Child Development Grant Programme Evaluation

Quantitative Baseline Report Part I: Baseline findings

13 August 2015

Preface

This report presents the findings from the baseline survey of the quantitative impact evaluation of the Child Development Grant Programme (CDGP) in Northern Nigeria. The household survey data collection was conducted from August to October 2014 and a final round of data collection is scheduled for August to October 2017. This report was produced by Pedro Carneiro, Giacomo Mason, Lucie Moore and Imran Rasul.

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Executive summary

The programme

The Child Development Grant Programme (CDGP) is a five-year UK Department for International Development (DFID) funded programme (2013–2018) being implemented in Zamfara and Jigawa states in Northern Nigeria. The programme aims to address widespread poverty, hunger and malnutrition in Northern Nigeria, which affects the potential for children to survive and develop.

The programme will provide a cash transfer of Nigerian Naira (NGN) 3,500 (£14) per month for up to 60,000 pregnant women and women with children under the age of two years (selected during pregnancy) for a period of approximately 33 months, targeting the first 1,000 days of a child’s life. The cash transfer will be accompanied by behaviour change communication (BCC) that includes nutritional education, advice and counselling to support the feeding practices of pregnant women, infants and young children. The combination of these interventions is expected to contribute to the households having more food that is nutritionally more varied. The interventions are also expected to improve maternal and childcare practices. Ultimately, the programme is expected to lead to improvements in child nutrition within the households and to protect their children from the risks of stunting, illness and death.

The programme is being implemented by Save the Children in Zamfara and Action Against Hunger in Jigawa. In total the programme is targeting five Local Government Authorities (LGAs): Anka and Tsafe in Zamfara, and Buji, Gagarawa and Kiri Kasama in Jigawa.

Evaluating this programme

The evaluation of the CDGP is intended to help understand the impact of the programme on households and communities that are supported by the programme. The findings of the evaluation will be communicated to the state and federal government in order for them to see the potential impact of the programme and in order to leverage their support for taking over the programme and expanding it across their states. The evaluation draws on a number methods (mixed methods) and interlinked workstreams for gathering evidence about the impact of the programme, including:

* an initial **situation analysis** that provided us with a strong contextual understanding of the poverty situation and the social and cultural dynamics within which households and communities in the two selected states operate. This study also identified other issues that we needed to consider and include in other parts of the evaluation;
* a **household survey** before the programme had started (baseline**)** and one towards the end (follow-up) in order to determine the effect of the programme on key impact and outcome indicators that measure child nutrition, as well as the knowledge, attitudes and wellbeing of those reached by the programme. This report presents the findings of this baseline survey;
* an **evaluation of the processes of the programme** that will: i) look at how the programme was implemented and identify the factors that supported or weakened implementation of the CDGP and its potential impact; ii) analyse data collected through the management information system (MIS) of the programme on its operations and beneficiaries to identify trends in implementation (annually); and iii) explore towards the end of the programme why it has or has not succeeded in achieving its outcomes; and
* following a small group of households who are potential beneficiaries of the programme over time and exploring through individual discussions (**a longitudinal qualitative module)** their views about the programme and its impact on issues that are more difficult to capture in a household survey. This will be combined with a series of group discussions with community members to deepen understanding of the impact of the programme and whether it has led to changes in attitudes or behaviour.

**The audience of the evaluation**

The evidence generated by the evaluation is intended to inform the Government of Nigeria, DFID and other donors in regard to their decision about whether to continue or scale up the CDGP after the five-year pilot phase is complete. The programme’s experience will also inform the development of other social protection programmes worldwide.

**Purpose of this report**

This report presents the findings from the baseline survey of the **quantitative impact evaluation** of the CDGP. The objective of the report is to describe the situation of the communities and households covered by the CDGP before the programme began. It provides a picture of the types of services (including health and education) they have access to, how they earn a living and obtain food, their knowledge of beneficial care practices for pregnant women and children, their attitudes towards women’s decision-making power in the household, practices relating to fertility, marriage and the use of health facilities, and finally the physical and cognitive development of their children.

Methods used

The quantitative impact evaluation is a cluster randomised controlled trial, in which communities have been randomly selected either to receive support from the programme or not to receive support. The effects of the intervention are found by comparing households in the communities where the programme is operating with households in communities where it is not. Households that have been randomly chosen to receive the CDGP are called ‘treated households’ and are in the ‘treatment group’. Households that have been randomly chosen not to receive the CDGP are called ‘control households’ and are in the ‘control group’. Randomisation is considered to be the most rigorous way to measure the effect of the CDGP on beneficiary households because it ensures that treatment and control groups have similar characteristics at the start of the evaluation. Thus, any differences observed at the end of the programme can be attributed to the intervention.

This evaluation has two treatment groups and one control group. The first treatment group (henceforth known as Treatment 1) is offered the cash transfer and ‘low intensity’ BCC. The second treatment group (henceforth known as Treatment 2) is offered the cash transfer and ‘high intensity’ BCC. The control group receives no intervention for the duration of the evaluation, but may receive the intervention after the second household survey is completed in 2017, depending on availability of funding. Having two separate treatment groups and one control group will enable us to measure the impact of the unconditional cash transfer and ‘low intensity’ BCC, as well as the additional effect of providing ‘high intensity’ BCC. The unit of randomisation is the village. This means that we randomly chose which villages would be in Treatment 1, Treatment 2 and the control group.

What data we collected

Baseline data were collected from households across both treatment and control groups from August to October 2014. This data included specific information on children aged 0–59 months and women of reproductive age (15–49 years). To assess any changes to outcomes as a result of the CDGP, data will be collected from the same households in the endline survey in 2017, after three years of programme implementation.

Both surveys collect information on households’ abilities to obtain sufficient and nutritionally diversified food, the risks households face, their access to basic services (including health and markets), their knowledge of, and attitudes towards decision-making regarding, health practices for mothers and newborn children. In both surveys children’s weight, height and mid-upper arm circumference (MUAC) are also measured.

The majority of the households surveyed are households with pregnant women, but in villages where we were not able to find enough households pregnant women to make up a large enough sample, we also surveyed households with women likely to become pregnant during the next three years.

In the baseline survey, data were collected from a total of 5,436 households, which included data from 5,436 women (3,692 pregnant and 1,744 likely to become pregnant) and their husbands, and 4,180 children aged 0–59 months.

Our baseline findings

Characteristics of the communities

Many communities visited as part of this evaluation do not have access to important basic services. Less than half of communities report having a basic health facility in their vicinity. The range of services offered is reasonable although there is some variation across LGAs. Overall, about 80% of the health facilities offer antenatal and postnatal services. Buji stands out as the only LGA with near complete availability of trained medical staff and a wider range of important maternal, newborn and child health services.

Only 10%–15% of communities have a market for fruit and vegetables. 75% of the communities have access to basic education services in the form of a primary school. There is a reasonably high level of mobile phone network coverage across the study areas. We see that around 95% of the communities are covered by at least one of the four mobile carrier networks operating in the North. MTN network coverage is especially high, at above 90% for communities in all LGAs.

Shocks such as drought or poor rain, flooding, crop damage due to pests and or diseases (‘natural shocks’) as well as other ‘man-made shocks’ such as violence (rioting or protests), curfews, and widespread migration into the community, are very common. Across LGAs, the majority of communities report being hit by some shock in the 12 months prior to the survey. Indeed, in four out of five LGAs, at least 87% of communities report being hit by some shock over this time period, with Anka being the least affected. Natural shocks are generally more widespread than man-made shocks.

We see considerable variation in availability of various food items (many of which are basic food items) across LGAs. Many fruits and vegetables are not usually available in a large proportion of communities. There is also considerable variation in the availability over the year. The availability of grains, cereals (maize, millet, sorghum, and rice) and meat is quite homogeneous throughout the year. However, for some of the items – such as eggs, peppers and tomatoes – we see a pattern of availability that closely follows the seasonal calendar in Northern Nigeria where food is relatively scare from July to September (‘the lean season’) and food insecurity increases. Dairy products such as milk and butter are often not available between November and March.

Characteristics of households

In interpreting the results it is important to keep in mind that for this evaluation the majority of the households we interviewed were those with pregnant women or with women likely to become pregnant during the next three years. This means the households may not be representative of all households in the five LGAs.

The surveyed households are large: the average size of households is 7.4 members, of which on average 4.5 are less than 17 years old and 2.9 are adults (18+ years). On average, there is more than one very young child per household (under three years old) and almost two women of reproductive age. Almost all household heads are adult married males (99.9%).

All the women that we interviewed are married. 46% of them are in a polygamous marriage. The average age at marriage is about 15 years of age. At the time of the survey, 68% of interviewed females were pregnant. Almost every female in the sample has been pregnant at some stage, and 89% have given birth at least once in their lives. On average, women in the sample have almost one boy and one girl below the age of seven.

We now describe some basic characteristics of all people aged 12 or older who live in the households of our sampled women. Around two-thirds of males aged 12 or older and more than three-quarters of females aged 12 or older are married. Polygamy is widespread, and polygamous marriages are more common in the Zamfara LGAs than in the Jigawa LGAs. In the Zamfara LGAs there are more than twice as many women in polygamous marriages as there are women in monogamous marriages.

Islam is the main religion for almost the entire sample and Hausa is the main ethnicity and language. 6% of the sample are Fulani.

Household drinking water and sanitation

Safe drinking water is often not easily accessible, though access to drinking water varies considerably across LGAs. Households in the Jigawa LGAs are more likely to source their water from a tubewell or borehole and have a far greater availability of publicly provided water, while many families in Zamfara (Anka and Tsafe LGAs) rely on unprotected dugwell surface water for drinking. This results in a marked difference across states in the percentage of households with access to an ‘improved’ drinking water source by World Health Organization (WHO)/UN Children’s Fund (UNICEF) standards across states and LGAs.

Most households use low-quality toilet facilities or no facilities at all. Only around 10% of families can rely on ‘improved’ toilets by WHO/UNICEF standards.

Household wealth

One of our main indicators to measure the wealth of households is known as the Progress out of Poverty Index (PPI). This version of the score that we use has been constructed in the context of rural Nigeria, and is designed to capture the likelihood that a household will fall below the poverty line. As measured by the PPI, households in Jigawa state are relatively wealthier than those in Zamfara state. We see that households with no young children tend to be less poor. The presence of pregnant women does not seem to affect the wealth of households; however, households with a woman in a polygamous marriage are on average better off. This is likely to be due to the fact that wealthier men may marry an additional wife when they are able to support a larger family.

Work, income, and livelihoods

The majority of women in our sample are involved in some kind of work activity, which is usually a form of self-employment (i.e. working only for themselves or someone else in the household). Among those working women, just over half are working in agriculture. Agriculture includes both working on the land as well as animal rearing, though the majority of women are engaged in agriculture through rearing animals. The households of women who work in agriculture tend to be poorer than other households. Not all women work for remuneration: 30% report not receiving any payment for work. Among those that receive payments, the average weekly earnings are just under NGN 1300.

On men’s economic activities, we see that over 90% report working in agriculture as being their dominant type of work. As with women, having multiple occupations is common, and the majority of men do not report working for pay (suggesting their agricultural work is a form of self-employment). Again, agrarian households are poorer than other households. Men’s monthly earnings are around eight times higher than women’s, though 13% of men still earn less per month than the value of the cash transfer. We find that around 15% of households report that at least one member temporarily migrated from the household for work in the past year.

Few (4.5%) women engage in crop cultivation, compared with almost all men (95.6%), with the majority who do so working on a small number of plots that they generally own.

Three-quarters of households have at least one household member looking after an animal. The most common animals reared by the households include both draught/working and milk-producing animals (cows, bulls, calves, goats) as well as chickens. Households own on average just under half the sheep and goats that they look after. It is very common for women to look after animals, with 67% of sampled women reporting that they look after an animal, though they generally do not look after the larger animals such as cow, bulls, calf and camels. Many of these reared animals are owned by women themselves. For both men and women, very few households report actually selling livestock produce, such as milk or eggs, as a form of earnings. This suggests that the purpose of animal rearing is mainly for home production and is an important form of savings. Men spend only marginally more time than their wives looking after animals. 28% of households report selling livestock at some point in the year (with 21% reporting having bought livestock sometime in the past 12 months). Sheep and goats are the most commonly traded animals.

Income and earnings vary a lot throughout the year: in some months, women report earning three to four times as much as in other months. Income volatility also exists for men, with the ratio of earned income in good to bad months being even higher at around four to five times. In August the highest number of women and men report below normal earnings. For women, the best month is July (at the beginning of the lean season / the end of the planting season), and for men, the best months in terms of earned income are October to November (at the end of the lean season / during the harvest season).

There are no common major sources of non-earned income (e.g. from interest, renting out animals or farm equipment, commission from assisting in the sale of property, or from remittances), although these sources are significant for those few households that do have them.

Household saving and borrowing

Formal financial institutions (banks or microfinance institutions) are present in only two of the 210 communities. Fewer than 40% of households report having any cash savings. Of those with cash savings, the majority store their savings at home (77%) and about 20% report having access to savings devices through formal and informal institutions. Around 41% of households report their savings to be held in-kind, and the value of these in-kind savings is on average comparable to the value of savings held in cash (at around NGN 40, 000).

Around one-in-five households report borrowing from some source. The vast majority of these are informal sources, with friends and family being the most important source of borrowing. The provision of credit from local shops also appears to be an important source of informal finance.

Household assets and expenditure

The majority of households own basic items of furniture (e.g. mattress, bed and chairs) but few households own bicycles, stoves, wheelbarrows or ploughs. Spending on durable assets is quite uncommon, with more than half of all households not spending anything in the past 12 months. 84% of households have expenditures that are per person below the global poverty line for household income (US$ 1.25 per day). This suggests a significant share of households in our sample are likely to be below the global poverty threshold. We see that richer households do spend more per person on food but that the differences are not very large.

Food security

A relatively small share of households report food insecurity. 10% of households report that they did not have enough food to eat during the lean season and 4%–6% of households did not have enough food to eat over the rest of the year (from October to August). The affordability of food items is given as the main cause of food shortages and richer households report slightly less food insecurity than poorer ones.

Households employ a variety of coping strategies in response to food insecurity. Among the most common strategies are seeking informal assistance through social ties and changing the amount or type of work activity that household members engage in. Strikingly, 28% of households who report not always having enough food do not use any coping strategies to manage their food insecurity.

There is no evidence that coping strategies vary over the year. However, there are marked differences in the coping strategies used by households in different LGAs. This applies especially to the use of informal assistance from friends and family, which is most prevalent in Anka (reported by over 60% of households) and least prevalent in Tsafe (reported by less than 30% of households). There is somewhat less reliance on informal assistance among wealthier households. A relatively low proportion of households report livestock sales as being a strategy to cope with insufficient food availability (fewer than 10% of households).

Household decision-making

In roughly 50% of households, both males and females report that any significant decisions concerning major household purchases or growing and buying food are made exclusively by the husband. In most of the remaining cases they either report that decisions are made by husbands after consulting wives, or they are made jointly by both spouses. In 10%–12% of households women usually make decisions regarding major purchases on their own. The husband is often reported to be the sole decision-maker in relation to health issues of women and children in the household.

In the majority of households, men are the primary decision-makers regarding what food to grow and buy, with only approximately one-third of households involving women in this decision-making. It is very rare to find households where women are the sole decision-makers regarding what food to grow and buy. This has important implications for the CDGP as it suggests that it is crucial for men to be included in the BCC training.

However, when households were asked about who should have control over extra funds available to the household from earnings of, or gifts to, wives, the pattern of answers was completely different. About 50% of both husbands and wives agree that the wife should have full control over the use of these resources, with the vast majority of the remaining individuals suggesting that some joint decision-making is preferable. The proportion of those who argue that the husband should have sole control of these resources is around 10%.

This suggests that if the CDGP cash transfer is viewed as either *income or a gift to women*, then in about half the households it is likely that the women will decide on how the money is used, in about 8% of households the man will decide, and in the remainder they will decide in consultation with one another. However, it remains to be seen if the cash transfer will be perceived in this way.

There is more evidence of joint and consultative decision-making regarding women’s earnings in richer households than in poorer households. Additionally, the proportion of women who are allowed to visit a relative or be seen by a health worker on their own is slightly higher in richer households. This suggests that there is slightly more tolerance towards women’s autonomy in more socioeconomically developed households.

Education

We observe large differences between males and females in educational attainment and literacy levels in our sample, at all ages. Across all age groups, only around one-in-five women report being literate, with younger women being more likely to be literate than older women. This has important implications for the materials that can be used for the delivery of the BCC messaging

Among children aged four to eight, enrolment rates are below 40% for both genders, and among older children (aged 9–18) half of boys and a quarter of girls are currently attending school (this includes integrated Islamic education but does not include non-integrated Quranic education). This is surprising given the finding that around 75% of communities in each LGA contain a primary school. Only a slightly higher fraction of children report ever having attended school, suggesting low enrolment rates are due to the majority of children never making it into school (rather than high drop-out rates during primary school years).

Women’s and men’s knowledge and beliefs about health

Men and women are both relatively likely to advise others to seek health care at a health facility. However, around 7% of men and women would not advise a woman to visit a facility even if she faced complications in pregnancy, and 19% would not advise a woman to give birth in a health facility if she faced costs of NGN 2,000. It is also striking that only 70% of women would advise another woman to give birth in a health facility that does not have any female staff. Interestingly, across all these different hypothetical cases, men are more likely than women to recommend visits to a health facility to pregnant women. Both men and women overwhelmingly state that the best place to give birth is at home, and men are more likely than women to mention a health facility as a desirable place to deliver a baby. We find that males and females who are better off are more than twice as likely to advise a woman to give birth in a health facility than those who are poorer.

There are important misconceptions about adequate breastfeeding practices among both men and women. Very few people believe that the baby should be breastfed immediately after birth, half believe the baby should not be exclusively breastfed during the first days of life, and almost half believe that colostrum is not good for the baby.

There is strong reliance on informal family networks for advice on important health issues, and not much reliance on trained health workers. This is worrisome given the misconceptions about best health practices. A striking 80% of all females would go to their husband for advice on pregnancy and children, 30% would consult their mothers, and only 22% would seek the advice of a trained health worker. The propensity to seek advice on food and nutrition issues from health workers is even lower, at only 9% for females and 14% for males.

Maternal health and antenatal care

26% of non-pregnant woman in the sample have a body mass index (BMI) below 18.5, which is the threshold for undernourishment. According to the Integrated Food Security Phase Classification this is in the range of an ‘acute food and livelihood crisis’, indicating severe levels of undernourishment among women in our sample. We also find that women’s malnutrition does not depend on household resources. It is possible that women in rich households have poor access to nutritious foods, even when this food is available, because they lack control over what food they themselves and the household consumes, or alternatively they lack knowledge about what constitutes a healthy, balanced diet.

Most (91%) of all women give birth at home. Furthermore, it is very worrying that 13% of all women report that they received no assistance during their delivery. Only two-thirds of the sample of women has ever heard of contraceptive methods. Out of these women, half have heard either of injectable or oral contraceptives, but the proportion who report being aware of male or female condoms is, remarkably, below 5%.

Almost 40% of all women have visited a health facility at least once in the past six months, excluding visits for antenatal care. These proportions are much higher in Jigawa than in Zamfara, where the figure in Anka LGA is only 24%. There is a substantial difference in the use of health facilities between the poorest quarter of women and the remaining three-quarters.

There is low use of antenatal care services. The proportion of women who used antenatal care services in their last pregnancy is about 45% and the proportion of currently pregnant women who have seen anyone for antenatal care is 31%. On a positive note, those who do use it appear to be receiving an acceptable standard of service, though there is room to improve.

Richer women are much more likely to receive antenatal care, which could reflect both increased knowledge about the importance of antenatal care, and higher ability to pay for access to this type of care. 71% of women who did not use antenatal care services in their last pregnancy say they did not need it (despite the fact that 70% of men and women interviewed said that they would advise a pregnant woman to visit a health facility for a check-up if she was healthy and nothing was wrong). 21% say that they did not have permission to travel to a health facility. Husbands may not allow women to travel either because they do not have the necessary funds available, or simply because they do not wish the woman to go to a health facility. Only 10% report not attending antenatal care sessions because the health facility was too far and it was too costly to travel.

Child health and infant and young child feeding practices

Although almost every child below the age of two in the sample was breastfed at least once in their lives, only 45% of them were appropriately breastfed, and only 28% were breastfed soon after birth. Older mothers (defined here as aged 28 and over) generally engage in more adequate feeding practices, perhaps because they are less likely to be first-time mothers than younger mothers in the sample and have more experience of childcare. Another possible explanation came out of the qualitative evaluation, in which it was found that it is sometimes customary for a mother to wait for longer before breastfeeding when it is her first child. Feeding practices are better amongst those living in communities with a health facility. This is particularly apparent for exclusive breastfeeding. This suggests that there is scope for the BCC component of CDGP to influence and improve breastfeeding practices

The WHO recommends that both breastfed and non-breastfed children over six months of age should consume at least four of the seven identified food groups in order to receive a varied and nutritionally rich diet. However, in the sample only 16% of children 6–23 months of age do receive foods from four or more food groups and the figure does not improve much over 23 months. Across the age groups, the main components of children’s diets are staples, fruits and vegetables. Only about a quarter of the children of all ages also report consuming meat, fish and dairy.

Dietary diversity is better in households that spend more on food. However, there is no strong relationship between dietary diversity and household wealth. This suggests that there are households with the same levels of wealth that are spending different amounts of money on food. Dietary diversity is highest among households that spend the most on food. These findings suggest that the combination of a cash transfer together with BCC has the potential to improve nutrition through increasing the amount of money spent on food. Household wealth by itself is not always sufficient to cause improved nutrition if money is spent on other items.

In 11% of the cases where children suffered some illness or injury other than diarrhoea in the past 30 days, no one was consulted. In half of these cases this occurred because mothers believed that the child would get better without treatment. However, in most of the remaining cases treatment was not sought either because the costs were too high or the mother did not have permission to consult anyone.

Diarrhoea is found to be very common: 29% of the children in the sample suffered an episode of diarrhoea within the two weeks that preceded the survey. This is important because diarrhoea can severely affect nutrition in young children, and it is fatal in many cases. Furthermore, it is not clear that parents understand how best to look after children with diarrhoea as only 19% of parents recognise the need to provide extra fluids and only 7% recognise the need for extra food. Failure to adopt appropriate care practices in response to diarrhoea puts children at risk of severe dehydration, malnutrition, and death.

Rates of vaccination are fairly low – only 4% of children under five have had all the basic vaccinations. Almost one-quarter of all children under five in the sample have not received any polio vaccinations, and only 19% received one at birth, presumably due to the low rate of deliveries in a health facility (9%). The situation is similar for other vaccinations

Child anthropometrics

Child nutritional status is assessed using four standard anthropometric indicators that are derived based on height, weight and MUAC measurements. For all three indicators, the analyses revealed that the nutritional status of children is very critical in the areas surveyed in the study. More than half of the children surveyed (66%) are classified as stunted, significantly above the WHO cut-off for a critical situation (40%). Some 35% of the children are considered underweight, again higher than the WHO cut-off for severe levels of malnutrition (30%). 7% of the children are wasted. These statistics indicate a very severe problem of chronic child malnutrition.

Further analysis of the data reveals that there are no strong differences in the nourishment of children who have literate and illiterate mothers, and that the nutrition status of children does not differ much due to variations in household wealth. However, children from households that spend more on food are somewhat less likely to be stunted.

Discussion of baseline findings

**Households in the CDGP LGAs are very poor and have few ways to protect themselves from shocks.**

* Households in the five CDGP LGAs are very poor. 84% of households have per capita expenditures below the global poverty line for household income (US$ 1.25 per day). Shocks (such as drought or poor rain, flooding, crop damage due to pests or disease, violence and curfews) are common and households have few ways of coping with them. Additionally, income and earnings vary a lot throughout the year. Most people do not have savings and those that do only have a small amount. Credit is scarce: there are few formal financial institutions and only one-in-five households report borrowing from any source: mainly friends and family.

**Women frequently have a high degree of control over how their own income from work or gifts is spent. Therefore, it is plausible that women may often, but not always, retain control of the CDGP cash transfer if it is viewed in this way. However, it remains to be seen if the cash transfer will be perceived in this way.**

* About 50% of both husbands and wives agree that the wife has full control over a wife’s earnings, or gifts/transfers to the wife. Of the remaining households, most report that money from the wife’s earnings or gifts is decided jointly and in about 8% of all households it is reported that the husband has sole control of these, which in absolute terms is still a substantial figure. Therefore, if the CDGP cash transfer is viewed as either income of, or a gift to, women, women will have a high degree of decision-making power regarding how the cash transfer is spent. However, it remains to be seen if the cash transfer will be perceived in this way.
* Furthermore, there is a greater degree of consultative decision-making regarding money earned or given to women in richer households as compared with poorer households, and therefore we might see more households move towards consultative decision-making following the income boost from the cash transfer.

**Affordability of food is the primary reason given for the minority of households that are food insecure.**

* About 10% of households are food insecure. The affordability of food items is given as the main cause of food shortages and richer households are less likely to be food insecure than poorer households. The most common coping mechanisms are relying on informal assistance through social ties and working more. A relatively low proportion of households report livestock sales as being a strategy to cope with insufficient food availability.
* If the CDGP increases household resources, then it could well improve food security. However, this is contingent on food being available for purchase at times of greatest need, and earlier evidence showed that there is considerable variation in the availability of food items across the LGAs and across the year

**There is a very severe problem of chronic child and mother malnutrition.**

* We observed that the nutritional status of children is very critical in the areas surveyed in the study. More than half of the children surveyed (66%) are classified as stunted, significantly above the WHO cut-off for a critical situation (40%). Some 35% of the children are considered underweight, again higher than the WHO cut-off for severe levels of malnutrition (30%). 7% of the children are wasted. These statistics indicate a very severe problem of chronic child malnutrition.
* Dietary diversity among children under five is poor. Only 16% of children 6–23 months of age receive the recommended number of food groups and this figure does not improve much as children get older.
* Malnourishment is also severe amongst women. 26% of non-pregnant woman in the sample have a BMI below 18.5, which is the threshold for undernourishment.

**Households that spend more on food have better nutrition outcomes for children but being a wealthy household is no guarantee of more and better spending on food.**

* The nutrition status of children and women does not differ much across different levels of household wealth. Similarly, there is no strong relationship between dietary diversity of children under five and household wealth. However, children from households that spend more on food are somewhat less likely to be stunted and they are more likely to have better dietary diversity.
* This suggests that there are households with the same levels of wealth that are spending different amounts of food. This points to the potential importance of pairing a cash transfer with a behavioural change intervention, as is the case under the CDGP. Being a wealthy household is no guarantee of more and better spending on food and improved nutrition of children, but those households that do spend more on food have better nutrition outcomes.

**There is considerable variability in the availability of food throughout the year and between LGAs.**

* We see considerable variation in availability across food items (many of which are basic food items) across LGAs. Many fruits and vegetables are not usually available in a large proportion of communities. There is also considerable variation across the year in availability. The availability of grains, cereals (maize, millet, sorghum, and rice) and meat is quite homogeneous throughout the year. However, for some of the items – such as eggs, peppers and tomatoes – we see a pattern of availability that closely mimics the seasonal calendar in Northern Nigeria, where food is scarce in from July to September (‘the lean season’) and food insecurity increases. Dairy products, such as milk and butter, are often not available from November to March.

**There is low use of antenatal services and richer women are much more likely to receive antenatal care and to have visited a health facility at least once in the past six months.**

* The proportion of women who used antenatal care services in their last pregnancy is about 45% and the proportion of currently pregnant women who have seen anyone for antenatal care is 31%. Those who do use it appear to be receiving an acceptable standard of service, though there is room to improve.

**The BCC interventions are needed and if delivered appropriately they hold promise in regard to improving child nutrition.**

* There are important misconceptions about adequate breastfeeding practices. Very few individuals, regardless of gender, believe that the baby should be breastfed immediately after birth, half believe the baby should not be exclusively breastfed during the first days of life, and almost half believe that colostrum is not good for the baby.
* Although almost every child below the age of two in the sample was breastfed at least once in their lives, only 45% of them were appropriately breastfed, and only 28% were breastfed immediately after birth.
* Diarrhoea, which can severely affect nutrition in young children and is fatal in many cases, is very common and there is evidence that many parents do not understand how best to treat it. The high prevalence of diarrhoea is in part due to the fact that safe drinking water is often not easily accessible (though access to drinking water varies considerably across LGAs) and partly due to the fact that most households use low-quality toilet facilities or no facilities.

**The BCC interventions should be targeted beyond pregnant women and should also include males and older female relatives. Their design also needs to take account of the fact that very few women are literate.**

* The CDGP implementers should note that across all ages, only around one-in-five women report being literate, with lower literacy levels among older women than younger women. This has important implications for the materials that can be used for the delivery of the BCC messaging.
* In the majority of households, men are the primary decision-makers regarding what food to grow and buy, with only approximately one-third of households involving women in this decision-making. It is very rare to find households where women are the sole decision-makers regarding what food to grow and buy. This has important implications for the CDGP as it suggests that it is crucial for men to be included in the BCC training.
* The CDGP implementers should also note that there is strong reliance on informal family networks for advice on important health issues, and not much reliance on trained health workers, and this should be taken into account in determining how the BCC messages are delivered.

**The cash transfer appears to be of significant value as compared with men and women’s incomes, and the value of their savings. Given the high value of the transfer, there is a risk that women may try to become pregnant in order to be eligible for the cash transfers.**

* 30% of women who work report not receiving any payment for work. Among those that receive payments, the average monthly earnings are just under NGN 1,300, corresponding to around one-third of the value of the cash transfer under the CDGP. Men’s monthly earnings are around eight times higher than women’s, though 13% of men still earn less per month than the cash transfer. For 5% of households, the combined income for the sampled woman and her husband is less than the cash transfer.
* Among households with some savings, for 23% of households in Jigawa and 19% of households in Zamfara the value of the cash grant in one month exceeds their entire existing value of savings (moreover, recall that 60% of households have zero savings).
* Given the high value of the transfer, it is possible that women may try to become pregnant in order to become eligible to receive the intervention. Changes in fertility could be reflected in changes in birth spacing or the total number of births that occur. We will measure these factors at endline using our sample of women who were not pregnant at the time of our baseline survey, though given the short time-frame of the evaluation we will only be able to detect changes in birth timing and not changes in the total number of births.

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Abbreviations

ACF Action Against Hunger

ASQ Ages & Stages Questionnaires®

BCC Behavioural change communication

BMI Body mass index

BW Birth weight

CAPI Computer-assisted personal interviewing

CCT Conditional cash transfer

CDG Child Development Grant

CDGP Child Development Grant Programme

CHEW Community Health Extension Worker

DEFF Design effect

DFID Department for International Development (UK)

FANTA The Food and Nutrition Technical Assistance project

FAO Food and Agriculture Organization (UN)

FCT Federal Capital Territory

GHS General Household Survey

GLS Generalised least squares

HAZ Height-for-age Z-score

HFIAS Household food insecurity access score

HHS Household Hunger score

ICC Intra-cluster correlation

IDDS Individual dietary diversity score

IFS Institute for Fiscal Studies

ITT Intention to treat

IYCF Infant and young child feeding

LBW Low birth weight

LGA Local Government Area

LSMS Living Standards Measurement Survey

MICS Multiple Indicator Cluster Survey

MIS Management information system

MDD Minimum Dietary Diversity Index

MUAC Mid-upper arm circumference

NDHS Nigerian Demographic Health Survey

NGN Nigerian Naira

NGO Non-governmental organisation

NS Not significant

OLS Ordinary least squares

OPM Oxford Policy Management

ORIE Operational Research and Impact Evaluation

ORS Oral rehydration salts

PE Process evaluation

PPI Progress out of Poverty Index

PPP Purchasing power parity

PSM Propensity Score Matching

RCT Randomised controlled trial

SC Save the Children

SD Standard deviation

T1 Treatment 1

T2 Treatment 2

TOR Terms of Reference

UCL University College London

UNICEF UN Children’s Fund

WAZ Weight-for-age Z-score

WHO World Health Organization

WHZ Weight-for-height Z-score

1. Introduction

# Overview of the Child Development Grant Programme

The CDGP is a five-year, DFID-funded programme (2013–2018) that will be implemented in Zamfara and Jigawa States in Northern Nigeria. The programme aims to address widespread poverty, hunger and malnutrition, which affect the potential for children to survive and develop, through a combination of an unconditional cash transfer (aimed at tackling the economic causes of inadequate dietary intake), and a counselling and behaviour change campaign (aimed at influencing maternal and child-care practices). The programme is implemented by SC and ACF in five LGAs: Anka and Tsafe in Zamfara State, and Buji, Gagarawa and Kiri Kasama in Jigawa State (see Figure 1).

Figure Location of the CDGP States and LGAs

|  |  |  |
| --- | --- | --- |
| Nigeria |  |  |
| Source: edited from maps retrieved from Wikimedia Commons and the Nigerian Chamber of Commerce website | | |

The programme will provide an unconditional cash transfer of 3,500 Naira (about £14) per month for up to 60,000 women from the time they are pregnant until their child is two years old (a period of approximately 33 months, targeting the critical first 1,000 days of the child’s life). This predictable cash transfer is expected to contribute to increased food security and improved intake of more nutritious food, leading to improvement in child nutrition within 60,000 households.

Alongside the cash transfer, communities in the programme will be provided with education and advice about nutrition and health, through a BCC component. This campaign is intended to influence key areas of knowledge and practice, including breastfeeding and infant diets, and is designed to address men and influential members of the community as well as the women who are direct beneficiaries of the cash transfer. The programme will test two different designs of the behaviour change component:

1. ‘low-intensity’ BCC delivered through posters, radio messaging, text messaging and theatre; and
2. ‘high-intensity’ BCC delivered through support groups and one-to-one counselling for women receiving the transfer, in addition to all components of the ‘low-intensity’ BCC.

# Purpose of evaluation and overall design

The evaluation of the CDGP is intended to help understand the impact of the programme on households and communities that are supported by the programme. The findings of the evaluation will be communicated to the state and federal government in order for them to see the potential impact of the programme and in order to leverage their support for taking over the programme and expanding across their states. The evaluation draws on a number methods (mixed methods) and interlinked work streams for gathering evidence about the impact of the programme, including:

1. A qualitative **situation analysis,** carried out in September 2013, in all five CDGP LGAs. This provided a contextual understanding of poverty and socio-cultural dynamics in the programme area and informed the evaluation design.
2. A **quantitative impact evaluation**, employing a clustered RCT design to determine the causal effect of the programme on key pre-defined impact and outcome indicators (this report).
3. A **qualitative impact evaluation** that complements the quantitative component by investigating the ‘how’ and ‘why’ questions, and providing explanations of people’s attitudes and behaviour in relation to nutrition, health, food security and livelihoods, including whether and how these are changed by the CDGP. It aims to identify and explore any unexpected effects of the programme (whether positive or negative), and any unforeseen factors which may affect its success. The evaluation will also help to explain or investigate the reasons behind the quantitative findings.
4. A **process evaluation**, due to begin in 2015, will assess how the CDGP is implemented. The midline and endline rounds of qualitative fieldwork may also include questions relating to the process evaluation at community and beneficiary level.

# Objectives of this report

This report presents the findings from the baseline survey of the quantitative impact evaluation of the CDGP in Northern Nigeria. The objective of the report is to present the situation of the communities and households covered by the CDGP before the commencement of the programme. It provides a picture of the types of services (including health and education) they have access to, how they earn a living and obtain food, their knowledge of health practices for when pregnant or taking care of infants, their attitudes towards the role of females in making decisions within the household, women’s views regarding fertility, marriage and use of health facilities, and, finally, the physical and mental development of their children.

This report presents findings from information collected (in household and community surveys) between August and October 2014. August to October is the later part of the rainy season and the beginning of the harvest period in Zamfara and Jigawa. Hence, the survey also covers the end of the lean season, when there is sometimes a shortage of food.

# Intended audience

This report constitutes the baseline report of the quantitative impact evaluation of the CDGP. This report will be the primary technical reference for the study design, implementation and baseline analysis and will serve as the point of comparison for the final impact analysis. While the report contains a lot of technical detail, every effort has been made to ensure it is accessible to the non-technical reader.

The primary users of the baseline report fall into three categories, the first being the implementers of the CDGP – there are a number of findings that have important implications for CDGP implementation. These are discussed in Chapter 17. In addition, the CDGP implementers can use the baseline report to update baseline point estimates of key impact and outcome indicators in the CDGP logframe.

The second category of users includes civil society, the research community in Nigeria (and indeed globally) and the donor community. The baseline study provides the most recent update on a number of nutrition, health and welfare indicators for a sample of households in Northern Nigeria.

Finally, the third category of users of this report include federal, state and local governments. Data from the baseline can be used to expand the contextual information regarding challenges that remain to be overcome in Northern Nigeria, and can also serve as an evidence base that can be used to make policy and programme decisions.

Findings from the main report and the condensed report will be presented in a learning event which will take place after the 2015 national elections in Abuja with representatives from all of the end-user groups identified above and based on discussions with DFID and CDGP.

# Structure of this report

This report is divided into two parts. This is Part I which contains the key baseline findings. More detail on the structure of Part I is provided below. Part II is a technical compendium which includes more detail on the evaluation methodology, the data, the relevant literature, and a cross-reference of key indicators with other datasets from Northern Nigeria.

Part I is made up of 17 chapters, which are organised into five sections, plus an introductory chapter.

**Section I** outlines the evaluation design, and provides a guide for how to read the figures and tables in the report. This first part is comprised of:

* Chapter 2, which describes the programme theory of change and the overall evaluation hypotheses and questions.
* Chapter 3, which provides a short summary of the overall design and methodology of this evaluation. For more detail please refer to the technical compendium.

**Section II**  (Chapter 4) describes the key characteristics of the 210 communities and 5436 households interviewed as part of the baseline survey for the CDGP (Chapter 5).

**Section III** describes the economic situation of the households. This part includes:

* Chapter 5, which describes the livelihoods of women in the sample households, and their husbands. This chapter provides details about the economic lives of the households. As cash grants might supplement or replace existing income generating activities, this is an important dimension that will likely influence the impact of the CDGP.
* Chapter 6, which provides a detailed description of credit markets in the CDGP LGAs, by discussing the ability of households to save and borrow. This is likely to have important implications for the way in which cash transfers provided by the CDGP are absorbed by households.
* Chapter 7, which considers household assets and expenditures.
* Chapter 8, which focuses on the food security of households and so details the need for households to have additional resources that can be used to increase food security.
* Chapter 9, which documents attitudes and behaviours of male and female respondents towards the decision-making power of females in the household. This can have an impact on the ways in which additional resources provided by the CGDP might be used.

**Section IV** describes the health and education of the households, with a particular focus on women and children. The fourth part includes:

* Chapter 10, which presents descriptive statistics related to the education of adults and children. This can provide information about their ability to utilise the nutritional information provided as part of the programme.
* Chapter 11, which documents the extent to which the sampled men and women have adequate knowledge about health practices for pregnancy and infant care. This provides information about the changes in behaviour that might result from the kinds of nutritional information provided by the CGDP.
* Chapter 12, which is concerned with various aspects of women’s health, including fertility and marriage, and use of health facilities.
* Chapter 13, which examines a set of indicators of child health and feeding practices. This sheds light on the scope for the CDGP to change/improve such practices.
* Chapter 14, which assesses the nutritional status of children under five and their mothers by reporting on four primary indicators: weight-for-height, height-for-age, weight-for-age, and mid-upper arm circumference (MUAC).

**Section V** (Chapter 15) presents our conclusions, drawing out key implications for the implementation and design of the CDGP.

In the annex to Part I we have included a guide for how to read the figures and tables presented throughout the rest of the report, and some additional results including a section on an assessment of two areas of infant and child behaviour and

Section I: The evaluation

1. Programme Theory of Change and evaluation hypotheses

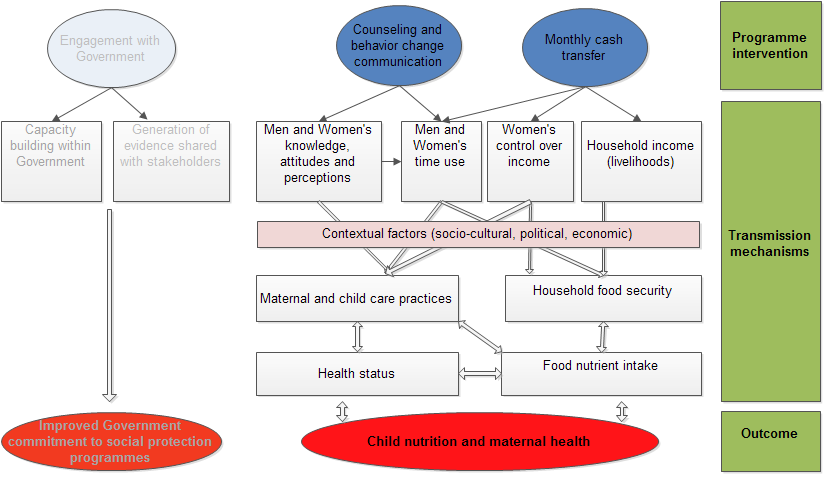
# Programme Theory of Change

The Programme Theory of Change (ToC) developed for the evaluation is summarised in

Figure 2. As shown it summarises *how* the programme interventions are expected to achieve the outcomes of improved child nutrition and maternal health. Between the interventions (in blue) and the outcome (in red), there are a number of expected intermediate effects and connections (‘transmission mechanisms’):

* The *monthly cash transfer* is expected to increase beneficiary households’ income and women’s control over the use of income (for example, for food purchase). Indirectly, it is also expected to have an impact on men’s and women’s time use, and on their responses to seasonal risks and stresses. These effects in turn are expected to result in increased food security, and an increase in the quantity and quality of food consumed.
* The *counselling and behaviour change communication* are expected to influence women’s and men’s knowledge, attitudes, perceptions and time use, resulting in improved maternal and child-care practices and ultimately improved health and nutrition of women and children.

Figure CDGP Evaluation ToC



Source: CDGP Evaluation Inception Report, ePact 2014:8

# The evaluation hypothesis and questions

This impact evaluation aims to answer the following evaluation hypotheses:

**Hypothesis I:** The CDGP intervention and in particular the provision of a regular transfer of NGN 3,500 (£13.60) on a monthly basis to women will result in consumption of larger quantities and more varied type of food, resulting in an increase in dietary intake and consequently reduction child malnutrition.

*Underlying assumption*: Households do not currently meet their food requirements and will use the transfer for food consumption rather than for other purposes. It is also expected that the households will direct the transfer to the most nutritious food and not only on the basic staple diet. This hypothesis also assumes that the transfer will be a sufficient additional source of income with a limited substitution effect on other livelihoods mechanisms. This also assumes that women are able to make decisions on how the transfers are used.

**Hypothesis II:** The provision of a regular predictable cash transfer will result in a reduction in negative risk-coping behaviour and in particular a reduction in the distress sale of assets and debt accumulation among beneficiary households.

*Underlying assumption*: Beneficiary households are currently engaged in detrimental risk-coping behaviour and the transfer is sufficient in enabling them to disengage from this behaviour.

**Hypothesis III:** Through nutritional advice and counselling the programme will improve the knowledge, attitudes and practices among the targeted men and women on nutrition and general maternal and child-care practices.

*Underlying assumption*: Current knowledge, attitudes and practices are a contributory factor in the poor dietary and health practices of households. This will also depend on the nature and quality of advice and counselling combined with the availability of good complementary services and support (e.g. health facilities, accessibility of clean water, general hygiene and sanitation practices, etc.).

**Hypothesis IV:** The cash transfer will result in improved material wellbeing and contribute to the relational wellbeing of households through enhanced trust and reciprocal social and economic collaborations.

*Underlying assumption*: The programme does not negatively impact on existing social networks and sharing practices and that the impact on gender dynamics at the household level is positive.

**Hypothesis V:** Provision of a regular cash transfer to women will enhance their ability to make economic choices and result in improved social capital.

*Underlying assumption*: The beneficiary women are able to use the cash transfer as they intend and wider cultural norms are sensitively challenged, while the process is supported through community sensitisation with men and community leaders. If the cash transfer is seen as an unearned windfall it may not be controlled by the woman and may be controlled by the man, with benefits divided among the households.

**Hypothesis VI:** Poor implementation of the programme (i.e. poor targeting, irregular payments, inadequate information dissemination, and an inappropriate behaviour change campaign) will mitigate the potential impacts of the programme.

The quantitative survey aims to gather data in order to provide direct answers to evaluation hypotheses I-III and supporting evidence for hypotheses IV and V.

1. Method

The quantitative impact evaluation is a cluster randomised controlled trial (RCT), in which communities were randomly selected either to receive support from the programme or not to receive support. The effects of the intervention are found by comparing households in the communities where the programme was operating with households in communities where it was not. Households that are randomly chosen to receive the CDGP are called ‘treated households’ and are in the ‘treatment group’. Households that randomly chosen to not to receive the CDGP are called ‘control households’ and are in the ‘control group’. Randomisation is considered the most rigorous way to measure the effect of the CDGP on beneficiary households because it ensures that treatment and control groups have similar characteristics at the start of the evaluation. Thus, any differences observed at the end of the programme can be attributed to the intervention.

This evaluation has two treatment groups and one control group. The first treatment group (henceforth known as Treatment 1) is offered the cash transfer and “low intensity” BCC. The second treatment group (henceforth known as Treatment 2) is offered the cash transfer and “high intensity” BCC. The control group receives no intervention for the duration of the evaluation, but may receive the intervention after the second household survey is completed in 2017, depending on availability of funding. Having two separate treatment groups and one control group will enable us to measure the impact of the unconditional cash transfer and “low intensity” BCC as well as the additional effect of providing “high intensity” BCC. The unit of randomisation is the village. This means that we randomly chose which villages would be in Treatment 1, Treatment 2 and the control group.

Baseline data was collected from households across both treatment and control groups from August to October 2014. This data included specific information on children aged 0-59 months and women of reproductive age (15-49 years). To assess any changes to outcomes as a result of the CDGP, data will be collected from the same households in the endline survey in 2017, after three years of programme implementation.

Both surveys collect information on households’ ability to obtain sufficient and nutritionally diversified food, the risks households’ face, their access to basic services (including health and markets), their knowledge and attitudes towards decision making and health practices for mothers and newborn children. In both surveys children’s weight, height and mid-upper arm circumference (MUAC) are also measured.

The majority of the households surveyed are households with pregnant women, but in villages where we were not able to find enough households pregnant women to make up a large enough sample, we also surveyed households with women likely to become pregnant during the next three years.

In the baseline survey, data was collected from a total of 5,436 households, which included data from 5,436 women (3,692 pregnant and 1,744 likely to become pregnant) and their husbands, and 4,180 children aged 0–59 months.

A detailed description of the method is described in the technical compendium that accompanies this report.

Section II: Community and household characteristics

1. Community and household characteristics

This section describes the key characteristics of the 210 communities and 5,436 households interviewed as part of the baseline survey for CDGP.

# Community characteristics

|  |
| --- |
| **Key findings** |
| Many communities visited as part of this evaluation do not have access to important basic services. Less than half of communities report having a basic health facility in their vicinity. The range of services offered is reasonable although there is some variation across LGAs. Overall, about 80% of the health facilities offer antenatal and postnatal services. Buji stands out as the only LGA with near complete availability of trained medical staff and a wider range of important maternal, new born and child health services.  Only 10-15% of communities have a market for fruit and vegetables, 75% of the communities have access to basic education services in the form of a primary school. There is a reasonably high level of mobile phone network coverage across the study areas. We see that around 95% of the communities are covered by at least one of the four mobile carrier networks operating in the North. MTN network coverage is especially high, at above 90% for communities in all LGAs.  Shocks such as drought or poor rain, flooding, crop damage due to pests and or diseases (“natural shocks”) as well as other “man-made shocks” such as violence (rioting or protests), curfews, and widespread migration into the community, are very common. Across LGAs, the majority of communities report being hit by some shock in the 12 months prior to the survey. Indeed, in four out of five LGAs, at least 87% of communities report being hit by some shock over this time period, with Anka being the least affected. Natural shocks are generally more widespread than man-made shocks.  We see considerable variation in availability across food items (many of which are basic food items) across LGAs. Many fruit and vegetables are not usually available in a large proportion of communities. There is also considerable variation in availability over the year. The availability of grains, cereals (maize, millet, sorghum, and rice) and meat is quite homogeneous throughout the year. However, for some of the items – such as eggs, peppers and tomatoes – we see a pattern of availability that closely follows the seasonal calendar in Northern Nigeria where food is relatively scare from July to September (“the lean season”) and food insecurity increases. Dairy products such as milk and butter are often not available between November and March. |

We begin by considering some key elements of community infrastructure, especially those aspects that are relevant for the CDGP. Table 1 presents information about the presence of facilities and institutions in our sample communities, disaggregated by LGA[[1]](#footnote-1).

Mobile phone network coverage is important for programme implementation: beneficiaries are given a mobile phone at the start of the programme, and although the cash grant will be delivered using brokers (not via mobile phone payment as was originally planned) part of the BCC component will be delivered via mobile messaging. Around 95% of the communities are covered by at least one of four mobile carrier networks (MTN, GLO, Air-Tel and Eti Salat), with coverage of the MTN network being especially high, at above 90% for communities in all LGAs. Most communities offer some location where mobile credit can be purchased. The availability of locations where mobile phones can be purchased is lower, at between 13% and 25% across LGAs.

Also relevant for the programme, given that it involves making cash payments, is the way in which credit/finance markets are operating. Table 1 shows that financial institutions are lacking: only two of the 210 communities include any formal institution (a bank in one case and a microfinance institution in another). This lack of access to formal finance is reflected in the savings and borrowing patterns documented in Chapter 6, where we see a prevalence of informal borrowing and savings being kept at home.

On other dimensions, most communities have access to basic education services, in the form of a primary school. Around 10% to 15% of communities include a market for fruit and vegetables. Finally, around 10% of surveyed communities have a government or non-governmental programme that supports the public with funds by providing money in cash or through mobile banking.[[2]](#footnote-2)

Table Community access to services

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Indicator | ALL  (N = 210) | | Anka  (N = 45) | | Tsafe  (N = 73) | | Buji  (N = 28) | | Kiri Kasama  (N = 29) | | Gagarawa  (N = 35) | |
|  | N\* | Mn | N\* | Mn | N\* | Mn | N\* | Mn | N\* | Mn | N\* | Mn |
| **Mobile coverage** |  |  |  |  |  |  |  |  |  |  |  |  |
| % communities covered by any mobile network | 210 | 94.3% | 45 | 93.3% | 73 | 91.8% | 28 | 92.9% | 29 | 96.6% | 35 | 100% |
| * % MTN | 210 | 83.8% | 45 | 88.9% | 73 | 69.9% | 28 | 85.7% | 29 | 93.1% | 35 | 97.1% |
| * % GLO | 210 | 56.7% | 45 | 35.6% | 73 | 52.1% | 28 | 85.7% | 29 | 69.0% | 35 | 60.0% |
| * % Air-Tel | 210 | 72.4% | 45 | 73.3% | 73 | 71.2% | 28 | 39.3% | 29 | 86.2% | 35 | 88.6% |
| * % Eti Salat | 209 | 45.9% | 45 | 31.1% | 73 | 58.9% | 28 | 25.0% | 29 | 27.6% | 34 | 70.6% |
| % communities where there is: |  |  |  |  |  |  |  |  |  |  |  |  |
| * a place where a mobile phone can be purchased | 210 | 17.6% | 45 | 13.3% | 73 | 27.4% | 28 | 3.6% | 29 | 13.8% | 35 | 17.1% |
| * a place where mobile credit can be purchased | 210 | 74.3% | 45 | 73.3% | 73 | 80.8% | 28 | 64.3% | 29 | 82.8% | 35 | 62.9% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| % communities where there is: |  |  |  |  |  |  |  |  |  |  |  |  |
| * a formal financial institution (bank, credit union) | 210 | 0.5% | 45 | 0.0% | 73 | 0.0% | 28 | 3.6% | 29 | 0.0% | 35 | 0.0% |
| * a microfinance institution | 209 | 0.5% | 45 | 0.0% | 73 | 1.4% | 27 | 0.0% | 29 | 0.0% | 35 | 0.0% |
| * a moneylender | 210 | 16.2% | 45 | 8.9% | 73 | 34.2% | 28 | 7.1% | 29 | 0.0% | 35 | 8.6% |
| * a primary school | 210 | 74.8% | 45 | 73.3% | 73 | 80.8% | 28 | 64.3% | 29 | 79.3% | 35 | 68.6% |
| * a market for fruits and vegetables | 209 | 11.0% | 45 | 8.9% | 73 | 11.0% | 27 | 14.8% | 29 | 10.3% | 35 | 11.4% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| % communities benefiting from a government or non-governmental programme that supports the public with funds by providing money in cash or through mobile banking | 210 | 9.5% | 45 | 8.9% | 73 | 9.6% | 28 | 14.3% | 29 | 13.8% | 35 | 2.9% |
|  | | | | | | | | | | | | |
| \* When N is different from the total above, this is due to the presence of ‘don’t know’ answers. | | | | | | | | | | | | |

Access to healthcare will be relevant during the implementation of the programme, since health facilities can offer antenatal and postnatal care, and preventive and curative treatment to pregnant women. It is also relevant to the implementation of the programme because the BCC training provided by the programme encourages the use of these services.

Table 2 shows some relevant information about the healthcare dimension: only nine communities have access to a general hospital, and less than half of them report having access to a more basic health facility. The table also provides information about the distance of each community to its nearest health facility, and about the services and staff available at that facility. The data on distances should be read with caution as this was collected by interviews rather than by direct measurement, and many respondents found it difficult to quantify the distance accurately. Around three-quarters of sample communities are less than 10 km away from their nearest health facility, with some variability across LGAs (health facilities being closer to communities in Gagarawa, and farther away from them in Buji).

The availability of staff and service availability, shown in Figure 3, is somewhat more evenly distributed across health facilities in different LGAs, with about 80% of facilities offering antennal and postnatal services, although facilities in Buji seem to stand out with near complete availability of trained medical staff, and being more likely to offer important maternal, new born and child health services.

Table Nearest health facility

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Indicator | ALL  (N = 210) | | Anka  (N = 45) | | Tsafe  (N = 73) | | Buji  (N = 28) | | Kiri Kasama  (N = 29) | | Gagarawa  (N = 35) | |
|  | N+ | Mn | N+ | Mn | N+ | Mn | N+ | Mn | N+ | Mn | N+ | Mn |
| % communities where there is: |  |  |  |  |  |  |  |  |  |  |  |  |
| * a general hospital | 210 | 4.3% | 45 | 2.2% | 73 | 11.0% | 28 | 0.0% | 29 | 0.0% | 35 | 0.0% |
| * a health facility | 210 | 46.7% | 45 | 44.4% | 73 | 50.7% | 28 | 60.7% | 29 | 34.5% | 35 | 40.0% |
| Distance to nearest health facility: |  |  |  |  |  |  |  |  |  |  |  |  |
| * zero or one km | 210 | 27.6% | 45 | 31.1% | 73 | 32.9% | 28 | 3.6% | 29 | 6.9% | 35 | 48.6% |
| * 2–5 km | 210 | 32.9% | 45 | 22.2% | 73 | 34.2% | 28 | 28.6% | 29 | 37.9% | 35 | 42.9% |
| * 6–10 km | 210 | 17.6% | 45 | 33.3% | 73 | 9.6% | 28 | 17.9% | 29 | 24.1% | 35 | 8.6% |
| * 11–20 km | 210 | 5.7% | 45 | 4.4% | 73 | 5.5% | 28 | 14.3% | 29 | 6.9% | 35 | 0.0% |
| * 21 km or more | 210 | 16.2% | 45 | 8.9% | 73 | 17.8% | 28 | 35.7% | 29 | 24.1% | 35 | 0.0% |
| % nearest health facilities that offer services for: |  |  |  |  |  |  |  |  |  |  |  |  |
| * antenatal care | 209 | 80.4% | 44 | 68.2% | 73 | 72.6% | 28 | 100% | 29 | 89.7% | 35 | 88.6% |
| * postnatal care | 209 | 82.3% | 44 | 77.3% | 73 | 76.7% | 28 | 100% | 29 | 86.2% | 35 | 82.9% |
| * delivery of babies | 210 | 69.0% | 45 | 62.2% | 73 | 71.2% | 28 | 100% | 29 | 65.5% | 35 | 51.4% |
| * immunisation for infants and young children | 210 | 95.7% | 45 | 97.8% | 73 | 93.2% | 28 | 100% | 29 | 89.7% | 35 | 100% |
| * nutritional supplements and counselling | 205 | 86.8% | 42 | 92.9% | 72 | 79.2% | 28 | 100% | 29 | 89.7% | 34 | 82.4% |
| % nearest health facilities where there is: |  |  |  |  |  |  |  |  |  |  |  |  |
| * a doctor \*\* | 204 | 34.8% | 42 | 19.0% | 73 | 31.5% | 26 | 96.2% | 29 | 44.8% | 34 | 5.9% |
| * a nurse \*\* | 205 | 53.2% | 44 | 45.5% | 70 | 52.9% | 27 | 92.6% | 29 | 72.4% | 35 | 17.1% |
| * a midwife \*\* | 209 | 67.0% | 45 | 57.8% | 73 | 58.9% | 27 | 96.3% | 29 | 75.9% | 35 | 65.7% |
| * a Community Health Extension Worker (CHEW) \*\* | 203 | 94.1% | 44 | 97.7% | 71 | 88.7% | 27 | 100% | 28 | 89.3% | 33 | 100% |
|  | | | | | | | | | | | | |
| + When N is different from the total above, this is due to the presence of ‘don’t know’ answers.  \*\* Note that some during fieldwork we found that some respondents are not able to distinguish between doctors, nurses, midwives and CHEWs. Therefore, these results should be interpreted with caution. Despite this, it is still clear from the results that Buji stands out as the only LGA with near complete availability of trained health staff. | | | | | | | | | | | | |

Figure Availability of services at nearest health facility

|  |
| --- |
|  |
| Source: CDGP Listing Survey. |

To start to build a picture of the economic environment within which communities exist, Figure 4 shows the proportion of communities affected by man-made and natural shocks in each of the LGAs. Shocks include ‘natural shocks’, such as drought or poor rain, flooding, crop damage due to pests and crop damage due to disease, and ‘man-made shocks’, such as violence (rioting or protests), curfews, and widespread migration into the community. This provides one way to focus on the shocks to which communities, and households within them, are subject, and that will be hardest to insure against. In turn, this can have implications for the need for households to use cash transfers in ways that mitigate some of the adverse effects of these kinds of shock, for example through the temporary migration of some household members, as will be described later.

Across LGAs, the majority of communities report being hit by some shock in the 12 months prior to the survey. Indeed, in four out of five LGAs at least 87% of communities report being hit by some shock over this time period, with Anka being the least affected. Natural shocks are generally more widespread than man-made shocks. Finally, we note that man-made shocks are also common across communities in each LGA, except Gagarawa (and, as is also highlighted in the qualitative analysis, they commonly take the form of theft and raids). 83.8% of communities were affected by a natural shock (flood, drought, crop damage by pest, or crop damage by disease) and 39.0% were affected by a man-made shock (curfew, violence in the community, or widespread migration into community) in the past 12 months.

Table 3 details the type and frequency of various shocks communities can suffer from. In most instances, communities report significant disruption caused by such shocks, including in terms of access to and from the village (including access to health facilities). Crop related shocks are also prevalent, and are reported to affect the supply of food in communities.

Figure Community exposure to natural and man-made shocks in the last 12 months

|  |
| --- |
|  |
| Natural shocks include drought or poor rain, flooding, crop damage due to pests and crop damage due to disease. Man-made shocks include violence (rioting or protests), curfews, and widespread migration into the community. |
| Source: CDGP Listing Survey. |

Table  Community-level shocks

| Indicator | ALL | | Anka | | Tsafe | | Buji | | Kiri Kasama | | Gagarawa | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | N+ | Mn | N+ | Mn | N+ | Mn | N+ | Mn | N+ | Mn | N+ | Mn |
| % communities affected by any shock in the past 12 months | 210 | 87.1% | 45 | 51.1% | 73 | 97.3% | 28 | 92.9% | 29 | 100% | 35 | 97.1% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| % communities affected by any **NATURAL SHOCK** in the past 12 months | 210 | 83.8% | 45 | 37.8% | 73 | 95.9% | 28 | 92.9% | 29 | 100% | 35 | 97.1% |
| **FLOODS** – % of communities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Affected by flood in past 12 months | 210 | 49.5% | 45 | 20.0% | 73 | 34.2% | 28 | 78.6% | 29 | 79.3% | 35 | 71.4% |
| Where more than half of households were affected in past 12 months | 104 | 34.6% | 9 | 22.2% | 25 | 16.0% | 22 | 31.8% | 23 | 56.5% | 25 | 40.0% |
| Affected for more than a month in past 12 months | 104 | 31.7% | 9 | 33.3% | 25 | 32.0% | 22 | 18.2% | 23 | 65.2% | 25 | 12.0% |
| Where shock made it difficult to access places in community where you can buy food | 104 | 68.3% | 9 | 66.7% | 25 | 60.0% | 22 | 50.0% | 23 | 73.9% | 25 | 88.0% |
| Where shock made it difficult to access nearest health facility | 104 | 59.6% | 9 | 66.7% | 25 | 68.0% | 22 | 45.5% | 23 | 60.9% | 25 | 60.0% |
| Where shock made it difficult to travel outside community, to nearest large town/city | 104 | 61.5% | 9 | 66.7% | 25 | 68.0% | 22 | 40.9% | 23 | 52.2% | 25 | 80.0% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **DROUGHT/POOR RAINS** – % of community: |  |  |  |  |  |  |  |  |  |  |  |  |
| Affected by drought/poor rains in past 12 months | 210 | 61.4% | 45 | 33.3% | 73 | 84.9% | 28 | 32.1% | 29 | 69.0% | 35 | 65.7% |
| Where more than half of households were affected in past 12 months | 127 | 70.1% | 14 | 71.4% | 62 | 75.8% | 8 | 87.5% | 20 | 60.0% | 23 | 56.5% |
| Affected for more than a month in past 12 months | 129 | 65.1% | 15 | 60.0% | 62 | 83.9% | 9 | 44.4% | 20 | 55.0% | 23 | 34.8% |
| Where shock made it difficult to access places in community where you can buy food | 129 | 42.6% | 15 | 60.0% | 62 | 46.8% | 9 | 44.4% | 20 | 35.0% | 23 | 26.1% |
| Where shock made it difficult to access nearest health facility | 129 | 29.5% | 15 | 46.7% | 62 | 33.9% | 9 | 33.3% | 20 | 20.0% | 23 | 13.0% |
| Where shock made it difficult to travel outside community, to nearest large town/city | 129 | 27.9% | 15 | 40.0% | 62 | 33.9% | 9 | 44.4% | 20 | 15.0% | 23 | 8.7% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **CROP DAMAGE BY PESTS** – % of communities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Affected by crop damage by pests in past 12 months | 210 | 65.2% | 45 | 24.4% | 73 | 76.7% | 28 | 71.4% | 29 | 89.7% | 35 | 68.6% |
| Where more than half of households were affected in past 12 months | 135 | 63.0% | 11 | 63.6% | 55 | 70.9% | 19 | 42.1% | 26 | 57.7% | 24 | 66.7% |
| Affected for more than a month in past 12 months | 136 | 48.5% | 11 | 72.7% | 55 | 45.5% | 20 | 50.0% | 26 | 61.5% | 24 | 29.2% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **CROP DAMAGE BY DISEASE** – % of communities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Affected by crop damage by disease in past 12 months | 210 | 59.0% | 45 | 11.1% | 73 | 72.6% | 28 | 57.1% | 29 | 89.7% | 35 | 68.6% |
| Where more than half of households were affected in past 12 months | 123 | 63.4% | 5 | 80.0% | 53 | 66.0% | 15 | 40.0% | 26 | 73.1% | 24 | 58.3% |
| Affected for more than a month in past 12 months | 123 | 48.0% | 5 | 60.0% | 53 | 49.1% | 16 | 37.5% | 26 | 69.2% | 23 | 26.1% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| % communities affected by any **MAN-MADE SHOCK** in the past 12 months | 210 | 39.0% | 45 | 40.0% | 73 | 68.5% | 28 | 14.3% | 29 | 31.0% | 35 | 2.9% |
| **CURFEWS** – % of communities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Affected by curfews in past 12 months | 210 | 5.2% | 45 | 15.6% | 73 | 5.5% | 28 | 0.0% | 29 | 0.0% | 35 | 0.0% |
| Where more than half of households were affected in past 12 months | 11 | 81.8% | 7 | 100% | 4 | 50.0% | 0 | . | 0 | . | 0 | . |
| Affected for more than a month in past 12 months | 11 | 54.5% | 7 | 57.1% | 4 | 50.0% | 0 | . | 0 | . | 0 | . |
| Where shock made it difficult to access places in community where you can buy food | 11 | 54.5% | 7 | 28.6% | 4 | 100% | 0 | . | 0 | . | 0 | . |
| Where shock made it difficult to access nearest health facility | 11 | 54.5% | 7 | 28.6% | 4 | 100% | 0 | . | 0 | . | 0 | . |
| Where shock made it difficult to travel outside community, to nearest large town/city | 11 | 45.5% | 7 | 14.3% | 4 | 100% | 0 | . | 0 | . | 0 | . |
| **VIOLENCE IN THE COMMUNITY (e.g. rioting or protests)** – % of communities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Affected by violence in past 12 months | 210 | 20.0% | 45 | 26.7% | 73 | 37.0% | 28 | 0.0% | 29 | 10.3% | 35 | 0.0% |
| Where more than half of households were affected in past 12 months | 40 | 77.5% | 12 | 75.0% | 25 | 80.0% | 0 | . | 3 | 66.7% | 0 | . |
| Affected for more than a month in past 12 months | 40 | 80.0% | 12 | 83.3% | 25 | 80.0% | 0 | . | 3 | 66.7% | 0 | . |
| Where the shock made it difficult to access places in the community where you can buy food | 41 | 61.0% | 12 | 25.0% | 26 | 76.9% | 0 | . | 3 | 66.7% | 0 | . |
| Where the shock made it difficult to access the nearest health facility | 41 | 58.5% | 12 | 25.0% | 26 | 73.1% | 0 | . | 3 | 66.7% | 0 | . |
| Where the shock made it difficult for people to travel outside the community, to the nearest large town or city | 41 | 61.0% | 12 | 33.3% | 26 | 73.1% | 0 | . | 3 | 66.7% | 0 | . |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **WIDESPREAD MIGRATION INTO COMMUNITY** – % of communities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Affected by widespread migration into community in past 12 months | 210 | 26.7% | 45 | 8.9% | 73 | 53.4% | 28 | 14.3% | 29 | 27.6% | 35 | 2.9% |
| Where more than half of households were affected in past 12 months | 55 | 14.5% | 3 | 0.0% | 39 | 15.4% | 4 | 0.0% | 8 | 12.5% | 1 | 100% |
| Affected for more than a month in past 12 months | 54 | 68.5% | 3 | 66.7% | 38 | 65.8% | 4 | 75.0% | 8 | 75.0% | 1 | 100% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| + For each shock, the fraction of communities affected in relation to the total is reported. In this case, N different from 210 is due to the presence of ‘don’t know’ answers. In the subsequent answers further details are reported as fractions of the communities actually affected by the shock. | | | | | | | | | | | | |
|  | | | | | | | | | | | | |

Another form of uncertainty faced by communities relates to the supply of food. This uncertainty could also influence the impacts of the CDGP. Figure 5 highlights, for a variety of food items, the percentage of village markets where this item was available on the day of our visit, or, if not available, where it is usually available (‘usually’ is the wording used in the questionnaire and refers to each month of the year), by LGA. There is considerable variation in availability across food items (many of which are basic food items) and across LGAs.

Figure Market item availability – Zamfara

|  |
| --- |
|  |
| The graphs show the percentage of markets where an item was available on the day of the price survey, or, if it was not available, where it is usually available. ‘Don’t know’ anwers to the question ‘Is the item usually available to buy?’ were treated as missing. |
| Source: CDGP Baseline Survey. |

Figure Market item availability – Jigawa

|  |
| --- |
|  |
| The graphs show the percentage of markets where an item was available on the day of the price survey, or, if it was not available, where it is usually available. ‘Don’t know’ anwers to the question ‘Is the item usually available to buy?’ were treated as missing in the calculations above. |
| Source: CDGP Baseline Survey. |

The figures below summarise the availability of items grouped into broader food groups. Many fruit and vegetables are not usually available in a large proportion of communities.

Figure Market item availability – food groups

|  |
| --- |
|  |
| The graphs show the percentage of markets where an item was available on the day of the price survey, or, if it was not available, where it is usually available. ‘Don’t know’ anwers to the question ‘Is the item usually available to buy?’ were treated as missing in the calculations above.  Water sachets are polyethene sachets of about 50–60cl that contrain drinking water. |
| Source: CDGP Baseline Survey. |

Figure 8 and Figure 9 then show the variation in the availability of these items across the year, month by month. Unlike the above figures, these figures show the percent of communities where a particular item is **not available anywhere** in each month. The availability of grains and cereals (maize, millet, sorghum, and rice) and meat is quite homogeneous throughout the year. However, for some of the items – eggs, peppers and tomatoes – we see a pattern of availability that closely mimics the seasonal calendar in Northern Nigeria (to be described in more detail in Chapter 8), where the months around July to September are often considered the lean season, when food is scarce and food insecurity increases. Dairy products, such as milk and butter, are often not available from November to March.

Figure Months when market items are NOT available (a)

|  |
| --- |
|  |
| Note: these graphs show the months when the items are **NOT** available. |
| Source: CDGP Baseline Survey. |

Figure Months when market items are NOT available (b)

|  |
| --- |
|  |
| Note: these graphs show the months when the items are **NOT** available. |
| Source: CDGP Baseline Survey. |

# Household demographics

|  |
| --- |
| **Key findings** |
| In interpreting the results it is important to keep in mind that for this evaluation the majority of the households we interviewed were those with pregnant women or with women likely to become pregnant during the next three years. This means the households may not be representative of all households in the five LGAs.  Surveyed households are large: The average size of households is 7.4 members, of which on average 4.5 are less than 17 years old and 2.9 are adults (18+ years). On average, there is more than one very young child per household (under 3 years old) and almost two women of reproductive age. Almost all household heads are adult married males (99.9%).  All the women that we interviewed are married. 46% of them are in a polygamous marriage. The average age at marriage is about 15 years of age. At the time of the survey, 68% of interviewed females were pregnant. Almost every female in the sample has been pregnant at some stage, and 89% have given birth at least once in their lives. On average, women in the sample have almost one boy and one girl below the age of seven.  We now describe some basic characteristics of all people aged 12 or older who live in the households of our sampled women. Around two thirds of males aged 12 or older and more than three quarters of females aged 12 or older are married. Polygamy is widespread, and polygamous marriages are more common in the Zamfara LGAs than in Jigawa LGAs. In the Zamfara LGAs, there are more than twice as many women in polygamous marriages as there are women in monogamous marriages.  Islam is the main religion for almost the entire sample and Hausa is the main ethnicity and language. 6% of the sample are Fulani. |

Figure 10 shows the population pyramid for all households surveyed in the baseline sample. In interpreting these data, it is important to note that the study baseline only sampled households that contained at least one woman that was pregnant or likely to become pregnant during the evaluation period. It is also worth noting that this evaluation followed the Nigeria Demographic and Health Survey’s (NDHS’s) definition of a household, according to which a household refers to a residential unit that shares a common cooking pot and recognises a common head.

Given this sample specification, the relative lack of males aged 20–29 might then be due to polygamous practices inducing men to move away from households in order to get married. The imbalance across genders might also be related to older cohorts being less aware of their own ages, and this causing some of the apparent missing individuals in older groups.

Given our selected sample of pregnant women (and those likely to become pregnant), the individuals in our sample are young, as shown in Table 4. The average age is just below 18, and more than half of the individuals are aged 12 or below. Regarding household composition, Table 5 shows that surveyed households are large (even by developing country standards): the mean household size is 7.4 members, of which on average 4.5 are minors (0–17 years) and 2.9 are adults (18+ years). On average, there is more than one very young child per household (under three years old) and almost two women of reproductive age. The dependency ratio indicates that there are approximately 1.3 ‘dependent’ household members (children 0–14 years or elderly 65+ years) for every member that is of working age (adults of 15–64 years): given the population pyramid in Figure 10, we can infer that this is mainly driven by the large number of children, and not by older members.

Given average age at first marriage for women in our population is less than 15 (see Table 36), we report marital status for every individual aged 12 or older in our sample. Around two-thirds of males and more than three-quarters of females are married. Polygamy is widespread, and polygamous marriages seem to be more common in Zamfara than in Jigawa. In the former state, women in polygamous marriages are more than twice as numerous as women in monogamous marriages, as shown in Figure 11.

Figure Population age distribution

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Table Population age characteristics

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Mean | | SD |
| Mean age | 17.41 | | 16.17 |
| Proportion of total population that are: |  | |  |
| * Children aged 0–5 | 29.3% | | - |
| * Children aged 6–12 | 22.2% | | - |
| * Children aged 13–17 | 8.7% | | - |
| * Adults of working age (18–64) | 38.4% | | - |
| * Elderly (aged 65 and above) | 1.5% | | - |
|  |  | |  |
| N = 40,179 throughout the table (this data is based on all people living in the sampled households) | | | |
|  | |  |  |

Table Household composition

|  |  |  |
| --- | --- | --- |
| Indicator | Mean | SD |
| Household size | 7.39 | 4.21 |
| Number of males | 3.50 | 2.30 |
| Number of females | 3.89 | 2.50 |
| Gender ratio+ | 1.38 | 1.03 |
| Number of children (0–12) | 3.80 | 2.77 |
| Number of minors (0–17) | 4.45 | 3.20 |
| Number of adults (18+) | 2.94 | 1.46 |
| Number of elderly (65+) | 0.11 | 0.36 |
| Dependency ratio++ | 128.3 | 83.7 |
| Number of children three or under | 1.43 | 1.08 |
| Number of women of reproductive age (12–49) | 1.93 | 1.14 |
|  |  |  |
| % households: |  |  |
| With children 0–5 years old | 88.2% | - |
| With children 0–12 years old | 90.8% | - |
| With no males | 0.0% | - |
| With at least one pregnant woman | 68.8% | - |
| Where woman’s husband is present | 99.6% | - |
|  |  |  |
| N = 5,436 throughout the table.  + Defined as number of females to number of males in the household.  ++ Defined as number of children 0–14 and elderly 65+ over adults 15–64, multiplied by 100. | | |
|  |  |  |

Figure  Marital status of household members (12+)

|  |
| --- |
|  |
| Source: CDGP Baseline Survey |

Table Household heads

|  |  |  |
| --- | --- | --- |
| Indicator | Mean | SD |
| Age of household head | 39.6 | 11.9 |
| % female household heads | 0.1% | - |
| % elderly (65+) household heads | 3.5% | - |
| % household heads who are under 18 | 0.0% | - |
| % household heads who have ever attended school | 50.8% | - |
| % household heads who have completed primary education | 41.7% | - |
| % male household heads in a monogamous marriage | 53.2% | - |
| % male household heads in a polygamous marriage | 44.8% | - |
| % unmarried male household heads (widowed, separated, divorced, never married) | 2.0% | - |
|  |  |  |
| N = 5,436 throughout the table. | | |
|  |  |  |

Focusing next on heads of household, Table 6 shows that almost all household heads are adult married males, with an almost equal split between monogamous and polygamous married men who are heads of household. Table 7 shows the basic demographics for the sampled women. They are on average quite young, with low levels of literacy (education will be discussed in more detail in Chapter 10), and seem to be split equally between monogamous and polygamous marriages.

Finally, regarding other household demographics, Table 8 shows that Islam is the main religion for almost the totality of the sample, and that Hausa is predominant both in terms of ethnicity and in terms of language.

Table Women’s demographics

|  |  |  |
| --- | --- | --- |
| Indicator | Mean | SD |
| Age | 24.9 | 6.9 |
| % of women: |  |  |
| * who are under 18 | 10.9% | - |
| * currently attending school | 3.2% | - |
| * who have ever attended school | 19.9% | - |
| * who have completed primary education | 8.9% | - |
| * who can read or write in at least one language | 21.2% |  |
| * in a monogamous marriage | 54.2% | - |
| * in a polygamous marriage | 45.8% | - |
| * unmarried (widowed, separated, divorced, never married) | 0.1% | - |
|  |  |  |
| N = 5,435 throughout the table. | | |
|  |  |  |

Table  Religion, language, and ethnicity

|  |  |
| --- | --- |
| Indicator | Mean |
| % households practising: |  |
| * Islam | 99.9% |
| * Christianity | 0.1% |
| Main language spoken in household |  |
| * Hausa | 90.5% |
| * Fulani | 5.5% |
| * Other+ | 4.0% |
| Ethnicity of household members |  |
| * Hausa | 88.1% |
| * Fulani | 7.1% |
| * Other++ | 4.9% |
|  |  |
| N = 5436 throughout the table.  + Other languages include: Fulfulde, Kanuri, Bade, Arabic, Nupe, Tiv, Igbo, Yoruba, other.  ++ Other ethnicities include: Badawa, Bussawa, Dukawa, Gwari, Ibo, Kanuri, Mangawa, Nupe, Tiv, Yoruba, Zarbama, other. | |
|  |  |

# Household drinking water, sanitation and physical characteristics

|  |
| --- |
| **Key findings** |
| Safe drinking water is often not easily accessible, though access to drinking water varies considerably across LGAs. Households in the Jigawa LGAs are more likely to source their water from a tubewell or borehole and have a far greater availability of publicly provided water, while many families in Zamfara (Anka and Tsafe LGAs) rely on unprotected dugwell surface water for drinking. This results in a marked difference across states in the percentage of households with access to an “improved” drinking water source by WHO/UNICEF standards across state and LGAs. .  Most households use low-quality toilet facilities or no facilities at all. Only around 10% of families can rely on “improved” toilets by WHO/UNICEF standards. |

Given the CDGP’s aim to reduce malnutrition in Northern Nigeria, understanding the sources of drinking water and sanitation practices among sample households is important given that poor sanitation increases the risk of getting diarrhoea, which in turn increases the risk of becoming malnourished. Access to drinking water is quite heterogeneous across LGAs, as can be seen in Table 9. Households in Jigawa are more likely to source their water from a tubewell or borehole and have a far greater availability of publicly provided water, while many families in Zamfara (Anka and Tsafe LGAs) rely on unprotected dugwell surface water for drinking. This results in a marked difference across states in the percentage of households with access to an ‘improved’ drinking water source by World Health Organization (WHO)/UN Children’s Fund (UNICEF) standards[[3]](#footnote-3). This lack of access to clean water suggests there is scope for BCC components of the CDGP to have an impact on child wellbeing.

In every LGA, most households use low-quality toilet facilities or no facilities. Only around 10% of families can rely on ‘improved’ toilets[[4]](#footnote-4). Furthermore, more than a third only have access to facilities that are shared with other households.

The most commonly used flooring and roofing materials are reported in Table 10. Most houses are erected directly on dirt or earth (although Zamfara has a significant proportion of cement flooring), and covered by corrugated iron sheets, mud bricks or plants. The main fuel used for cooking is firewood.

Table Drinking water and sanitation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator | All LGAs  (N = 5,436) | Anka  (N = 1,168) | Tsafe  (N = 1,886) | Buji  (N = 725) | Kiri Kasama  (N = 752) | Gagarawa  (N = 905) |
| % households where the main source of drinking water is |  |  |  |  |  |  |
| * a tubewell/borehole | 34.6% | 20.5% | 25.3% | 25.2% | 63.8% | 55.1% |
| * an unprotected dug well | 26.5% | 42.2% | 45.2% | 13.0% | 0.0% | 0.1% |
| * a public tap/stand/pipe | 15.3% | 3.1% | 2.2% | 38.6% | 23.4% | 32.7% |
| * surface water (pond, river, dam etc.) | 7.7% | 21.3% | 8.2% | 0.4% | 1.7% | 0.0% |
| * protected dug well | 6.4% | 6.3% | 13.8% | 1.7% | 0.1% | 0.0% |
| * other+ | 9.6% | 6.6% | 5.3% | 21.1% | 10.9% | 12.0% |
| % households using improved drinking water source\* | 63.3% | 30.5% | 43.5% | 85.8% | 98.3% | 99.9% |
|  |  |  |  |  |  |  |
| Households with improved water source: |  |  |  |  |  |  |
| * % not treating drinking water | 92.7% | 98.3% | 89.3% | 77.0% | 98.5% | 99.7% |
| * % treating drinking water++ | 7.3% | 1.7% | 10.7% | 23.0% | 1.5% | 0.3% |
| * % using adequate treating method++ | 2.3% | 0.6% | 5.0% | 4.8% | 0.4% | 0.3% |
| Households with unimproved water source: |  |  |  |  |  |  |
| * % not treating drinking water | 92.7% | 97.9% | 88.6% | 94.2% | 100.0% | 100.0% |
| * % treating drinking water++ | 7.3% | 2.1% | 11.4% | 5.8% | 0.0% | 0.0% |
| * % using adequate treating method++ | 2.1% | 0.2% | 3.7% | 0.0% | 0.0% | 0.0% |
|  |  |  |  |  |  |  |
| % households that (confirmed by interviewer): +++ |  |  |  |  |  |  |
| * have a place for hand washing | 49.4% | 28.2% | 50.7% | 50.1% | 56.2% | 67.7% |
| * have soap, detergent or other cleansing agent (e.g. ash) at the place for hand washing | 14.5% | 3.2% | 11.7% | 34.2% | 16.9% | 16.2% |
| * store drinking water in a covered container | 91.8% | 85.4% | 89.6% | 92.7% | 97.7% | 98.9% |
|  |  |  |  |  |  |  |
| Type of toilet |  |  |  |  |  |  |
| * Pit latrine without slab / uncovered pit | 71.2% | 80.1% | 84.9% | 73.0% | 69.4% | 30.8% |
| * No facilities | 18.0% | 11.6% | 3.3% | 22.5% | 14.4% | 56.0% |
| * Pit latrine with slab | 7.8% | 6.8% | 9.3% | 3.4% | 6.0% | 11.0% |
| * Other++++ | 3.1% | 1.5% | 2.5% | 1.1% | 10.2% | 2.1% |
| % households w. access to improved sanitation facilities++++ | 10.8% | 8.1% | 11.7% | 4.4% | 16.2% | 13.1% |
| % households not sharing toilets with other households | 63.0% | 53.7% | 71.7% | 63.3% | 81.6% | 41.2% |
|  |  |  |  |  |  |  |
| + Other drinking water sources considered in the questionnaire are: piped water into a dwelling, piped water to a yard/plot, a protected spring, an unprotected spring, rainwater collection, a tanker truck, a bottled/sachet, a cart with a small tank/drum, other. ‘Improved’ drinking water sources are: piped water into a dwelling, piped water into a yard/plot, a public tap/stand/pipe, tubewell/borehole, a protected dug well, a protected spring, bottled/sachet water, collected rainwater (WHO and UNICEF, 2006). Two households reported using solar-powered tanks.  ++ Treatment methods for drinking water surveyed in the questionnaire are: ‘adequate’ methods (boiling, adding bleach or chlorine, straining water through a filter, solar disinfection), and ‘not adequate’ (straining it through a cloth, letting it stand still). Two households reported also using alum as a treatment agent. For details, see WHO and UNICEF (2006).  +++ Here N might differ from 5,431 when the interviewer was denied access to the place for hand washing or to the drinking water containers.  ++++ Other toilet facilities considered in the questionnaire are: flush/pour flush, a ventilated improved pit latrine, a composting toilet, a bucket, a hanging toilet/latrine, other. ‘Improved’ toilet facilities are: a flush toilet, a ventilated improved pit latrine, a pit latrine with a slab, a composting toilet (WHO and UNICEF, 2006). | | | | | | |
|  | | | | | | |

Table  Dwellings

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Indicator | All LGAs  (N = 5,436) | Anka  (N = 1,168) | | Tsafe  (N = 1,886) | Buji  (N = 725) | Kiri Kasama  (N = 752) | Gagarawa  (N = 905) |
| Main flooring material |  |  | |  |  |  |  |
| * Earth/mud or dirt/straw | 77.4% | 85.4% | | 51.3% | 93.5% | 96.5% | 92.8% |
| * Cement/concrete | 22.4% | 14.4% | | 48.4% | 6.3% | 3.3% | 7.0% |
| * Other+ | 0.2% | 0.2% | | 0.4% | 0.1% | 0.1% | 0.2% |
| Main roofing materials |  |  | |  |  |  |  |
| * Corrugated iron sheets | 48.9% | 43.3% | | 68.6% | 48.7% | 24.7% | 35.5% |
| * Mud/mud bricks | 30.7% | 29.1% | | 26.7% | 5.8% | 35.4% | 57.4% |
| * Wood/bamboo | 10.7% | 21.9% | | 3.3% | 0.1% | 35.1% | 0.0% |
| * Thatch (grass or straw) | 9.3% | 5.5% | | 1.1% | 45.1% | 4.7% | 6.3% |
| * Other++ | 0.4% | 0.2% | | 0.4% | 0.3% | 0.1% | 0.8% |
| % households with indoor cooking place (conf. by interviewer) | 12.9% | 19.4% | | 13.7% | 9.4% | 15.3% | 3.9% |
| Main fuel used for cooking |  |  | |  |  |  |  |
| * Fire wood | 95.4% | 99.2% | | 92.3% | 89.2% | 97.7% | 99.6% |
| * Other+++ | 4.7% | 0.8% | | 7.7% | 10.8% | 2.3% | 0.4% |
| N = 5431 throughout the table: five households have missing listing variables. | | | + Other floor types considered in the questionnaire are: wood; tiles; plants.  +++ Other roofing types considered in the questionnaire are: cement/concrete; tiles.  +++ Other fuels include: electricity; gas; kerosene, coal / lignite / charcoal; straw / shrubs / grass; animal dung. | | | | |
|  | | | | | | | |

# Measuring the wealth of households

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| --- |
| **Key findings** |
| In order to measure the wealth of households we use an indicator known as the Progress out of Poverty Index (PPI) as one of our main measures. The version of the score that we use has been constructed in the context of rural Nigeria, and is designed to capture the likelihood that a household will fall below the poverty line. As measured by the Progress out of Poverty wealth index, households in Jigawa state are relatively wealthier than those in Zamfara state. We see that households with no young children tend to be less poor. The presence of pregnant women does not seem to affect the wealth of households, however households with a woman in a polygamous marriage are on average better off. This is likely to be due to the fact that wealthier men may marry an additional wife when they are able to support a larger family. |

The Progress out of Poverty Index (PPI) is used as one of our main measures of household wealth. This is a score that has been constructed in the context of rural Nigeria. The index is designed to capture the likelihood that a household will fall below the poverty line. It is statistically-sound, yet simple to use – in that it uses only simple categorical indicators based on household size, schooling, dwelling characteristics, and asset ownership. Everything else being equal, larger households are scored to be poorer on the PPI index.

The result is a score ranging from 0 (maximum poverty) to 100, with higher scores indicating wealthier households. Details about the PPI are given in the technical compendium that accompanies this report. The average PPI score across all households in our sample is 28.5. The average score is highest in Kiri Kasama (31.2) and lowest in Anka (24.6).

Figure 12 plots the distribution of the PPI scores by state. This shows that households in Jigawa state are relatively wealthier than in Zamfara state, as the curve for Zamfara lies further to the left, indicating more households with a lower value of PPI. In Figure 13 some further disaggregations of the PPI poverty score are reported. We see that households with no young children tend to be less poor (top panel), while the presence of pregnant women seems to not be correlated significantly to household poverty (middle panel). Households where the woman is in a polygamous marriage are on average richer (bottom panel). This is likely to be due to the fact that wealthier men may marry an additional wife when they are able to support a larger family.

Figure PPI scores

|  |
| --- |
|  |
| Curves show the distribution of the PPI index. |
| Source: CDGP Baseline Survey. |

Figure PPI disaggregation by the presence of children, pregnant women and polygamy

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Section III: Economic situation of households

1. Work, income, and livelihoods

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| --- |
| **Key findings** |
| The majority of women in our sample are involved in some kind of work activity, which is usually a form of self-employment (i.e. working only for themselves or someone else in the household). Among those working women, just over half are working in agriculture. Agriculture includes both working on land as well as animal rearing, though the majority of women are engaged in agriculture through rearing animals. The households of women who work in agriculture tend to be poorer than other households. Not all women work for remuneration: 30% report not receiving any payment for work. Among those that receive payments, the average weekly earnings are just under NGN 1300.  On men’s economic activities, we see that over 90% report working with agriculture as being their dominant type of work. As with women, working multiple occupations is common, and the majority of men do not report working for pay (suggesting their agricultural work is a form of self-employment). Again, agrarian households are poorer than other households. Men’s monthly earnings are around eight times higher than women’s, though 13% of men still earn less per month than the value of the cash transfer. We find that around 15% of households report that at least one member temporarily migrated from the household for work in the past year.  Few (4.5%) women engage in crop cultivation, compared with almost all men (95.6%), with the majority who do so working on a small number of plots that they generally own.  Three quarters of households have at least one household member looking after any animals. The most common animals reared by the households include both draught/working and milk producing animals (cows, bulls, calves, goats) as well as chickens. Households own on average just under half the sheep and goats that they look after. It is very common for women to look after animals, with 67% of sampled women reporting that they look after any animal, though they generally do not look after the larger animals such as cow, bulls, calf and camels. Many of these reared animals are owned by women themselves. For both men and women, very few households report actually selling livestock produce, such as milk or eggs, as a form of earnings. This suggests that the purpose of animal rearing is mainly for home production and is an important form of savings. Men spend only marginally more time than their wives looking after animals. 28% of households report selling livestock at some point of the year (with 21% reporting having bought livestock sometime in the past 12 months). Sheep and goats are the most commonly traded animals.  Income and earnings vary a lot through the year: in some months, women report earning three to four times as much as in other months. Income volatility also exists for men, with the ratio of earned income in good to bad months being even higher at around four to five times. In August the highest number of women and women report below normal earnings. For women, the best month is July (at the beginning of the lean season / the end of the planting season), and for men, the best months in terms of earned income are October to November (at the end of the lean season / during the harvest season).  There are no common major sources of non-earned income (e.g. from interest, renting out animals farm equipment, commission from assisting in the sale of property or from remittances), although these sources are significant for those few households that do have them. |

# Work activities

This section describes the livelihoods of women in our sample. To reiterate, women in the sample are those who were pregnant at the time of the interview, or those who were likely to become pregnant during the period in which the CDGP is implemented.

Table 11 shows that the majority of women in our sample are involved in some kind of work activity, and the majority of those are self-employed (working only for themselves or for someone else in the household). Over one-third of women in our sample report working multiple occupations. Among those working women, just over half are working in agriculture. Agriculture includes both working on the land and animal rearing. We examine both forms of work in more detail below. Figure 14 highlights that households in which women are employed in agriculture tend to be poorer than other households, as measured by the PPI poverty score.

Not all women work for remuneration: 30% report not receiving any payment for work. Among those that receive payments, the average weekly earnings are just under NGN 1300. This means for those who receive payment for work, the proposed cash transfer in the CDGP programme, would contribute an increase in income of approximately 65%. As shown in Figure 16, 64% of women earn less per month than the monthly value of the cash transfer. Whichever way this is scaled, the monetary value of the transfer will no doubt be large for these households.

Finally, we note that there is spousal support provided for women’s work activities: over 70% of women reported receiving help in work activities from their husband in the past three months. This includes working on her land, looking after her animals, buying inputs for her business or selling things for her. There are, therefore, important potential spousal inter-linkages in work activities, and these could be shifted as a result of the CDGP, because, as a result of the cash transfer, women may need less financial support from their husbands or may increase the financial support they give to their husbands.

Table Women’s work activities

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| % of women involved in any work activity (besides housework or child care) in the past 12 months | 5,436 | 70.9% | - |
| Of which % involved in:+ |  |  |  |
| * Agriculture | 3,857 | 57.6% | - |
| * Professional labour | 3,857 | 0.2% | - |
| * Skilled labour | 3,857 | 27.4% | - |
| * Unskilled labour | 3,857 | 48.0% | - |
| % of working women reporting multiple job categories++ | 3,857 | 36.0% | - |
| % of working women who are self-employed (working only for themselves or for someone else in the household) | 3,857 | 82.5% | - |
| % of working women who do not receive any payment for work | 3,857 | 30.2% | - |
| Weekly payment from woman’s work activities (for women who are earning) (NGN) | 2,692 | 1,282.7 | 3,388.4 |
| % of working women who were helped by husband in work activities in the past three months | 3,853 | 70.4% | - |
|  |  |  |  |
| + Categories can have a sum greater than 100% since multiple activities were recorded for the same person.  The categories above comprise the following activities:  *Agriculture*: Farming/ land cultivation/ selling food from your farm; fishing/selling fish you have caught; animal rearing/ tending animals; landlord/ renting shops or houses; other agricultural work.  *Professional labour*: religious leader; local doctor/ traditional doctor / traditional birth attendant/ healer; doctor / health worker / CHEW / dentist / nurse; politician/ government officer; teacher; non-governmental organisation (NGO) worker; advocate / lawyer; other professional.  *Skilled labour*: plumber; electrician; painter; engineer; roofer; mechanic; repairs / garage work; furniture maker; artisan; carpenter; tailor; tanner / leather maker; weaver; nail maker; shoemaker / cobbler; goldsmith; wheel maker; stone mason; bladesmith; locksmith; potter; blacksmith; other skilled labour.  *Unskilled labour*: porter; car washing; barber; hairdresser; beautician; businessman; petty trader; street vendor; making and selling snacks; making and selling soap; factory worker; brick layer / construction work/builder; transport operator / driver; maid/servant/cleaner; restaurant or hotel work; DJ/ entertainer/ musician; other unskilled labour.  ++ Women that have at least two activities that fall into two of the above categories (agriculture, professional, skilled, unskilled). | | | |
|  |  |  |  |

Figure PPI scores by women’s agricultural jobs

|  |
| --- |
|  |
| The graph includes only women who had been working in the 12 months prior to the interview. |
| Source: CDGP Baseline Survey. |

Table 12, shows the same information as Table 11, but for the sampled woman’s husband. Over 90% of men report working, with agriculture being the dominant type of work. As with women, working in multiple occupations is common, and the majority of men do not report working for pay (suggesting their agricultural work is a form of self-employment). As with women’s sources of earnings, The earlier evidence documenting spousal support in work activities for women is reflected in men’s responses too: over 60% report giving some support to the surveyed women.

Men’s monthly earnings are around eight times higher than women’s, though 13% of men still earn less per month than the cash transfer, as shown in Figure 16. As shown in the figure, for 5% of households, the combined income for the sampled woman and her husband is less than the cash transfer.

Figure 15 highlights the gap between agrarian households and other households in terms of poverty.

Table Men’s work activities

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| Proportion of husbands involved in any work activity (besides housework or child care) in past 12 months | 5,436 | 93.8% | - |
| Of which % involved in:+ |  |  |  |
| * Agriculture | 5,103 | 89.1% | - |
| * Professional labour | 5,103 | 12.6% | - |
| * Skilled labour | 5,103 | 14.4% | - |
| * Unskilled labour | 5,103 | 32.1% | - |
| % of working men reporting multiple job categories++ | 5,103 | 46.9% | - |
| % of working men who are self-employed (working only for themselves or someone else in the household) | 5,103 | 88.4% | - |
| % of working men who do not receive any payment for work | 5,103 | 55.7% | - |
| Weekly payment from man’s work activities (for men who are earning) (NGN) | 2,263 | 9,914 | 61,904 |
| Proportion of husbands who helped their wife+++ in work activities in the past three months | 5,436 | 62.3% | - |
|  |  |  |  |
| + Categories can have a sum greater than 100% since multiple activities were recorded for the same person.  The categories above comprise the following activities:  *Agriculture*: farming/ land cultivation/ selling food from your farm; fishing/selling fish you have caught; animal rearing/ tending animals; landlord/ renting shops or houses; other agricultural work.  *Professional labour*: religious leader; local doctor/ traditional doctor / traditional birth attendant/ healer; doctor / health worker / CHEW / dentist / nurse; politician/ government officer; teacher; NGO worker; advocate / lawyer; other professional.  *Skilled labour*: plumber; electrician; painter; engineer; roofer; mechanic; repairs / garage work; furniture maker; artisan; carpenter; tailor; tanner / leather maker; weaver; nail maker; shoemaker / cobbler; goldsmith; wheel maker; stone mason; bladesmith; locksmith; potter; blacksmith; other skilled labour.  *Unskilled labour*: porter; car washing; barber; hairdresser; beautician; businessman; petty trader; street vendor; making and selling snacks; making and selling soap; factory worker; brick layer / construction work/builder; transport operator / driver; maid/servant/cleaner; restaurant or hotel work; DJ/ entertainer/ musician; other unskilled labour.  ++ Men that have at least two activities that fall into two of the above categories (agriculture, professional, skilled, unskilled).  +++ In the case where the man has multiple wives, this question refers to the wife that our survey team interviewed | | | |
|  |  |  |  |

Figure  PPI scores by men’s agricultural jobs

|  |
| --- |
|  |
| The graph includes only men who had been working in the 12 months prior to the interview. |
| Source: CDGP Baseline Survey. |

Figure  Monthly earnings and cash grant

|  |
| --- |
| C:\Users\LMoore\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\GTZ2PHK1\earnings (00000003).png |
| The graph reports the distribution of earnings for men and women who reported positive earnings. The red line indicates the value of the monthly cash transfer (NGN 3,500). It also shows the combined income for the sampled woman and her husband. |
| Source: CDGP Baseline Survey. |

Finally, we also consider temporary migration from the household in Table 13. We find that around 15% of households report having a person who was a temporary migrant for work in the past year.

Table Temporary migration

|  |  |
| --- | --- |
| Indicator | N |
| % households where: |  |
| * No household member left the village for more than 30 days for work in the past year | 84.2% |
| * One member left for more than 30 days for work in the past year | 4.5% |
| * Two members left for more than 30 days for work in the past year | 10.6% |
| * Three members left for more than 30 days for work in the past year | 0.6% |
| * Four members left for more than 30 days for work in the past year | 0.1% |
| * Five members left for more than 30 days for work in the past year | 0.0% |
|  |  |

# Land cultivation

The next set of tables focus on land cultivation, which is highly relevant given the importance of agriculture for the livelihoods of men and women in the sample households. The evidence suggests that few women engage in crop cultivation (of the 2,221 women engaged in agriculture, only 248 engage in land cultivation – the reminder engage in agriculture through animal rearing, as described in more detail below, in Section 5.3). However, the economic returns are very high for those few women that do report earnings from such a source.

Table Women’s land cultivation

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| % women who cultivated any land in past 12 months | 5,436 | 4.5% | - |
| * % of which cultivated 0–4 plots | 248 | 98.0% |  |
| * % of which cultivated 5–9 plots | 248 | 1.6% | - |
| * % of which cultivated 10–14 plots | 248 | 0.4% | - |
| Proportion of women cultivating: |  |  | - |
| * Sorghum | 246 | 40.2% | - |
| * Sesame | 246 | 35.4% | - |
| * Millet | 246 | 33.3% | - |
| * Roselle | 246 | 20.3% | - |
| % women who own one or more plots themselves | 247 | 65.6% | - |
| % women cultivating multiple crops | 247 | 62.8% | - |
| Total income from crop sales in past 12 months (if positive) (NGN) | 176 | 18,972 | 30,793 |
| Proportion of women who used fertiliser on their crops in past 12 months | 247 | 33.6% | - |
| Proportion of women who used pesticides/insecticides/herbicides in past 12 months | 247 | 21.9% | - |
|  |  |  |  |

By contrast, men nearly universally cultivate land – with the majority working on a small number of plots, which they generally own.

Table Husband’s land cultivation

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| % husbands who cultivated any land in past 12 months | 5,436 | 95.6% | - |
| * % of which cultivated 0–4 plots | 5,091+ | 76.5% |  |
| * % of which cultivated 5–9 plots | 5,091+ | 19.9% | - |
| * % of which cultivated 10–14 plots | 5,091+ | 2.5% | - |
| * % of which cultivated more than 14 plots | 5,091+ | 1.1% |  |
| Proportion of husbands cultivating: |  |  | - |
| * Sorghum | 5,194 | 60.5% | - |
| * Millet | 5,194 | 51.1% | - |
| * Maize | 5,194 | 16.5% | - |
| * Soya Beans | 5,194 | 12.6% | - |
| % husbands who own one or more plots themselves | 5,194 | 81.5% | - |
| % husbands cultivating multiple crops | 5,194 | 84.9% | - |
| Total income from crop sales in past 12 months (if positive) (NGN) | 2,828 | 282,599 | 1,415,582 |
| Proportion of husbands who used fertiliser on their crops in past 12 months | 5,194 | 72.9% | - |
| Proportion of husbands who used pesticides/insecticides/herbicides in past 12 months | 5,194 | 53.0% | - |
| Proportion of husbands that owned any uncultivated land in past 12 months | 5,436 | 12.8% |  |
|  |  |  |  |
| + N is different from 5,194 here because there are 103 cases of ‘don’t know’. | | | |
|  |  |  |  |

# Animal rearing

We next consider the other main form of agricultural activity: animal rearing. **Table 57** in Annex C shows the animal rearing done by households and women in our sample, including the type and number of animals they look after, and the time spent on this per day.

Three quarters of households have at least one household member looking after any animals. From Figure 17, we can see that the most common forms of animals reared by households include both draught/working and milk producing animals (cows, bulls, calves, goats) as well as chickens. Households own on average half the sheep and goats that they look after. It is very common for women to look after animals, with 67% of sampled women reporting that they look after any animal, and the majority of women are engaged in agriculture through rearing animals. However, women generally do not look after the larger animals such as cow, bulls, calf and camels and the men tend to look after larger numbers sheet and goats. Many of these reared animals are owned by women themselves. Very few households report actually selling livestock produce, such as milk or eggs, as a form of earnings, suggesting such animal rearing is predominantly a form of home production, and an important form of savings and wealth accumulation. Fulani households are more likely to sell milk than Hausa households, though it is still relatively infrequent.

Figure Animal rearing

|  |
| --- |
|  |
| Note: the numbers in the boxes represent the average number of animals looked after (conditional on looking after any). Number of chicken and fowl were not recorded, and number of equines for women were too low to be reliable. |
| Source: CDGP Baseline Survey. |

Table 16 shows that men spend marginally more time than their wives looking after animals.

Table Time spent looking after animals

|  |  |  |
| --- | --- | --- |
| Indicator | N | Mean |
| Men: time spent looking after animals on a typical day: |  |  |
| * Less than 1 hour | 3,888 | 42.2% |
| * 1–2 hours | 3,888 | 35.3% |
| * 3–4 hours | 3,888 | 13.3% |
| * More than 4 hours | 3,888 | 9.3% |
|  |  |  |
| Women: time spent looking after animals on a typical day: |  |  |
| * Less than 1 hour | 3,548 | 51.0% |
| * 1–2 hours | 3,548 | 37.2% |
| * 3–4 hours | 3,548 | 7.2% |
| * More than 4 hours | 3,548 | 4.6% |
|  |  |  |

Table 17 shows that around 28% of households report selling livestock at some point of the year (with 21% reporting having bought livestock sometime in the past 12 months). Sheep and goats are the animals that are most commonly traded.

Table Households’ livestock sales

|  |  |  |
| --- | --- | --- |
| Indicator | N+ | Mean |
| % of households where anyone bought any livestock in the past 12 months | 5,415 | 21.2% |
| % that bought cows | 5,414 | 1.4% |
| % that bought bulls | 5,414 | 1.8% |
| % that bought calves | 5,414 | 0.9% |
| % that bought sheep | 5,414 | 9.5% |
| % that bought goats | 5,414 | 8.1% |
| % that bought camels | 5,415 | 0.2% |
| % that bought horses, mules, or donkeys | 5,415 | 0.0% |
| % that bought chicken | 5,415 | 2.8% |
| % that bought guinea fowl | 5,415 | 0.2% |
|  |  |  |
| % of households where anyone sold any livestock in the past 12 months | 5,407 | 28.6% |
| % that sold cows | 5,404 | 2.9% |
| % that sold bulls | 5,404 | 3.1% |
| % that sold calves | 5,406 | 0.7% |
| % that sold sheep | 5,406 | 12.8% |
| % that sold goats | 5,404 | 12.9% |
| % that sold camels | 5,406 | 0.2% |
| % that sold horses, mules, or donkeys | 5,405 | 0.0% |
| % that sold chicken | 5,403 | 2.9% |
| % that sold guinea fowl | 5,405 | 0.6% |
|  |  |  |
| + When N differs from 5,416 (total number of surveyed husbands) this is because of missing/ ‘don’t know’ answers. | | |
|  |  |  |

# Income volatility

In contrast to the evidence presented earlier regarding the volatility of the economic environment due to shocks (Table 3), Table 18 focuses on the income volatility experienced by individual households. Income and earnings vary greatly throughout the year: in some months, women report earning three to four times as much as in other months. Income volatility also exists for men, with the ratio of earned income in good to bad months being even higher: around four to five times.

Table Income volatility

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| **Women** |  |  |  |
| % women reporting that there were some month(s) where they earned more than usual in the past 12 months | 3,856 | 37.1% | - |
| Earnings in high-earning months (NGN)+ | 1,394 | 4,709 | 9,105 |
| % women reporting that there were some month(s) where they earned less than usual in the past 12 months | 3,856 | 36.1% | - |
| Earnings in low-earning months+ | 1,360 | 1,347 | 2,511 |
| **Men** |  |  |  |
| % men reporting that there were some month(s) where they earned more than usual in the past 12 months | 5,101 | 37.2% | - |
| Earnings in high-earning months+ | 1,861 | 39,508 | 67,188 |
| % men reporting that there were some month(s) where they earned less than usual in the past 12 months | 5,101 | 34.7% | - |
| Earnings in low-earning months+ | 1,728 | 8,883 | 18,716 |
|  |  |  |  |
| + The amount earned in high and low-earning months are reported for people who report having a varying income. People who report that they earn the same amount all year are not included in these averages. | | | |
|  | | | |

Figure 18 breaks down earnings by month to show the times of year when incomes are especially low. The green bars to the left-hand side of the graph show the number of women reporting below normal earnings in a particular month. We see that the highest number of women report below normal earnings in August. The blue bars to the right-hand side of the graph show the number of women reporting above normal earnings in a particular month. We see that the highest number of women report above normal earnings in July. For men the worst month is also August, but unlike in the case of women the best months are October to November.

Therefore, for women, the best months occur at the beginning of the lean season (at the end of the planting season), and for men the best months, in terms of earned income, appear to occur at the end of the lean season (during the harvest season).

Figure Income volatility

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Figure Northern Nigeria seasonal calendar

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| --- |
|  |
|  |
| The figure shows the seasonal calendar for a typical year in the states of Northern Nigeria. |
| Source: Famine Early Warning System Network (http://www.fews.net/west-africa/nigeria, accessed February 2015) |

# Non-work earnings

Table 19 shows that the majority of households have no major sources of non-earned income, although these sources are significant for those few households that do have them.

Table Household non-work earnings

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| *Interest* |  |  |  |
| Proportion of households that received any income from interest in the past 30 days | 5,436 | 6.5% | - |
| Income received from interest in the past 30 says (estimated cash value for in-kind income) | 334 | 13,539 | 21,461 |
| *Renting out animals* |  |  |  |
| Proportion of households that received any income from renting out animals or farm equipment in the past 30 days | 5,436 | 2.6% | - |
| Income received from renting out animals or farm equipment in the past 30 says (estimated cash value for in-kind income) | 126 | 21,370 | 32,636 |
| *Assisting with the sale of property* |  |  |  |
| Proportion of households that received any commissions from assisting with the sale of property, land or other items in the past 30 days | 5,436 | 1.7% | - |
| Income received as commissions from assisting with the sale of property, land or other items in the past 30 says (estimated cash value for in-kind income) | 86 | 4,862 | 11,695 |
| *Remittances* |  |  |  |
| Proportion of households that received any income from remittances sent by a relative or friend living outside the household in the past 30 days | 5,436 | 7.3% | - |
| Income received from remittances sent by a relative or friend living outside the household in the past 30 says (estimated cash value for in-kind income) | 384 | 8,591 | 16,513 |
| *Gifts* |  |  |  |
| Proportion of households that received any income from gifts in the past 30 days | 5,436 | 15.0% | - |
| Income received from gifts in the past 30 says (estimated cash value for in-kind income) | 793 | 4,056.1 | 7,125 |
| *Benefits* |  |  |  |
| Proportion of households that received any income from a government benefit, cash transfer or other item from an NGO in the past 30 days | 5,436 | 4.8% | - |
| Income received from a government benefit, cash transfer or other item from an NGO in the past 30 says (estimated cash value for in-kind income) | 250 | 10,783 | 64,260 |
|  |  |  |  |

1. Household saving and borrowing

|  |
| --- |
| **Key findings** |
| Formal financial institutions (bank or microfinance institution) are present in only 2 or the 210 communities. Fewer than 40% of households report having any cash savings. Of those with cash savings, the majority store their savings at home (77%) and about 20% report having access to savings devices through formal and informal institutions. Around 41% of households report their savings to be held in-kind, and the value of these in-kind savings is on average comparable to the value of savings held in cash (at around NGN 40, 000).  Around one in five households report borrowing from some source. The vast majority of these are informal sources with friends and family being the most important source of borrowing. The provision of credit from local shops also appears to be an important source of informal finance. |

This section provides a more detailed description of how households borrow and save. This is likely to have important implications for the way in which the cash transfers provided by the CDGP are absorbed by households.

# Household savings

To begin with, fewer than 40% of households report having any cash savings (Table 20). Of those with cash savings, the majority store their savings at home (77%), with equal proportions of households reporting having access to savings devices through formal institutions and informal institutions. Figure 20 shows the breakdown of where savings are stored, by LGA. Around 41% of households report their savings as being held in-kind, and the value of these in-kind savings is comparable to the value of savings held in cash on average (at around NGN 40,000).

Table Household saving

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| % households with any cash savings | 5,436 | 39.7% | - |
| % of these households saving at:+ |  |  |  |
| * Home | 2,160 | 77.2% |  |
| * Informal savings group | 2,160 | 19.9% |  |
| * Bank | 2,160 | 19.1% |  |
| * Other++ | 2,160 | 3.0% |  |
| Value of household money savings (NGN) | 1,518 | 39,471 | 120,764 |
| % households with in-kind savings | 5,436 | 41.2% | - |
| Value of in-kind savings (NGN) | 1,501 | 37,724 | 65,963 |
| Total value of savings (NGN) | 2,440 | 47,763 | 115,549 |
|  | | | |
| + Percentages do not have a sum of 100 because respondents were allowed to select multiple applicable strategies.  ++ Other savings institutions considered in the questionnaire were: savings associations or cooperatives, microfinance institutions or NGOs. | | | |
|  | | | |

Figure Household savings institutions

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Figure 21 compares the value of savings compared to the proposed monthly cash grant from the NGN 3,500 CDGP cash transfer. We see that among those households with some positive savings, for 23% of households in Jigawa and 19% of households in Zamfara, the value of the cash grant in one month would exceed their entire existing value of savings (moreover, recall that 60% of households have zero savings).

Figure Household savings and cash grants

|  |
| --- |
|  |
| Savings are reported only for households with positive savings recorded. The graph does not show the 113 households with savings above NGN 200,000. Total household savings include savings at: banks, savings associations, home, microfinance institutions, and informal savings groups. Also included is the estimated value of in-kind savings. The red line indicates the value of the monthly cash transfer (NGN 3,500). |
| Source: CDGP Baseline Survey. |

# Household borrowing

On borrowing, around one-in-five households report borrowing from some source. The vast majority of borrowing is from informal sources, with friends and family being the most important sources of borrowing. The provision of credit from local shops also appears to be an important source of informal finance.

Table Household borrowing

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| % households currently borrowing from any source | 5,436 | 22.3% | - |
| % of these households borrowing from: |  |  |  |
| * Family members or friends | 1,210 | 76.0% | - |
| * Shop (on credit) | 1,210 | 28.7% | - |
| * Moneylender | 1,210 | 8.0% | - |
| * Bank | 1,210 | 5.6% | - |
| * Other+ | 1,210 | 5.1% | - |
| Value of most recent loans from all sources (NGN) | 1,108 | 21,015.5 | 76,496.3 |
| % households which tried to borrow in past 12 months but were unable to | 5,436 | 7.0% | - |
|  |  |  |  |
| + Other answers considered in the questionnaire were: savings associations/cooperatives, microfinance institutions/NGOs, other households in the village where another wife lives, landlord. | | | |
|  | | | |

1. Household assets and expenditure

|  |
| --- |
| **Key findings** |
| The majority of households own basic items of furniture (e.g. mattress, bed and chairs) but few households own bicycles, stoves, wheelbarrows and ploughs. Spending on durable assets is quite uncommon with more than half of all households not spending anything in the past 12 months. 84% of households have expenditures that are per person below the global poverty line for household income (US$ 1.25 per day). This still suggests a significant share of households in our sample are likely to be below a global poverty threshold. We see that richer households do spend more per person on food but that the differences are not very large. |

This chapter builds on the previous one and considers household assets and expenditures. Figure 22 shows rates of ownership of various types of household and business assets. We see that the majority of households own basic items of furniture (mattress/bed and chairs) but few households own bicycles, stoves, wheelbarrows and ploughs, for example.

Figure Household asset ownership

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

On food expenditure, respondents were asked to recall expenditure over the previous seven days. Table 22 shows household food expenditure, which has been aggregated up to the 12 months prior to the baseline survey. The upper panel shows total household expenditure, while the lower panel provides per capita expenditure. In order to better understand the distribution of expenditure, we also report 25th and 75th percentiles. The 25th percentile is the amount of expenditure in NGN below which 25% of the households may be found. The table highlights the enormous variation in food expenditure across households. We also see that spending on durable assets is quite uncommon, with more than half of all households not spending anything on such assets in the past 12 months.

Table Household expenditure

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Indicator | Mean | SD | Median | 25th pctile | 75th pctile |
| **Aggregates** |  |  |  |  |  |
| Household yearly food expenditure (NGN)+ | 107,345 | 301,429 | 47,840 | 14,560 | 121,160 |
| Household yearly non-durable expenditure (NGN)++ | 148,937 | 235,221 | 82,560 | 26,520 | 179,940 |
| Household yearly durable expenditure (NGN)+++ | 7,536 | 49,716 | 0 | 0 | 900 |
|  |  |  |  |  |  |
| **Per capita++++** |  |  |  |  |  |
| Per capita yearly food expenditure (NGN)+ | 17,239 | 36,190 | 7,720 | 2,167 | 19,335 |
| Per capita yearly non-durable expenditure (NGN)++ | 24,008 | 41,333 | 12,851 | 4,146 | 28,825 |
| Per capita yearly durable expenditure (NGN)+++ | 1,316 | 8,318 | 0 | 0 | 133 |
|  |  |  |  |  |  |
| + Yearly food expenditure is projected by reference to expenditure on food items in the seven days prior to the survey.  ++ Yearly non-durable expenditure is projected using:   * seven-day recall regarding consumable items (e.g. petrol, fuel, phone credit, cigarettes); * 30-day recall regarding a different list of items (e.g. toiletries, clothing, utensils); * annual expenditure on larger items (e.g. dowry, marriage, funeral, school expenses, books).   +++ Yearly durable expenditure is the sum of the reported annual expenditure on assets (e.g. table, mattress, stove, motorbike, plough etc.).  ++++ Per capita expenditure is total expenditure divided by household size. | | | | | |
|  |  |  |  |  |  |

Figure 23 translates this information on total expenditure into daily expenditure by state. This enables us to compare this expenditure with a commonly used metric for a global poverty line of $1.25. This shows that 84% of households in Jigawa have per capita expenditure below the global poverty line for household income. A near identical figure is found for Zamfara. This suggests that a significant share of households in our sample are likely to lie below the global poverty threshold.

Figure Per capita total expenditure and poverty line

|  |
| --- |
|  |
| The graph reports unequivalised daily per capita household expenditure. The red line indicates the average NGN value of $1.25 between 17 October 2013 and 15 October 2014, i.e. NGN 194.05. |
| Source: CDGP Baseline Survey, Nigeria Central Bank website (for exchange rates). |

Finally,

Figure 24 considers how per capita expenditure varies across poverty classes. The middle of the box plot shows the median per capita daily expenditure. This is disaggregated by the PPI score, with poorer households on the left-hand side. We see that richer households do spend more per person on food, but that the differences are not very large. This may in part be because wealthier households may have more food stocks from their own production.

Figure Per capita food expenditure and PPI

|  |
| --- |
|  |
| The graph reports daily per capita household expenditure on the y axis, across quartiles of PPI. |
| Source: CDGP Baseline Survey. |

1. Food security

|  |
| --- |
| **Key findings** |
| A relatively small share of households report food insecurity. 10% of households report that they did not have enough food to eat during the lean season and 4-6% of households did not have enough food to eat over the rest of the year (from October to August). The affordability of food items is given as the main cause of food shortages and richer households report slightly less food insecurity than poorer ones.  Households employ a variety of coping strategies in response to food insecurity. Among the most common strategies are seeking informal assistance through social ties and changing the amount or type of work activity that household members engage in. Strikingly, 28% of households who report not always having enough food do not use any coping strategies to manage their food insecurity.  There is no evidence that coping strategies vary over the year. However, there are marked differences in coping strategies used by households in different LGAs. This applies especially to the use of informal assistance from friends and family, which is most prevalent in Anka (reported by over 60% of households) and least prevalent in Tsafe (reported by less than 30% of households). There is somewhat less reliance on informal assistance among wealthier households. A relatively low proportion of households report livestock sales as being a strategy to cope with insufficient food availability (fewer than 10% of households). |

A key feature of the economic environment in our sample is instability. We have documented this in terms of man-made and natural shocks that hit communities, and the earnings volatility experienced by individual households. In this chapter we focus specifically on instability in terms of food security.

Firstly, following UN Food and Agriculture Organization (FAO) guidelines, household hunger was measured using the Household Hunger Score (HHS)[[5]](#footnote-5). The HHS measures the extent of food deprivation at the household level over the 30 days prior to the interview. In the questionnaire, questions were asked regarding three ‘hunger’ situations: was there ever no food in the household in the four weeks previous to the survey?; did anybody ever go to sleep hungry in the four weeks preceding the survey?; and did anybody ever go for 24 hours without eating in the four weeks preceding the survey?[[6]](#footnote-6) The HHS assigns each household one point if it answers these questions with ‘rarely’ and two points for ‘often’. Categories were then constructed for little or no hunger (0–1 points), moderate hunger (2–3 points), and severe hunger (4–6 points).

Given the earlier description of the lean season (Figure 19), in Table 23 we present the HHS results by splitting households into those that answered during and after the lean season, as defined by a 15 Septembercut-off, which was approximately halfway through our data collection period. Of course, the cut-off date is somewhat arbitrary and the changes introduced by the lean season occur gradually – however, we use this cut-off date to illustrate average changes in the periods before and after the cut-off. Two key points emerge from this table: first, a relatively small share of households report food insecurity: fewer than 10% of households report moderate or severe hunger over the past 30 days using the HHS. Second, there is evidence of a lean season, in that households face significantly more food insecurity during the lean season, defined as around the 15 September cut-off.

Table HHS by season

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | Total  (N = 5,436) | | Interviewed 15 Sept 2014 and before  (N = 2,781) | Interviewed after 15 Sept 2014  (N = 2,655) | |  |
| Indicator | | |  | | Mean | Mean | | Differ-enceb |
| A – In the past 30 days, was there ever no food to eat of any kind in your household because of lack of resources to get food? | | |  | |  |  | |  |
| * % Never | | | 85.2% | | 82.5% | 87.9% | | -5.4%\*\*\* |
| * % Rarely (1–2 times) | | | 9.1% | | 10.9% | 7.2% | | 3.7%\*\*\* |
| * % Sometimes (3–9 times) | | | 4.6% | | 5.2% | 3.9% | | 1.3%\*\*\* |
| * % Often (10 times or more) | | | 1.2% | | 1.4% | 0.9% | | 0.4%\*\*\* |
| B – In the past 30 days, did you or any household member go to sleep at night hungry because there was not enough food? | | |  | |  |  | |  |
| * % Never | | | 91.7% | | 89.8% | 93.8% | | -4.0%\*\*\* |
| * % Rarely (1–2 times) | | | 5.3% | | 6.8% | 3.6% | | 3.2%\*\*\* |
| * % Sometimes (3–9 times) | | | 2.7% | | 3.0% | 2.5% | | 0.5%\*\*\* |
| * % Often (10 times or more) | | | 0.3% | | 0.4% | 0.1% | | 0.3%\*\*\* |
| C – In the past 30 days, did you or any household member go a whole day and night without eating anything at all because there was not enough food? | | |  | |  |  | |  |
| * % Never | | | 95.1% | | 93.6% | 96.7% | | -3.1%\*\*\* |
| * % Rarely (1–2 times) | | | 3.5% | | 4.5% | 2.3% | | 2.2%\*\*\* |
| * % Sometimes (3–9 times) | | | 1.3% | | 1.6% | 0.9% | | 0.6%\*\*\* |
| * % Often (10 times or more) | | | 0.2% | | 0.3% | 0.0% | | 0.3%\*\*\* |
|  | | |  | |  |  | |  |
| A+B+C → HHSa – % households that report: | | |  | |  |  | |  |
| * Little to no household hunger (HHS = 0 or 1) | | | 91.5% | | 89.6% | 93.6% | | -4.0%\*\*\* |
| * Moderate household hunger (HHS = 2 or 3) | | | 8.0% | | 9.7% | 6.1% | | 3.6%\*\*\* |
| * Severe household hunger (HHS = 4, 5 or 6) | | | 0.5% | | 0.7% | 0.3% | | 0.4%\*\* |
|  | | |  | |  |  | |  |
| D – In the past 30 days, did you ever reduce the number of meals you ate per day because there was not enough food? | | |  | |  |  | |  |
| % Never | | | 83.2% | | 81.3% | 85.2% | | -3.9%\*\*\* |
| % Rarely (1–2 times) | | | 10.1% | | 12.6% | 7.6% | | 5.0%\*\*\* |
| % Sometimes (3–9 times) | | | 5.6% | | 5.3% | 5.9% | | -0.6%\*\*\* |
| % Often (10 times or more) | | | 1.1% | | 0.8% | 1.3% | | -0.5%\*\*\* |
|  | | |  | |  |  | |  |
| a The HHS is calculated using questions A, B, and C above. A score of 0 for each of these questions is attributed if the respondent reports ‘No’ to the main question, a score of 1 is attributed if the respondent reports ‘Rarely’ or ‘Sometimes’ to the following question, and a score of 2 is attributed for ‘Often’. The scores are then added together to obtain the HHS, which therefore ranges from 0 to 6.  b The difference in proportions between before and after 15 Sept is tested using a two-tailed t-test. Stars indicate levels of significance: \*\*\*=1%, \*\*=5%, \*=10%. | | | | | | | | |
|  |  |  | |  | | |  | |

If we examine how the HHS differs across poverty quartiles, we see a very slight gradient: richer households report less hunger during the lean season. If the CDGP increases household resources then it could well improve household food security. However, this would partly rely on food actually being available for purchase at the times of most need. The evidence provided earlier in Section 4.1 has already showed that the supply of some food items becomes much more restricted in months around the lean season.

Figure HHS by PPI quartile

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

As the HHS only focused on the past 30 days, we also present results for a measure of food security over the past year. This is shown below, in Table 24. The results support those presented above: about 10% of households report not having enough food to eat during the lean season and 4%–6% of households report not having enough food to eat over the rest of the year (October to August).

Table 24 also presents results regarding copying strategies, and these are summarised by LGA in Figure 26. A variety of coping strategies are reported by households in response to food insecurity. Some of the most common strategies relate to informal assistance through social ties, well as labour supply responses. Strikingly, 28% of households that did not always have enough food report doing nothing in response to food insecurity. Table 25 splits coping strategies by period: there is no striking evidence regarding a variation in strategies at different times of the year.

The upper panel in Figure 26 breaks down coping strategies by LGA: there are marked differences in the coping strategies used, by LGA. This applies especially to the use of informal assistance from friends and family, which is most prevalent in Anka (where over 60% of households report using this strategy) and least prevalent in Tsafe (where less than 30% of households use the strategy).

The lower panel in Figure 26 shows how coping strategies vary by poverty quartile. As might be expected, we see somewhat less reliance on informal assistance among wealthier households.

Across LGA and wealth classes, we see a relatively low incidence of households reporting livestock sales as being a strategy for coping with insufficient food availability (fewer than 10% of households report using such sales).

Table Household food security and coping strategies (whole year)

|  |  |  |
| --- | --- | --- |
| Indicator | N | Mean |
| % households that sometimes did not have enough food to eat from mid-October 2013 to time of interview | 5,436 | 15.1% |
| * Between mid-October 2013 and mid-January 2014 | 5,436 | 4.2% |
| * Between mid-January and the start of June 2014 | 5,436 | 5.3% |
| * Between the start of June and mid-August 2014 | 5,436 | 5.7% |
| * Between mid-August and day of interview+ | 5,436 | 10.0% |
| % of these households using the following strategy in the past year to cope with insufficient food availability++ |  |  |
| * Helped by relatives or friends | 820 | 34.9% |
| * Members of household took on more work | 820 | 29.9% |
| * Did nothing | 820 | 28.1% |
| * Borrowed money | 820 | 26.7% |
| * Sold livestock | 820 | 7.1% |
| * Sold harvest early | 820 | 6.1% |
| * Members of household moved away to find work | 820 | 3.4% |
| * Sold property or farm equipment | 820 | 3.3% |
| * Sold other belongings or household items | 820 | 2.9% |
| * Purchased fewer non-food items | 820 | 1.1% |
| * Sent children to live with friends | 820 | 1.1% |
| * Other+++ | 820 | 6.2% |
| % households that used more than one strategy | 820 | 37.8% |
|  |  |  |
| + Interviews were conducted from mid-August to the end of October 2014  ++ Percentages do not add up to a sum of 100 because respondents were allowed to select multiple applicable strategies  +++ Other strategies in the questionnaire were: sold land, withdrew children from school, married daughter early, delayed payment obligations, relied on savings, received assistance from NGO, received assistance from government, took advance payment from employer, reduced number of meals, ate a limited range of foods. | | |
|  |  |  |

Figure Coping strategies

|  |
| --- |
|  |
| The graph shows the percentage of households using the most common strategies to cope with lack of food. The sample is here restricted to those households that did not always have enough food to eat from mid-October 2013 to the date of the interview. |
| Source: CDGP Baseline Survey. |

Table Coping strategies (by period)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Indicator | Between mid-October 2013 and mid-January 2014 | Between mid-January and the start of June 2014 | Between the start of June and mid-August 2014 | Between mid-August 2014 and day of interview |
| % households that did not always have enough food in the period | 4.2% | 5.3% | 5.7% | 10.0% |
| % of these households using the following strategy in the period to cope with insufficient food availability+ |  |  |  |  |
| * Helped by relatives or friends | 24.2% | 28.3% | 32.5% | 32.2% |
| * Members of household took on more work | 30.3% | 18.3% | 31.2% | 45.6% |
| * Did nothing | 27.7% | 27.9% | 27.0% | 22.5% |
| * Borrowed money | 16.9% | 21.0% | 19.5% | 23.3% |
| * Sold livestock | 7.4% | 6.6% | 5.8% | 3.9% |
| * Sold harvest early | 4.8% | 4.5% | 4.6% | 6.2% |
| * Members of household moved away to find work | 2.2% | 2.8% | 1.6% | 2.9% |
| * Sold property or farm equipment | 4.3% | 4.1% | 3.3% | 1.3% |
| * Sold other belongings or household items | 2.6% | 2.8% | 3.6% | 1.5% |
| * Purchased fewer non-food items | 0.4% | 0.7% | 0.7% | 0.7% |
| * Sent children to live with friends | 1.7% | 1.0% | 0.7% | 0.6% |
| * Other++ | 3.9% | 5.9% | 4.2% | 3.3% |
| * Does not know how the household coped | 0.0% | 0.0% | 0.0% | 0.6% |
|  |  |  |  |  |
| + Percentages do not sum up to 100 because respondents were allowed to select multiple applicable strategies  ++ Other strategies in the questionnaire were: sold land, withdrew children from school, married daughter early, delayed payment obligations, relied on savings, received assistance from NGO, received assistance from government, took advance payment from employer, reduced number of meals, ate a limited range of foods. | | | | |
|  |  |  |  |  |

The main causes of food shortage are documented in Table 26, in which we split these causes by period of the year. Throughout the year, man-made causes dominate. Among these, the affordability of food items is paramount. The CDGP grant can therefore have a significant impact as it will increase households’ cash income that households may choose to spend on food.

Table Causes of food shortages (by period)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Indicator | Between mid-October 2013 and mid-January 2014 | Between mid-January and the start of June 2014 | Between the start of June and mid-August 2014 | Between mid-August 2014 and day of interview |
| % households that did not always have enough food in the period | 4.2% | 5.3% | 5.7% | 10.0% |
| % of these households that did not have enough food because of the following reasons: | 87.0% | 91.0% | 92.9% | 97.2% |
| * % food in the market too expensive, or household did not have enough money | 69.3% | 64.6% | 71.4% | 78.7% |
| * % inadequate food stocks because of small land size | 12.1% | 20.5% | 20.5% | 11.0% |
| * % inadequate food stocks because of lack of farm inputs | 11.6% | 14.9% | 13.0% | 8.1% |
| * % widespread migration into community reduced income or food availability | 6.1% | 7.6% | 4.9% | 5.9% |
| * % no food in the market | 0.4% | 0.0% | 0.7% | 0.7% |
| * % unable to reach market because of high transport costs | 2.2% | 2.1% | 2.0% | 2.0% |
| * % unable to reach market because of violence, protests or civil disorder | 0.4% | 2.8% | 2.9% | 1.7% |
| * % unable to reach market because of government curfew | 0.0% | 0.4% | 0.0% | 0.2% |
| * % some other reason | 0.9% | 0.0% | 1.3% | 1.1% |
| * % of these households who do not know why there was not enough food | 1.3% | 0.4% | 0.0% | 0.7% |
| % of these households that had inadequate food stocks because of natural causes | 8.2% | 8.0% | 3.3% | 1.5% |
| * % because of drought/poor rain | 8.2% | 8.0% | 3.3% | 1.5% |
| * % because of flooding | 6.5% | 5.6% | 5.5% | 2.4% |
| * % because of crop pest damage | 5.2% | 6.6% | 6.5% | 2.6% |
|  |  |  |  |  |

1. Household decision-making

|  |
| --- |
| **Key findings** |
| In roughly 50% of households, both males and females report that any significant decisions concerning major household purchases or growing and buying food, are made exclusively by the husband. In most of the remaining cases they either report that decisions are made by husbands after consulting wives, or they are made jointly by both spouses. In 10%-12% of households women usually make decisions regarding major purchases on their own. The husband is often reported to be the sole decision maker in relation to health issues of women and children in the household.  In the majority of households, men are the primary decision makers about what food to grow and buy, with only approximately one third of households involving women in this decision making. It is very rare to find households where women are the sole decision makers about what food to grow and buy. This has important implications for the CDGP as it suggests that it is crucial for men to be included in the BCC training.  However, asked about who should have control over extra funds available to the household from earnings of, or gifts to, wives, the pattern of answers is completely different. About 50% of both husbands and wives agree that the wife should have full control over the use of these resources, with the vast majority of the remaining individuals suggesting that some joint decision making is more preferable. The proportion of those who argue that the husband should have sole control of these resources is around 10%.  This suggests that if the CDGP cash transfer is viewed as either *income or a gift to women*, then in about half the households it is likely that the women will decide on how the money is used, in about 8% of households the man will decide, and in the remainder they will decide in consultation with one another. However, it remains to be seen if the cash transfer will be perceived in this way.  There is more evidence of joint and consultative decision making about women’s earnings in richer households than in poorer households. Additionally, the proportion of women who are allowed to visit a relative or be seen by a health worker on their own is slightly higher in richer households. This suggests that there is slightly more tolerance towards women’s autonomy in more socioeconomically developed households. |

This chapter documents the decision making in the household. This is important because the final allocation of a cash transfer across different uses will depend of who makes the decision on how the money is spent and what the decision maker(s) value. Husband and wives may not fully agree about the use of resources (such as a potential cash transfer) in the household, and at the same time, husbands and wives are unlikely to have symmetric decision-making power in the household. For example, it is often said that in settings where women have stronger control over the use of resources, cash transfers are more likely to be spent on food and on children than in settings where their control of the use of resources is not as strong. Even though the evidence regarding this issue is mixed, a number of cash transfers in the world are still made on the presumption that this is an important factor.

Another reason that this issue is important, is that it is possible that the CDGP cash transfer itself, since it is explicitly targeted and delivered to women, may affect the empowerment of women and thus may change the patterns of decision making in the household. If that is the case, then the delivery of such a transfer could affect investments in children not only because there are more resources available, but also because the woman in the household has more decision-making power over them.

The first part of Table 27 shows that, in roughly 50% or more of the households, both males and females report that any significant decisions concerning major household purchases, or growing or buying food, are made exclusively by the husband. In the remaining cases they either report that decisions are made by husbands after consulting wives, or they are made jointly by both spouses. In 10% to 12% of households women usually make decisions regarding major purchases on their own, but cases where females decide about growing or buying food entirely on their own are very rare. In the majority of households, men are the primary decision makers about what food to grow and buy, with only approximately one third of households involving women in this decision making. It is very rare to find households where women are the sole decision makers about what food to grow and buy. This has important implications for the CDGP as it suggests that it is crucial for men to be included in the BCC training.

However, in the second part of Table 27, both husband and wives are asked about who should have control over the use of extra funds available to the household if they came in the form of either a wife’s earnings, or gifts/transfers to the wife. The pattern of answers is completely different from the earlier answers. About 50% of both husbands and wives agree that the wife should have full control over the use of these resources, with the vast majority of the remaining individuals suggesting that some joint decision-making is more appropriate. The proportion of those who argue that the husband should have sole control of these resources is not far from 10%, which in absolute terms is still a substantial figure.

Whereas the former set of questions were factual questions about what actually takes place in the household, the latter concern hypothetical situations, and therefore are more related to attitudes. This suggests that if the CDGP cash transfer is viewed as either *income or a gift to women*, then in about half the households it is likely that the women will decide on how the money is used, in about 8% of households the man will decide, and in the remainder they will decide in consultation with one another. However, it remains to be seen if the cash transfer will be perceived in this way.

Table Wife and husband’s decision-making

|  |  |  |
| --- | --- | --- |
| Indicator | Reported by wife  (N = 5,436) | Reported by husband  (N = 5,416) |
| Who usually makes decisions about making major household purchases? (non-food, such as mattress or furniture) |  |  |
| * Husband or household head, without consulting woman | 46.0% | 51.5% |
| * Husband or household head, consulting woman first | 19.4% | 19.7% |
| * Woman and husband or household head, jointly | 17.8% | 14.5% |
| * Woman | 12.4% | 10.4% |
| * Someone else | 4.3% | 3.6% |
| * Don’t know | 0.2% | 0.3% |
| Who usually makes decisions about what food to grow for household to eat? |  |  |
| * Husband or household head, without consulting woman | 66.9% | 65.8% |
| * Husband or household head, consulting woman first | 17.1% | 19.0% |
| * Woman and husband or household head, jointly | 13.3% | 12.4% |
| * Woman | 0.8% | 1.0% |
| * Someone else | 1.1% | 1.3% |
| * The household does not grow food to eat | 0.8% | 0.1% |
| * Don’t know | 0.0% | 0.4% |
| Who usually makes decisions about what food to buy? |  |  |
| * Husband or household head, without consulting woman | 55.9% | 56.8% |
| * Husband or household head, consulting woman first | 25.4% | 25.4% |
| * Woman and husband or household head, jointly | 16.5% | 15.3% |
| * Woman | 1.0% | 1.3% |
| * Someone else | 1.0% | 1.1% |
| * The household does not buy food | 0.3% | 0.0% |
| * Don’t know | 0.0% | 0.1% |
| ‘Suppose the woman were to make NGN 3,500 in 30 days selling snacks. Who do you think would decide how this money was used?’ |  |  |
| * Husband or household head, without consulting woman | 8.1% | 9.6% |
| * Husband or household head, consulting woman first | 9.7% | 10.6% |
| * Woman and husband or household head, jointly | 30.9% | 27.9% |
| * Woman | 50.6% | 51.3% |
| * Someone else | 0.5% | 0.3% |
| * Don’t know | 0.2% | 0.3% |
| ‘Now suppose the woman were to be given a regular monthly gift of NGN 1,000, and that this money is to be given only to her and not to any other household member. Who do you think would decide how this money was used?’ |  |  |
| * Husband or household head, without consulting woman | 8.3% | 8.6% |
| * Husband or household head, consulting woman first | 9.8% | 10.9% |
| * Woman and husband or household head, jointly | 33.1% | 29.7% |
| * Woman | 48.5% | 50.2% |
| * Someone else | 0.3% | 0.3% |
| * Don’t know | 0.0% | 0.3% |
| ‘Now suppose the woman were to be given a regular monthly gift of NGN 3,500, and that this money is to be given only to her and not to any other household member. Who do you think would decide how this money was used?’ |  |  |
| * Husband or household head, without consulting woman | 8.2% | 8.5% |
| * Husband or household head, consulting woman first | 10.1% | 10.9% |
| * Woman and husband or household head, jointly | 33.8% | 30.4% |
| * Woman | 47.6% | 49.6% |
| * Someone else | 0.3% | 0.3% |
| * Don’t know | 0.0% | 0.2% |
|  |  |  |

It is also interesting to see how the pattern of responses to questions about wives’ earning or gifts varies with the socio-economic status of the household, measured in two possible ways: the PPI index, and food expenditure. These dimensions are shown in Figure 27, Figure 28, and Figure 29.[[7]](#footnote-7) One striking aspect of these three figures is that, regardless of whether we measure socio-economic status using PPI or food expenditure, there is more joint and consultative decision-making about money earned or given to the woman in richer households, as compared with poorer households. Both husbands and wives in richer households are less likely to solely decide on the use of the wives’ earning or gifts, than husbands and wives in poorer households. One potential explanation is that the same absolute amount of earnings or transfers represents a larger share of family income in poor households than in rich ones, and if that is the case, it is possible that such earnings or transfers are more empowering for women in these households and so women are more likely to decide on the use of the money. Of course, it might be the case that decision-making in richer households is more collaborative because members of more advantaged households are also more educated and thus more tolerant towards a woman deciding how her earnings or gifts will be spent.

Figure Decision-making regarding wife’s income

|  |
| --- |
| Question: ‘Suppose the woman were to make NGN 3,500 in 30 days selling snacks. Who do you think would decide how this money was used?’ |
|  |
| The bar charts in the second and third row show the proportion of responses at the bottom (left) and top (right) quartile of the PPI (second row) and food expenditure (third row), respectively. |
| Source: CDGP Baseline Survey. |

Figure Decision-making regarding wife’s gift (NGN 1,000)

|  |
| --- |
| Question: ‘Suppose the woman were to be given a regular monthly gift of NGN 1,000, and that this money is to be given only to her and not to any other household member. Who do you think would decide how this money was used?’ |
|  |
| The bar charts in the second and third row show the proportion of responses at the bottom (left) and top (right) quartile of the PPI (second row) and food expenditure (third row), respectively. |
| Source: CDGP Baseline Survey. |

Figure Decision-making regarding wife’s gift (NGN 3,500)

|  |
| --- |
| Question: ‘Suppose the woman were to be given a regular monthly gift of NGN 3,500, and that this money is to be given only to her and not to any other household member. Who do you think would decide how this money was used?’ |
|  |
| The bar charts in the second and third row show the proportion of responses at the bottom (left) and top (right) quartile of the PPI (second row) and food expenditure (third row), respectively. |
| Source: CDGP Baseline Survey. |

Table 28 and Table 29 document other dimensions of women’s autonomy, such as: access to and ownership of a mobile phone; who makes decisions about the healthcare of the wife and children; ability to go alone to a market, to a friend’s or a relative’s house, or to be treated by a health worker.

Again, it is striking how few women own a mobile phone, and how often the husband is reported to be the sole decision-maker regarding the health issues of women and children in the household. In addition, although women are relatively free to visit friends and relatives, they are not at all free to go to the market.

There is a moderate socio-economic gradient in access to a mobile phone (although this may be purely due to additional resources in the household), and in the proportion of women who are allowed to visit a relative, or be seen by a health worker on their own. This suggests that there is slightly more tolerance towards women’s autonomy in more advantaged households.

Table Women’s decision-making by PPI quartile

| Indicator | Total | 1st PPI qt.  (Poorest) | 2nd PPI qt. | 3rd PPI qt. | 4th PPI qt.  (Richest) |
| --- | --- | --- | --- | --- | --- |
| % women who have access to mobile phone | 65.0% | 58.5% | 61.5% | 67.7% | 72.0% |
| % women who own a mobile phone themselves | 17.8% | 11.0% | 12.9% | 19.1% | 27.7% |
| Who usually makes decisions about healthcare for yourself: |  |  |  |  |  |
| * Husband or household head, without consulting you | 48.7% | 51.3% | 47.5% | 47.2% | 49.1% |
| * Husband or household head, consulting you first | 26.5% | 29.4% | 24.6% | 25.6% | 26.6% |
| * You and husband or household head, jointly | 21.5% | 17.0% | 24.6% | 22.7% | 21.3% |
| * You | 2.4% | 1.9% | 2.4% | 3.4% | 1.9% |
| * Someone else | 0.9% | 0.4% | 0.9% | 1.1% | 1.1% |
| * Don’t know | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% |
| Who usually makes decisions about healthcare for your child/children (for women with children): |  |  |  |  |  |
| * Husband or household head, without consulting you | 48.2% | 50.3% | 47.2% | 47.1% | 48.3% |
| * Husband or household head, consulting you first | 26.9% | 31.2% | 25.1% | 25.5% | 26.1% |
| * You and husband or household head, jointly | 21.2% | 16.2% | 24.6% | 22.6% | 20.8% |
| * You | 2.2% | 1.6% | 2.1% | 3.4% | 1.8% |
| * Someone else | 0.8% | 0.3% | 0.9% | 0.8% | 1.3% |
| * Don’t know | 0.7% | 0.3% | 0.3% | 0.5% | 1.7% |
| If you needed to, could you go to a market? |  |  |  |  |  |
| * Could go alone | 17.1% | 13.6% | 19.9% | 17.3% | 17.2% |
| * Could go if accompanied by other household member | 2.0% | 2.0% | 2.1% | 1.6% | 2.2% |
| * Would not be able to go at all | 48.9% | 52.7% | 46.3% | 47.8% | 49.2% |
| * Place not applicable to her | 31.9% | 31.7% | 31.6% | 33.2% | 31.3% |
| * Doesn’t know | 0.1% | 0.0% | 0.1% | 0.1% | 0.1% |
| If needed, could you go to a place where you can get treated by a health worker? |  |  |  |  |  |
| * Could go alone | 71.1% | 60.4% | 73.4% | 76.1% | 73.4% |
| * Could go if accompanied by other household member | 24.3% | 34.2% | 22.0% | 19.5% | 22.1% |
| * Would not be able to go at all | 2.8% | 3.2% | 2.4% | 2.5% | 2.9% |
| * Place not applicable to her | 1.8% | 2.1% | 2.1% | 1.8% | 1.2% |
| * Doesn’t know | 0.2% | 0.1% | 0.1% | 0.1% | 0.4% |
| If needed, could you go to a non-family friend’s house? |  |  |  |  |  |
| * Could go alone | 86.2% | 80.4% | 88.5% | 88.1% | 87.3% |
| * Could go if accompanied by other household member | 11.6% | 17.2% | 9.4% | 9.5% | 10.8% |
| * Would not be able to go at all | 1.9% | 2.2% | 1.9% | 1.9% | 1.6% |
| * Place not applicable to her | 0.3% | 0.2% | 0.3% | 0.5% | 0.3% |
| If needed, could you go to a relative’s house? |  |  |  |  |  |
| * Could go alone | 91.3% | 89.0% | 93.2% | 93.0% | 90.0% |
| * Could go if accompanied by other household member | 8.0% | 10.1% | 6.2% | 6.3% | 9.3% |
| * Would not be able to go at all | 0.6% | 0.7% | 0.6% | 0.5% | 0.6% |
| * Place not applicable to her | 0.1% | 0.2% | 0.1% | 0.2% | 0.1% |
|  |  |  |  |  |  |
| N = 5,436 throughout this table. | | | | | |
|  | | | | | |

Table Women’s decision-making by food expenditure quartile

| Indicator | Total | 1st Food Exp. qt. (Poorest) | | | 2nd Food Exp. qt. | 3rd Food Exp. qt. | | | 4th Food Exp. qt. (Richest) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| % women who have access to mobile phone | 65.0% | 65.0% | | | 57.6% | 61.6% | | | 66.2% |
| % women who own a mobile phone themselves | 17.8% | 17.8% | | | 12.7% | 14.9% | | | 18.6% |
| Who usually makes decisions about healthcare for yourself: |  |  | | |  |  | | |  |
| * Husband or household head, without consulting you | 48.7% | 48.7% | | | 51.3% | 49.3% | | | 48.3% |
| * Husband or household head, consulting you first | 26.5% | 26.5% | | | 24.3% | 25.6% | | | 26.8% |
| * You and husband or household head, jointly | 21.5% | 21.5% | | | 20.2% | 22.6% | | | 21.8% |
| * You | 2.4% | 2.4% | | | 3.1% | 1.8% | | | 2.4% |
| * Someone else | 0.9% | 0.9% | | | 1.2% | 0.7% | | | 0.7% |
| * Don’t know | 0.0% | 0.0% | | | 0.0% | 0.0% | | | 0.0% |
| Who usually makes decisions about healthcare for your child/children (for women with children): |  |  | | |  |  | | |  |
| * Husband or household head, without consulting you | 48.2% | 48.2% | | | 50.2% | 49.1% | | | 47.0% |
| * Husband or household head, consulting you first | 26.9% | 26.9% | | | 25.2% | 26.1% | | | 28.0% |
| * You and husband or household head, jointly | 21.2% | 21.2% | | | 19.5% | 22.1% | | | 21.6% |
| * You | 2.2% | 2.2% | | | 3.3% | 1.5% | | | 2.3% |
| * Someone else | 0.8% | 0.8% | | | 1.1% | 0.8% | | | 0.6% |
| * Don’t know | 0.7% | 0.7% | | | 0.8% | 0.5% | | | 0.4% |
| If you needed to, could you go to a market? |  |  | | |  |  | | |  |
| * Could go alone | 17.1% | 17.1% | | | 15.6% | 15.2% | | | 17.0% |
| * Could go if accompanied by other household member | 2.0% | 2.0% | | | 1.9% | 2.3% | | | 1.3% |
| * Would not be able to go at all | 48.9% | 48.9% | | | 50.9% | 48.4% | | | 47.5% |
| * Place not applicable to her | 31.9% | 31.9% | | | 31.4% | 34.0% | | | 34.2% |
| * Doesn’t know | 0.1% | 0.1% | | | 0.3% | 0.1% | | | 0.0% |
| If needed, could you go to a place where you can get treated by a health worker? |  |  | | |  |  | | |  |
| * Could go alone | 71.1% | 71.1% | | | 69.0% | 69.8% | | | 71.2% |
| * Could go if accompanied by other household member | 24.3% | 24.3% | | | 23.2% | 26.6% | | | 25.2% |
| * Would not be able to go at all | 2.8% | 2.8% | | | 3.9% | 1.6% | | | 2.6% |
| * Place not applicable to her | 1.8% | 1.8% | | | 3.6% | 1.9% | | | 1.0% |
| * Doesn’t know | 0.2% | 0.2% | | | 0.4% | 0.2% | | | 0.0% |
| If needed, could you go to a non-family friend’s house? |  |  | | |  |  | | |  |
| * Could go alone | 86.2% | 86.2% | | | 86.4% | 85.8% | | | 85.6% |
| * Could go if accompanied by other household member | 11.6% | 11.6% | | | 10.1% | 12.5% | | | 12.5% |
| * Would not be able to go at all | 1.9% | 1.9% | | | 3.0% | 1.5% | | | 1.6% |
| * Place not applicable to her | 0.3% | 0.3% | | | 0.5% | 0.2% | | | 0.4% |
| If needed, could you go to a relative’s house? |  |  | | |  |  | | |  |
| * Could go alone | 91.3% | 91.3% | | | 92.0% | 90.0% | | | 91.5% |
| * Could go if accompanied by other household member | 8.0% | 8.0% | | | 7.0% | 9.4% | | | 7.7% |
| * Would not be able to go at all | 0.6% | 0.6% | | | 0.9% | 0.4% | | | 0.7% |
| * Place not applicable to her | 0.1% | 0.1% | | | 0.1% | 0.2% | | | 0.2% |
|  |  |  | | |  |  | | |  |
| N = 5,436 throughout this table. | | |  |  | | |  |  | |

Section IV: Education and health

1. Education

|  |
| --- |
| **Key findings** |
| We observe large differences between males and females in educational attainment and literacy levels in our sample, at all ages. Across all age groups, only around one in five women report being literate, with younger women being more likely to be literate than older women. This has important implications for the materials that can be used for the delivery of the BCC messaging  Among children aged 4-8, enrolment rates are below 40% for both genders, and among older children (aged 9-18), half of boys and a quarter of girls are currently attending school (this includes integrated Islamic education but does not include non-integrated Quranic education). This is surprising given the finding that around 75% of communities in each LGA contain a primary school. Only a slightly higher fraction of children report ever having attended school, suggesting low enrolment rates are due to the majority of children never making it into school (rather than high drop-out rates during primary school years). |

Building on the demographic description of sample households and women given earlier, in this section we highlight descriptive statistics related to the education and literacy of adults and children, with statistics split by gender. Figure 30 highlights that the gap between male and female educational levels is quite high in our sample, and this occurs in all age groups. For this report schooling includes integrated Islamic education but does not include non-integrated Quranic education.

Figure Education by age group

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

On literacy skills that adults report possessing, there is a huge gap between men and women. This, of course, in part reflects exposure to formal schooling. Across all ages, only around one-in-five women report being literate, for example—with younger women being more likely to be literate than older women. This has important implications, for example for the materials that can be used for the delivery of the BCC messaging.

Table Adult education

|  |  |  |
| --- | --- | --- |
| Indicator | Males %  (N = 7,166) | Females %  (N = 8,841) |
| % adults (aged 18+) that: |  |  |
| * Can read and write in at least one language | 60.3% | 20.6% |
| * Are attending school | 8.4% | 3.5% |
| * Have ever attended school | 50.1% | 18.3% |
| * Have completed primary education | 36.5% | 8.5% |
|  |  |  |

Among children aged four to eight, enrolment rates are below 40% for both genders. This is surprising given the earlier documented fact that around 75% of communities (in each LGA) report having a primary school. Only a slightly higher fraction of children report ever having attended school, suggesting that low enrolment rates are due to the majority of children never entering school in the first place (rather than high drop-out rates during primary school years). Among older children (those aged 9–18), boys have enrolment rates that are almost twice as high as girls. However, it remains the case that the majority of children in this age group are not enrolled in school.

We have compared these low enrolment rates with national estimates provided in the NDHS data. We note that the nationwide rate for boys in this age group ever having attended school is around 75%–80%, but that, also in that data, the two sample states have lower rates. Thus, our estimates are in line with the NDHS estimates on this dimension.

Table Children’s education

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Indicator | Males | | Females | |
|  | N | % | N | % |
| % children aged four to eight that: |  |  |  |  |
| * Are attending school | 3,347 | 39.9% | 3,382 | 33.5% |
| * Have ever attended school | 3,347 | 43.1% | 3,382 | 36.0% |
|  |  |  |  |  |
| % children aged 9–18 that: |  |  |  |  |
| * Are attending school | 3,758 | 48.8% | 4,453 | 26.6% |
| * Have ever attended school | 3,758 | 58.7% | 4,453 | 35.9% |
| * Have completed primary education | 3,758 | 23.3% | 4,453 | 10.8% |
|  |  |  |  |  |

1. Women’s and men’s knowledge and beliefs about health

|  |
| --- |
| **Key findings** |
| Men and women were both relatively likely to advise others to seek healthcare at a health facility. However, around 7% of men and women would not advise a woman to visit a facility even if she faced complications in pregnancy, and 19% would not advise a woman to give birth in a health facility if she faced costs of NGN 2000. It is also striking that only 70% of women would advise another woman to give birth in a health facility that does not have any female staff. Interestingly, across all these different hypothetical cases, men are more likely than women to recommend visits to the health facility to pregnant women. Both men and women overwhelmingly state that the best place to give birth is at home, and men are more likely than women to mention the health facility as a desirable place to deliver a baby. We find that males and females who are better off are more than twice as likely to advise a woman to give birth in a health facility than those who are poorer.  There are important misconceptions about adequate breastfeeding practices among both men and women. Very few people believe that the baby should be breastfed immediately after birth, half believe the baby should not be exclusively breastfed during the first days of life, and almost half believe that colostrum is not good for the baby.  There is strong reliance on informal family networks for advice on important health issues, and not much reliance on trained health workers. This is worrisome given the misconceptions about best health practices. A striking 80% of all females would go to their husband for advice on pregnancy and children, 30% would consult their mothers, and only 22% would seek the advice of a trained health worker. The propensity to seek advice on food and nutrition issues from health workers is even lower, at only 9% for females and 14% for males. |

In this chapter we document the extent to which the sampled men and women have adequate knowledge about health practices for pregnancy and infant care. This is an important indicator because knowledge and beliefs about health practices are likely to guide health behaviours towards pregnant mothers and their young children. One would expect that the impact of a cash transfer on health investments would vary according to these beliefs. Moreover, we also expect that an information (BCC) intervention, such as the one integrated in the CDGP programme, would affect the knowledge and beliefs of different members of the household.

Table 32 first shows that although a large proportion of men and women would advise a pregnant woman to visit a health facility if she faced pregnancy complications, or if she was about to give birth, this proportion is far from 100%. For example, among females, about 7% would not advise someone to visit a facility even if they faced complications in pregnancy, and 19% would not advise a woman to give birth in a health facility if she faced costs of NGN 2,000. It is also striking that if it is known that the facility does not have a female attendant, only 70% of women recommend delivery in the health facility. It is interesting that, across all these different hypothetical cases, men are more likely than women to recommend visits to the health facility to pregnant women. If they are as informed as women when it concerns visits to health facilities, then this differential could be due to different levels of knowledge and different beliefs about what are the best health practices.

Nevertheless, across the two genders, individuals overwhelmingly state that the best place to give birth is at one’s home, even though, as has been said, 70% to 80% would be willing to recommend a visit to the health facility for the delivery of a baby. These two answers are not consistent. One pattern that is consistent, however, is that, even when answering this question, men are more likely than women to mention a health facility as a desirable place to deliver a baby.

Almost all men and women would advise taking an infant to a health facility in case of different types of illness. Once again, men are more likely to do so than women.

Table Husbands’ and wives’ beliefs about pregnancy and infant health

|  |  |  |
| --- | --- | --- |
| Indicator | Women  (N = 5,436) | Husbands  (N = 5,416) |
| % would advise a pregnant woman to visit a health facility: |  |  |
| * For a check-up if she is healthy and nothing is wrong | 70.7% | 75.3% |
| * For a check-up if there are complications with the pregnancy | 93.3% | 96.1% |
| * If she is about to give birth and the cost of travel and treatment was NGN 2,000 | 81.0% | 87.4% |
| * If she is about to give birth and there are no female staff available | 70.0% | 77.4% |
| The best place for a woman to give birth is: |  |  |
| * In own home | 82.3% | 77.4% |
| * Health facility | 17.1% | 21.6% |
| * At home of traditional birth attendant | 0.2% | 0.4% |
| * Other place | 0.1% | 0.0% |
| * Don’t know | 0.3% | 0.6% |
| % would advise to take a young baby to health facility if: |  |  |
| * Baby had malaria | 97.6% | 98.5% |
| * Baby had a fever | 97.4% | 98.4% |
| * Baby is having convulsions | 96.0% | 97.0% |
| * Baby is malnourished | 95.4% | 96.5% |
| * Baby had diarrhoea | 95.0% | 96.4% |
| * Baby was refusing to eat | 92.0% | 93.4% |
|  |  |  |

Figure 31 shows how a person’s likelihood of advising someone else to deliver a baby in a health facility varies with the PPI index: we construct four groups of individuals, one in each quartile of the PPI distribution; we show that males and females in the top PPI quartile (i.e. those who are better off) are more than twice as likely to advise women to give birth in a health facility than those in the bottom PPI quartile (i.e. those who are poorer). This difference could be due to differences in levels of information about the benefits of delivering a child in a health facility, although it could also be related to the fact that individuals in higher PPI households are less financially constrained when it comes to health (and other) decisions.

Table 33 concerns knowledge and beliefs about breastfeeding. There are important misconceptions about adequate breastfeeding practices: very few individuals, regardless of gender, believe that the baby should be breastfed right after birth; half of them believe the baby should not be exclusively breastfed during the first days of life; and almost half of them believe that colostrum is not good for the baby.

Regarding the vaccination of infants, there is almost 100% agreement that vaccination of children is important. Nevertheless, it remains important to get this figure as close as possible to 100%.

Table 34 and Table 35 concern advice-seeking behaviour regarding pregnancy and children, and food and nutrition, respectively. A striking 80% of all females would go to their husband for advice on pregnancy and children, 30% would consult their mothers, and only 22% would seek the advice of a trained health worker. When it comes to males, only about 50% would seek their wife’s advice on these matters, 38.6% would consult their mother, and about 33% would rely on trained health workers. When it comes to advice about food and nutrition, there is even less reliance on health workers: only 9% for females, and 14% for males.

These results show that there is strong reliance on informal family networks for advice on important health issues, and not much reliance on trained health workers. This may be because it is difficult to access health workers on a regular basis, either because they are not usually present, because individuals find it inconvenient to contact them, or because they do not trust them on these matters as much as they trust their closest family members. This is worrying because, as we saw above, males and females in the sample hold important misconceptions about what are the best health practices for pregnant women and their children.

Figure Husbands’ and wives’ beliefs about best place to give birth by PPI quartile

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Table Husbands’ and wives’ beliefs about breastfeeding and feeding practices

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Indicator | Women  (N = 5,436) |  | Husbands  (N = 5,416) |  |
| Best time at which a healthy mother can start breastfeeding her child after birth: |  |  |  |  |
| * Within 30 minutes / immediately | 16.4% | - | 17.0% | - |
| * 30 minutes – one hour / shortly after birth | 16.7% | - | 15.1% | - |
| * More than one hour after birth / sometime after birth | 44.2% | - | 33.1% | - |
| * Whenever the baby wants | 9.1% | - | 12.6% | - |
| * Whenever the mother is ready | 10.4% | - | 11.1% | - |
| * Other | 0.9% | - | 0.5% | - |
| * Don’t know | 2.3% | - | 10.7% | - |
| % think babies should receive something else other than breast milk (including water) within first day (no exclusive breastfeeding) | 50.9% | - | 48.0% | - |
| If not, number of weeks he/she thinks a baby should be exclusively breastfed  (Women N = 2,670, Men N = 2,814) | 42.3 | 37.1 | 56.0 | 47.4 |
| % think important for children to receive vaccinations from a health facility | 93.3% | - | 94.5% | - |
| % would participate if a vaccination campaign came to their village | 94.9% | - | 96.2% | - |
| % think colostrum is good for the baby | 61.4% | - | 56.2% | - |
| % think it is ok to give a young baby under six months some water to satisfy the baby’s thirst when it is hot outside | 89.9% | - | 88.9% | - |
| % think it is best to have standard feeding times for children under six months | 7.0% | - | 9.0% | - |
| % think it is important for mothers to attend training sessions in the community, at a health facility or in a support group about breastfeeding and young child feeding practices | 93.7% | - | 95.4% | - |
| % think it is important for fathers to attend training sessions in the community, at a health facility or in a support group about breastfeeding and young child feeding practices | 80.4% | - | 80.7% | - |
|  |  |  |  |  |

Table Seeking advice about pregnancy and children

|  |  |  |
| --- | --- | --- |
| Indicator | Women  (N = 5,436) | Husbands  (N = 5,416) |
| If they needed information about pregnancy and looking after young children, would go to: |  |  |
| * Husband / wife | 79.8% | 56.2% |
| * Mother | 29.0% | 38.6% |
| * Trained health worker (doctor, nurse, CHEW) | 22.2% | 32.5% |
| * Husband’s / wife’s mother | 16.3% | 2.6% |
| * Husband’s other wife | 10.0% | 0.0% |
| * Father | 7.1% | 13.6% |
| * Sister | 6.6% | 4.5% |
| * Brother | 1.5% | 9.3% |
| * Other+ | 9.3% | 6.6% |
| * Would never need to seek advice from anyone | 1.0% | 1.5% |
| * Don’t know | 0.2% | 1.4% |
|  | | |
| +Other people considered by the questionnaire were: biological child, adopted child, grandson, granddaughter, niece, nephew, brother in law, sister in law, uncle, aunt, grandmother, grandfather and domestic help. | | |
|  | | |

Table Advice about food and nutrition

|  |  |  |
| --- | --- | --- |
| Indicator | Women  (N = 5,436) | Husbands  (N = 5,416) |
| If they needed information about food and nutrition for the household, would go to: |  |  |
| * Husband / wife | 89.4% | 67.2% |
| * Mother | 21.7% | 33.1% |
| * Husband’s / wife’s mother | 13.2% | 1.6% |
| * Husband’s other wife | 11.0% | 0.0% |
| * Trained health worker (doctor, nurse, CHEW) | 8.6% | 13.9% |
| * Father | 7.1% | 16.4% |
| * Sister | 5.6% | 3.6% |
| * Brother | 1.8% | 11.7% |
| * Other+ | 7.7% | 5.4% |
| * Would never need to seek advice from anyone | 1.3% | 3.2% |
| * Don’t know | 0.1% | 1.2% |
|  | | |
| +Other people considered by the questionnaire were: biological child, adopted child, grandson, granddaughter, niece, nephew, brother in law, sister in law, uncle, aunt, grandmother, grandfather and domestic help. | | |

1. Maternal health and antenatal care

|  |
| --- |
| **Key findings** |
| 26% of non-pregnant woman in the sample have a Body Mass Index (BMI) below 18.5, which is a threshold for undernourishment. According to the Integrated Food Security Phase Classification, this is in the range of an “acute food and livelihood crisis”, indicating severe levels of undernourishment among women in our sample. We also find that women’s malnutrition does not depend on household resources. It is possible that women in rich households have low access to nutritious foods, even when this food is available, because they lack control over what food they themselves and the household consumes, or alternatively that they lack knowledge about what constitutes a health, balanced diet.  Most (91%) of all women give birth at home. Further, it is very worrying that 13% of all women report that they received no assistance during their delivery. Only two thirds of the sample of women has ever heard of contraceptive methods. Out of these women, half have heard either of injectable or oral contraceptives, but the proportion who report being aware of male or female condoms is remarkably below 5%.  Almost 40% of all women have visited the health facility at least once in the past 6 months, excluding visits for antenatal care (ANC). These proportions are much higher in Jigawa than in Zamfara, where the figure in Anka LGA is only 24%. There is a substantial difference in use of health facilities between the poorest quarter of women and the remaining three quarters.  The use of antenatal care services is low. The proportion of women who used antenatal care services in their last pregnancy is about 45% and the proportion of currently pregnant women who have seen anyone for antenatal care is 31%. On a positive note, those who do use it appear to be receiving an acceptable standard of service, though there is room to improve.  Richer women are much more likely to receive antenatal care, which could reflect both increased knowledge about the importance of antenatal care, and higher ability to pay for access to this type of care. 71% of women who did not use antenatal care services in their last pregnancy say they did not need it (despite the fact that 70% of men and women interviewed said that they would advise a pregnant woman to visit a health facility for a check-up if she is healthy and nothing is wrong). 21% say that they did not have permission to travel to a health facility. Husbands may not allow women to travel either because they do not have the necessary funds available, or simply because they do not wish the woman to go to the health facility. Only 10% report not attending antenatal care sessions because the health facility was too far and it was too costly to travel. |

This section concerns different aspects of women’s health. Table 36 summarises fertility and marriage. By design, all females in our sample are married. 46% of them are in a polygamous marriage. Average age at marriage is about 15. At the time of the survey, 68% of interviewed females were pregnant. Again, this was by design, since the sampling frame consisted of all women who were pregnant in each village, and once all of them were sampled we turned to those women most likely to become pregnant. All of the descriptive statistics presented in this section should be understood in the context of this specific sampling frame: they are not representative of all women in the sampled communities.

Almost every female in the sample has been pregnant, and 89% have given birth at least once in their lives. On average, all women in the sample have almost one boy and one girl below the age of 7.

Table Fertility and marriage

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| % women who are married | 5,435 | 99.9% | - |
| % of which in a polygamous marriage | 5,432 | 45.8% | - |
| Age at first marriage (years) | 5,415 | 14.8 | 1.7 |
| % women with any adopted children | 5,431 | 4.2% | - |
| % women who are currently pregnant | 5,426 | 68.0% | - |
| % women who don’t know whether they are currently pregnant | 5,426 | 0.4% | - |
| % have ever been pregnant (if not pregnant now) | 1,715 | 97.2% | - |
| % women who have given birth at least once | 5,376 | 88.7% | - |
| Number of living children of any age if have ever given birth (both adopted and biological) | 4,786 | 3.05 | 2.09 |
| % women who have given birth in past seven years | 5,436 | 85.2% | - |
| Number of children under seven years | 5,436 | 1.74 | 1.10 |
| * Of which boys | 5,436 | 0.87 | 0.87 |
| * Of which girls | 5,436 | 0.87 | 0.84 |
|  |  |  |  |

Table Contraception and birth spacing

|  |  |  |
| --- | --- | --- |
| Indicator | N | Mean |
| ‘Would you like to have other children (if pregnant, after the current pregnancy)?’  % answering: |  |  |
| * Yes, have a/another child | 5,436 | 91.5% |
| * No, no more/no children | 5,436 | 5.0% |
| * Can’t get pregnant | 5,436 | 0.3% |
| * Undecided/don’t know | 5,436 | 3.3% |
| How long would woman like to wait before having another child (if pregnant, after the current pregnancy) |  |  |
| * Within one year | 5,150 | 7.9% |
| * After one year | 5,150 | 13.9% |
| * After two years | 5,150 | 47.8% |
| * After three years | 5,150 | 17.7% |
| * After four years | 5,150 | 2.8% |
| * After five years or more | 5,150 | 1.6% |
| * Don’t know | 5,150 | 8.4% |
| % heard of any contraceptive methods | 5,436 | 62.1% |
| Which contraception method heard of: |  |  |
| * Injectable contraceptives (Depo-Provera) | 5,436 | 49.1% |
| * Oral contraceptives (pill) | 5,436 | 46.9% |
| * Traditional method (herbs, bracelet, waist beads, ring etc.) | 5,436 | 26.6% |
| * Norplant/implant under the skin of the upper arm | 5,436 | 4.7% |
| * Male and female condoms | 5,436 | 3.8% |
| * Exclusive breastfeeding | 5,436 | 3.4% |
| * Abstinence | 5,436 | 2.0% |
| * Tubal ligation/female sterilisation | 5,436 | 1.6% |
| * Withdrawal | 5,436 | 1.1% |
| * Calculation/rhythm/calendar/safe period | 5,436 | 0.5% |
| * Diaphragm/intrauterine device/foam/jelly | 5,436 | 0.4% |
| * Vasectomy/male sterilisation | 5,436 | 0.2% |
| * Other | 5,436 | 0.0% |
|  |  |  |

Table 37 shows that 92% of the women in the sample would like to have other children. This is consistent with the fact that the sampling frame did not consist of a random sample of women in the villages, but of a random sample of women who were either pregnant at the time of the survey, or who were likely to become pregnant in the two years following the survey. About half the women interviewed see two years as the desirable spacing between births, and about 80% state that the optimal spacing should be between one and three years.

Only two-thirds of the sample of women have ever heard of contraceptive methods. Out of these women, half of them have heard either of injectable or oral contraceptives. However, the proportion that are aware of (male or female) condoms is remarkably, at below 5%. About a quarter of the sample also mentions traditional methods of contraception.

Table 38 concerns women’s visits to health facilities. Almost 40% of all women had visited a health facility at least once in the past six months, and this excludes visits for antenatal care. In addition, of those who had visited a health facility recently, 68% reported having spent at least some amount on medical treatment on themselves, and 79% had spent money on medical treatment for their children, in the past six months.

Table Women’s visits to health facilities

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| Frequency of health facility visits in past six months (apart from antenatal care) |  |  |  |
| * Never | 5,436 | 61.7% |  |
| * One | 5,436 | 13.5% | - |
| * Two | 5,436 | 11.5% | - |
| * Three | 5,436 | 6.5% | - |
| * Four or more | 5,436 | 6.4% | - |
| * Don’t know | 5,436 | 0.5% | - |
| % women who have spent anything on treatment for themselves in the past six months | 1,991 | 68.0% | - |
| Expenditure for treatment for themselves in past six months (excluding transport costs) (NGN) | 1,354 | 2,341.6 | 3,952.5 |
| % women who have spent anything on treatment for their children in the past six months | 1,785 | 78.6% | - |
| Expenditure for treatment for children in past six months (excluding transport costs) (NGN) | 1,403 | 2,152.3 | 3,132.3 |
|  |  |  |  |

Figure 32 shows that the proportion of women who had visited a health facility recently varies substantially across areas. These proportions are much higher in Jigawa than Zamfara, and are especially low, at 24%, in one of the study LGAs in Zamfara: Anka. It is worthwhile investigating this further in the future, to understand why the barriers to access are so strong in this LGA. This figure also shows a substantial difference in access between those in the bottom quartile of the PPI distribution, and those in the three remaining quartiles.

Table 39 focuses on access to antenatal care. We saw earlier that 70% of men and women interviewed would advise a pregnant woman to visit a health facility for a check-up if she is healthy and nothing is wrong. However, the proportion of currently pregnant women who have seen anyone for antenatal care is very low, at 31%. In addition, of the remaining 69% or so, only 39% have any intention of having an antenatal care visit later in their pregnancy.

We also see that the average number of antenatal care visits is four among those who have visited a health facility for antenatal care, and almost all of these were seen by a doctor, a nurse, a midwife, or a CHEW. 70% to 80% of these women received folic acid and iron supplements, which are important for a healthy pregnancy, and almost two-thirds of them received malaria prevention drugs. Overall, in line with the evidence presented earlier from the community surveys, households appear to be receiving an acceptable standard of service (although it is still important to increase these numbers to a higher level).

38% of these women did not pay transport costs, but among those who do, the average transport cost was NGN 460. Once at the health facility, 27% of women did not pay anything for their visit, but among those who did, the average cost was NGN 728.

Figure 33 shows that there are very large differences in access to antenatal care across states: such access is much higher in Jigawa than in Zamfara. It also shows a very strong PPI gradient in access to antenatal care, which could be a consequence of both differences in the information about the importance of antenatal care, and differences in the ability to pay for access to this type of care.

Figure Women’s visits to health facilities

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Table Antenatal care for currently pregnant women

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| % of currently pregnant women who have seen anyone for antenatal care | 3,687 | 31.1% | - |
| If they have seen someone for antenatal care, months pregnant when they first received antenatal care for this pregnancy | 1,117 | 4.0 | 1.8 |
| If they have not seen anyone, % of women who plan to see anyone for antenatal care later in the pregnancy | 2,539 | 39.4% | - |
|  |  |  |  |
| % of women for whom the last antenatal care was administered by: |  |  |  |
| * Doctor, nurse, midwife or CHEW + | 1,148 | 98.4% | - |
| * Traditional birth attendant | 1,148 | 0.5% | - |
| * Family member | 1,148 | 0.3% | - |
| * Other / don’t know | 1,148 | 0.8% | - |
| % of women who received the last antenatal care: |  |  |  |
| * At a health facility | 1,148 | 97.2% | - |
| * At home | 1,148 | 1.3% | - |
| * In another household | 1,148 | 0.8% | - |
| * Other place | 1,148 | 0.7% | - |
| % of women who paid no transport cost for antenatal care | 1,133 | 38.4% | - |
| Cost of transport for antenatal care (NGN) | 684 | 459.6 | 719.3 |
| % of women who paid nothing for antenatal care treatment | 1,148 | 27.1% | - |
| Cost of treatment for antenatal care (NGN) | 805 | 728.9 | 1,197.3 |
|  |  |  |  |
| % of women that received as part of antenatal care: |  |  |  |
| * Iron supplements | 1,148 | 86.2% | - |
| * Folic acid supplements | 1,148 | 73.7% | - |
| * Anti-tetanus shot | 1,148 | 71.2% | - |
| * Drugs for intestinal worms | 1,148 | 28.4% | - |
| * Drugs to prevent malaria | 1,148 | 63.7% | - |
| * Advice for things to look out for during pregnancy | 1,148 | 52.7% | - |
|  |  |  |  |
| + Doctor, nurse, midwife or CHEW are grouped together, as many respondents were not able to distinguish between them | | | |
|  | | | |

Figure Antenatal care for pregnant women

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Table Use of antenatal care for mothers of children aged 0–35 months

|  |  |  |
| --- | --- | --- |
| Indicator | N | Mean |
| % women who received antenatal care | 2,220 | 45.4% |
| If not, reason why women did not receive antenatal care+ |  |  |
| * Saw no reason to seek antenatal care | 1,212 | 70.9% |
| * No permission to go to a health facility | 1,212 | 21.2% |
| * Health facility is too far or the travel cost to travel there too high | 1,212 | 9.9% |
| * Treatment costs are too high | 1,212 | 5.1% |
| * Too few treatments are available | 1,212 | 3.0% |
| * Other\* | 1,212 | 4.9% |
| If yes, who administered antenatal care: |  |  |
| * Doctor, nurse, midwife or CHEW | 1,008 | 99.3% |
| * Other person++ | 1,008 | 1.4% |
| Number of times received antenatal care for the current pregnancy |  |  |
| * Once | 1,008 | 8.1% |
| * Twice | 1,008 | 10.3% |
| * Three times | 1,008 | 12.9% |
| * Four times | 1,008 | 16.3% |
| * Five times | 1,008 | 17.3% |
| * More than five times | 1,008 | 27.7% |
| * Don’t know | 1,008 | 7.4% |
|  |  |  |
| + Percentages do not add up to a sum of 100 because respondents were allowed to declare more than one reason. Other reasons considered in the questionnaire were: did not know about antenatal care, no female staff at health facility, don’t know.  ++ Other persons considered by the questionnaire were: traditional birth attendant, family member, neighbour, don’t know | | |
|  |  |  |

Table 40 documents access to antenatal care for recently pregnant women (in contrast with the previous table, which focused on currently pregnant women). Again, the proportion of women with access to antenatal care is low, at about 45%. 71% of those not using antenatal care say they did not need it (despite the fact that 70% of men and women interviewed said they would advise pregnant woman to visit a health facility for a check-up if she is healthy and nothing is wrong). 21% said that they did not have permission to travel to a health facility. Husbands may not allow women to travel either because they do not have the necessary funds available, or simply because they do not wish the woman to go to the health facility. Only 10% report not attending antenatal care sessions because the health facility was too far and it was too costly to travel.

Figure 34 shows how the use of antenatal care by current and recently pregnant women depends on whether a health facility is present in the respondent’s community. As expected, we see that those with easier access to a health facility are more likely to have had antenatal care during pregnancy.

Figure Antenatal care by presence of health facility in community

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Table 41 shows that 91% of all women give birth at home. Among the poorest women this figure reaches 95%, while for those in the top quartile of the PPI distribution this number is a little lower, at 83%. Only 41% have their delivery assisted by a doctor, a nurse, a midwife or a CHEW. Surprisingly, this figure is higher for those in the bottom PPI quartile (42%) than for those in the top PPI quartile (37%). 35% rely on traditional birth attendants. It is also alarming that 13% of all women report that they received no assistance during their delivery.

Table Delivery and postnatal care

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Total  (N=4,189) | Bottom PPI Quartile  (N=1,068) | Top PPI Quartile  (N=869) |
| Location of birth |  |  |  |
| * Home | 90.8% | 95.0% | 83.4% |
| * Health Facility | 8.6% | 4.3% | 16.0% |
| * At the house of a traditional birth attendant | 0.4% | 0.5% | 0.0% |
| * Other | 0.1% | 0.1% | 0.1% |
| * Don’t know | 0.1% | 0.1% | 0.5% |
| Who assisted the birth of the child: |  |  |  |
| * Doctor, nurse, midwife or CHEW | 41.1% | 42.2% | 37.3% |
| * Traditional birth attendant | 34.7% | 34.1% | 31.0% |
| * Family member (including co-wives) | 18.9% | 23.4% | 14.8% |
| * Neighbour | 14.4% | 8.3% | 23.6% |
| * No one | 13.2% | 11.7% | 13.1% |
| * Other | 0.7% | 0.4% | 0.7% |
| * Don’t Know | 0.2% | 0.1% | 0.4% |
| % Births by caesarean | 1.2% | 0.7% | 1.6% |
|  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Total | | | Pregnant | | | | | | Not pregnant | | | | | |
| Indicator | N++ | Mean | SD | N++ | | Mean | | SD | | N++ | | Mean | | SD | |
| Weight (kg) | 5,421 | 52.5 | 8.7 | 3,681 | | 53.9 | | 8.6 | | 1,709 | | 49.5 | | 8.1 | |
| Height (cm) | 5,419 | 156.5 | 5.6 | 3,678 | | 156.6 | | 5.7 | | 1,710 | | 156.2 | | 5.5 | |
| BMI | 5,417 | 21.4 | 3.2 | 3,678 | | 21.9 | | 3.1 | | 1,708 | | 20.3 | | 3.0 | |
| * % Thin (BMI <18.5) | 5,417 | 14.6% | - | 3,678 | | 9.2% | | - | | 1,708 | | 26.0% | | - | |
| * % Normal (BMI 18.5-24.9) | 5,417 | 74.4% | - | 3,678 | | 77.4% | | - | | 1,708 | | 67.9% | | - | |
| * % Overweight/obese (BMI ≥25) | 5,417 | 11.1% | - | 3,678 | | 13.4% | | - | | 1,708 | | 6.2% | | - | |
| MUAC (mm) | 5,423 | 250.5 | 29.4 | 3,681 | | 251.4 | | 30.2 | | 1,711 | | 248.3 | | 27.1 | |
| * % MUAC <185mm+   (severe acute malnutrition definition 1) | 5,436 | 0.7% | - | 3,690 | | 1.0% | | - | | 1,715 | | 0.2% | | - | |
| * % MUAC 185 to 220mm+   (moderate acute malnutrition definition 1) | 5,436 | 10.0% | - | 3,690 | | 9.3% | | - | | 1,715 | | 11.6% | | - | |
| * % MUAC <190mm+   (severe acute malnutrition definition 2) | 5,436 | 0.9% | - | 3,690 | | 1.1% | | - | | 1,715 | | 0.4% | | - | |
| * % MUAC 190 to 230mm+   (moderate acute malnutrition definition 2) | 5,436 | 22.3% | - | 3,690 | | 21.0% | | - | | 1,715 | | 25.0% | | - | |
|  |  |  |  |  | |  | |  | |  | |  | |  | |
| + There is no consensus on how to identify pregnant women as acutely malnourished so we present two definitions. Severe acute malnutrition is sometimes defined as having a MUAC of less than 185mm or 190mm. Moderate malnutrition is sometimes defined as having a MUAC of between 185mm and 220mm or 190 and 230mm.  ++ The sum of pregnant and non-pregnant women might not always equal the total, since we exclude women who don’t know whether they are pregnant. | | | | | | | | | | | | | | | |
|  | | | | |  | |  | |  | |  | |  | |  |

Table 42 we see that the average non-pregnant woman in the sample weighs about 50 kg, and is 156 cm tall. 26% of non-pregnant woman in the sample have a body mass index (BMI)[[8]](#footnote-8) below 18.5, which is a threshold for undernourishment. According to the Integrated Food Security Phase Classification, this is in the range of an ‘Acute food and livelihood crisis’[[9]](#footnote-9), which indicates the severity of the situation.

There is no consensus on how to identify women (pregnant and non-pregnant) as acutely malnourished using MUAC[[10]](#footnote-10). In this report we present the two possible definitions included in the 2014 Nutrition Assessment, Counselling, and Support (NACS) User Guide[[11]](#footnote-11). Our results show that 10% to 22% of pregnant women and 12% to 25% of non-pregnant women are moderately or severely acutely malnourished, depending on which definition is used. Regardless of what definition is used, the problem is serious.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Total | | | Pregnant | | | | | | Not pregnant | | | | | |
| Indicator | N++ | Mean | SD | N++ | | Mean | | SD | | N++ | | Mean | | SD | |
| Weight (kg) | 5,421 | 52.5 | 8.7 | 3,681 | | 53.9 | | 8.6 | | 1,709 | | 49.5 | | 8.1 | |
| Height (cm) | 5,419 | 156.5 | 5.6 | 3,678 | | 156.6 | | 5.7 | | 1,710 | | 156.2 | | 5.5 | |
| BMI | 5,417 | 21.4 | 3.2 | 3,678 | | 21.9 | | 3.1 | | 1,708 | | 20.3 | | 3.0 | |
| * % Thin (BMI <18.5) | 5,417 | 14.6% | - | 3,678 | | 9.2% | | - | | 1,708 | | 26.0% | | - | |
| * % Normal (BMI 18.5-24.9) | 5,417 | 74.4% | - | 3,678 | | 77.4% | | - | | 1,708 | | 67.9% | | - | |
| * % Overweight/obese (BMI ≥25) | 5,417 | 11.1% | - | 3,678 | | 13.4% | | - | | 1,708 | | 6.2% | | - | |
| MUAC (mm) | 5,423 | 250.5 | 29.4 | 3,681 | | 251.4 | | 30.2 | | 1,711 | | 248.3 | | 27.1 | |
| * % MUAC <185mm+   (severe acute malnutrition definition 1) | 5,436 | 0.7% | - | 3,690 | | 1.0% | | - | | 1,715 | | 0.2% | | - | |
| * % MUAC 185 to 220mm+   (moderate acute malnutrition definition 1) | 5,436 | 10.0% | - | 3,690 | | 9.3% | | - | | 1,715 | | 11.6% | | - | |
| * % MUAC <190mm+   (severe acute malnutrition definition 2) | 5,436 | 0.9% | - | 3,690 | | 1.1% | | - | | 1,715 | | 0.4% | | - | |
| * % MUAC 190 to 230mm+   (moderate acute malnutrition definition 2) | 5,436 | 22.3% | - | 3,690 | | 21.0% | | - | | 1,715 | | 25.0% | | - | |
|  |  |  |  |  | |  | |  | |  | |  | |  | |
| + There is no consensus on how to identify pregnant women as acutely malnourished so we present two definitions. Severe acute malnutrition is sometimes defined as having a MUAC of less than 185mm or 190mm. Moderate malnutrition is sometimes defined as having a MUAC of between 185mm and 220mm or 190 and 230mm.  ++ The sum of pregnant and non-pregnant women might not always equal the total, since we exclude women who don’t know whether they are pregnant. | | | | | | | | | | | | | | | |
|  | | | | |  | |  | |  | |  | |  | |  |

Table Women’s anthropometrics

Figure 35 shows that women’s BMI is slightly higher in Zamfara than in Jigawa. Figure 36 and Figure 37 show that there are no strong economic gradients regarding women’s malnutrition, regardless of whether we look at PPI or food expenditure. It is very surprising that the degree of women’s malnutrition, at least as measured by the BMI, does not depend on household resources. It is possible that malnourished women in rich households have low access to nutritious foods, even when this food is available, because they lack control over what food they themselves and the household consumes, or alternatively that they lack knowledge about what constitutes a healthy, balanced diet.

Figure Women’s BMI Distribution

|  |
| --- |
|  |
| The graph is restricted to women who are not pregnant. |
| Source: CDGP Baseline Survey. |

Figure Women’s BMI Distribution by PPI quartile

|  |
| --- |
|  |
| The graph is restricted to women who are not pregnant. |
| Source: CDGP Baseline Survey. |

Figure Women’s BMI distribution by food expenditure quartile

|  |
| --- |
|  |
| The graph is restricted to women who are not pregnant. |
| Source: CDGP Baseline Survey. |

1. Child health and IYCF practices

|  |
| --- |
| **Key findings** |
| Although almost every child below the age of 2 in the sample was breastfed at least once in their lives, only 40% of them were appropriately breastfed, and only 27% were breast feed soon after birth. Older mothers (defined here as aged 28 and over) generally engage in more adequate feeding practices, perhaps because they are less likely to be first time mothers than younger mothers in the sample and have more experience of childcare. Another possible explanation came out of the qualitative workstream, where it was found that it is sometimes customary for a mother to wait for longer before breastfeeding when it is her first child. Feeding practices are better amongst those living in communities with a health facility. This is particularly apparent for exclusive breastfeeding. This suggests that there is scope for the BCC component of CDGP to influence and improve breastfeeding practices  The World Health Organization (WHO) recommends that both breastfed and non-breastfed children over 6 months consume at least four of the seven identified food groups to receive a varied and nutritionally rich diet. However, only 16% of children 6–23 months of age do receive foods from 4 or more food groups and the figure does not improve much over 23 months. Across age groups, the main components of children’s diets are staples, fruits and vegetables. Only about a quarter of the children of all ages also report consuming meat, fish and dairy.  Dietary diversity is better in households that spend more on food. However, there is no strong relationship between dietary diversity and household wealth. This suggests that there are households with the same levels of wealth who are spending different amounts of money on food. Dietary diversity is highest among households that spend the most on food. These findings suggest that the combination of a cash transfer together with behavioural change communication has the potential to improve nutrition through increasing the amount of money spent on food. Household wealth by itself is not always sufficient to cause improved nutrition if money is spent on other items.  In 11% of the cases where children suffered some illness or injury other than diarrhoea in the past 30 days, no one was consulted. In half of these cases this occurred because mothers believed that the child would get better without treatment. However, in most of the remaining cases treatment was not sought either because the costs were too high or the mother did not have permission to consult anyone.  Diarrhoea is found to be very common: 29% of the children in the sample suffered an episode of diarrhoea within the two weeks that preceded the survey. This is important because diarrhoea can severely affect nutrition in young children, and it is fatal in many cases. Further, it is not clear that parents understand how best to look after children with diarrhoea as only 19% of parents recognise the need to provide extra fluids and only 7% recognise the need for extra food. Failure to adopt appropriate care practices in response to diarrhoea puts children at risk of severe dehydration, malnutrition, and death.  Rates of vaccination are fairly low – only 4% of children under five had had all the basic vaccinations. Almost one quarter of all children under five in the sample have not received any polio vaccinations, and only 19% received one at birth, presumably due to low rate of deliveries in a health facility (9%). The situation is similar for other vaccinations. |

In this chapter we look at indicators of child health and at feeding practices.

Table 43 shows that the proportion of children who have been given deworming medication in the past six months is very low, at 13%. Infection due to intestinal worms can cause anaemia, malnutrition, vitamin A deficiency, weight loss and diarrhoea. Given the damage caused by worms in small children, there is substantial room for improvement in this dimension. It is possible that the additional resources and information provided by the CGDP will result in better rates of deworming.

About 45% of children are reported to have suffered some illness or injury other than diarrhoea in the past 30 days. In 88.7% of the cases someone external to the household provided advice. Although in one-third of the cases advice was provided by a chemist, in the overwhelming majority of the remaining cases advice and treatment was provided in a health centre. Traditional practitioners were consulted only in 6% of the cases.

However, in 11% of the cases, no one was consulted. Half of the time this occurred because the mother believed that the child would get better without treatment. However, in most of the remaining cases, treatment was not sought either because the costs were too high, or the mother did not have permission to consult anyone. This means that there are potentially many circumstances in which the health of the child can be seriously compromised by these two factors.

Table 43 also reports on practices relating to diarrhoea. This is important because, again, diarrhoea can severely affect nutrition in young children, and can be fatal in many cases. Furthermore, diarrhoea is very common: 29% of the children in the sample suffered an episode within the two weeks that preceded the survey.

In poor settings, parents with young children with diarrhoea are advised to make sure the child is hydrated and is not losing too many nutrients through extra provision of fluids (in particular breast milk and oral rehydration salts (ORS)) and food (given in small amounts), depending on the age of the child. From the data we have collected it is not clear that parents understand these recommendations. This puts their children at risk of severe dehydration, malnutrition, and death. Only 19% of parents recognise the need to provide extra fluids and only 7% recognise the need for extra food in the case of diarrhoea.

Of those with diarrhoea who used some form of treatment in addition to or other than ORS, 80% used antibiotics, even though the standard recommendation is that antibiotics should be used mainly in cases of suspected dysentery and cholera. In contrast, zinc was only given in 9% of the cases, even though its use is widely recommended in cases of diarrhoea, because it reduces the duration and seriousness of the current episode, and the frequency of future episodes.

Table Children’s health and treatment

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| % child given deworming medication in past six months | 4,190 | 13.0% | - |
| Location of last deworming medication: |  |  |  |
| * At home by health worker | 546 | 42.7% | - |
| * Health facility | 546 | 34.8% | - |
| * Chemist | 546 | 16.5% | - |
| * Other | 546 | 5.9% | - |
| % Weighed at birth | 4,183 | 2.8% | - |
|  |  |  |  |
| % children affected by illness or injury in the past 30 days (excluding diarrhoea) | 4,190 | 45.8% | - |
| If child was affected, % of cases when someone was consulted | 1,917 | 88.7% | - |
| If someone was consulted, where went for treatment |  |  |  |
| * Dispensary / chemist / shop | 1,701 | 37.6% | - |
| * Hospital | 1,701 | 32.2% | - |
| * Primary health centre / health post / mobile clinic | 1,701 | 16.3% | - |
| * Traditional practitioner | 1,701 | 6.1% | - |
| * Private medical clinic | 1,701 | 5.0% | - |
| * Other+ | 1,701 | 2.8% | - |
| * Don’t know | 1,701 | 0.1% | - |
| If nobody was consulted, why? |  |  |  |
| * Believed that child would get better without treatment | 216 | 52.8% | - |
| * Treatment costs are too high | 216 | 21.8% | - |
| * Mother/caregiver did not have permission to consult anyone | 216 | 9.3% | - |
| * Few treatments are available | 216 | 8.8% | - |
| * Health facility far away or the cost to travel there is too high | 216 | 5.1% | - |
| * Other reason | 216 | 9.7% | - |
| * Don’t know | 216 | 1.4% | - |
| % children affected by diarrhoea in past two weeks | 4,190 | 28.9% | - |
| During the diarrhoea was the child given less than usual to drink, about the same amount, or more than usual to drink (including breast milk)? |  |  |  |
| * Much less than usual | 1,185 | 11.7% | - |
| * Somewhat less than usual | 1,185 | 21.6% | - |
| * About the same | 1,185 | 23.8% | - |
| * More | 1,185 | 18.7% | - |
| * Nothing | 1,185 | 24.3% | - |
| During the diarrhoea was the child given less than usual to eat, about the same amount, more than usual or nothing to eat? |  |  |  |
| * Much less than usual | 1,207 | 20.4% | - |
| * Somewhat less than usual | 1,207 | 36.3% | - |
| * About the same | 1,207 | 32.3% | - |
| * More | 1,207 | 7.0% | - |
| * Nothing | 1,207 | 4.0% | - |
| % households in which someone sought advice or treatment for the child’s diarrhoea | 1,210 | 78.8% | - |
| % children given ORS at any time after diarrhoea started | 1,210 | 38.6% | - |
| % children given other treatment for diarrhoea | 1,210 | 74.6% | - |
| Other treatment given: |  |  |  |
| * Antibiotic pill or syrup | 902 | 80.8% | - |
| * Zinc pill or syrup | 902 | 8.9% | - |
| * Herbal/traditional medicine | 902 | 8.1% |  |
| * Antibiotic injection | 902 | 1.4% | - |
| * Non-antibiotic injection | 902 | 0.8% | - |
| * Fluids via intravenous | 902 | 8.4% | - |
| * Other | 902 | 2.1% | - |
| * Don’t know | 902 | 5.5% | - |
|  |  |  |  |
| ++Other places reported by respondents were: neighbour/family friends, at home (mostly in cases where parents purchased medicines and treated the child themselves). | | | |
|  |  |  |  |

In Table 44 we examine child vaccination for children under five. This was assessed by reviewing the child’s health/vaccination card if it was available, and otherwise through the mother’s recall. Rates of vaccination are fairly low with only 4% of children under five having all basic vaccinations. Further, take, for example, the case of polio: polio is especially relevant because the disease is so devastating, and because an effective vaccine has existed for many years. Despite the existence of a vaccine, Nigeria is still classified by the WHO as a polio endemic country. The recommendation in such countries is that the first dose of the vaccine be given at birth. What we see in our data is that almost one-quarter of all children in the sample have not received any polio vaccination, and only 19% have received one at birth, presumably due to low rate of deliveries in health facilities (9%). When we look at the other diseases the picture is equally concerning.

Table Child vaccinations

|  |  |  |
| --- | --- | --- |
| Indicator | N | Mean |
| Proportion of children with health card available | 4,190 | 4.4% |
| Proportion of children that have received vaccines against: + |  |  |
| * BCG | 4,081 | 21.2% |
| * Polio (any) | 4,126 | 77.8% |
| * Polio (at birth) | 4,031 | 19.3% |
| * DPT | 4,015 | 17.6% |
| * Measles/MMR | 4,003 | 31.5% |
| * Hepatitis B | 3,091 | 11.4% |
| * Yellow fever | 3,982 | 15.2% |
| All basic vaccinations (BCG, 3 DPT, 3 Polio, measles) | 4,190 | 4.0% |
| None of the basic vaccinations | 4,190 | 21.5% |
|  |  |  |
| +The variables here are constructed combining information from the health card and mother’s reports. N varies due to the presence of “Don’t know” answers in the mother reports. | | |

In Tables 48 to 51 we study IYCF practices. The BCC campaign within the CDGP targets several, if not all, of these practices. The sample sizes are much smaller for this set of indicators because they are relevant for children only in particular age groups (as specified in the tables).

Although almost every child below the age of two in the sample was breastfed at least once in their lives, only about 45% of them were appropriately breastfed,[[12]](#footnote-12) and only 28% started breastfeeding soon after birth. When we examine feeding practices for children aged six to 24 months, the proportion receiving iron-fortified foods is only 20%, the proportion receiving the minimum recommended amount of meals per day (as defined in

Table 45) is only 41%, and the proportion receiving the minimum dietary diversity (as defined in

Table 45) is 16.3%. There are strong socio-economic gradients for these last three variables, especially when we use food expenditure as our measure of economic status. Curiously, although richer women are more likely to start breastfeeding early, they are less likely to have age-appropriate breastfeeding behaviour. One conjecture is that, because they are wealthy, these women are able to substitute away from breast milk and towards powdered or other milk earlier than poorer mothers.

Table 47 illustrates that older mothers (defined here as aged 28 and over) generally engage in more adequate feeding practices, perhaps because of their experience (i.e. they are less likely to be first time mothers than women in the younger age group). Another possible explanation came out of the qualitative workstream, where it was found that it is sometimes customary for a mother to wait for longer before breastfeeding when it is her first child. There is one exception, though: age-appropriate breastfeeding. Perhaps because they have more children, older mothers may not have enough time to devote to the appropriate breastfeeding of their younger children. However, it is important to note that the sample sizes for some of these indicators are small due to the narrow age ranges, and so the results should be interpreted with caution.

Table 48 assesses to what extent there exist differences in feeding practices between mothers living in communities where a health facility is present and those living where a facility is not present. Across most measures, feeding practices are better amongst those living in communities with a health facility, as opposed to those who do not have a health facility in their community. This suggests that there is scope for the BCC component of CDGP to influence and improve breastfeeding practices. This is particularly apparent for exclusive breastfeeding. An exception to this is the case of the ‘introduction of solid, semi-solid or soft foods as age six to eight months. However, again, note that where the sample sizes are small due to the narrow age ranges the results must be interpreted with caution.

Table IYCF indicators by PPI quartile

|  | Total | | 1st PPI quartile | 2nd PPI quartile | 3rd PPI quartile | 4th PPI quartile |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator | N | Mean |  |  |  |  |
| **Child ever breastfed**  Proportion of children born in the last 24 months who were ever breastfed | 1,122 | 99.2% | 99.2% | 98.6% | 99.0% | 100.0% |
| **Age-appropriate breastfeeding**  Proportion of children 0–23 months of age who are appropriately breastfed | 887 | 44.8% | 45.7% | 48.3% | 45.3% | 40.3% |
| **Early initiation of breastfeeding (immediately)**  Proportion of children born in the last 24 months who were put to the breast within one hour of birth | 1,112 | 27.8% | 32.3% | 23.1% | 26.8% | 29.6% |
| **Early initiation of breastfeeding (24 hours)**  Proportion of children born in the last 24 months who were put to the breast within 24 hours of birth | 1,112 | 63.2% | 60.0% | 55.9% | 66.4% | 69.8% |
| **Exclusive breastfeeding among children under six months**  Proportion of infants 0–5 months of age who are fed exclusively with breast milk | 165 | 16.4% | 16.1% | 17.5% | 21.7% | 10.6% |
| **Predominant breastfeeding among children under six months**  Proportion of infants 0–5 months of age who are predominantly breastfed | 166 | 84.3% | 87.1% | 80.0% | 78.7% | 91.5% |
| **Continued breastfeeding at one year (12–15 months)**  Proportion of children 12–15 months of age who are fed breast milk | 170 | 92.9% | 92.1% | 98.1% | 94.9% | 85.0% |
| **Continued breastfeeding at two years (20–23 months)**  Proportion of children 20–23 months of age who are fed breast milk | 336 | 18.8% | 22.2% | 19.2% | 19.4% | 14.3% |
| **Milk feeding frequency**  Proportion of non-breastfed children 6–23 months of age who receive at least two milk feedings in 24 hours | 343 | 9.6% | 12.3% | 9.5% | 7.8% | 9.4% |
| **Introduction of solid, semi-solid or soft foods (6–8 months)**  Proportion of infants 6–8 months of age who receive solid, semi-solid or soft foods | 44 | 45.5% | 33.3% | 46.7% | 54.6% | 41.7% |
| **Consumption of iron-rich/fortified foods (6–23 months)**  Proportion of children 6–23 months of age who receive an iron-rich food or iron-fortified food that is specially designed for infants and young children, or that is fortified in the home | 788 | 20.4% | 19.6% | 15.6% | 20.5% | 26.0% |
| **Minimum meal frequency (6–23 months)**  Proportion of breastfed and non-breastfed children 6–23 months old who receive solid, semi-solid, or soft foods (including milk feeds for non-breastfed children) the minimum number of times or more | 722 | 40.7% | 44.4% | 42.6% | 39.5% | 37.0% |
| **Minimum dietary diversity (6–23 months)**  Proportion of children 6–23 months of age who receive foods from four or more food groups+ | 784 | 16.3% | 14.4% | 18.2% | 14.6% | 17.7% |
| **Minimum acceptable diet (6–23 months)**  Proportion of children 6–23 months of age who receive a minimum acceptable diet (apart from breast milk)++ | 784 | 5.4% | 4.2% | 4.8% | 5.4% | 6.9% |
| **Median duration of breastfeeding among children 0–35 months of age (months)** | 2,190 | 18.43 |  |  |  |  |
|  |  |  |  |  |  |  |
| + The seven foods groups used for calculation of this indicator are: (1) grains, roots and tubers; (2) legumes and nuts; (3) dairy products (milk, yogurt, cheese); (4) flesh foods (meat, fish, poultry and liver/organ meats); (5) eggs; (6) vitamin A rich fruits and vegetables; (7) other fruits and vegetables  ++ This corresponds to the proportion of children who receive both the minimum amount of feeding times and the minimum dietary diversity  See the Technical Compendium that accompanies this report and WHO Indicators for assessing infant and young child feeding practices (WHO, 2008, p. pp. 33 ff.) for the exact definitions and details for the indicators in this table. | | | | | | |
|  | | | | | | |

Table IYCF indicators by food expenditure quartile

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Total | | 1st qt. | 2nd qt. | 3rd qt. | 4th qt. |
| Indicator | N | Mean |  |  |  |  |
| **Child ever breastfed** | 1,122 | 99.2% | 99.3% | 100.0% | 98.3% | 99.3% |
| **Age-appropriate breastfeeding** | 887 | 44.8% | 48.4% | 43.5% | 44.0% | 43.1% |
| **Early initiation of breastfeeding (immediately)** | 1,112 | 27.8% | 32.2% | 25.9% | 26.2% | 26.7% |
| **Early initiation of breastfeeding (24 hours)** | 1,112 | 63.2% | 57.7% | 62.2% | 63.3% | 70.0% |
| **Exclusive breastfeeding among children under six months** | 165 | 16.4% | 15.9% | 10.7% | 20.9% | 16.0% |
| **Predominant breastfeeding among children under six months** | 166 | 84.3% | 81.8% | 89.3% | 90.7% | 78.4% |
| **Continued breastfeeding at one year (12–15 months)** | 170 | 92.9% | 91.7% | 94.6% | 90.9% | 95.1% |
| **Continued breastfeeding at two years (20–23 months)** | 336 | 18.8% | 21.1% | 15.6% | 23.1% | 14.1% |
| **Milk feeding frequency** | 343 | 9.6% | 10.7% | 6.7% | 10.0% | 11.4% |
| **Introduction of solid, semi-solid or soft foods (6–8 months)** | 44 | 45.5% | 54.6% | 33.3% | 57.1% | 45.5% |
| **Consumption of iron-rich/fortified foods (6–23 months)** | 788 | 20.4% | 6.5% | 16.5% | 25.8% | 34.3% |
| **Minimum meal frequency (6–23 months)** | 722 | 40.7% | 35.6% | 41.9% | 44.0% | 41.0% |
| **Minimum dietary diversity (6–23 months)** | 784 | 16.3% | 7.1% | 14.5% | 20.2% | 24.2% |
| **Minimum acceptable diet (6–23 months)** | 784 | 5.4% | 2.0% | 4.0% | 7.2% | 8.4% |
| **Median duration of breastfeeding among children 0–35 months of age (months)** | 2,190 | 18.43 |  |  |  |  |
|  |  |  |  |  |  |  |
| See previous table for notes. | | | | | | |
|  | | | | | | |

Table IYCF indicators by age of mother

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Young Mother (below 28) | | Older Mother (above 28) | | Difference+ |
| Indicator | N | Mean | N | Mean |
| **Child ever breastfed** | 708 | 99.3% | 414 | 99.0% | -0.3% |
| **Age-appropriate breastfeeding** | 583 | 48.2% | 304 | 38.2% | -10.0%\*\*\* |
| **Early initiation of breastfeeding (immediately)** | 702 | 24.6% | 410 | 33.2% | 8.5%\*\*\* |
| **Early initiation of breastfeeding (24 hours)** | 702 | 59.0% | 410 | 70.5% | 11.5%\*\*\* |
| **Exclusive breastfeeding among children under six months** | 105 | 14.3% | 60 | 20.0% | 5.7% |
| **Predominant breastfeeding among children under six months** | 106 | 84.0% | 60 | 85.0% | 1.0% |
| **Continued breastfeeding at one year (12–15 months)** | 128 | 93.0% | 42 | 92.9% | -0.1% |
| **Continued breastfeeding at two years (20–23 months)** | 192 | 19.3% | 144 | 18.1% | -1.2% |
| **Milk feeding frequency** | 204 | 8.8% | 139 | 10.8% | 2.0% |
| **Introduction of solid, semi-solid or soft foods (6–8 months)** | 34 | 38.2% | 10 | 70.0% | 31.8%\* |
| **Consumption of iron-rich/fortified foods (6–23 months)** | 525 | 19.6% | 263 | 22.1% | 2.4% |
| **Minimum meal frequency (6–23 months)** | 478 | 38.5% | 244 | 45.1% | 6.6%\* |
| **Minimum dietary diversity (6–23 months)** | 521 | 15.6% | 263 | 17.9% | 2.3% |
| **Minimum acceptable diet (6–23 months)** | 521 | 5.6% | 263 | 4.9% | -0.6% |
| This table presents IYCF indicators split by age band of mother. See previous table for notes.  + The difference in proportions is tested using a two-tailed t-test. Stars indicate levels of significance: \*\*\*=1%, \*\*=5%, \*=10%. | | | | |  |

Table IYCF indicators by presence of health facility in community

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | HF in Community | | No HF in Community | | Difference+ |
| Indicator | N | Mean | N | Mean |
| **Child ever breastfed** | 473 | 99.6% | 649 | 98.9% | 0.7% |
| **Age-appropriate breastfeeding** | 367 | 48.2% | 520 | 42.3% | 5.9%\* |
| **Early initiation of breastfeeding (immediately)** | 470 | 32.8% | 642 | 24.1% | 8.6%\*\*\* |
| **Early initiation of breastfeeding (24 hours)** | 470 | 68.3% | 642 | 59.5% | 8.8%\*\*\* |
| **Exclusive breastfeeding among children under six months** | 62 | 30.7% | 103 | 7.8% | 22.9%\*\*\* |
| **Predominant breastfeeding among children under six months** | 62 | 85.5% | 104 | 83.7% | 1.8% |
| **Continued breastfeeding at one year (12–15 months)** | 67 | 89.6% | 103 | 95.2% | -5.6% |
| **Continued breastfeeding at two years (20–23 months)** | 142 | 21.1% | 194 | 17.0% | 4.1% |
| **Milk feeding frequency** | 142 | 12.0% | 201 | 8.0% | 4.0% |
| **Introduction of solid, semi-solid or soft foods (6–8 months)** | 18 | 33.3% | 26 | 53.9% | -20.5% |
| **Consumption of iron-rich/fortified foods (6–23 months)** | 333 | 21.9% | 455 | 19.3% | 2.6% |
| **Minimum meal frequency (6–23 months)** | 305 | 42.0% | 417 | 39.8% | 2.2% |
| **Minimum dietary diversity (6–23 months)** | 331 | 16.6% | 453 | 16.1% | 0.5% |
| **Minimum acceptable diet (6–23 months)** | 331 | 7.6% | 453 | 3.8% | 3.8%\*\* |
| This table presents IYCF indicators split by presence of a health facility in the community. See previous table for notes.  + The difference in proportions is tested using a two-tailed t-test. Stars indicate levels of significance: \*\*\*=1%, \*\*=5%, \*=10%. | | | | |  |

Table 6–23 months and non-breastfed

|  |  |  |
| --- | --- | --- |
| Indicator | Mean | SD |
| WHO Minimum Dietary Diversity Index (MDD) | 2.71 | 0.94 |
| * Food Group 1: grains, roots and tubers | 99.4% | - |
| * Food Group 2: legumes and nuts | 29.2% | - |
| * Food Group 3: dairy products (milk, yogurt, cheese) | 19.2% | - |
| * Food Group 4: flesh foods (meat, fish, poultry and liver/organ meats) | 21.2% | - |
| * Food Group 5: eggs | 0.3% | - |
| * Food Group 6: vitamin A rich fruits and vegetables | 86.4% | - |
| * Food Group 7: other fruits and vegetables | 15.6% | - |
| UN FAO Individual Dietary Diversity Score (IDDS) | 3.19 | 1.13 |
| * Food Group 1: starchy staples | 99.4% | - |
| * Food Group 2: dark green leafy vegetables | 64.6% | - |
| * Food Group 3: other vitamin A rich fruits and vegetables | 69.0% | - |
| * Food Group 4: other fruits and vegetable | 15.6% | - |
| * Food Group 5: organ meat | 0.3% | - |
| * Food Group 6: meat and fish | 20.9% | - |
| * Food Group 7: eggs | 0.3% | - |
| * Food Group 8: legumes, nuts, and seeds | 29.2% | - |
| * Food Group 9: milk and milk products | 19.2% | - |
|  |  |  |
| N= 339 throughout the table. | | |
|  |  |  |

Table 6–23 months and breastfed

|  |  |  |
| --- | --- | --- |
| Indicator | Mean | SD |
| WHO MDD | 2.16 | 1.19 |
| * Food Group 1: grains, roots and tubers | 89.3% | - |
| * Food Group 2: legumes and nuts | 21.1% | - |
| * Food Group 3: dairy products (milk, yogurt, cheese) | 21.1% | - |
| * Food Group 4: flesh foods (meat, fish, poultry and liver/organ meats) | 15.7% | - |
| * Food Group 5: eggs | 0.2% | - |
| * Food Group 6: vitamin A rich fruits and vegetables | 62.1% | - |
| * Food Group 7: other fruits and vegetables | 6.6% | - |
| UN FAO IDDS | 2.48 | 1.44 |
| * Food Group 1: starchy staples | 89.3% | - |
| * Food Group 2: dark green leafy vegetables | 42.2% | - |
| * Food Group 3: other vitamin A rich fruits and vegetables | 51.9% | - |
| * Food Group 4: other fruits and vegetable | 6.6% | - |
| * Food Group 5: organ meat | 1.1% | - |
| * Food Group 6: meat and fish | 14.5% | - |
| * Food Group 7: eggs | 0.2% | - |
| * Food Group 8: legumes, nuts, and seeds | 21.1% | - |
| * Food Group 9: milk and milk products | 21.1% | - |
|  |  |  |
| N = 441 throughout the table. | | |

Table 23–60 months

|  |  |  |
| --- | --- | --- |
| Indicator | Mean | SD |
| WHO MDD | 2.72 | 0.94 |
| * Food Group 1: grains, roots and tubers | 98.3% | - |
| * Food Group 2: legumes and nuts | 26.7% | - |
| * Food Group 3: dairy products (milk, yogurt, cheese) | 22.8% | - |
| * Food Group 4: flesh foods (meat, fish, poultry and liver/organ meats) | 22.8% | - |
| * Food Group 5: eggs | 0.4% | - |
| * Food Group 6: vitamin A rich fruits and vegetables | 88.3% | - |
| * Food Group 7: other fruits and vegetables | 12.7% | - |
| UN FAO IDDS | 3.21 | 1.14 |
| * Food Group 1: starchy staples | 98.3% | - |
| * Food Group 2: dark green leafy vegetables | 66.9% | - |
| * Food Group 3: other vitamin A rich fruits and vegetables | 70.6% | - |
| * Food Group 4: other fruits and vegetable | 12.7% | - |
| * Food Group 5: organ meat | 0.8% | - |
| * Food Group 6: meat and fish | 22.0% | - |
| * Food Group 7: eggs | 0.4% | - |
| * Food Group 8: legumes, nuts, and seeds | 26.7% | - |
| * Food Group 9: milk and milk products | 22.8% | - |
|  |  |  |
| N = 3,313 throughout the table. | | |
|  |  |  |

Tables 52 to 54 concern the dietary diversity of children, organised into three groups: children six to 23 months who are breastfed, children six to 23 months who are not breastfed, and children 23 to 60 months of age. We construct two indices of dietary diversity: the WHO Minimum Dietary Diversity (MDD) and the UN FAO Individual Dietary Diversity Score (IDDS), and we report on all individual components of the index. As discussed above, for children six to 23 months, the WHO recommends that a child have a diet made up of at least four of the seven food groups because doing so is associated with better quality diets for both breastfed and non-breastfed children. However, only 16% of children six to 23 months of age receive foods from four or more food groups.

Across age groups, the main components of the children’s diet are staples, and fruits and vegetables. However, only about a quarter of the children of all ages also report consuming meat/fish and dairy, even those who are breastfed. We can see how these indices change with the socio-economic characteristics of the household, as shown in

Figure 38 and Figure 39. Regardless of which index we take, dietary diversity improves with food expenditure. Surprisingly, there is no strong relationship between dietary diversity and PPI. This suggests that there are households with the same levels of PPI who are spending different amounts on food. Those who spend the most on food are those for whom dietary diversity is the richest. This points to the potential importance of pairing a cash transfer with a behavioural change intervention, as is the case in the CDGP. Being a wealthy household as measured by the PPI is no guarantee of more and better spending on food, and thus of the improved nutrition of children. We will come back to exactly this point in the following section, when we consider anthropometrics.

Figure Children’s dietary diversity by food expenditure quartile

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Figure Children’s dietary diversity by PPI quartile

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

1. Children’s nutritional status

|  |
| --- |
| **Key findings** |
| Child nutritional status is assessed using four standard anthropometric indicators that are derived based on height, weight and mid-upper arm circumference (MUAC) measurements. For all three indicators, the analyses revealed that the nutritional status of children was very critical in the areas surveyed in the study. More than half of the children surveyed (66%) were classified as stunted, significantly above the WHO cut-off for a critical situation (40%). Some 35% of the children were considered underweight, again higher than the WHO cut-off for severe levels of malnutrition (30%). 7% of the children are wasted. These statistics indicate a very severe problem of chronic child malnutrition.  Further analysis of the data revealed that there were no strong differences in the nourishment of children who have literate and illiterate mothers and that the nutrition status of children did not differ much across household wealth. However, children from households that spend more on food were somewhat less likely to be stunted. |

In this section we start by reporting on the assessment of children’s nutritional status, by looking at child anthropometric indicators for children aged six to 59 months of age. These anthropometric indicators are based on physical body measurements, such as height or weight. The technical compendium that accompanies this report describes the methods and specialist equipment used to obtain anthropometric measurements and to determine the age of young children. We report on four primary indicators: weight-for-height, height-for-age, weight-for-age, and MUAC. We group individuals into groups depending on whether they are below certain thresholds for each indicator, which would suggest that they are malnourished or severely malnourished in different dimensions.

Each of these indicators provides different information about growth and body composition, which can be used to assess nutritional status. Both weight-for-height and MUAC are good indicators of wasting, especially appropriate in emergency famine situations. In other words, they are good indicators of **acute** malnutrition. As we can see in the tables, these indicators of acute malnutrition are the ones for which the proportion of children showing severe signs of malnourishment are the smallest. In contrast, height-for-age is used to diagnose longer-term **chronic** malnutrition. The tables below indicate that chronic malnourishment affects a very large share of children in the sample.

In order determine if a child is acutely or chronically malnourished, a child’s anthropometric measurements are compared to the new international growth standards published by the WHO in 2006. These growth standards were collected in the WHO Multicentre Growth Reference Study that was designed to be used as the gold-standard approach to the assessment of child growth internationally[[13]](#footnote-13). Each of the weight-for-height, height-for-age and weight-for-age indicators are expressed in standard deviation units (or a Z-score) from the median of the Multicentre Growth Reference Study sample of children of the same age and sex. This gives the weight-for-height Z-score (WHZ), height-for-age Z-score (HAZ) and weight-for-age Z-score (WAZ). The estimated nutritional status of the survey population is expressed as the proportion of children with Z-scores below a certain cut-off point[[14]](#footnote-14). The anthropometric indicators are further described below.

**Weight-for-height** reflects body weight relative to height. Having a low weight-for-height is referred to as **wasting** and is attributed to **acute malnutrition** which is a ‘recent and severe process that has led to significant weight loss, usually as a consequence of acute starvation and/or disease’[[15]](#footnote-15). Children are classified as wasted when their WHZ is less than -2, and severely wasted when their WHZ is less than -3.

**Height-for-ag**e reflects the linear growth of children. Children below two years of age are measured lying down, whereas children above two years old are measured while standing, using a stadiometer. Having a low height-for-age is referred to as **stunting**. This index identifies past or **chronic malnutrition**,which is the effect of long-term poor health and inadequate diet, which leads to poor linear growth, in particular for children younger than two years old[[16]](#footnote-16). Children are classified as stunted when their HAZ is less than -2.

**Weight-for-age** reflects body mass relative to chronological age. It reflects both children’s height-for-age and their weight-for-height, which makes interpretation complex. Children with a low weight-for-age are classified as **underweight** when their WAZ is less than -2. This index reflects both past (chronic) and / or present (acute) under-nutrition, although it is unable to distinguish between the two.

**MUAC** is a measure of the diameter of the upper arm and gauges both fat reserves and muscle mass. MUAC is as an alternative index of nutritional status, as against the measures outlined above. For children, a fixed (age-independent) cut-off point has sometimes been used to determine malnutrition.

For all indicators, the age range was defined from age six to 59 months. We limit the analysis of weight-for-height to children aged six months or older due to the difficulty in accurately measuring height for children less than six months. However, Z-scores and related prevalences were also tabulated among children aged 0–59 months and these are shown in Annex C.

Table Child anthropometrics: all children 6–59 months old

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| **WHZ** | 3,909 | -0.28 | 1.19 |
| % wasted (WHZ <-2SD) | 3,909 | 7.4% | - |
| % severely wasted (WHZ <-3SD) | 3,909 | 2.2% | - |
| **HAZ** | 3,909 | -2.54 | 1.45 |
| % stunted (HAZ <-2SD) | 3,909 | 66.4% | - |
| % severely stunted (HAZ <-3SD) | 3,909 | 37.5% | - |
| **WAZ** | 3,909 | -1.64 | 1.17 |
| % underweight (WAZ <-2SD) | 3,909 | 34.9% | - |
| % severely underweight (WAZ <-3SD) | 3,909 | 12.9% | - |
| **MUAC** | 3,981 | 146.9 | 15.5 |
| % Acutely malnourished (MUAC <125mm) | 3,981 | 6.5% | - |
| % Severely malnourished (MUAC < 115mm) | 3,981 | 2.1% | - |

7% of the children are wasted. Although this is a high number in absolute terms, it is relatively low when compared to 66% who are stunted, and 35% who are underweight. The main problem in the study area, at least among those in our sample, is chronic, not acute, malnutrition. When it comes to the stunting and underweight indicators, the children in our sample are comparable to children in the very poorest regions in the world. This indicates a very severe problem of chronic child malnutrition.

Table 53 shows that when anthropometric measures are also analysed by sex we see that stunting, underweight, wasting are consistently more prevalent among boys than girls, through this trend does not hold when measuring nutritional status using MUAC.

Table Child anthropometrics: children 6–59 months old, by gender

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator | MALES | | | FEMALES | | |
|  | N | Mean | SD | N | Mean | SD |
| **WHZ** | 1,948 | -0.30 | 1.23 | 1,961 | -0.26 | 1.15 |
| % wasted (WHZ <-2SD) | 1,948 | 8.2% | - | 1,961 | 6.5% | - |
| % severely wasted (WHZ <-3SD) | 1,948 | 2.9% | - | 1,961 | 1.6% | - |
| **HAZ** | 1,948 | -2.60 | 1.46 | 1,961 | -2.48 | 1.42 |
| % stunted (HAZ <-2SD) | 1,948 | 68.2% | - | 1,961 | 64.6% | - |
| % severely stunted (HAZ <-3SD) | 1,948 | 39.0% | - | 1,961 | 36.1% | - |
| **WAZ** | 1,948 | -1.64 | 1.18 | 1,961 | -1.63 | 1.14 |
| % underweight (WAZ <-2SD) | 1,948 | 35.4% | - | 1,961 | 34.3% | - |
| % severely underweight (WAZ <-3SD) | 1,948 | 14.1% | - | 1,961 | 11.7% | - |
| **MUAC** | 1,989 | 147.5 | 15.3 | 1,992 | 146.2 | 15.7 |
| % Acutely malnourished (MUAC <125mm) | 1,989 | 6.0% | - | 1,992 | 6.9% | - |
| % Severely malnourished (MUAC < 115mm) | 1,989 | 2.1% | - | 1,992 | 2.1% | - |

Figure 40 plots the distribution of WHZ, WAZ and HAZ in the sample. The distribution is roughly bell shaped, as in many other countries.

Figure 41 and Figure 42 report PPI and food expenditure gradients for WHZ, WAZ, HAZ and MUAC. These gradients are, surprisingly, not very pronounced, with the exception of the food expenditure gradient for HAZ. This indicates that prevalence of stunting, wasting and underweight does not differ greatly across households of different wealth levels. Nevertheless, across measures, children in the highest quartile of PPI and food expenditure are generally less undernourished than children in the other three quartiles of the distribution of these two variables.

In Figure 43 we examine whether undernourishment varies with an indicator of maternal literacy. This variable could be important if more literate mothers had better access to information about adequate nutrition practices. However, our data shows no strong differences in the nourishment of children between those who have literate and those who have illiterate mothers.

Figure Children anthropometrics – 6–59 months old

|  |
| --- |
|  |
| The orange line at -2 SD indicates the threshold for underweight, stunted, and wasted, respectively.  The red line at -3 SD indicates the threshold for severe underweight, stunted, and wasted, respectively. |
| Source: CDGP Baseline Survey. |

Figure Wasting, stunting, underweight and MUAC by PPI

|  |  |
| --- | --- |
|  | |
| Only children 6–59 months old. We used the following definitions for the figure: | |
| Wasting: WHZ<-2 SD | Severe wasting: WHZ<-3 SD |
| Stunting: HAZ<-2 SD | Severe stunting: HAZ<-3 SD |
| Underweight: WAZ<-2 SD | Severe underweight: WAZ<-3 SD |
| Malnourishment: MUAC<125mm | Severe malnourishment: MUAC<115mm |
| Source: CDGP Baseline Survey. | |

Figure Wasting, stunting, underweight and malnourishment by food expenditure

|  |  |
| --- | --- |
|  | |
| Only children 6–59 months old. We used the following definitions for the figure: | |
| Wasting: WHZ<-2 SD | Severe wasting: WHZ<-3 SD |
| Stunting: HAZ<-2 SD | Severe stunting: HAZ<-3 SD |
| Underweight: WAZ<-2 SD | Severe underweight: WAZ<-3 SD |
| Malnourishment: MUAC<125mm | Severe malnourishment: MUAC<115mm |
| Source: CDGP Baseline Survey. | |

Figure Wasting, stunting, underweight and malnourishment by mother’s literacy

|  |  |
| --- | --- |
|  | |
| Only children 6–59 months old. We used the following definitions for the figure: | |
| Wasting: WHZ<-2 SD | Severe wasting: WHZ<-3 SD |
| Stunting: HAZ<-2 SD | Severe stunting: HAZ<-3 SD |
| Underweight: WAZ<-2 SD | Severe underweight: WAZ<-3 SD |
| Malnourishment: MUAC<125mm | Severe malnourishment: MUAC<115mm |
| Source: CDGP Baseline Survey. | |

Figure 44 shows the average Z scores and the prevalence of stunting, wasting and underweight for children between 0 and 59 months. We see that the prevalence of wasting and underweight increases from birth until around the time the child turns one year and then the prevalence of wasting and underweight begins to decline. However, the prevalence of stunting increases until the child turns two and then begins to decline but only gradually and the prevalence still remains very high for five year olds.

Figure Prevalence of malnutrition by age

|  |
| --- |
|  |
| Note: 5-month average used for smoothing. |
| Source: CDGP Baseline Survey. |

We conclude this section with Table 54, which compares these nutrition indicators for children surveyed before and after 15 September (that is, the threshold used earlier in the report to signify the end of the lean season). Recall that the survey started late-August, which was during the season when food was especially scarce. It is therefore possible that children surveyed first showed worse indicators of nutrition than children surveyed later, when there is potentially higher availability of food. We would expect to see this in measures of acute malnutrition rather than chronic malnutrition, given the short time period. However, this is not observed. Looking at the WHZ, we some signs of reduced acute malnutrition amongst those interviewed later in the data collection period, but looking at the HAZ, we see that chronic malnutrition is worse in those surveyed later. As it is not plausible that stunting rates changed this quickly, we conclude that the differences are due to the non-random rollout of the survey and the fact that many of the hard-to-reach communities were interviewed later in the survey period.

Table  Child anthropometrics: children 6–59 months old, by season

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Interviewed 15 September 2014 and before | | | Interviewed after 15 September 2014 | | |  |
| Indicator | N | Mean | SD | N | Mean | SD | Differ-ence + |
| **WHZ** | 1,998 | -0.29 | 1.16 | 1,911 | -0.27 | 1.22 | -0.02 |
| % wasted (WHZ <-2SD) | 1,998 | 7.7% | - | 1,911 | 7.1% | - | 0.01 |
| % severely wasted (WHZ <-3SD) | 1,998 | 1.9% | - | 1,911 | 2.6% | - | -0.01 |
| **HAZ** | 1,998 | -2.46 | 1.48 | 1,911 | -2.62 | 1.41 | 0.15\*\*\* |
| % stunted (HAZ <-2SD) | 1,998 | 64.5% | - | 1,911 | 68.3% | - | -0.04\*\* |
| % severely stunted (HAZ <-3SD) | 1,998 | 35.9% | - | 1,911 | 39.1% | - | -0.03\*\* |
| **WAZ** | 1,998 | -1.59 | 1.15 | 1,911 | -1.68 | 1.19 | 0.08\*\* |
| % underweight (WAZ <-2SD) | 1,998 | 33.0% | - | 1,911 | 36.8% | - | -0.04\*\* |
| % severely underweight (WAZ <-3SD) | 1,998 | 12.1% | - | 1,911 | 13.8% | - | -0.02 |
| **MUAC** | 2,042 | 147.3 | 15.1 | 1,939 | 146.4 | 16.0 | 0.89\* |
| % Moderately malnourished (MUAC <125mm) | 2,042 | 6.1% | - | 1,939 | 6.8% | - | -0.01 |
| % Severely malnourished (MUAC < 115mm) | 2,042 | 1.9% | - | 1,939 | 2.3% | - | -0.00 |
|  | | | | | | | |
| + The difference in proportions is tested using a two-tailed t-test. Stars indicate levels of significance: \*\*\*=1%, \*\*=5%, \*=10%. | | | | | | | |
|  | | | | | | | |

Section V: Conclusion and discussion

1. Discussion of baseline findings

There are a number of programmatic implications that emerge from the baseline study. This chapter presents a brief discussion of these findings.

**Households in the CDGP LGAs are very poor and have few ways to protect themselves from shocks.**

* Households in the five CDGP LGAs are very poor. 84% of households have per capita expenditures below the global poverty line for household income (US$ 1.25 per day). Shocks (such as drought or poor rain, flooding, crop damage due to pests or disease, violence and curfews) are common and households have few ways of coping with them. Additionally, income and earnings vary a lot through the year. Most people do not have savings and those that do only have a small amount. Credit is scarce: there are few formal financial institutions and only one in five households report borrowing from any source, mainly friends and family.

**Women frequently have a high degree of control of how their own income from work or gifts is spent. Therefore, it is plausible that women may often, but not always, retain control of the CDGP cash transfer if it is view in this way. However, it remains to be seen if the cash transfer will be perceived in this way.**

* About 50% of both husbands and wives agree that the wife has full control a wife’s earnings, or gifts/transfers to the wife. Of the remaining households, most report that money from the wife’s earnings or gift is decided jointly and in about 8% of all households it is reported that the husband has sole control of these, which in absolute terms is still a substantial figure. Therefore, if the CDGP cash transfer is viewed as either income or a gift to women, women will have a high degree of decision making power on how the cash transfer is spent. However, it remains to be seen if the cash transfer will be perceived in this way.
* Further, there is more consultative decision making about money earned or given to the woman in richer households as compared with poorer households, and therefore we might see more households move towards consultative decision making following the income boost from the cash transfer.

**Affordability of food is the primary reason given for the minority of households that are food insecure.**

* About 10% of households are food insecure. The affordability of food items is given as the main cause of food shortages and richer households are less likely to be food insecure than poorer households. The most common coping mechanisms are relying on informal assistance through social ties and working more. A relatively low proportion of households report livestock sales as being a strategy to cope with insufficient food availability.
* If the CDGP increases household resources, then it could well improve food security. However, this is contingent on food being available for purchase at times of greatest need, and earlier evidence showed that there is considerable variation in availability of food items across the LGAs and across the year

**There is a very severe problem of chronic child and mother malnutrition.**

* We observed that the nutritional status of children was very critical in the areas surveyed in the study. More than half of the children surveyed (66%) were classified as stunted, significantly above the WHO cut-off for a critical situation (40%). Some 35% of the children were considered underweight, again higher than the WHO cut-off for severe levels of malnutrition (30%). 7% of the children are wasted. These statistics indicate a very severe problem of chronic child malnutrition.
* Dietary diversity among children under five is poor. Only 16% of children 6–23 months of age receive the recommended number of food groups and this figure does not improve much as children get older.
* Malnourishment is also severe amongst women. 26% of non-pregnant woman in the sample have a Body Mass Index (BMI) below 18.5, which is a threshold for undernourishment.

**Households that spend more on food have better nutrition outcomes for children but being a wealthy household is no guarantee of more and better spending on food.**

* The nutrition status of children and women did not differ much across different levels of household wealth. Similarly, there is no strong relationship between dietary diversity of children under five and household wealth. However, children from households that spend more on food are somewhat less likely to be stunted and they are more likely to have better dietary diversity.
* This suggests that there are households with the same levels of wealth that are spending different amounts of food. This points to the potential importance of pairing a cash transfer with a behavioural change intervention as is the case of CDGP. Being a wealthy household is no guarantee of more and better spending on food and improved nutrition of children, but those who do spend more on food have better nutrition outcomes.

**There is considerable variability in the availability of food throughout the year and between LGAs.**

* We see considerable variation in availability across food items (many of which are basic food items) across LGAs. Many fruit and vegetables are not usually available in a large proportion of communities. There is also considerable variation across the year in availability. The availability of grains, cereals (maize, millet, sorghum, and rice) and meat is quite homogeneous throughout the year. However, for some of the items – such as eggs, peppers and tomatoes – we see a pattern of availability that closely mimics the seasonal calendar in Northern Nigeria where food is scarce in from July to September (“the lean season”) and food insecurity increases. Dairy products such as milk and butter are often not available from November to March.

**The use of antenatal services is low and richer women are much more likely to receive antenatal care and to have visited the health facility at least once in the past 6 months.**

* The proportion of women who used antenatal care services in their last pregnancy is about 45% and the proportion of currently pregnant women who have seen anyone for antenatal care is 31%. Those who do use it appear to be receiving an acceptable standard of service, though there is room to improve.

**The BCC Interventions are needed and if delivered appropriately hold promise for improving child nutrition.**

* There are important misconceptions about adequate breastfeeding practices. Very few individuals, regardless of gender, believe that the baby should be breastfed immediately after birth, half believe the baby should not be exclusively breastfed during the first days of life, and almost half believe that colostrum is not good for the baby.
* Although almost every child below the age of 2 in the sample was breastfed at least once in their lives, only 40% of them were appropriately breastfed, and only 27% were breastfed immediately after birth.
* Diarrhoea, which can severely affect nutrition in young children and is fatal in many cases, is very common and there is evidence that many parents do not understand how best to treat it. . The high prevalence of diarrhoea is in part due to the fact that safe drinking water is often not easily accessible (though access to drinking water is varies considerably across LGAs) and that most households use low-quality toilet facilities or no facilities.

**There the BCC interventions should be targeted beyond pregnant women and should also include males and older female relatives. They also need to be designed taking account of the fact that very few women are literate.**

* The CDGP programme implementers should note that across all ages, only around one in five women report being literate, with lower literacy levels among younger women than older women. This has important implications for the materials that can be used for the delivery of the BCC messaging.
* In the majority of households, men are the primary decision makers about what food to grow and buy, with only approximately one third of households involving women in this decision making. It is very rare to find households where women are the sole decision makers about what food to grow and buy. This has important implications for the CDGP as it suggests that it is crucial for men to be included in the BCC training.
* The CDGP programme implementers should also note that there is strong reliance on informal family networks for advice on important health issues, and not much reliance on trained health workers and this should be taken into account in determining how the BCC messages are delivered.

**The cash transfer appears to be of significant value as compared with men and women’s incomes, and the value of their savings. Given the high value of the transfer, there is a risk that women may try to become pregnant in order to be eligible for the cash transfers.**

* 30% of women who work report not receiving any payment for work. Among those that receive payments, the average monthly earnings are just under NGN 1300, corresponding to around one third of the value of the cash transfer in the CDGP programme. Men’s monthly earnings are around eight times higher than women’s, though 13% of men still earn less per month than the cash transfer. For 5% of households, the combined income for the sampled woman and her husband is less than the cash transfer.
* Among households with some savings, for 23% of households in Jigawa and 19% of households in Zamfara the value of the cash grant in one month exceeds their entire existing value of savings (moreover, recall that 60% of households have zero savings).
* Given the high value of the transfer, it is possible that women may try to become pregnant in order to become eligible to receive the intervention. Changes in fertility could be reflected in changes in birth spacing or the total number of births that occur. We will measure these factors at endline using our sample of women who were not pregnant at the time of our baseline survey, though given the short time frame of the evaluation, we will only be able to detect changes in birth timing and not changes in the total number of births.

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1. How to read the tables and figures

Throughout this report, we will present the baseline data in a number of tables and figures. The tables follow a standard format and the figures can be categorised into two types: figures that visualise categorical data[[17]](#footnote-17) and figures that visualise continuous data[[18]](#footnote-18). These are described in more detail below.

Section A.1 describes how tables are formatted and should be read, Section A.2 describes the figures used to portray categorical data, and Section A.3 describes the figures used to portray continuous data.

* 1. Tables

A simple example of a table for baseline results in this document is given below (Table 55). For each indicator, we report:

* the number of responses considered (column “N”)[[19]](#footnote-19). This indicates the number of observations in the sample on which that indicator is based. This gives an indication of how certain we can be about the estimate in question. The more respondents that answer a question, the more certain we can be that the estimate reflects the true situation
* the mean (“Mean” column). The mean is the average of the answers that were given by the respondents for each question. The mean is reported as a percentage for dichotomous indicators (e.g. owning a bicycle) and in the relevant unit of measurement for continuous indicators (e.g. height of child).
* the standard deviation (column “SD”) for continuous indicators[[20]](#footnote-20). The standard deviation is a measure that is used to quantify the amount of variation or dispersion in the answers that were given by the respondents. A standard deviation close to 0 indicates that the answers were to be very close to the mean, while a high standard deviation indicates that the answers were spread out over a wider range of values.

In tables, footnotes are indicated by the symbol “+” and the notes themselves are given at the bottom of the table.

Table Example table

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| Indicator 1 *(dichotomous variable)* | 5,436 | 10.0% | - |
| Indicator 2 *(categorical, split into a list of dichotomous variables)* |  |  |  |
| * Indicator 2.1 | 3,857 | 10.0% | - |
| * Indicator 2.2 | 3,857 | 20.0% | - |
| * Indicator 2.3 | 3,857 | 30.0% | - |
| * Indicator 2.4 | 3,857 | 40.0% | - |
| Indicator 3 (unit of measurement) *(continuous)* | 3,857 | 3.4 | 1.2 |
| Indicator 4+ | 3,857 | 50.0% | - |
|  |  |  |  |
| + Note on Indicator 4. | | | |

We also present some tables where results are disaggregated by type of respondents (e.g. males verses females, wealthier verses poorer). Table 56 gives an example of such a table. In the final column we are show the difference in the mean between Type A and Type B people. We also give the results of statistical tests that are used to assess if there are any real differences between Type A and Type B people.

Any differences are marked in the tables with a series of asterisks:

\* = significant at the 95% level

\*\* = significant at the 99% level

\*\*\* = significant at the 99.9% level

This means that the more asterisks that are shown, the more likely that the observed difference is due to a real difference between the Type A and Type B people rather than being due to chance. However, it is important to note that by design, 5% of the time, the difference will be shown as significant when actually there is no real difference between treatment and control. It is important to note that, where results are not asterisked, this does not mean that there is no difference between the groups but rather that any difference cannot be asserted with such a high degree of confidence (95% or more).

Table IYCF indicators by presence of health facility in community

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | People Type A | | People Type B | | Difference+ |
| Indicator | N | Mean | N | Mean |
| Indicator 1 *(dichotomous variable)* | 473 | 67.9% | 650 | 58.8% | 9.1%\*\*\* |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| + The difference in proportions is tested using a two-tailed t-test. Stars indicate levels of significance: \*\*\*=1%, \*\*=5%, \*=10%. | | | | |  |

* 1. Figures for categorical data

An example of a bar chart is presented in Figure 45. This chart presents an indicator disaggregated by the categories of another variable (e.g. percent of villages affected by flood, disaggregated by LGA). The mean value of the indicator in each category can be read on the vertical axis.

Figure Example bar chart

|  |
| --- |
|  |
| Source: CDGP Listing Survey. |

A pie chart is a convenient tool for summarising a categorical variable. The size of each slice reflects the proportion of people/households/villages that have a particular characteristic (e.g. marital status of adult women). For example, Figure 46 shows how much of the sample reports each of the four possible values of a given variable.

Figure Example pie chart

|  |
| --- |
|  |
| Source: CDGP Listing Survey. |

* 1. Figures for continuous data

In the report we sometimes show how a continuous variable is distributed in the population. One way to do this is to use a histogram like the one in Figure 47. On the horizontal axis is the continuous variable we are interested in. This variable is divided into intervals of equal length: for each interval, the number of observations lying within that interval is represented by the length of a vertical bar, which can be read on the vertical axis. This figure enables us to immediately see which values of the continuous variable are most common in the sample.

Figure Example histogram

|  |
| --- |
|  |
| Source: CDGP Listing Survey. |

A very similar way to visualise the distribution of a continuous variable is a density plot, like the one in Figure 48. The number of observations at each level of the continuous variable is used to construct a smooth line, exactly like the height of the bars in a histogram.[[21]](#footnote-21) The use of a line instead of bars makes it easier to represent differences in the distribution across groups. In Figure 48, we can see that Group 2 has a higher proportion of observations at smaller values of the continuous variable (left of the horizontal axis) compared to Group 1, and similarly fewer observations at higher levels.

Figure Example density plot

|  |
| --- |
|  |
| Source: CDGP Listing Survey. |

The last type of figure we will use to represent differences in the distribution of a continuous variable across groups is the box plot, of which an example is shown in Figure 49. Now the continuous variable we want to describe is on the vertical axis, and each group has a ‘box’, two ‘whiskers’ and some points outside the whiskers. The line in the middle of the box shows where the median[[22]](#footnote-22) of the variable is located, while the upper and lower limits of the box represent the 75th and 25th percentiles[[23]](#footnote-23). Any point outside the whiskers (which are 1.5 times the length of the boxplot) is represented individually, to show the spread of the variable. The advantage of the box plot is that it allows us to simultaneously visualise a variable’s level, spread, symmetry, and outliers. In Figure 49 we can see that the continuous variable of interest has a higher level and a larger spread in Group 2; also, the variable is approximately symmetrically distributed in Group 1, while it is skewed to the left in Group 2.

Figure Example box plot

|  |
| --- |
|  |
| Source: CDGP Listing Survey. |

1. Child communication and gross motor skills

|  |
| --- |
| **Key findings** |
| We tested the communication skills (babbling, vocalising, listening, and understanding) and gross motor skills (arm, body, and leg movements) of children under five using a version the ASQ-3TM Ages & Stages Questionnaires® (Squires, 2009) which we adapted to fit the northern Nigerian context. We found that 30% of the children fall in “the referral category” for communication skills, while half the sample is in this category for motor skills, which means that they are more than two standard deviations below the mean attainment for their age and further diagnostic assessment is recommended. We expect the proportion of US children in this category to be 2.5%. Even accounting for possible weaknesses with the adaptation of the ASQ, the difference in our sample is considerable. We find no strong relationship between the wealth of households and the children’s communication and motor skills scores, but we did find that children from households that spend more on food have slightly better scores. Children with literate mothers had better motor skills but there was no difference in the communication skills between children with literate and illiterate mothers. |

The CDGP baseline interviews included the administration of the ASQ-3TM version of the Ages & Stages Questionnaires® (ASQ) (Squires, 2009). The ASQ, as implemented in the CDGP, surveys two areas of infant and child behaviour: communication skills (babbling, vocalising, listening, and understanding) and gross motor skills (arm, body, and leg movements). For each of these areas the questionnaire presents six items describing a particular action or behaviour that is expected from a child that is developing correctly: each item can be answered ‘Yes’ (scores 10 points), ‘Sometimes’ (scores five points), or ‘Not yet’ (scores 0 points). The scores for each area are then added together, generating two scales ranging from 0 to 60. The questionnaire is built to be administered to children of varying ages: in the version used in the CDGP baseline, there are 14 different modules, with items appropriate for the different child age bands, from five months to 37 months.[[24]](#footnote-24)

Validation of the ASQ method applied to a sample of more than 18,000 questionnaires has led to the calculation of area-specific cut-off scores, which make it possible to identify children who might show signs of developmental delays or disorders. Subjects with scores that fall more than two standard deviations (SDs) below the mean of this reference population are included in the ‘Referral’ group, for which further diagnostic assessment is recommended. Children between -1 and -2 SD are included in a ‘Monitoring’ group, and might require closer attention, specialised activities, and/or repeated screening. Children above -1 SD are considered to be developing appropriately.

These referral and monitoring cut-offs were calculated on the basis of a sample of US children. Therefore, all statistics in this section are relative to this population. One important aspect to emphasise before presenting any numbers is that several items of the ASQ had to be adapted to the setting we were considering.

Figure 50 shows the proportions of children in the normal, monitoring, and referral groups according to the PPI scores in their households. The first thing to notice is that 30% of the children fall into the referral category for communication skills, while half the sample is in this category for motor skills. We expect the proportion of US children in this category to be 2.5%. Even if we thought that the ASQ was not perfectly adequate in the context of our sample, or if we thought that the adaptation we carried out involved some problems, so that we had to adjust these proportions a little bit, it is quite likely that we would still see alarmingly high proportions of children in the referral category.

This figure also shows that there is hardly any PPI gradient, which is surprising. The food expenditure gradient is a little higher, but still small, as shown in Figure 51. Figure 52 shows no maternal literacy gradient in relation to communication skills, but a small gradient in relation to motor skills. Motor skills may be more easily affected in this setting, at least in the ages we are considering. It would not be surprising if a nutrition intervention had, primarily, impacts on these skills—at least in the short run.

Finally, Figure 53 shows that although the proportion of children in the referral group is smaller when we consider older children, it nevertheless remains quite high.

Figure ASQ score class by PPI quartile

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Figure ASQ score class by food expenditure

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Figure ASQ score class by mother’s literacy

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

Figure ASQ score class by age class

|  |
| --- |
|  |
| Source: CDGP Baseline Survey. |

1. Additional results

Table  Women’s livestock

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| % of women looking after any animal | 5,436 | 67.4% |  |
|  |  |  |  |
| % of women looking after cows | 3,661 | 3.1% | - |
| Number of cows looked after | 111 | 3.38 | 3.95 |
| % of women owning any cow themselves | 112 | 83.0% | - |
| Number of cows owned | 93 | 3.30 | 3.65 |
|  |  |  |  |
| % of women looking after bulls | 3,661 | 3.1% | - |
| Number of bulls looked after | 112 | 2.20 | 1.85 |
| % of women owning any bull themselves | 113 | 78.8% | - |
| Number of bulls owned | 89 | 1.94 | 1.41 |
|  |  |  |  |
| % of women looking after calves | 3,655 | 1.5% | - |
| Number of calves looked after | 34 | 4.06 | 5.13 |
| % of women owning any calf themselves | 54 | 87.0% | - |
| Number of calves owned | 47 | 2.72 | 2.64 |
|  |  |  |  |
| % of women looking after sheep | 3,661 | 39.4% | - |
| Number of sheep looked after | 1,356 | 2.68 | 2.13 |
| % of women owning any sheep themselves | 1,441 | 91.8% | - |
| Number of sheep owned | 1,323 | 2.43 | 1.82 |
|  |  |  |  |
| % of women looking after goats | 3,659 | 72.0% | - |
| Number of goats looked after | 2,569 | 2.79 | 2.37 |
| % of women owning any goats themselves | 2,635 | 93.0% | - |
| Number of goats owned | 2,450 | 2.63 | 2.11 |
|  |  |  |  |
| % of women looking after camels | 3,656 | 0.3% | - |
| Number of camels looked after | 4 | 1.75 | 0.96 |
| % of women owning any camels themselves | 10 | 70.0% | - |
| Number of camels owned | 7 | 1.71 | 0.95 |
|  |  |  |  |
| % of women looking after chickens | 3,661 | 50.8% | - |
| % of women looking after guinea fowl | 3,661 | 4.6% | - |
| % of women looking after horses, mules or donkeys | 3,661 | 0.1% | - |
|  |  |  |  |
| % of women selling milk on a typical day | 3,661 | 0.8% | - |
| % of women selling eggs on a typical day | 3,661 | 0.7% | - |
|  |  |  |  |

Table Household’s livestock

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| % of households where anyone is looking after any animal | 5,440 | 76.1% |  |
|  |  |  |  |
| % of households looking after cows | 4,143 | 14.9% | - |
| Number of cows looked after | 603 | 5.5 | 8.1 |
| % of households owning any cow | 619 | 91.0% | - |
| Number of cows owned | 548 | 5.2 | 7.9 |
|  |  |  |  |
| % of households looking after bulls | 4,143 | 28.5% | - |
| Number of bulls looked after | 1,165 | 2.8 | 3.5 |
| % of households owning any bull | 1,182 | 87.1% | - |
| Number of bulls owned | 1,013 | 2.7 | 3.3 |
|  |  |  |  |
| % of households looking after calves | 4,145 | 6.8% | - |
| Number of calves looked after | 277 | 3.8 | 5.4 |
| % of households owning any calf | 282 | 86.9% | - |
| Number of calves owned | 240 | 3.4 | 4.4 |
|  |  |  |  |
| % of households looking after sheep | 4,144 | 54.3% | - |
| Number of sheep looked after | 2,236 | 11.1 | 236.7 |
| % of households owning any sheep | 2,251 | 93.4% | - |
| Number of sheep owned | 2,088 | 4.7 | 5.2 |
|  |  |  |  |
| % of households looking after goats | 4,145 | 71.4% | - |
| Number of goats looked after | 2,945 | 12.0 | 190.2 |
| % of households owning any goats | 2,960 | 94.2% | - |
| Number of goats owned | 2,775 | 4.8 | 5.0 |
|  |  |  |  |
| % of households looking after camels | 4,145 | 4.0% | - |
| Number of camels looked after | 165 | 1.2 | 0.8 |
| % of households owning any camels | 165 | 86.1% | - |
| Number of camels owned | 142 | 1.3 | 0.9 |
|  |  |  |  |
| % of households looking after horses, mules or donkeys | 4,142 | 2.7% | 0.2 |
| Number of horses, mules or donkeys looked after | 110 | 1.7 | 1.3 |
| % of households owning any horses, mules or donkeys | 110 | 90.0% | 0.3 |
| Number of horses, mules or donkeys owned | 99 | 1.6 | 1.0 |
|  |  |  |  |
| % of households looking after chicken | 4,144 | 55.0% | - |
| % of households looking after guinea fowl | 4,142 | 10.5% | - |
|  |  |  |  |
| % of households that sell milk on typical day | 4,136 | 2.8% |  |
| % of households that sell eggs on typical day | 4,136 | 1.4% |  |
|  |  |  |  |

Table Wife and husband’s decision-making by PPI quartile

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Total | | Bottom PPI quartile  (poorest) | | Top PPI quartile  (richest) | |
| Indicator | Reported by wife (N=5,436) | Reported by husband  (N=5,416) | Reported by wife (N=1,264) | Reported by husband  (N=1,258) | Reported by wife (N=1,404) | Reported by husband  (N=1,400) |
| ‘Suppose the woman were to make NGN 3,500 in 30 days selling snacks. Who do you think would decide how this money was used?’ |  |  |  |  |  |  |
| * Husband or household head, without consulting woman | 8.1% | 9.6% | 7.4% | 8.6% | 7.9% | 9.9% |
| * Husband or household head, consulting woman first | 9.7% | 10.6% | 8.4% | 9.0% | 12.0% | 11.4% |
| * Woman and husband or household head, jointly | 30.9% | 27.9% | 28.5% | 26.4% | 32.9% | 28.7% |
| * Woman | 50.6% | 51.3% | 55.1% | 55.8% | 46.7% | 49.2% |
| * Someone else | 0.5% | 0.3% | 0.5% | 0.1% | 0.4% | 0.4% |
| * Don’t know | 0.2% | 0.3% | 0.1% | 0.2% | 0.2% | 0.3% |
| ‘Now suppose the woman were to be given a regular monthly gift of NGN 1,000, and that this money will be given only to her and not to any other household member. Who do you think would decide how this money was used?’ |  |  |  |  |  |  |
| * Husband or household head, without consulting woman | 8.3% | 8.6% | 7.6% | 7.6% | 7.8% | 8.8% |
| * Husband or household head, consulting woman first | 9.8% | 10.9% | 8.8% | 9.7% | 12.0% | 12.1% |
| * Woman and husband or household head, jointly | 33.1% | 29.7% | 31.3% | 27.5% | 34.8% | 31.1% |
| * Woman | 48.5% | 50.2% | 52.1% | 54.8% | 45.1% | 47.2% |
| * Someone else | 0.3% | 0.3% | 0.2% | 0.2% | 0.4% | 0.6% |
| * Don’t know | 0.0% | 0.3% | 0.0% | 0.2% | 0.0% | 0.2% |
| ‘Now suppose the woman were to be given a regular monthly gift of NGN 3,500, and that this money will be given only to her and not to any other household member. Who do you think would decide how this money was used?’ |  |  |  |  |  |  |
| * Husband or household head, without consulting woman | 8.2% | 8.5% | 7.5% | 7.9% | 8.0% | 8.4% |
| * Husband or household head, consulting woman first | 10.1% | 10.9% | 9.5% | 9.8% | 12.0% | 12.2% |
| * Woman and husband or household head, jointly | 33.8% | 30.4% | 32.0% | 27.9% | 35.5% | 32.4% |
| * Woman | 47.6% | 49.6% | 50.7% | 54.1% | 44.2% | 46.1% |
| * Someone else | 0.3% | 0.3% | 0.2% | 0.2% | 0.4% | 0.6% |
| * Don’t know | 0.0% | 0.2% | 0.0% | 0.2% | 0.0% | 0.3% |
|  |  |  |  |  |  |  |

Table Wife and husband’s decision-making by food expenditure quartile

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Total | | Bottom food exp. quart.  (poorest) | | Top food exp. quart.  (richest) | |
| Indicator | Reported by wife (N=5,436) | Reported by husband  (N=5,416) | Reported by wife (N=1,264) | Reported by husband  (N=1,258) | Reported by wife (N=1,404) | Reported by husband  (N=1,400) |
| ‘Suppose the woman were to make NGN 3,500 in 30 days selling snacks. Who do you think would decide how this money was used?’ |  |  |  |  |  |  |
| * Husband or household head, without consulting woman | 8.1% | 9.6% | 7.4% | 11.6% | 7.9% | 8.9% |
| * Husband or household head, consulting woman first | 9.7% | 10.6% | 8.4% | 7.9% | 12.0% | 12.6% |
| * Woman and husband or household head, jointly | 30.9% | 27.9% | 28.5% | 23.5% | 32.9% | 29.2% |
| * Woman | 50.6% | 51.3% | 55.1% | 55.8% | 46.7% | 48.6% |
| * Someone else | 0.5% | 0.3% | 0.5% | 0.5% | 0.4% | 0.4% |
| * Don’t know | 0.2% | 0.3% | 0.1% | 0.7% | 0.2% | 0.2% |
| ‘Now suppose the woman were to be given a regular monthly gift of NGN 1,000, and that this money will be given only to her and not to any other household member. Who do you think would decide how this money was used?’ |  |  |  |  |  |  |
| * Husband or household head, without consulting woman | 8.3% | 8.6% | 7.6% | 10.7% | 7.8% | 7.8% |
| * Husband or household head, consulting woman first | 9.8% | 10.9% | 8.8% | 8.1% | 12.0% | 13.2% |
| * Woman and husband or household head, jointly | 33.1% | 29.7% | 31.3% | 25.1% | 34.8% | 30.3% |
| * Woman | 48.5% | 50.2% | 52.1% | 55.1% | 45.1% | 48.3% |
| * Someone else | 0.3% | 0.3% | 0.2% | 0.4% | 0.4% | 0.4% |
| * Don’t know | 0.0% | 0.3% | 0.0% | 0.7% | 0.0% | 0.2% |
| ‘Now suppose the woman were to be given a regular monthly gift of NGN 3,500, and that this money will be given only to her and not to any other household member. Who do you think would decide how this money was used?’ |  |  |  |  |  |  |
| * Husband or household head, without consulting woman | 8.2% | 8.5% | 7.5% | 10.5% | 8.0% | 8.0% |
| * Husband or household head, consulting woman first | 10.1% | 10.9% | 9.5% | 7.8% | 12.0% | 12.6% |
| * Woman and husband or household head, jointly | 33.8% | 30.4% | 32.0% | 25.7% | 35.5% | 31.6% |
| * Woman | 47.6% | 49.6% | 50.7% | 54.9% | 44.2% | 47.2% |
| * Someone else | 0.3% | 0.3% | 0.2% | 0.4% | 0.4% | 0.4% |
| * Don’t know | 0.0% | 0.2% | 0.0% | 0.7% | 0.0% | 0.2% |
|  |  |  |  |  |  |  |

Table Child Anthropometrics: All Children 0–59 months old

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | N | Mean | SD |
| **Weight for Height Z-score (WHZ)** | 4,017 | -0.28 | 1.20 |
| % wasted (WHZ <-2SD) | 4,017 | 7.4% | - |
| % severely wasted (WHZ <-3SD) | 4,017 | 2.2% | - |
| **Height for Age Z-score (HAZ)** | 4,017 | -2.48 | 1.49 |
| % stunted (HAZ <-2SD) | 4,017 | 65.0% | - |
| % severely stunted (HAZ <-3SD) | 4,017 | 36.6% | - |
| **Weight for Age Z-score (WAZ)** | 4,017 | -1.60 | 1.18 |
| % underweight (WAZ <-2SD) | 4,017 | 34.2% | - |
| % severely underweight (WAZ <-3SD) | 4,017 | 12.6% | - |
| **MUAC** | 4,105 | 145.8 | 16.9 |
| % Acutely malnourished (MUAC <125mm) | 4,105 | 8.2% | - |
| % Severely malnourished (MUAC < 115mm) | 4,105 | 3.8% | - |

Table Child Anthropometrics: Children 0–59 months old, by gender

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator | MALES | | | FEMALES | | |
|  | N | Mean | SD | N | Mean | SD |
| **Weight for Height Z-score (WHZ)** | 1,997 | -0.30 | 1.24 | 2,020 | -0.26 | 1.15 |
| % wasted (WHZ <-2SD) | 1,997 | 8.3% | - | 2,020 | 6.6% | - |
| % severely wasted (WHZ <-3SD) | 1,997 | 2.9% | - | 2,020 | 1.6% | - |
| **Height for Age Z-score (HAZ)** | 1,997 | -2.54 | 1.51 | 2,020 | -2.42 | 1.46 |
| % stunted (HAZ <-2SD) | 1,997 | 66.9% | - | 2,020 | 63.0% | - |
| % severely stunted (HAZ <-3SD) | 1,997 | 38.2% | - | 2,020 | 35.1% | - |
| **Weight for Age Z-score (WAZ)** | 1,997 | -1.62 | 1.19 | 2,020 | -1.59 | 1.17 |
| % underweight (WAZ <-2SD) | 1,997 | 34.7% | - | 2,020 | 33.7% | - |
| % severely underweight (WAZ <-3SD) | 1,997 | 13.8% | - | 2,020 | 11.4% | - |
| **MUAC** | 2,045 | 146.6 | 16.4 | 2,060 | 145.0 | 17.3 |
| % Acutely malnourished (MUAC <125mm) | 2,045 | 7.4% | - | 2,060 | 9.0% | - |
| % Severely malnourished (MUAC < 115mm) | 2,045 | 3.4% | - | 2,060 | 4.1% | - |

Table Child Anthropometrics: Children 0–59 months old, by season

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Interviewed September 15, 2014 and Before | | | | | Interviewed after September 15, 2014 | | | | |  |
| Indicator | N | Mean | | SD | | N | Mean | | SD | | Differ-ence + |
| **Weight for Height Z-score (WHZ)** | 2,037 | -0.29 | | 1.16 | | 1,980 | -0.27 | | 1.23 | | -0.0 |
| % wasted (WHZ <-2SD) | 2,037 | 7.8% | | 0.3 | | 1,980 | 7.1% | | 0.3 | | 0.6% |
| % severely wasted (WHZ <-3SD) | 2,037 | 1.9% | | 0.1 | | 1,980 | 2.6% | | 0.2 | | -0.7% |
| **Height for Age Z-score (HAZ)** | 2,037 | -2.42 | | 1.51 | | 1,980 | -2.55 | | 1.46 | | 0.1\*\*\* |
| % stunted (HAZ <-2SD) | 2,037 | 63.4% | | 0.5 | | 1,980 | 66.6% | | 0.5 | | -3.2%\*\* |
| % severely stunted (HAZ <-3SD) | 2,037 | 35.3% | | 0.5 | | 1,980 | 38.0% | | 0.5 | | -2.7%\* |
| **Weight for Age Z-score (WAZ)** | 2,037 | -1.57 | | 1.16 | | 1,980 | -1.64 | | 1.19 | | 0.1\* |
| % underweight (WAZ <-2SD) | 2,037 | 32.4% | | 0.5 | | 1,980 | 36.0% | | 0.5 | | -3.6% |
| % severely underweight (WAZ <-3SD) | 2,037 | 11.8% | | 0.3 | | 1,980 | 13.4% | | 0.3 | | -1.6% |
| **MUAC** | 2,084 | 146.6 | | 15.8 | | 2,021 | 144.9 | | 17.9 | | 1.7\*\*\* |
| % Moderately malnourished (MUAC <125mm) | 2,084 | 7.3% | | 0.3 | | 2,021 | 9.2% | | 0.3 | | -1.9%\*\* |
| % Severely malnourished (MUAC < 115mm) | 2,084 | 3.0% | | 0.2 | | 2,021 | 4.6% | | 0.2 | | -1.6%\*\*\* |
|  |  | |  | |  |  | |  | |  |  |
| + The difference in proportions is tested using a two-tailed t-test. Stars indicate levels of significance: \*\*\*=1%, \*\*=5%, \*=10%. | | | | | | | | | | | |
|  |  | |  | |  |  | |  | |  |  |

1. The questions in this section were answered by a group of people who were deemed by the village head to be knowledgeable about the village. [↑](#footnote-ref-1)
2. The translation to English of the exact question asked is “Are there any government programmes or non-governmental organisations that support the public by providing funds in this town? Providing funds or financial support means providing money in cash or through mobile banking. This excludes programmes that focus on the provision of basic / essential needs.” [↑](#footnote-ref-2)
3. ‘Improved’ drinking water sources are: piped water into a dwelling, piped water into a yard/plot, public tap/stand/pipe, tubewell/borehole, protected dug well, protected spring, bottled/sachet water, collected rainwater. WHO and UNICEF. (2006). “Core Questions on Drinking Water and Sanitation for Household Surveys”. Geneva, Switzerland: WHO and UNICEF. [↑](#footnote-ref-3)
4. ‘Improved’ toilet facilities are: a flush toilet, a ventilated improved pit latrine, a pit latrine with a slab, a composting toilet. WHO and UNICEF. (2006). “Core Questions on Drinking Water and Sanitation for Household Surveys”. Geneva, Switzerland: WHO and UNICEF. [↑](#footnote-ref-4)
5. Deitchler, M., T. Ballard, A. Swindale, and J. Coates (2011) ‘Introducing a Simple Measure of Household Hunger for Cross-Cultural Use’, Washington DC: Food and Nutrition Technical Assistance II Project [↑](#footnote-ref-5)
6. The HHS questionnaire consists of a subset of the questions that make up the Household Food Insecurity Access Scale (HFIAS). The questions that form the HHS were those that were found to be valid for cross-cultural use in an evaluation of the HFIAS conducted by the Food and Nutrition Technical Assistance (FANTA) project. The advantage of using the HHS over the HFIAS is that our results can be meaningfully compared with HHS scores in studies from different countries and cultural contexts. A potential limitation of the HHS is that it is narrower in scope. The questions that make it up are associated with the more acute experiences of food insecurity, so it may not be as sensitive as the HFIAS. The authors address this issue in their report by applying the HHS to several datasets from different countries and using time series data to analyse its responsiveness to climatic and seasonal changes. Their results suggest that the instrument is sufficiently powerful for impact evaluation purposes. See above reference. [↑](#footnote-ref-6)
7. See Table 59 and Table 60 in Annex C for the exact numbers. [↑](#footnote-ref-7)
8. The BMI is a measure of relative size based on the mass and height of an individual. The BMI for a person is defined as their body mass divided by the square of their height. [↑](#footnote-ref-8)
9. http://www.ennonline.net/fex/38/nutrition [↑](#footnote-ref-9)
10. See World Food Programme (2012), ‘Monitoring Food Security Technical Guidance Sheet 2’, available at <https://www.wfp.org/content/monitoring-food-security-technical-guidance-sheet>, and Ververs, M., Antierens, A., Sackl, A., Staderini, N., Captier, V. (2013) ‘Which Anthropometric Indicators Identify a Pregnant Woman as Acutely Malnourished and Predict Adverse Birth Outcomes in the Humanitarian Context?’, available at <http://currents.plos.org/disasters/article/which-anthropometric-indicators-identify-a-pregnant-woman-as-acutely-malnourished-and-predict-adverse-birth-outcomes-in-the-humanitarian-context/> [↑](#footnote-ref-10)
11. NACS (2014), ‘NACS User’s Guide’, available at http://www.fantaproject.org/tools/nacs-users-guide-modules-nutrition-assessment-counseling-support [↑](#footnote-ref-11)
12. Infants aged 0–5 months who received only breast milk during the previous day, and children aged 6–23 months who received breast milk, as well as solid, semi-solid, or soft foods, during the previous day. [↑](#footnote-ref-12)
13. WHO (2006) ‘WHO Child Growth Standards’, Geneva, Switzerland: WHO. [↑](#footnote-ref-13)
14. WHO (1995) ‘Physical Status: the Use and Interpretation of Anthropometry’, Geneva, Switzerland: WHO, p. 161. [↑](#footnote-ref-14)
15. Ibid., p. 165. [↑](#footnote-ref-15)
16. Ibid., p. 164. [↑](#footnote-ref-16)
17. Categorical data are data where the outcome can take one of a limited number of possible values, thus assigning each individual or household to a particular group or category (e.g. type of toilet) [↑](#footnote-ref-17)
18. Continuous data are data where the outcome can be measured on a continuum or scale (e.g. height of child) [↑](#footnote-ref-18)
19. The “N” column is omitted when the same number of responses occurs throughout the table; the number is reported at the bottom [↑](#footnote-ref-19)
20. The “SD” column is omitted when no continuous variables are considered in the table [↑](#footnote-ref-20)
21. Throughout the report, we will approximate the density represented in these plots using a kernel estimator. [↑](#footnote-ref-21)
22. The median is the number separating the higher half of a data sample from the lower half, i.e. it is the middle number when all the observations are listed in order from smallest to biggest. If there is an even number of observations, then there is no single middle value; the median is then defined to be the mean of the two middle values [↑](#footnote-ref-22)
23. The 25th percentile is the value below which 25% of the observations may be found (i.e. it is the number a quarter of the way along when all the observations are listed in order from smallest to biggest). The 75th percentile is the value below which 75% of the observations may be found. [↑](#footnote-ref-23)
24. The age bands in the CDGP version of the ASQ are:

    |  |  |
    | --- | --- |
    | 5–6 months (152–212 days) | 19–20 months (578–638 days) |
    | 7–8 months (213–272 days) | 21–22 months (639–699 days) |
    | 9–10 months (273–333 days) | 23–25 months 15 days (700–775 days) |
    | 11–12 months (334–394 days) | 25 months 16 days - 28 months 15 days (776–867 days) |
    | 13–14 months (395–455 days) | 28 months 16 days – 31 months 15 days (868–958 days) |
    | 15–16 months (456–516 days) | 31 months 16 days – 34 months 15 days (959–1049 days) |
    | 17–18 months (517–577 days) | 34 months 16 days – 37 months (1050–1155 days) |

    [↑](#footnote-ref-24)