to close the business to avoid the risk of COVID-19 infection was cited by at least 15.4% (region 2) and by as much as 50% (region 9) of the households that had to close their businesses. Reduction in investment capital was indicated by 20% of the cases in region 5 whereas issues with suppliers was cited by 20% of the cases in region 10. The absence of workers was cited by at most 6.7% of the relevant households in any of the regions as a reason the business had to be closed either temporarily or permanently.

## 5.4 Financial and non-financial decisions

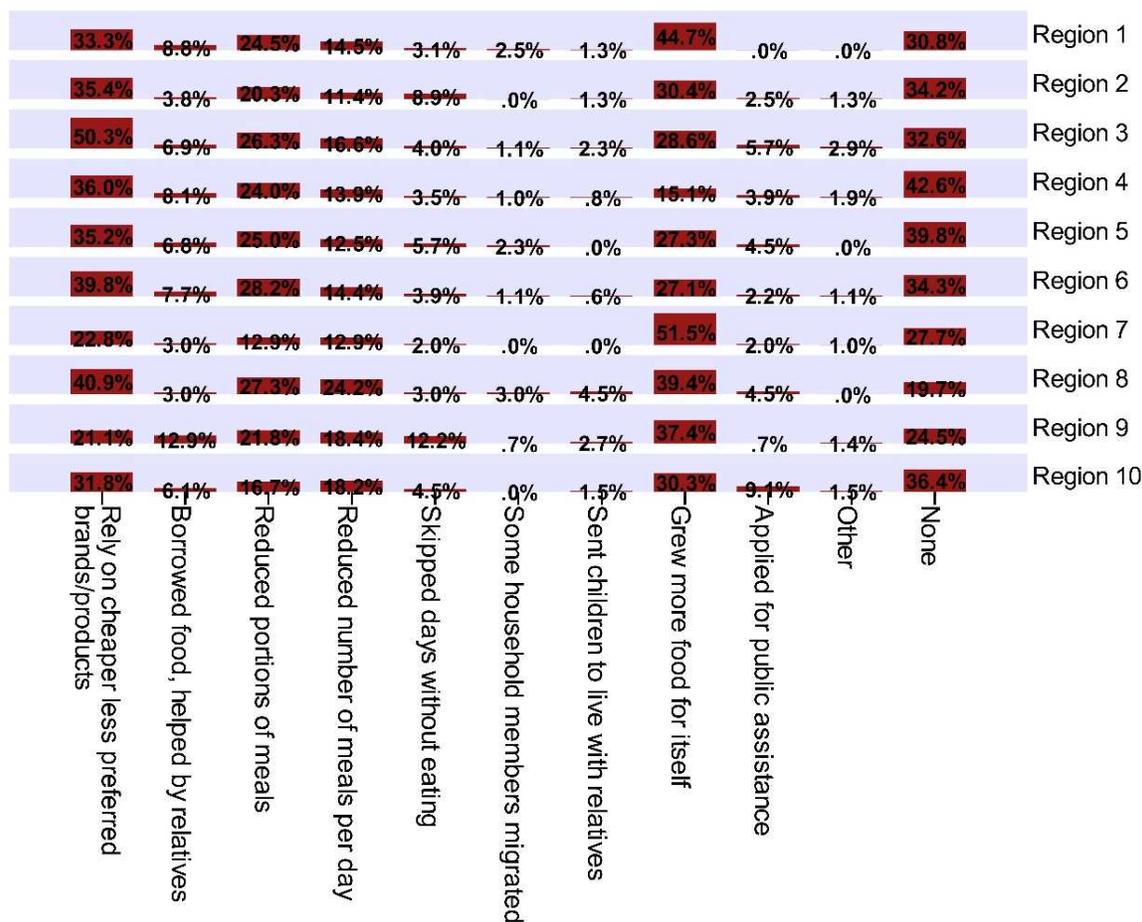
Many households within the regions have had to make financial decisions since the start of the COVID-19 pandemic. The main within-region financial decisions were households spending their savings, households purchasing food on credit and households borrowing money. This observation is based on these decisions having been cited by respondents in each region at high rates in many instances (Figure 91).



**Figure 91 Financial decisions during COVID-19**

At least 42.6% (region 7) of the households per region went into their savings during the pandemic and the proportion is more than 50% in regions 1, 2, 3, 5, 8 and 10 (Figure 91). Spending savings was therefore a common approach to dealing with the pandemic by households within each region. Purchasing food on credit was identified by 37.9%, 29.3% and by 19.5% of the households within each of regions 8, 9 and 1 respectively (Figure 91). These are the highest regional percentages for this financial decision. With the exception of region 7 for which the corresponding value is 4%, the hinterland regions register the largest values for this decision. Apart from this, the other regions for which more than 10% of the households purchased food on credit are regions 2 (13.9%), 5 (12.5%) and 6 (11%). Borrowing money was done by the largest regional proportions of households in regions 5, 8 and 1 for which the values are 21.6%, 21.2% and 21.4% respectively. These largest three proportions are followed by 19% in region 2

and 16.7% in region 10. However, several other regions register at least 10% of households that borrowed money.



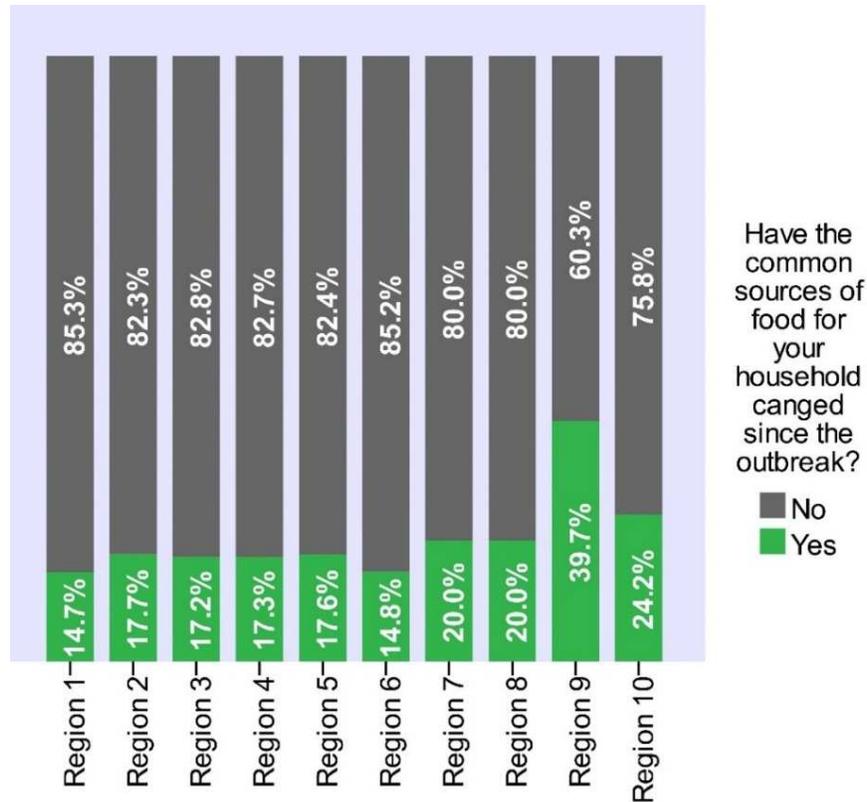
**Figure 92 Non-Financial decisions during COVID-19 pandemic**

Non-financial decisions were made by several households per region as a means of dealing with the impact of COVID-19. Between 21.1% (region 9) and 50.3% (region 3) of the households per region reverted to purchasing cheaper but less preferred brands and products. This might have been in response to increased prices and availability issues and this kind of decision was made in both coastal and hinterland regions at relatively high rates. For example, the three largest values are observed for regions 3 (50.3%), 8 (40.9%) and 6 (39.8%).

On the matter of growing more food as a response to COVID-19, the hinterland regions appear to have led the way with the largest regional percentages of households; 51.5% (region 7), 44.7% (region 1), 39.4% (region 8) and 37.4% (region 9). The regional percentage is lowest in region 4 (15.1%) but fairly large between 20% and 31% in the other coastal regions. Though households in the hinterland regions led the way in relation to the decision to grow more food for themselves, there is evidence of this being done in the coastal regions as well (Figure 92). The decision might have been affected by urbanity which might affect the availability of space and facilities to grow food but even households in the more urban areas such as region 4 have not abandoned this as a response to COVID-19.

## 5.5 Access to food and services

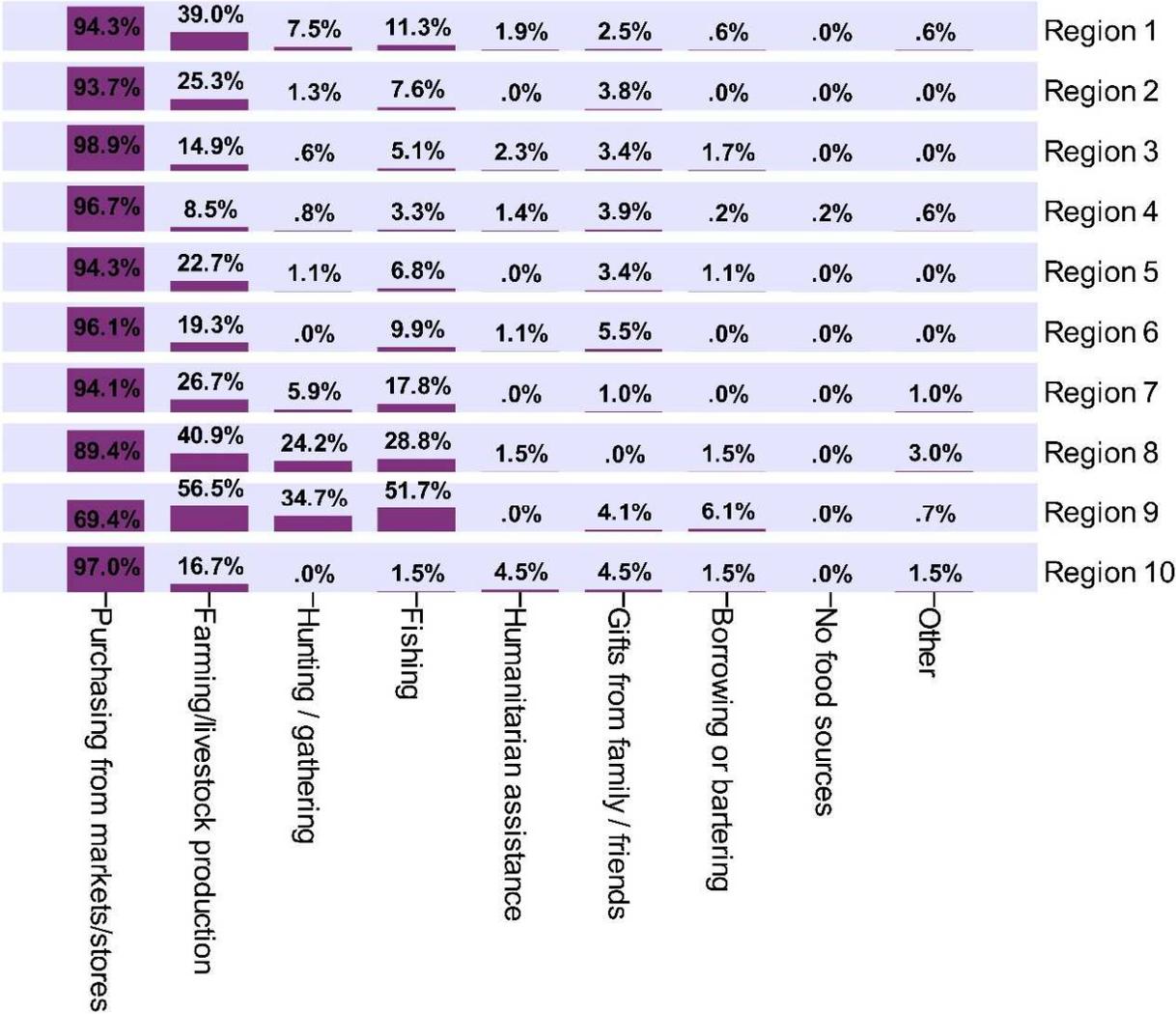
There were changes in the common sources of food during the pandemic in each region (see Figure 93). Between 14.7% and 17.6% of the households in regions 1, 2, 3, 4, 5 and 6 indicated that there were such changes whereas between 20% and 24.2% of the households in regions 7, 8 and 9 indicated that there were such changes and approximately 39.7% of the households in region 9 indicated that there were such changes. Changes in the common sources of food per region were therefore made most often in region 9.



**Figure 93 Changes in common sources of food during COVID-19**

The main source of food within each region prior to the COVID-19 pandemic was purchasing from markets and stores. This source was identified by at least 69.4% (region 9) and by as many as 98.9% (region 3) of the households per region (Figure 94). If region 9 is excluded, the smallest value is 89.4% as observed for region 8. Purchasing from markets and stores remained the main source during the pandemic with the regional proportions of households that identified it ranging from 56% (region 9) to 98.3% (region 3) (Figure 95) which represents a widening of the range due to a lowering of the lowest value. If this lowest value is excluded, the range would be 84.6% (region 8) to 98.3%. What this means is that for at least some households in some regions (particularly regions 8 and 9) the emphasis on purchasing from markets and stores was reduced since the COVID-19 pandemic began.

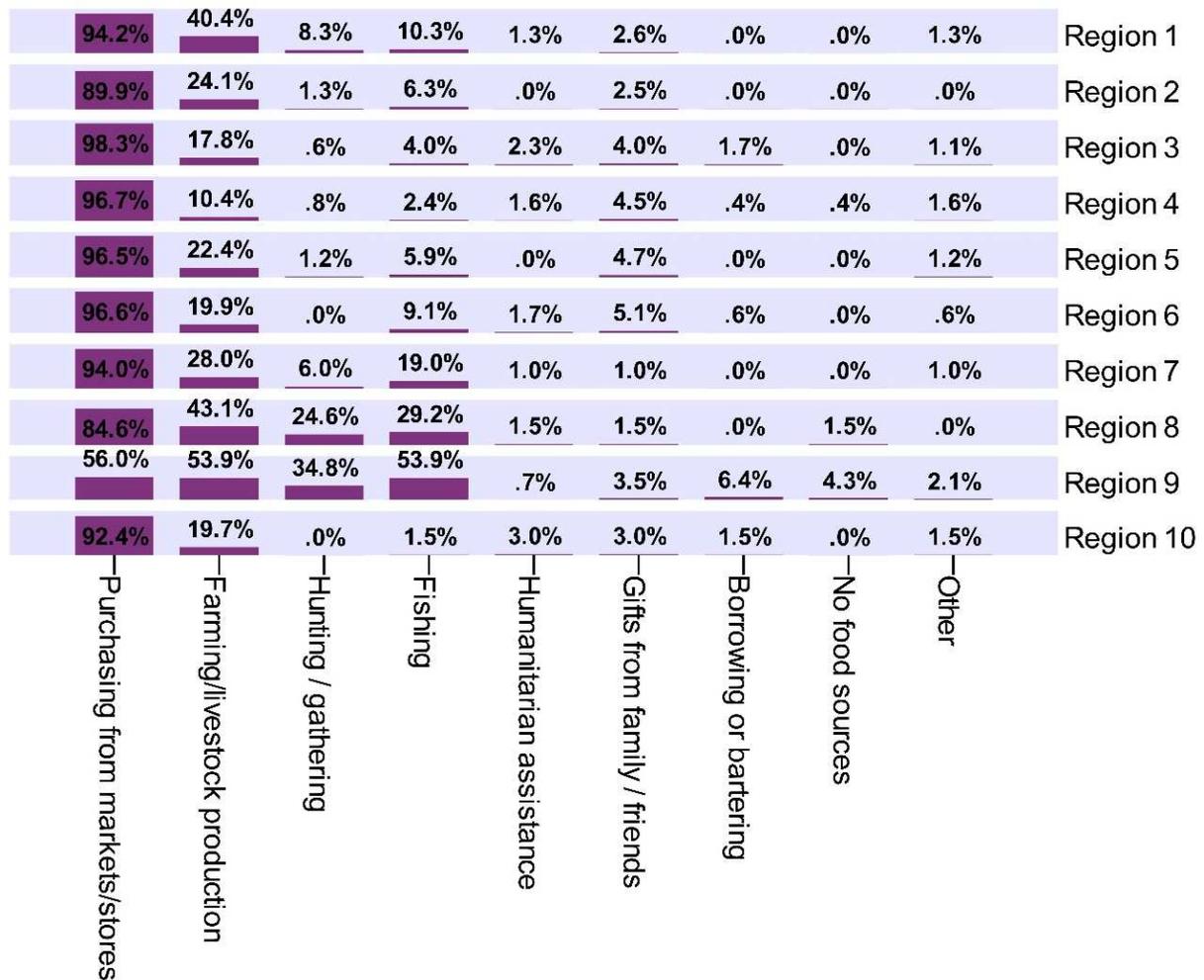
Prior to the COVID-19 pandemic, farming and livestock production was a common source of food for households primarily within the hinterland regions for which the proportions of households were all above 26% and lower than 39% only in region 7 (Figure 94). Nevertheless, farming and livestock production were also common sources of food for fairly large percentages of households within regions 2 (25.3%), 5 (22.7%) and 6 (19.3) and to some extent region 10 (16.7%). Since the COVID-19 pandemic began, the regional percentages of households for which farming and livestock production are important sources of food increased for many regions (regions 1, 3, 4, 7, 10) and held constant or had small fluctuations in others (regions 2, 5, 6 and 8) but declined somewhat in region 9 (see Figure 94 and Figure 95).



**Figure 94 Sources of food before COVID-19**

Hunting and gathering were common sources of food for some households in regions 8 (24.2%) and 9 (34.7%) prior to the pandemic and remained common sources for many households in these two regions (see Figure 94 and Figure 95).

Fishing as a common source of food for households was identified mainly in the hinterland regions both before and during the pandemic (see Figure 94 and Figure 95). However, there was and remains less emphasis on fishing as a source of food in region 1 (10.3%-11.3%). The values increased from 17.8% to 19% in region 7, from 28.8% to 29.2% in region 8 and from 51.7% to 53.9% in region 9. Region 9 therefore remains clearly the area of greatest emphasis on fishing for food for households.

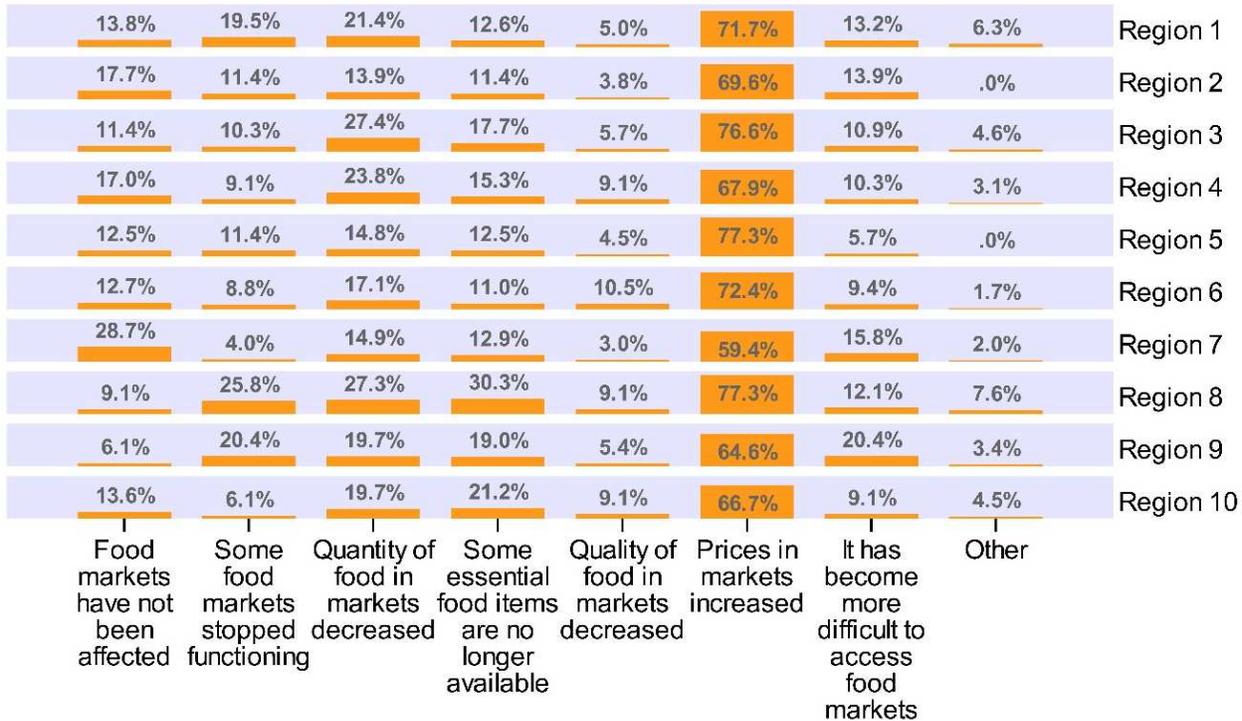


**Figure 95 Common sources of food during the COVID-19 pandemic**

Humanitarian assistance, bartering and borrowing are particularly uncommon sources of food in the region. These sources were identified by no more than 6.4% of the households in any region either before or during the pandemic (see Figure 94 and Figure 95).

The largest and most consistent effect of COVID-19 on nearby food markets is its effects on prices. In particular the prices of items in nearby food markets reportedly increased for at least 59.4% (region 7) and at most 77.3% (regions 5 and 8) of the households in each region (Figure 96). Each of the effects of COVID-19 on food markets was reported by some households in each region though in some cases, the percentages of households citing various effects are small. In cases where the percentages are quite small (say below 10%), it would mean that the particular effect is not widespread.

Based on the respondents’ reports, it appears that some food markets stopped functioning mainly in regions 8, 9 and 1 in which cases 19.5% to 25.8% of the households reported this and to some extent in regions 2, 3 and 5 (Figure 96).



**Figure 96 Effects of COVID-19 on nearby food markets**

Decline in the quantity of food in the markets was indicated by more than 14% of the households in each region and by more than 20% of the households in regions 1, 3, 4, and 8 (Figure 96). Reduced quantity of food available therefore appears to have been widespread in all the regions. A similar observation is made in relation to the lack of availability of some essential food items. This has been experienced in each of the regions and especially in regions 8, 9 and 10.

Approximately 20.4% of the households in region 9 versus approximately 5.7% of the households in region 5 indicated that they had difficulty accessing food markets. For the remainder of the regions, the percentages range from 9.1% (region 10) to 13.9% (region 2) (Figure 96).

Notwithstanding that households in each region reported some effects of COVID-19 on the nearby food markets, some also indicated that there have been no effects of the pandemic on the nearby food markets. This suggests that in at least some areas within each region, the households did not perceive any consequences for the food markets. A lack of effects was noted especially in region 7 (28.7%), 2 (17.7%) and region 4 (17.0%) for which the largest three percentages are recorded (Figure 96). However, more than 10% of the households also indicated a lack of effects in regions 1, 3, 5, 6, and 10.

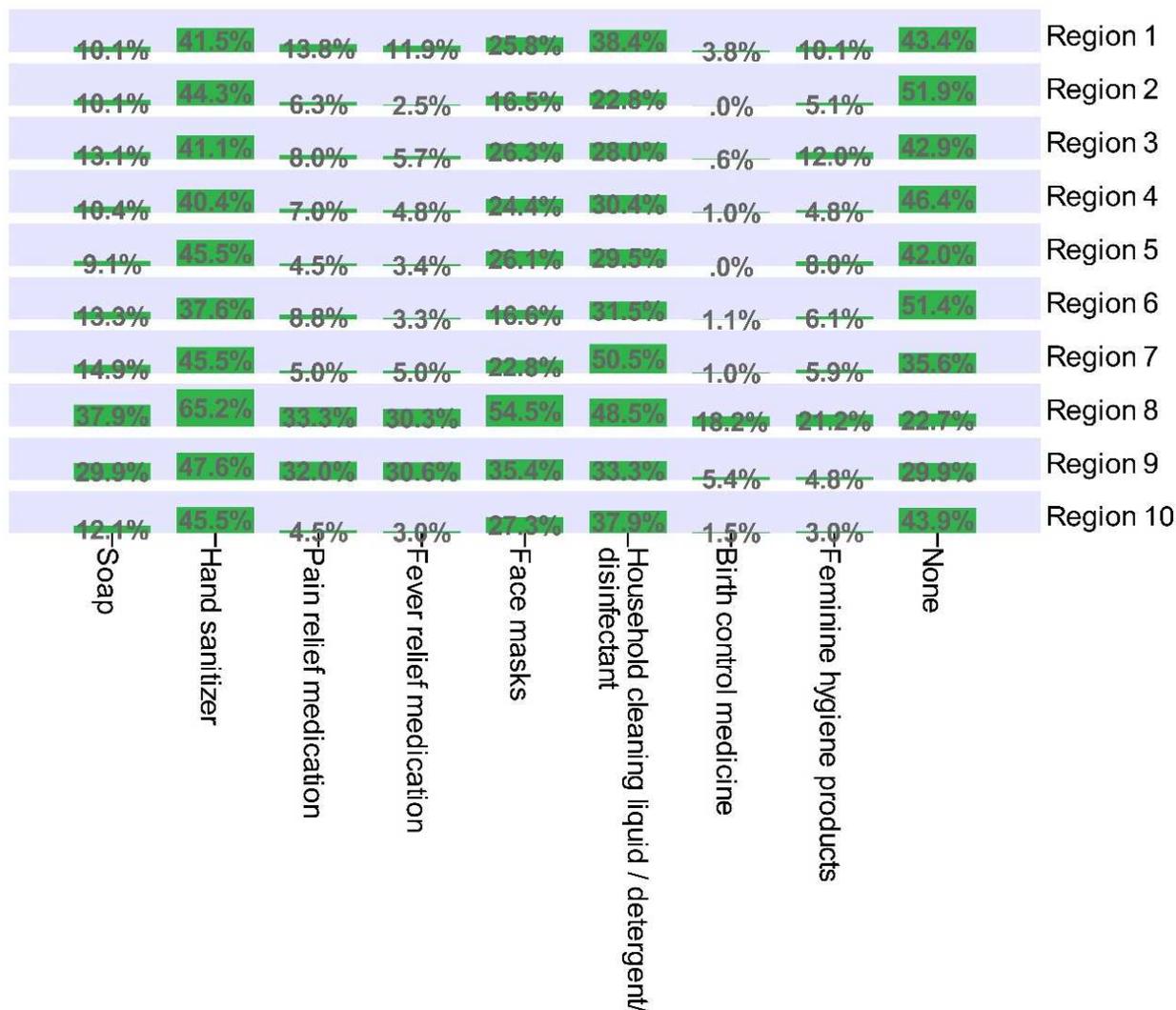
Similar to food markets, increase in prices is the most consistent and frequently identified effect of COVID-19 on non-food markets per region (see Figure 97). Increase in prices was identified by at least 59.2% (region 9) and by at most 68.6% (region 3) of the households within the regions. No other effect of COVID-19 was identified by as many as one-quarter of the households within any region which means that less than one-quarter of the households within the regions experienced the consequences. However, between 9.1% (region 8) and 24.8% (region 7) of the households per region indicated that non-food markets have not been affected (see Figure 97).

17.0%	14.5%	16.4%	10.7%	1.9%	66.0%	18.9%	2.5%	Region 1
21.5%	7.6%	10.1%	8.9%	6.3%	63.3%	11.4%	1.3%	Region 2
14.9%	6.9%	16.6%	16.0%	5.1%	68.6%	9.1%	1.1%	Region 3
18.8%	7.2%	13.3%	14.5%	6.6%	59.8%	7.4%	1.7%	Region 4
14.8%	9.1%	4.5%	10.2%	1.1%	65.9%	1.1%	1.1%	Region 5
13.3%	6.1%	13.3%	8.3%	3.9%	65.7%	7.7%	1.1%	Region 6
24.8%	4.0%	11.9%	6.9%	5.0%	63.4%	10.9%	1.0%	Region 7
9.1%	16.7%	18.2%	21.2%	7.6%	68.2%	19.7%	3.0%	Region 8
8.2%	15.0%	11.6%	14.3%	4.8%	59.2%	17.0%	2.0%	Region 9
13.6%	6.1%	19.7%	18.2%	6.1%	66.7%	12.1%	1.5%	Region 10
Markets have not been affected	Some markets stopped functioning	Quantity of nonfood items in markets decreased	Some essential nonfood items are no longer available	Quality of nonfood items in markets decreased	Prices in markets increased	It has become more difficult to access nonfood markets	Other	

**Figure 97 Effects of COVID-19 on nearby non-food markets**

Fairly large percentages of the households per region indicated that during the pandemic they had no difficulties accessing the items included in a list presented to the respondents (see Figure 98). In particular, the percentage of households per region that indicated this range from 22.7% in region 8 to 51.9% in region 2. With the exception of region 1 where the value is 43.4%, the lowest values for having had no difficulties are recorded for the hinterland regions (between 22.7% and 35.6%). To a large extent therefore, more difficulties in accessing the items were experienced by households in the hinterland regions and specifically regions 7, 8 and 9.

Accessing birth control medicine and feminine hygiene products was difficult mainly in region 8 whereas difficulty accessing pain relief medicine, fever medicine and soap were experienced mainly by households in regions 8 and 9. The difficulty in accessing soap was reported by approximately 37.9% and 29.9% of the households in regions 8 and 9 respectively (Figure 98).



**Figure 98 Difficulty accessing items**

Hand sanitizer appears to have proven difficult to obtain during the pandemic in each region (see Figure 98). In particular, between 37.6% (region 6) and 65.2% (region 8) of the households reported this difficulty in obtaining hand sanitizer in each region. In region 4, which is generally the economic centre of the country, approximately 40.4% of the households reported difficulties in obtaining hand sanitizer during the pandemic.

Difficulties obtaining face masks during the pandemic were reported by more than one-quarter of the households per region in all regions except regions 2 (16.5%), 6 (16.6%), and 7 (22.8%). In regions 8 and 9, the percentage of household are the highest at 54.5% and 35.4% respectively. These two regions are followed by region 10 in which difficulties obtaining face masks were reported by approximately 27.3% of the households (see Figure 98).

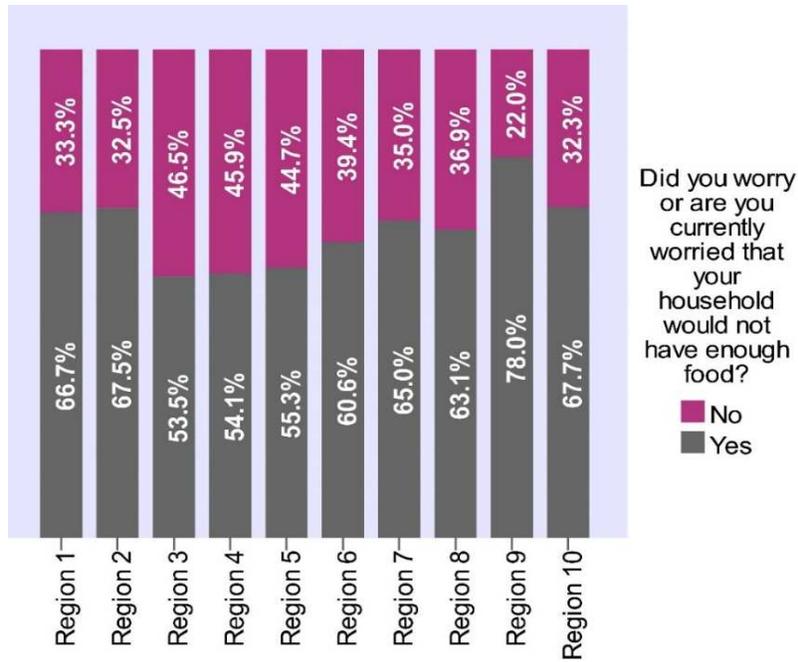


Figure 99 Worried about household not having enough food

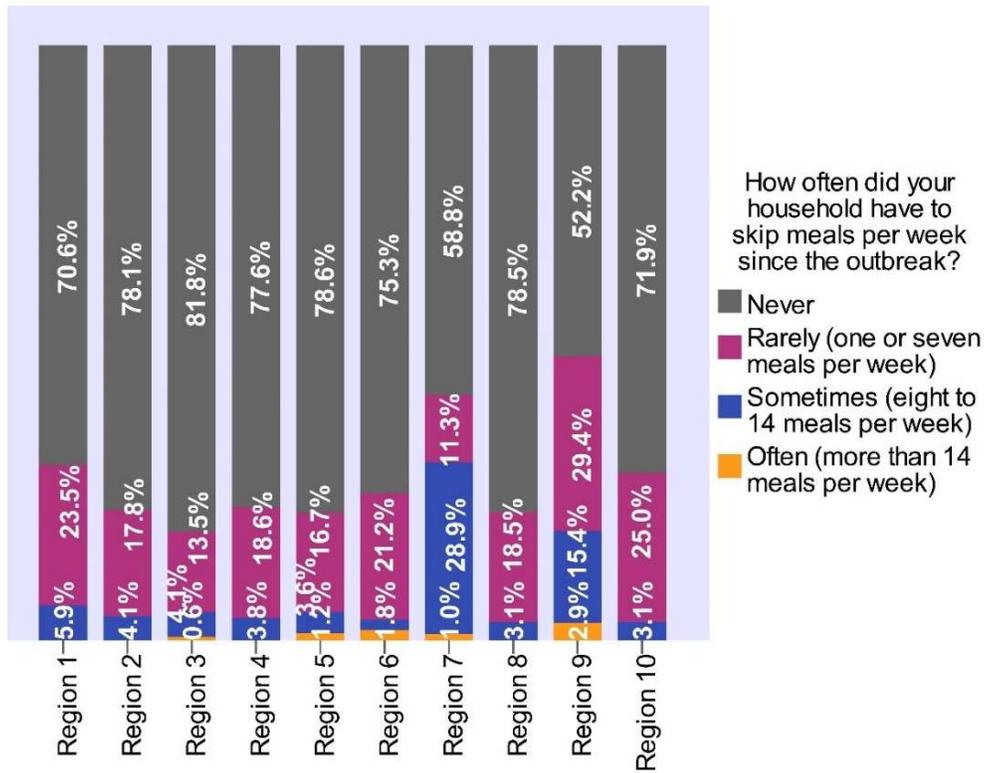
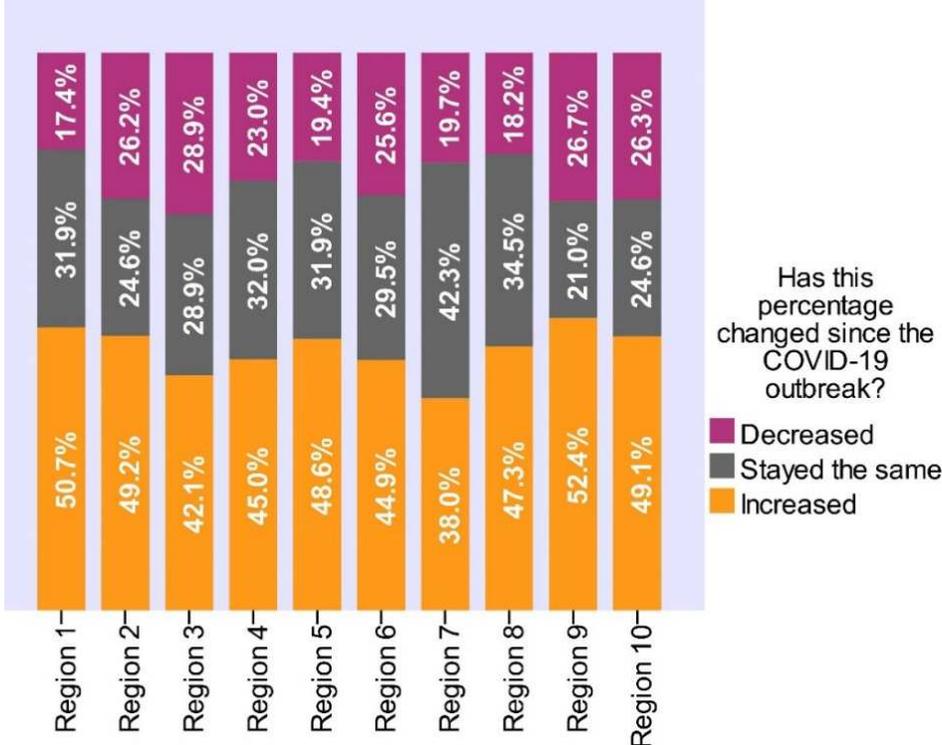


Figure 100 Skipping meals during COVID-19

Difficulties obtaining household cleaning supplies were experienced in each region with relatively large percentages (22.8% to 50.5%) of the households identifying this as a problem during the pandemic. This difficulty appears to have been more pronounced in the hinterland regions and region 10 where between one-third and just over half (50.5%) of the households per region indicated that they had difficulties accessing household cleaning supplies.

Whereas the difficulties in accessing soap, hand sanitiser, face masks and cleaning supplies would have limited the ability of the households to protect themselves from COVID-19 infection in general, it appears that this limiting effect brought on by such difficulties would have been especially evident in the hinterland and among them particularly in regions 8 and 9.

A majority of the households in each of the regions worried about not having enough food since the pandemic began (see Figure 99). The proportion of households that experienced such worry is somewhat lower in regions 3 (53.3%), 4 (54.1%), and 5 (55.3%) which are closer to the urban centre. The proportions of households that worried about not having enough food are somewhat larger in the hinterland regions and regions 2 and 10 with the largest percentage (78%) observed for region 9 (see Figure 99).

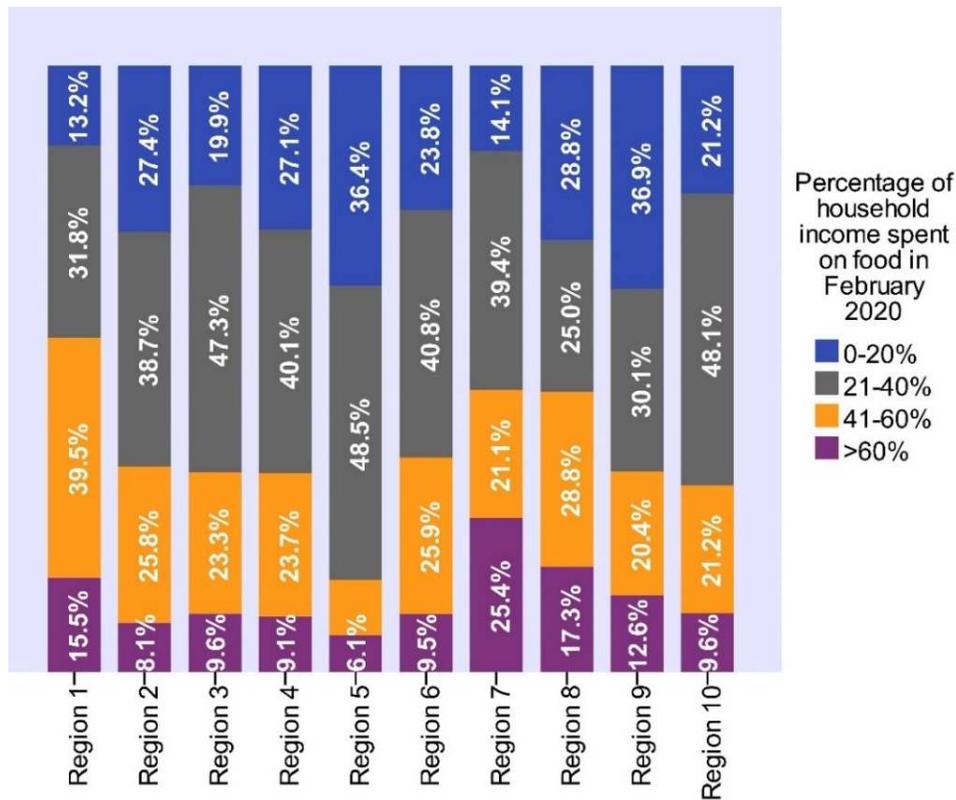


**Figure 101 Change in amount spent on food during COVID-19**

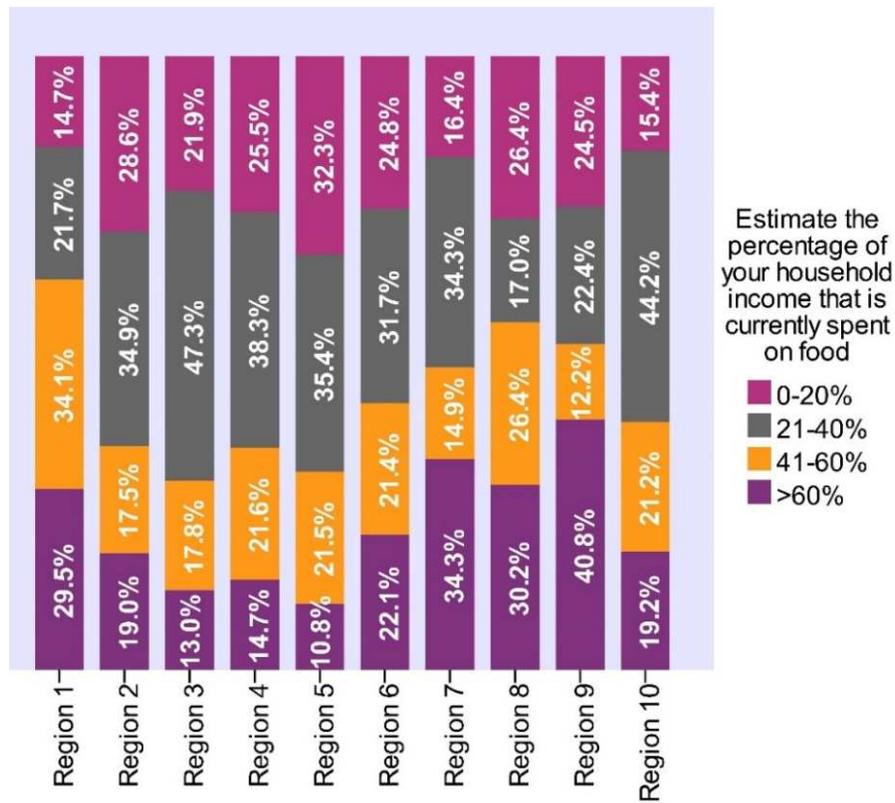
Households in each region have skipped meals during the pandemic (see Figure 100). More than one-quarter of the households in regions 1, 7, 9 and 10 skipped meals during the pandemic (Figure 100). Notably the percentage of households in region 6 that skipped meals is quite close to one-quarter with it standing at 24.7%. The percentage that skipped meals is lower in the other regions but they still range between 18.2% (region 3) and 22.4% (region 4). When households

skip meals, they typically skip one to seven meals per week, but the number skipped is typically larger in region 7 where those households are more likely to have skipped eight to fourteen meals per week (Figure 100).

On the matter of the percentage of household income spent on food, large percentages of the households within each region indicated that the percentage increased during the pandemic (see Figure 101). In particular, between 38% (region 7) and 52.4% (region 9) of the households per region indicated that the percentage of household income spent on food increased during the pandemic. That notwithstanding, between 17.4% (region 1) and 28.9% (region 3) of the households per region indicated that the percentage of income spent on food decreased during the pandemic (see Figure 101). The largest percentage of households that indicated that the relative amount spent on food remained unchanged is 42.3% for region 7 whereas the smallest percentage for unchanged proportion spent on food is 21% observed for region 9.



**Figure 102 Percentage of household income spent on food before COVID-19**

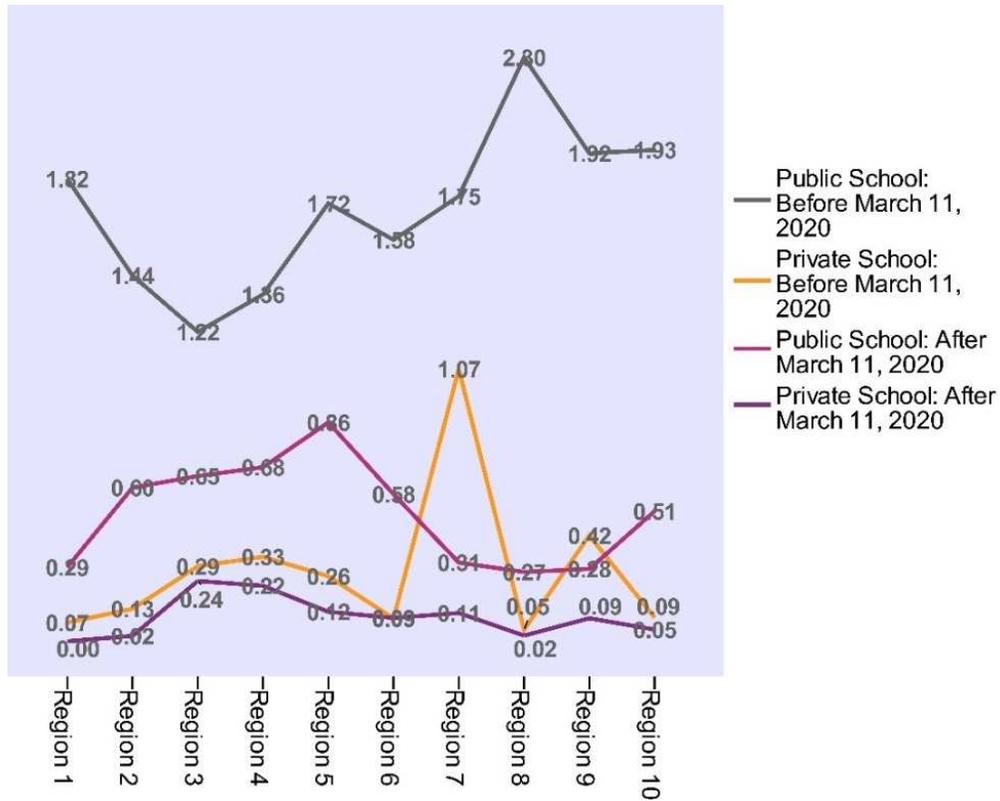


**Figure 103 Percentage of household income currently spent on food**

When the regional percentages of households that spent 0 to 20% of their income on food are examined before and during the pandemic, an expansion of the percentage is observed in each of regions 1, 2, 3, 6 and 7 whereas a contraction is observed for each of regions 4, 5, 8, 9 and 10 (see Figure 102 and Figure 103). In the 21 to 40% category, there is a contraction of the percentage in each region during the pandemic except region 3 where the percentage remains the same. This means that relatively fewer households per region spent 21 to 40% of their income on food during the pandemic. For the 41 to 60% category, a contraction in the percentage of households is observed for each of the regions except region 10 where the percentage remains the same. For the more than 60% category, a large expansion of the percentage is observed in each of the regions (see Figure 102 and Figure 103). This latter observation means that much more of the households in each region spent more than 60% of their incomes on food during the pandemic than the percentage that did so before.

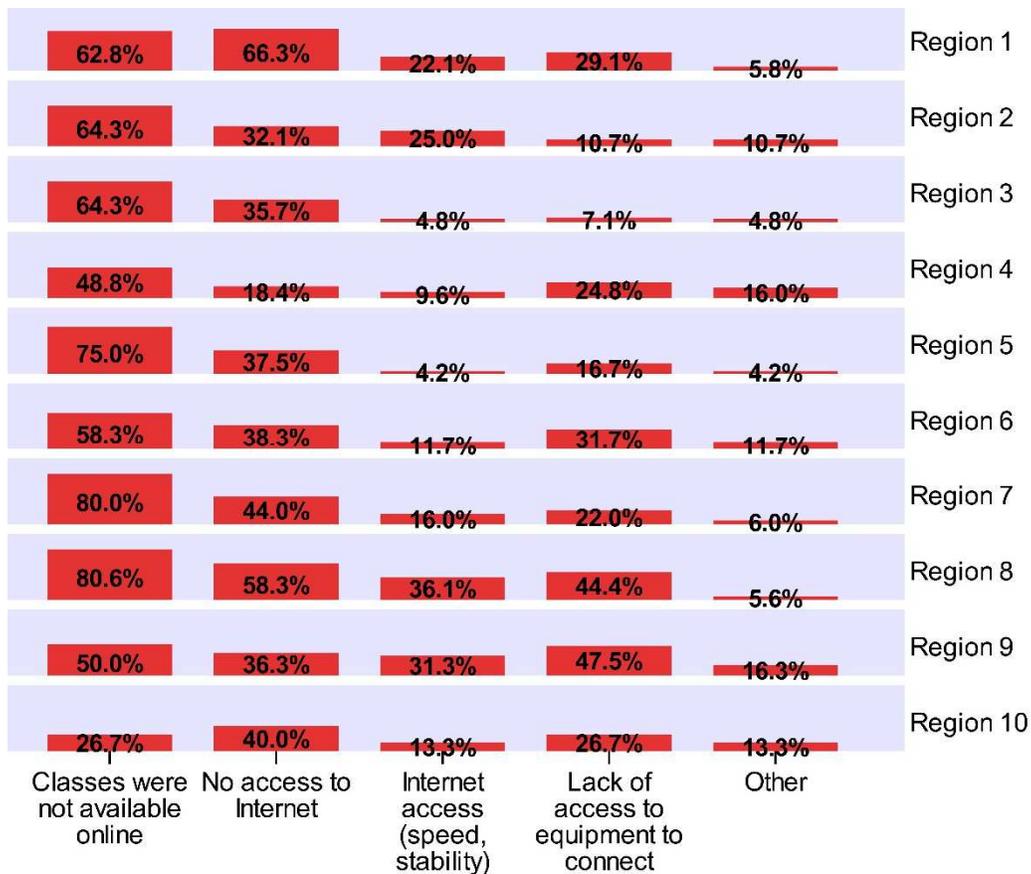
### 5.6 Access to education

Before the COVID-19 pandemic began in Guyana, an average of between 1.22 (in region 3) and 2.8 (in region 8) children per household with children per region were attending public schools in the country. As would be expected given that public schools were closed as a means of fighting the spread of COVID-19, the averages dropped dramatically. In particular, the regional averages during the pandemic range from 0.27 (in region 8) to 0.86 (in region 5) (Figure 104). School children in no region were spared the interruption of their education though it appears that within each region, education did continue for some children in the public schools.



**Figure 104 Attendance at school before and during the COVID-19 pandemic**

Private schools fared somewhat better insofar as it relates to the differences in averages per region before and during the pandemic. Whereas the average number of children attending private schools per household with children per region range from 0.02 (region 8) to 1.07 (region 7) before the pandemic, they range from 0.0 (region 1) to 0.24 (region 3) after. The most dramatic drop for private schools is observed for region 7 where the average moved from 1.07 to 0.11 (see Figure 104). Students of private schools therefore appear to have largely been able to continue formal education except perhaps in the hinterland regions (region 1, 7, 8 and 9) to some extent. It seems safe to conclude that except for the hinterland regions, the private schools per region were largely better able to respond to the realities of the COVID-19 pandemic than the public schools.



**Figure 105 Reasons for not attending school during the COVID-19 pandemic**

The main reason for absence from school during the pandemic is the unavailability of classes online. This reason was identified by the largest proportion of households in each region except regions 1 and 10 where larger percentages of the households indicated that no internet access was a factor (Figure 105). Except for region 10 where the lack of online classes was identified by 26.7% of the households, the unavailability of online classes during the pandemic was identified by between 50% (region 9) and 80.6% (region 8) of the households per region as the reason for non-attendance at school.

A lack of access to the internet is cited in each region for non-attendance at school. Approximately 18.4% of the households in region 4 identified this as a reason and this is the lowest regional percentage observed. Apart from region 4, the proportion of households per region that indicated this as a reason ranges from 32.1% in region 2 to 66.3% in region 1 (Figure 105).

Though problems with internet speed were identified as a reason for non-attendance at school in each region, this appears to have been problematic especially in regions 8, 9, 1 and 2 where more than 20% of the households in each of them indicated this reason (Figure 105).

A lack of access to equipment was also identified by respondents in each of the regions. However, this appears to have been problematic in especially regions 8 and 9 where the percentage of households exceed 44%, and problematic in regions 1, 4, 6, 7 and 10 where the percentage of households range from 22% (region 7) to 31.7% (region 6).

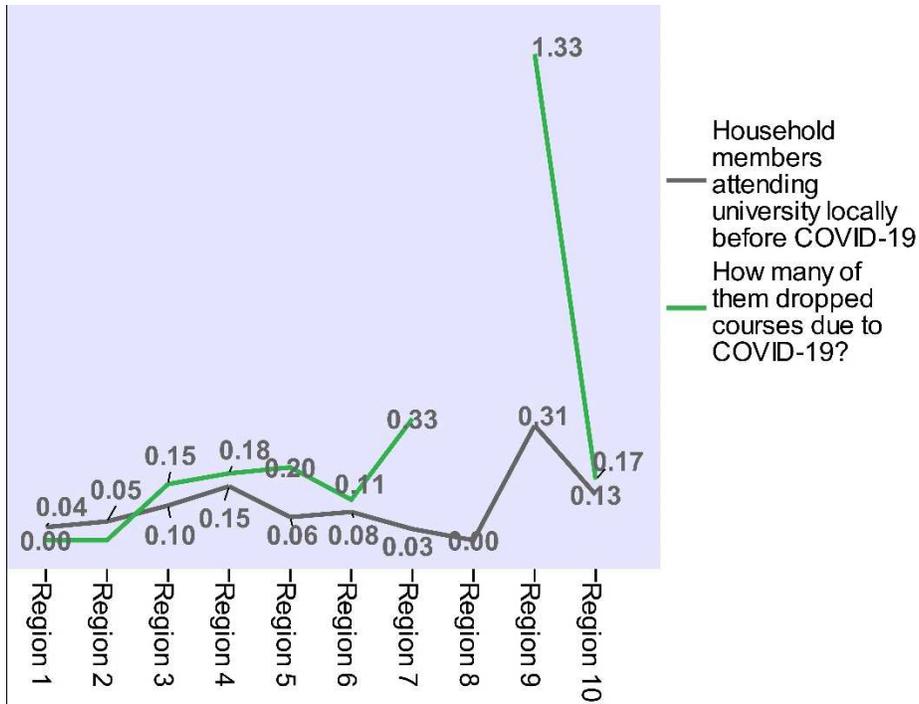


Figure 106 Attendance at university during the COVID-19 pandemic

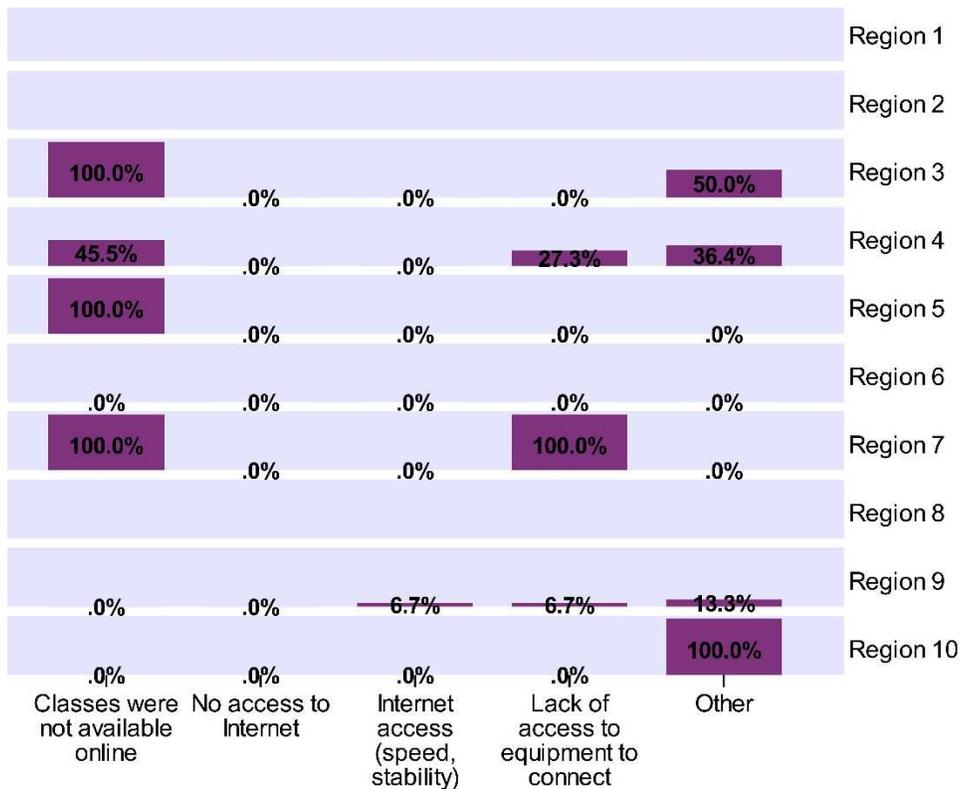


Figure 107 Reasons for dropping university courses

The average number of people per household per region that were attending university before COVID-19 began in Guyana range from 0.00 in region 8 to 0.31 in region 9. Apart from this observation for region 9, the averages for the coastal regions are generally larger than the averages for the hinterland regions. If region 9 is ignored the largest regional average would be in region 4 (0.15) (Figure 106).

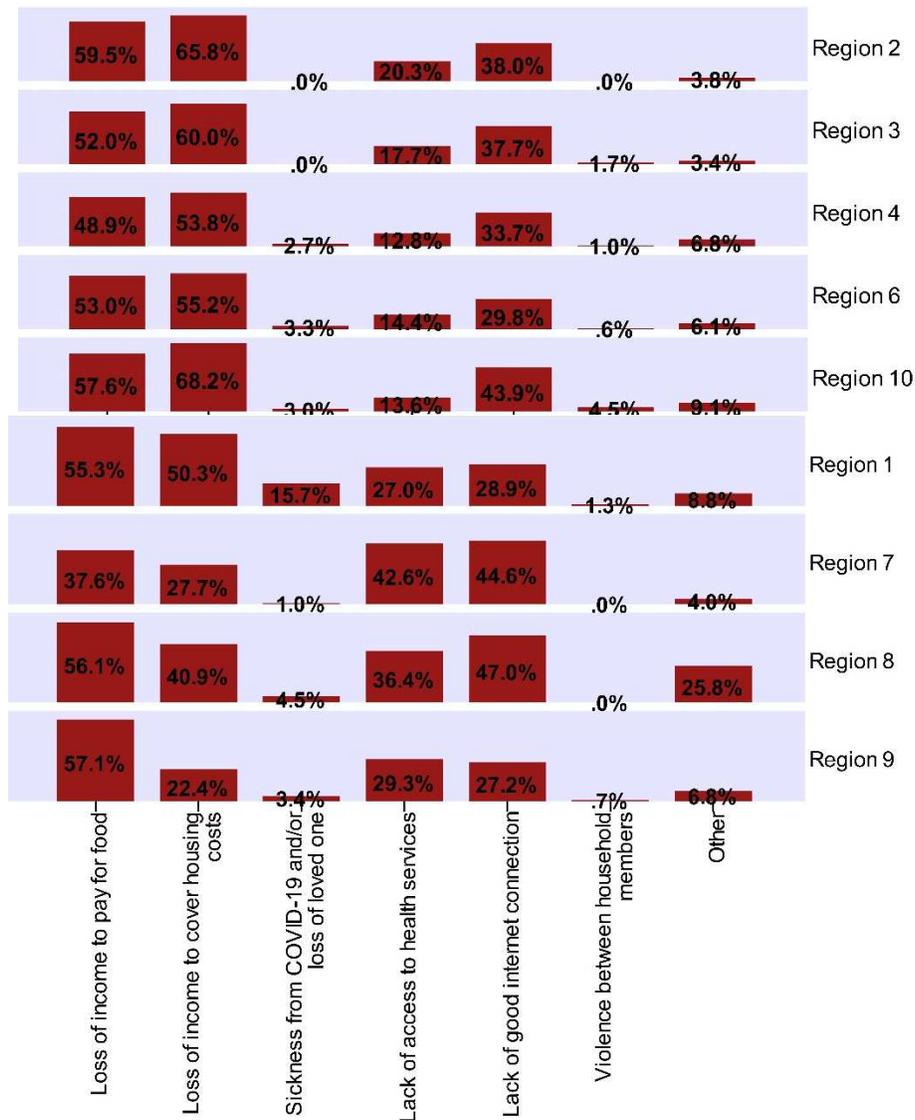
The results for dropping university courses were calculated based on only the households with members attending university just at the start of the pandemic. Except for regions 1 and 2, individuals in households in each region dropped university courses due to the COVID-19 pandemic. The highest averages of persons per households with university students per region that dropped courses occur in region 9 (1.33), 7 (0.33) and region 5 (0.20).

A lack of internet access was not cited by households in any region as a reason for not attending university courses during the pandemic, and problems with internet speed was cited only in region 9 (6.7%). Lack of equipment was identified by some households in regions 4 (27.3%), 7 (100%) and 10 (6.7%). Unavailability of classes online is the main reason indicated by the respondents and it was identified as a reason for dropping university courses by 100% of the households in region 3, 5 and 7 and by 45.5% of the respondents in region 4. The lack of classes online was not indicated by households in any other region (Figure 107).

## 5.7 Priority assistance

The three most severe problems identified most consistently within each region are loss of income to buy food and to cover housing costs and lack of a good internet connection (see Figure 108).

Loss of income to buy food was identified by at least 22.4% (region 9) and by at most 59.5% (region 2) of the households in each region. Furthermore, more than half of the households per region identified this as one of three most severe problems in each region except regions 4 and 7.

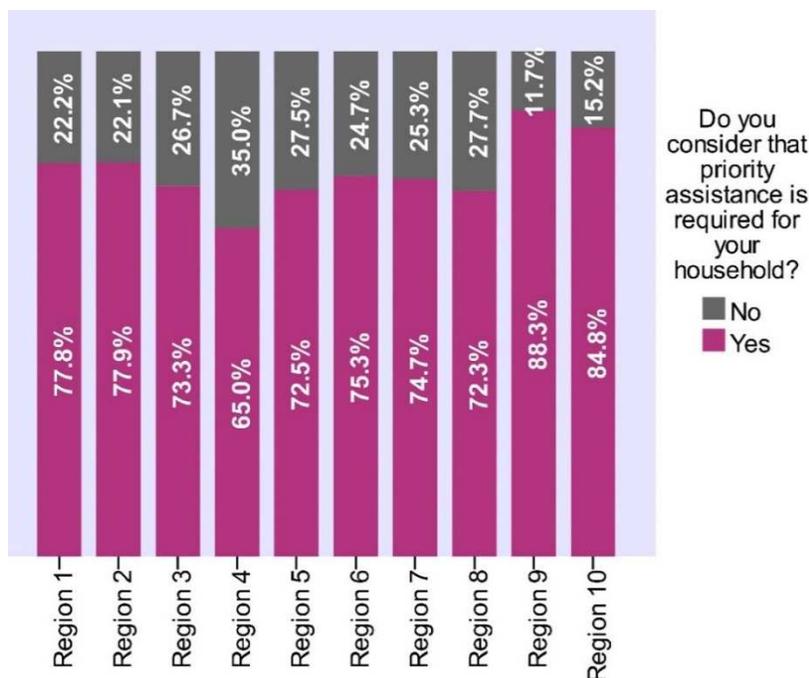


**Figure 108 Three most severe problems**

A loss of income to cover the cost of housing was identified by at least 53.8% (region 4) and by at most 68.2% (region 10) of the households in each of the coastal regions but by relatively lower percentages of the households in the hinterland regions. In particular, for the hinterland regions the percentages range from 22.4% in region 9 to 50.3% in region 1 (Figure 108). Loss of income to cover housing cost appears to have been severely problematic for smaller fractions of the

households in the hinterland regions with the lowest values observed for region 9 (22.4%) and region 7 (27.7%).

A lack of internet connection, though cited by large percentages of households in each region appears to have been problematic for larger percentages of households in regions 7 (44.6%), 8 (47%) and 10 (43.9%). Nevertheless, apart from these three regions with the largest percentages, the percentage of households that indicated that lack of internet access was one of their top three most severe and consequential problems faced range between 27.2% in region 9 and 38% in region 2.



**Figure 109 Need for priority assistance**

A need for priority assistance was expressed by large percentages of the households in the regions (Figure 109). In particular, between 65% (region 4) and 88.3% (region 9) of the households per region indicated a need for priority assistance during the pandemic. The only other region in which more than 80% of the households indicated that they need priority assistance is region 10 (84.8%). Priority assistance is therefore needed in each region based on the indications of the respondents.

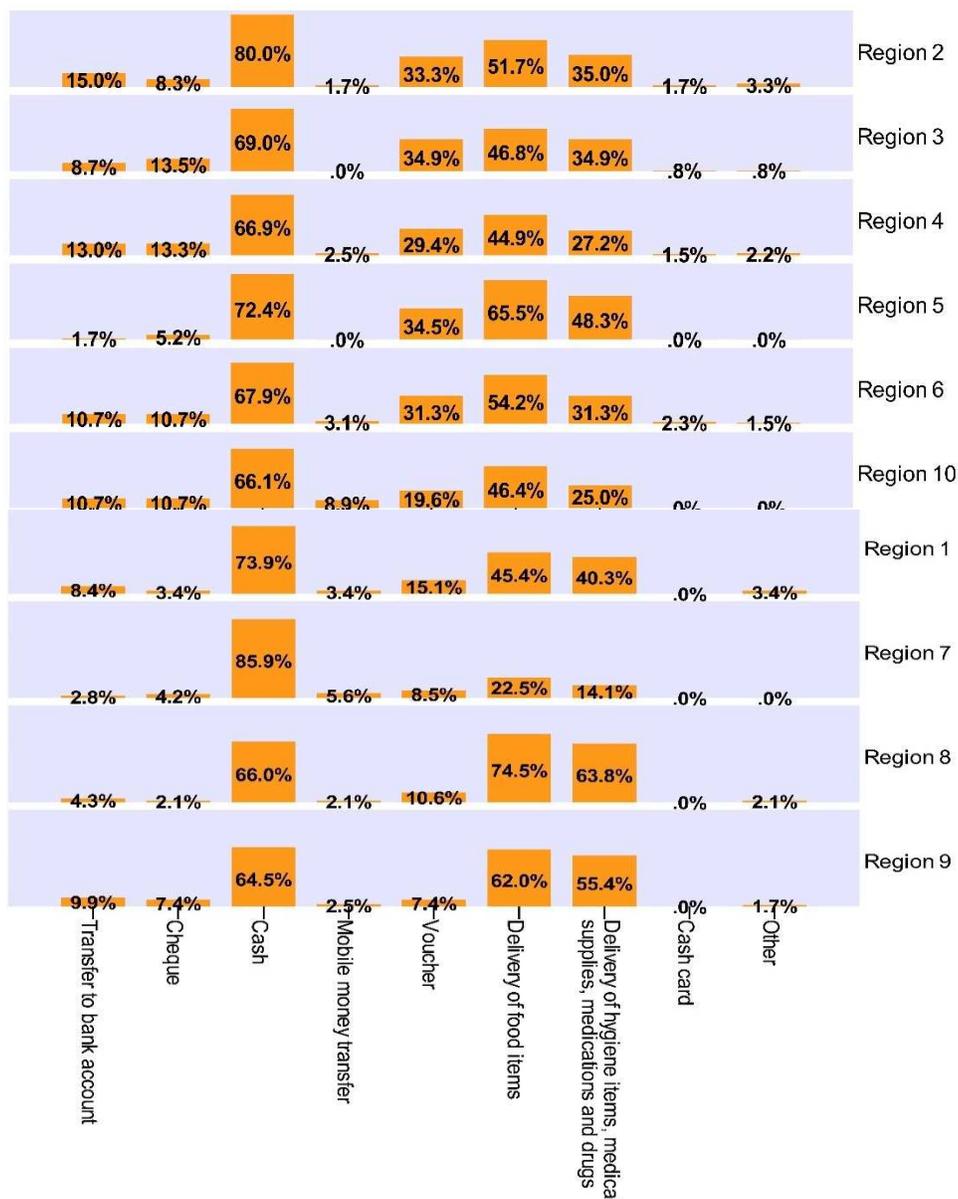
Priority assistance in the form of cash transfer was identified by between 74.1% (region 5) and 87.5% (region 10) of the households in the coastal regions and by between 57.4% (region 8) and 81.7% (region 7) of the households in the hinterland regions (Figure 110). The overlap in these ranges of percentages is due only to the large value obtained for region 7. If this region is excluded, the upper limit of the range for the hinterland regions would be 69.7% (region 1). From this perspective, it is apparent that the households in the hinterland regions place less emphasis on cash as priority assistance than the households in the coastal regions and this might evidence elements of what it means to live in the two sections of the country. Nevertheless, cash as priority assistance is not altogether unneeded in the hinterland regions given that this was identified by large percentages of the households there regardless.

The percentage of households in the coastal regions that identified food as a form of priority assistance needed range from 70% (region 2) to 80.4% (region 10) whereas the corresponding range for households in the hinterland regions is 38% (region 7) to 78.7% (region 8) (see Figure 110). In regions 8 and 9, the percentages of households that indicated food are larger than the respective percentages that indicated cash which suggests that the households in these regions tend to (though not necessarily exclusively so) prioritise receipt of food over cash during the pandemic whereas the situation is reversed in region 7. For the coastal regions, there is no clear prioritisation of cash versus food since both options were identified by large majorities of the households.



**Figure 110 Priority assistance needed**

The percentage of households in the hinterland regions that indicated that they needed hygiene products the most range from 43.7% in region 7 to 70.2% in region 8; the corresponding range among the coastal regions is 33.9 (region 10) to 51.7% (region 5) (Figure 110). Though there is a tendency for the regional percentages for the coastal regions to be lower and for the percentages for the hinterland regions to reach above 50%, the values do not suggest a clear partitioning of the regions into coastal and hinterland groups. Hygiene products as priority assistance during the pandemic would likely be appreciated in the hinterland regions and mostly appreciated in the coastal regions.



**Figure 111 Preferred methods of receiving assistance for Hinterland households**

As it relates to medical supplies, there is clearly a need for this in the hinterland regions, but this need is not so clearly established in the coastal regions though many households there would have identified it as something needed. Less than 20% of the households in each of the coastal regions identified medical supplies as something that they needed most, whereas more than 30% of the households in each of the hinterland regions indicated a need for medical supplies with more than half of the households in regions 8 and 9 indicating this (Figure 110).

In relation to the delivery mechanism for priority assistance, transmission of cash was the response indicated most consistently by large regional percentages of the households (see Figure 111). The regional percentages for cash range between 64.5% in region 9 and 85.9% in region 7. Voucher as a delivery mechanism was identified by more than 19% of the households only in the coastal regions.

Except for region 7 where the percentage is 22.5%, delivery of food was identified by more than 44% of the households in each of the other regions, and by as much as 74.5% of the households in region 8. Delivery of food is therefore a fairly popular option in the regions. Delivery of hygiene items and medical supplies was indicated as a preferred mechanism by at least 45.4% of the household in the hinterland regions except region 7 where the value stands at 22.5%. This option was also identified by between 44.9% (region 4) and 54.2% (region 6) of the households in the coastal regions. Delivery of hygiene items and medical supplies is therefore fairly popular in both coastal and hinterland regions.

Transfer to bank account, cheque and mobile money transfers and cash card are generally unpopular as delivery mechanisms though transfers to bank account and cheque might have some interest in the coastal regions.

## 6.0 Conclusion

Households in the country are occupied by an average of 4.26 individuals. Coastland households are somewhat smaller and include fewer children than their hinterland counterparts. Fewer than 20% of the households have a university graduate living in them and university graduates are concentrated in the more urbanised regions than elsewhere.

A small percentage (1.3%) of households have the experience of a confirmed COVID-19 case within them and Region 1 appears to be a COVID-19 hotspot relative to other geographic areas.

Chronically ill males and females are relatively more abundant in the households than males and females with disability and males and females with reported mental health issues.

Up to the time of data collection, 10.9% of the households had experienced lack of access to medications, treatments and therapies. This problem appears to be exacerbated by remoteness and was therefore more pronounced in the hinterland regions. The COVID-19 pandemic does not appear to have affected pre- or post-natal visits to the doctor and if it has affected immunization the impact was felt by a small percentage (at most 5%) of households.

The pandemic has impacted negatively on employment with some losing their jobs permanently and others temporarily. Households in Region 10 have been most affected by both temporary and permanent loss of employment and larger households have an increased likelihood of having members that have lost employment temporarily.

The pandemic also affected household income negatively overall, within each region and of both female headed and other households with the median income of female headed households continuing to be lower than that of other households. Reduced income is more prevalent in coastal than the hinterland regions. Household expenditure changed in some regions but not in others, and the change was an increase or decrease depending on which region is considered.

Approximately 12% of the households received remittance and at the aggregate level, the amount of monthly remittance remained relatively stable (median of G\$20,000) during the COVID-19 pandemic. However, there were noticeable increases in remittance in regions 7 and 10 and decreases in regions 1, 2, and 9. For households with members working in other regions and sending money home, the median amount sent home was cut in half at the aggregate level and reductions in the amounts received were experienced in each region except regions 4 and 5.

Apart from income from employment, remittances, and from household members sending money home from other regions, other sources of income during the pandemic were not very popular. However, food hampers were received by households mainly in the hinterland and region 10.

Business ownership among the households was not especially popular in general and members of female headed households were less likely than their counterparts to own businesses. Notwithstanding some divergent experiences, COVID-19 appears to have resulted in decline in demand for business products and services, and reduction in the business workforce and operating hours with some permanent closures. Closures and reduction of operating hours resulted mainly from the need to conform to government regulations in response to COVID-19 and reduction in demand and sales experienced during the pandemic and also actions taken to mitigate the risk of infection on the part of the business operators.

Most of the households have had to make financial and non-financial decisions during the pandemic. Financial decisions were more likely among households with lower average age and those without university education whereas non-financial decisions were more likely to be made by households in the hinterland compared to the coastal regions. The main financial decision made was to spend savings and this was done in each region at high rates. Non-financial decisions were made by less than half of the households with the most popular such decision being to purchase cheaper, less preferred brands, growing food and reducing the portions of meals. Purchasing alternative brands was most popular in region 3 whereas the hinterland regions led the way in growing food.

Purchasing food from markets was by far the most popular source of food before and during the pandemic. Nevertheless, approximately 18.2% of the households indicated that they changed the major sources of food during the pandemic with such changes reported mostly by households in region 9.

The most salient effect of the COVID-19 pandemic on nearby food and non-food markets was increase in prices. In addition, households in each region identified the unavailability of desired essential food items as an issue encountered, but households in regions 8, 9 and 10 were the ones mainly affected by this. The non-food items with which households had the greatest difficulty finding and accessing were hand sanitizers, household cleaning detergents and face masks. Difficulties in accessing these items were much more pronounced in the hinterland regions and region 10. An obvious consequence of scarcity of the items identified is a greater challenge for households to protect themselves from COVID-19.

More than half of the households worried about not having enough food during the pandemic. This was more prevalent among female headed households and among households in the hinterland regions and regions 2 and 10 than their counterparts. Approximately 21.8% of the households skipped meals during the pandemic. Skipping meals was more prevalent among female headed households.

The measures taken in Guyana to control the spread of COVID-19 included closing the schools. There was therefore a substantial drop in school attendance and significant disruption of the education process. The private schools were largely better able to respond to the situation than the public schools and to continue education online. The main reason cited for non-attendance at school during the pandemic is unavailability of online classes. This reason was the most often cited in each region except regions 1 and 10 where the lack of internet access was most salient.

Approximately 0.12 persons per household were attending university just prior to the pandemic. Some of these individuals dropped university courses during the pandemic and the unavailability of online classes was the main reason cited.

Loss of income to cover housing costs, loss of income to pay for food and lack of good internet connection were on average the three worst and most consequential problems faced by households during the pandemic. The salience of loss of income is consistent with what was discovered about loss of employment and income earlier whereas the salience of internet issues is understandable given that virtual interaction became immediately emphasised as COVID-19 measures were implemented.

A large majority of the households indicated the need for priority assistance and large percentages were observed in the disaggregated data as well. The need for priority assistance appears to be more prevalent among female headed households, households with children and households wherein completed university education is absent. Cash transfers, food and hygiene products emerged as the top three choices for priority assistance. However, households in the hinterland regions placed less emphasis on cash than households in other regions and the need for medical supplies is more clearly established in the hinterland regions than the coastal regions.

For delivery of priority assistance, cash, delivery of food and delivery of hygiene items, medical supplies, medicine and drugs and vouchers were the four most popular selections by the households. This was consistent in the disaggregated data as well.

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