USC-Office of Population Studies Foundation, Inc.

LONGITUDINAL COHORT STUDY ON THE FILIPINO CHILD

Wave 4 Final Report

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Disclaimer

All discussions and interpretations of study findings presented in this report are not necessarily that of UNFPA, PCHRD and the other agencies which funded the survey.

Suggested Citation:

USC-Office of Population Studies Foundation, Inc. (OPS). (2021). Longitudinal Cohort Study on the Filipino Child. Wave 4 Final Report. OPS Report Series No. 6. Retrieved from https://www.opsusc.org/paper_series.php.

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EXECUTIVE SUMMARY

The fourth survey round of the Longitudinal Cohort Study on the Filipino Child (LCSFC) coincided with the early months of the coronavirus pandemic in the Philippines. Such a situation provided a certain importance on the information gathered in this most recent wave of the longitudinal study, which was launched in 2016 with a view of continuing until the end of the Sustainable Development Goals in 2030. The pandemic situation and the consequent community quarantine protocols, however, also posed constraints on data gathering, as manifested in the decision to stop data collection before all of the sample children and households had been visited. The Wave 4 data collection teams were able to visit and collect data from 3,079 of the cohort children before the cessation of data collection in March 2020. The Wave 4 dataset remains viable as a source of information, with sampling weight adjustments, especially with regard to the situation of 13 year old children and their households at the beginning of 2020. More importantly, data from this Wave represent situations just prior to when the viral threat was declared a pandemic, thus providing valuable pre-crisis benchmarks against which subsequent data can be compared to measure the pandemic's impact on the cohort. The Wave 4 dataset is a tribute to the dedication and heroism of the study's researchers, some of whom had experienced being locked down in a research area for several weeks before they were able to reunite with their families. We look back in gratitude to the fact that all field staff involved in the study had come home safe.

In Wave 4, the children are aged on the average 13 years old. Majority were in Grades 7 and 8, and many of them were midway through the pubertal transition. Several vulnerabilities have been observed in the present and previous surveys, such as the increasing proportions of reported sickness, disability, work, alcoholic drinking and chatting with strangers. Also observed is in internet and cellphone use. There have been decreases in physical violence by friends and adults, but other vulnerabilities, such as experiencing physical violence by parents and experiencing hunger, do not show clear signs of decline.

Subsequent waves of the study will be able to provide more information on the adolescent experiences of the cohort sample, especially with regard to important transitions that happen to them during their teenage years. We will also be able to get a glimpse of how this cohort of children is growing up in the shadow of global health threats, and in the midst of changes in the country and in their specific communities. The LCSFC is now providing important information that will contribute to the body of knowledge necessary to help the government and other stakeholders achieve national and global aims such those included in the Sustainable Development Goals and Ambisyon Natin 2040.

CHAPTER 1
INTRODUCTION

Study objectives

The Longitudinal Cohort Study on the Filipino Child (LCSFC or the Cohort Study) is an ongoing longitudinal study of a nationally representative cohort of Filipino children. The study was initiated by the United Nations Population Fund, which envisioned a study of a group of children whose experiences can provide a human face to the Sustainable Development Goals. The project was supported by the Philippine Government, which provided necessary funding, endorsement and oversight through the project's National Steering Committee, consisted by lead government agencies (led by the National Economic and Development Authority) and some international agencies such as UNFPA, UNICEF and DFAT (Australia's Department of Foreign Affairs and Trade). The Cohort Study now informs programs related to the attainment of the Sustainable Development Goals and the country's Ambisyon Natin 2040.

The Cohort Study was launched in 2016, and enrolled a nationally representative community-based sample of 10-year old children. Information for these children and their households were also gathered in subsequent years. The study has a two-fold overall objective:

1. Contribute to the body of evidence on population dynamics and sexual and reproductive health and rights, with a special focus on the SDG related indicators.

2. Provide an evidence-based resource that will inform national policy making and development planning particularly on how the SDG agenda can contribute to maximizing the potentials of the Filipino youth.

Since the baseline survey in 2016, the Cohort Study has examined the various changes (physical, mental, emotional) in the sample children and examined the household and community conditions that accompanied such changes. The study was designed to gather information relevant to 13 of the 17 Sustainable Development Goals. Important

milestones in the lives of the sample children are now being observed such as the pubertal transition and sexual and reproductive health experiences, progression through K-12 education, entry to labor force, and engagement in actual and virtual communities. Such milestones occur in the lives of the cohort members in the context of wider social and programmatic changes.

This report presents the procedures and results of the 2020 Wave 4 survey round, the third follow-up survey since the baseline. For more details on the Cohort Study please refer to the Baseline Survey Final Report (OPS, 2018) and other official reports and policy notes listed in Chapter 6.

Study team

With the USC-Office of Population Studies Inc. as the main implementing agency, the Cohort Study brings together three renowned research institutions in the country: the Demographic Research and Development Foundation (DRDF) of the University of the Philippines Population Institute in Luzon, the Center for Social Research and Education (CSRE) of the University of San Carlos in the Visayas, and the Research Institute for Mindanao Culture (RIMCU) of the Xavier University in Mindanao. These research institutions are responsible for the main data collection and decisions made in the field, and also reviewed the final report for Wave 4 as in previous surveys. Also part of the study team are expert consultants to advise the team on matters of policy (Dr. Alejandro N. Herrin), sampling and statistics (Dr. Erniel B. Barrios), and psychology (Dr. Delia E. Belleza).

The United Nations Population Fund (UNFPA) oversees the study in consultation with the National Steering Committee (NSC). The UNFPA Team is led by Dr. Charl Andrew P. Bautista (Project Coordinator), Dr. Vicente Jurlano, Dr. Rena Dona, Mr. Jose Roi B. Avena and Dr. Joseph Michael Singh with assistance from Ricca Katrina Bonales and

Jose Nicomedes Castillo. The NSC is composed of national and international agencies (see List) and headed by the National Economic Development Authority (NEDA).

The Wave 4 Survey also benefited from the knowledge and experience of a pool of experts from various disciplines (nutrition, psychology, child labor, adolescent sexuality, education) who reviewed the survey instruments and gave scientific advice and recommendations on the instruments and in the conduct of the study.

CHAPTER 2
WAVE 4 SURVEY SAMPLE

2.1 Survey Sample and Inclusion Criteria

The baseline survey in 2016 included a nationally representative sample of 4,952 ten-year old Filipino children. The sample was also representative of domains representing the three island groups of Luzon, Visayas and Mindanao. The table below shows some baseline descriptive statistics for the sample, stratified by the three domains. Other characteristics of the children and their households were described in the Final Reports for Waves 1, 2 and 3 (OPS, 2018, 2019, 2020).

Table 2.1 Wave 1 sample distribution by domain

Survey statistics	Luzon	Visayas	Mindanao	TOTAL
Sample barangays, n	115	115	115	345
Households interviewed, n	1,618	1,639	1,695	4,952
Index children (10-year old sample) interviewed[a], n	1,600	1,639	1,688	4,927
Population of 10-year old children per domain[b] in 2016, n	1,134,854	414,228	561,308	2,110,179
Weighted proportion of sample across domains, %	53.8%	19.6%	26.6%	100.0%

[a]There were 25 index children not interviewed but with household interviews: 8 were with disabilities and incapable of being interviewed and 17 either refused to be interviewed (but parents consented to participate in study) or were not available for interviews]
[b]Estimated based on the population of 9-year old children in 2015 Census Survey (age 10 in 2016)
Source: OPS, 2019

Recruitment criteria for index children (IC) at Baseline:

At baseline (Wave 1), the sample was recruited by identifying households in sample barangays who had 10-year old children. Age was defined as age in years as of last birthday, verified if possible by birth certificates or supporting documents. The mother or primary caregiver was asked for her or his consent to let the child participate in the baseline and in subsequent surveys. Once the consent was given, the verbal assent of the child was also obtained before the interview could begin. Informed consent would again be repeated at the start of data collection in subsequent survey rounds.

Recruitment criteria in follow-up surveys:

The Wave 4 survey followed the recruitment criteria of the first two follow up surveys in interviewing index children who reside in the same municipality or city (sample areas) where they were interviewed in the prior survey. Index children who moved out of the sample areas or are classified as outmigrants (OMs) were tracked and interviewed if the new address was in a) a municipality/city adjacent to prior address, b) another sample area anywhere in the country where a field team could conduct the interview, and c) any other area were follow-up is deemed logistically feasible. Proper consent from the mothers/caregivers and assent from the ICs were secured before the beginning of the interviews.

2.2 Sample coverage and attrition

The previous 3 survey rounds saw an increase in area coverage for the study, with the number of sample barangays increasing from 345 in the baseline survey to 483 barangays in Wave 3. In Wave 4, however, the study is down to 385 barangays due to the stoppage of ongoing data collection because of the pandemic. Among the Wave 4 barangays, community survey information was only collected for 213 barangays, since data collection excluded barangays with only 1 or 2 interviewed children. With the limitation in coverage, the Wave 4 data is important in that it can provide information about the cohort participants and their households at the start of the pandemic. Such data can be supplemented with data from prior surveys and subsequent data (such as the phone survey on the cohort sample done about 7 months after Wave 4) in order to get a clearer picture of how the pandemic has affected existing developmental trends in the cohort sample.

Information on the sample distribution by area (barangays) in the different survey rounds stratified by domain is presented in Table 2.2A. The Wave 4 Survey covered 3,079 households distributed in 15 regions, 41 provinces and 192 municipalities. Among the households covered in Wave 4, 935 were in Luzon, 1,281 were in Visayas, and 863 were

in Mindanao. The households covered in the Wave 4 Survey covered 62% of the originally targeted sample. The remaining percentage is considered lost to follow-up due to outmigration, household moved without specific new address, refusal, and (majority) due to inability to do revisits with the COVID-19 related cessation of field work.

Table 2.2A Waves 1-4 sample distribution and area coverage by domain

Survey statistics	Luzon (n)	Visayas (n)	Mindanao (n)	TOTAL (n)
A. Sample area coverage				
A.1 Number of barangays:				
Wave 1	115	115	115	345
Wave 2	141	141	132	414
Wave 3	143	162	178	483
Wave 4	124	135	126	385
A.2 Number of municipalities covered in each wave:				
Wave 1	74	84	85	243
Wave 2	82	94	86	262
Wave 3	80	102	99	281
Wave 4	60	78	54	192
A.3 Number of provinces covered in each wave:				
Wave 1	15	14	25	54
Wave 2	19	15	25	59
Wave 3	18	16	25	59
Wave 4	14	11	16	41
A.4 Number of regions covered in each wave:				
Wave 1	5	3	6	14
Wave 2	8	3	6	17
Wave 3	6	3	6	15
Wave 4	6	3	6	15
B. Number of households interviewed:				
Households in Wave 1	1,618	1,639	1,695	4,952
Households in Wave 2	1,492	1,610	1,633	4,735
Households in Wave 3	1,450	1,595	1,618	4,663
Households in Wave 4	935	1,281	863	3,079

2.3 Representativeness of the Wave 4 sample

The Cohort Study is designed to follow a nationally representative sample of ten-year old Filipinos from Luzon, Visayas, and Mindanao starting at baseline in 2016. The sample proportions by domain (53.8% in Luzon, 19.6% in the Visayas, and 26.6% in Mindanao),

reflects the relative proportions of the approximately 2.1 million ten-year old Filipino children in these domains at the beginning of the study.

In light of the Wave 4 attrition due to the COVID-19 related stoppage of the study, refusals, outmigration, and other causes, sampling weights were adjusted and applied to the Wave 4 data (please see Appendix 3 for more details on survey sampling design and sample weights). These adjusted weights were applied to the 3,070 Wave 4 households which remained in the baseline domain (whether still living in the same baseline barangay or have moved to another barangay within the same domain). The new weights do not apply to households which moved to a different domain in Wave 4 (see C.1 of Table 2.2A).

2.4 Comparing baseline sample with those retained in Wave 4

Weighted logistic regression analysis (see Table 2.4A) indicates that those who were retained in the Wave 4 sample had some important characteristics that significantly differed from those who were not included or attrited from the sample (due to refusal, unavailability, lack of contact, or death). While some of the selected characteristics did not significantly differ between the enrolled and attrited cases, those who were retained in Wave 4 were found to be significantly more urban, had greater household sizes, and in the Visayas domain (because of greater coverage in that domain before the cessation of data collection). These significant differences represent limitations of the Wave 4 sample.

Table 2.4A Odds ratios indicating associations between being in Wave 4 or not and selected index child/household/community characteristics[a]

Index child/household/community characteristics at baseline	In Wave 4 Odds Ratio (95% CI)
Male	1.07 (0.94,1.21)
Height	1.00 (0.98,1.01)
Weight	1.01 (0.99,1.02)
Household size	1.04 (1.01,1.07)**
4Ps beneficiary household	1.01 (0.89,1.15)
Urban (1=yes; 0=no)	2.08 (1.81,2.38)***
Domain (living in Luzon as base group) Visayas	3.40 (2.88,4.00)***

Mindanao	1.00 (0.86,1.16)

[a]Odds ratios (95% Confidence Interval)from weighted multivariable logistic regression models;Variables are dichotomous (coded as 1=yes; 0=no) except for number of parents, household size (continuous variables). Significant at ** p<0.05, *** p<0.001

Table 2.4B also shows that in terms of selected personal vulnerability indicators, those who were retained in the Wave 4 sample were also not much different from those who were attrited. This indicates that the Wave 4 sample can still be viable as a data set even with the limitations shown in the previous table.

Table 2.4B Odds ratios indicating associations between being in Wave 4 or not and selected vulnerabilities[a]

Vulnerabilities	In Wave 4 Model 1[b] Odds Ratio (95% CI)	In Wave 4 Model 2[c] Odds Ratio (95% CI)
Stunted	0.97 (0.86,1.10)	0.97 (0.85,1.10)
Repeated grade	0.89 (0.75,1.06)	0.94 (0.78,1.13)
Missed school	0.89 (0.79,1.00)*	0.89 (0.79,1.00)
Experienced violence from friends	1.01 (0.90,1.14)	1.02 (0.90,1.16)
Experienced violence from parents[d]	0.98 (0.85,1.14)	0.99 (0.84,1.15)

[a]Odds Ratios (95% Confidence Interval) from weighted logistic regression models;Variables are dichotomous (1=yes; 0=no)
[*]Significant at p<0.05
[b] Unadjusted
[c] Controlling for number of parents in household, 4Ps beneficiary, IP classification being male, urban and domain (separate model for each vulnerability)
[d] Forcefully hurt by parents

CHAPTER 3
WAVE 4 SURVEY PROTOCOL

3.1 Data collection teams

The Wave 4 Survey data collection was carried out by teams of interviewers visiting the sample barangays and conducting interviews at the homes of the IC and HR. In total there were 14 such teams, each with its own Team Leader and about 3-5 Field Interviewers. The number of interviewers for each team varied according to the number and geographic location of barangays assigned to the team. The list of data collection teams per domain is shown in Appendix 2 of this report.

3.2 Survey training

The training of all survey personnel was conducted from January 1-31, 2020 across the three domains. The partner institutions, Demographic Research and Development Foundation (DRDF) in Luzon, Center for Social Research & Education (CSRE) in the Visayas and Research Institute for Mindanao Culture (RIMCU) in Mindanao, screened potential field personnel and endorsed the hiring of successful applicants to OPS. Most hired applicants had been part of the study having worked in previous survey waves.

OPS training team, with the Computer-Assisted Personal Interviewing (CAPI) and Psychology consultants, conducted a 2-week training in each domain. A nested training schedule was adopted, overlapping on the second week, wherein while one domain was doing CAPI training, the next domain got started on Pen and Paper Interviewing (PAPI). Though most of the interviews would be conducted on CAPI, the PAPI training was conducted to make the interviewers familiarize with, review and understand the concepts and flow of the questions, and grasp and appreciate the sequence and progression of the entire set of questionnaires. Sequence of training is as follows:

Visayas: 4 teams (21 personnel) on January 1 - 17, 2020 at OPS, Cebu City

Luzon: 5 teams (25 personnel) on January 13-24, 2020 at UPPI-DRDF, Quezon City
Mindanao: 5 teams (25 personnel) on January 20-31, 2020 at RIMCU, Cagayan de Oro City

Despite of the ash flow warning on January 13 due to the eruption of Taal Volcano, the training in Luzon proceeded as it was perceived safe to come to the venue with health precautionary measures being observed.

3.3 Data collection period

Most teams were deployed to the field within about a week or so post-training. The Visayas teams started on January 21, 2020; the Luzon teams on January 30, 2020; and the Mindanao teams on February 9, 2020. The teams were constantly reminded to abide by DOH-recommended health precautionary measures, and to monitor the evolving public health situation.

In view of the increasing risk of exposure to COVID-19, with imminent area boundary lockdowns, all field work activities were stopped effective March 15, 2020. All teams returned to home bases, arriving from March 15 to March 17, except for one RIMCU team that was stranded in Tawi-tawi. After hurdling travel and border restrictions and complying with quarantine protocols, they were able to arrive in Cagayan de Oro City on May 22 to undergo 14-day quarantine in a government-designated quarantine facility.

While 62% household coverage is certainly way below the overall target coverage the Project Management Team, upon consultation with UNFPA and PCHRD, decided to first suspend and then eventually stop data collection entirely. Without a definite end to the COVID-19 crisis and a clear declaration at that time from the government as to when it was safe to travel and re-establish contact with survey respondents, it was difficult for the Project Management Team to approximate a clear date when to safely resume fieldwork. For their safety, we required all the teams to return home at the start of the crisis. It would not be fair to ask these teams to commit their time to the survey and indefinitely wait

(without pay) until they could resume work. Recruiting a new set of field staff and the subsequent processing required would not be efficient.

The uncertainty of the situation also presented a research design dilemma. Should the community quarantine be lifted at some point in the future and we eventually got clearance to resume field work, the experiences and behaviors of those we had interviewed and the remaining 38% who had not been visited would vary significantly and thus introduce bias to the Wave 4 data, disrupting the overall study design. Compared to the interviewed set, the ~38% would not only have a longer interval from previous contact (Wave 3), but will be interviewed after exposure to COVID-19. These children and their households might have experienced major changes in their circumstances and are likely to behave differently than those previously interviewed. This situation would make data analysis complicated, and thus upon the advice of our Statistical Consultant, we declared it best to close survey operations and apply the necessary sampling weights correction to the collected data. This decision was also informed by the fact that the cohort study teams were scheduled to start Wave 5 data collection soon, scheduled in the first quarter of 2021.

Data collection method

The Wave 4 survey used computer-assisted personal interviewing (CAPI) for the household and individual components, and pen-and-paper interviewing (PAPI) for the community survey. The CAPI components were collected and managed using CSPro, a secure, web-based software platform designed for surveys. The survey program was loaded to Samsung Tablets (Samsung TAB A 8.0 with S-Pen). The interviewers and team leaders were trained in the use of the CAPI tool and how to securely transfer data from the interviewers' tablets to the team leaders' tablets. The team leaders transferred the data from their tablets to the secure server at OPS.

3.4 Cohort tracking protocol

Cohort masterlist. A masterlist containing the names of the ICs and household respondents (HR), with contact numbers and other relevant identifying information, is securely kept and maintained by the survey implementors. All research staff are trained to keep all personal information obtained in the study confidential, and all staff are required to sign the OPS Data Confidentiality Agreement (see Appendix 4).

In Wave 4, as in Waves 2 and 3, electronic and printed copies of the masterlist were provided to each Team Leader. The masterlist contained information on the IC households assigned to the team. The teams contacted potential respondents through phone and household visit, and with the use of the masterlist information, ascertained their identity as respondents of the longitudinal survey. Only after a successful screening can an interview continue. If the identities cannot be ascertained, the matter is reported to the domain-based research centers and to OPS.

Tracking protocol.In Wave 4, as in each follow-up survey, the index child and his/her current household were tracked and located. Co-residence of the index child and the household respondent was determined, and if the index child was no longer living with the previous household respondent, a new household respondent was identified. Children who were living in the same residence or within the same municipality or city as in last interview were included for Wave 4, as well as those who had moved to areas where follow-up was logistically feasible.

The Wave 4 follow-up followed two tiers of tracking: the tracking by phone, and the tracking by home visit.

Phone Tracking. In tracking by phone, calls were made to all households where living ICs were expected to be residing, using the cell phone numbers obtained in the Wave 3

survey round. After the contact was made, the current address of the index child was determined and an eligible household respondent was identified.

Home Tracking. After the phone tracking, regardless of whether the households were reached by phone or not, a home visit was conducted by the study staff. The visit was made on the updated address acquired through the phone tracking, or the address recorded in the masterlist.

For those index children who could not be tracked or scheduled for an interview while the team was in the sample area, interviewers filled out an IC attrition form. The same form would also be filled up if the IC died. Outmigrants to other domains (for example, children from Mindanao who migrated to Luzon) and information regarding their possible new location and contact information are reported to OPS. The OPS staff assessed whether, with the location of sample areas, the outmigrants can still be possibly tracked in the destination domain. An arrangement was then made with the collaborating research center in the destination domain to handle the tracking and possible interview of the outmigrant child and his/her present household.

3.5 Survey components[1]

a) Community survey

As in previous survey rounds, teams for the Wave 4 survey conducted courtesy calls on local government units covered by the study. Courtesy calls were made on Provincial Governors, City or Municipal Mayors and Barangay Captains. These courtesy calls were facilitated by endorsement letters from UNFPA, NEDA, and DOH. The researchers also carried introductory letters from the domain research institutions explaining what the research is about. As most of the local government units were familiar with the study, each unit was also given a copy of the final report of the previous LCSFC survey round.

[1]A list of all the variables collected in each survey wave is available upon request.

The data collected through the Community Survey of the sample barangays (barangays where the index children are presently located) are important in providing environmental context to the information gathered through the household and individual interviews. The Community questionnaire has several modules where information is obtained from multiple key informants in the barangay. Barangay administrative data were provided mostly by the Barangay Captain, Secretary, Treasurer and Councilors. Barangay health center personnel were most important in providing health-related data. Other community informants that were tapped as needed were the Municipal Social Welfare and Development Office, Philippine National Police and local businesses. In cases where the index child had moved to a non-baseline barangay, a full Community Survey was conducted in the new sample barangay, except if there were only 1 or 2 interviewed households in that barangay (for logistical purposes).

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After the Barangay Captain had given consent for the survey, the individual, household and community interviews were conducted at roughly the same time, when the survey team was in the area. The Community Survey was expected to be completed before the survey team moved on to another area. In some cases, follow-up phone calls were made to community informants in order to fill out sections of the questionnaire that were not completed at the expected time (for instance, if the knowledgeable informant was away at the time when the survey team was in the barangay).

b) Home Visit

For Wave 4, as in each wave, the index child and the household respondent were visited at their homes for the interviews.

<u>Consenting process.</u>

In the first part of the consenting process, the interviewers read the consent form to the household respondent (whose identity was already verified). By Wave 4, the majority of the HRs were already familiar with the study but the details of the present data collection

were explained to all household respondents without exception. The aim of the consenting process was to get the HR's consent for the conduct of the interview to him/her and the IC. Once the consent was given, the HR was interviewed first. This strategy could give the IC, if he or she was around at the time, the opportunity to observe and become comfortable with the interview procedures. The ICs were interviewed at their convenient time, which were usually before or after school, during noon breaks, or on weekends. The assent form was also read out to the index child and his/her verbal consent was obtained before any data collection protocol was administered.

Interview components.

In Wave 4, the Household Questionnaire was conducted through computer-assisted personal interviewing (CAPI) where the interviewer did face-to-face interviews and used a tablet computer to input the responses. Aside from the interviewer-administered components, however, there was a self-administered component where the interviewer allowed the IC to input his or her answers (by tapping yes or no buttons) in the tablet questionnaire.

For gathering precise information on the IC's anthropometric characteristics, several tools were used by the interviewers. Weight was measured using a portable bathroom scale. Height was measured using the SECA 206 microtoise or bodymeter. All instruments were calibrated prior to field use, before these were shipped out of OPS to the domain-based research centers. All the interviewers were trained on the conduct of simple calibration techniques to ensure that these instruments remained accurate and reliable during field data collection. Some interviewers who had been in the study since the baseline survey had received repeated trainings on the use and calibration of anthropometric devices. The trainors were OPS staff with long experience in measuring weight and height among children in the Cebu Longitudinal Health and Nutrition Survey, also being conducted by OPS (Adair, et al, 2010).

The use of CAPI in the Wave 4 survey allowed the interviewers (with consent) to take photos of the children, for help in future identification of the ICs, and also for building up a compilation of pictures that can be presented to the ICs in the future as keepsake from the study. As these pictures were considered sensitive information, care was taken to protect these pictures from unauthorized access.

At the end of each home visit, tokens and several items necessary for the ethical and fair conduct of the study were provided to the respondents. These items were the following:

1. P200 for the HR and P100 for the IC. The amount of the cash token corresponded to the estimated amount the HR would have earned had he/she not spent time for the interview (the opportunity cost). In Waves 1 and 2, school supplies were given to the ICs, but due to logistical considerations (carrying the school supplies around proving to be a challenge to the interviewers), a decision was made to provide token in cash to the IC starting in Wave 3.
2. A card with the IC's height and weight measurements from baseline to Wave 3. A brief statement was also on the card, as to whether the IC's height was shorter, of the same height or taller than an average 10- or 11-year old child; or if the IC weighed less than, the same as or heavier than the average reference child. After measurement, interviewer also wrote the IC's Wave 4 height and weight on the same card.
3. Resource list. The interviews asked sensitive questions including those relating to domestic violence or experiences with physical or emotional aggression. For ethical purposes, aid was given to all household respondents in the form of a resource list including contact information on relevant institutions and agencies they could go to in case of need. The list included usual institutions such as the police department, the fire department and nearby hospitals. Included in the list also were institutions that provided help to cases of violence against women and children. This strategy of embedding the VAWC aid-institutions within a more general list given to all respondents were implemented to minimize the perception that certain households

were being targeted, thus causing unnecessary psychosocial trauma to the respondents.

Monitoring:

Monitoring visits, aimed at observing field personnel as they conduct home visits, editing completed questionnaires, reviewing and correcting possible errors in protocols, and assisting in CAPI implementation, were conducted by the OPS monitoring teams, as well as the monitoring teams of each domain. All teams were monitored. A total of 30 barangays were spot-checked by OPS teams.

Debriefing:

Given the COVID-19 pandemic situation with different domains under different community quarantine levels, domains were given the freedom to decide on which debriefing procedure would be best for their teams: (1) CSRE, stationed in Cebu City which was still under the strictest quarantine level, opted for an online survey using a semi-structured questionnaire conducted on the week of June 22; (2) DRDF, stationed in Quezon City, opted to conduct a conference call (Zoom) on June 23; and (3) RIMCU in Cagayan de Oro City opted to conduct an in-person debriefing by team, started on June 23. The Waray team (Visayas) had the least number of assigned barangays and had completed all their interviews right before the suspension of the data collection. Thus, in addition to monitoring activities, in-person debriefing was also conducted for this team.

3.6 Ethics review

The survey design, protocol and instruments were reviewed by the Single Joint Research Ethics Board and approved on November 14, 2019. Please see Appendix 5 for the SJREB Certificate of Approval, approved consent form and IC assent script.

3.7 Data processing

All CAPI interview data (individual and household interviews community) were encoded through the CSEntry application in the interviewers' tablets. During field days, the team leaders regularly collected all of the completed questionnaires from the team members (through bluetooth syncing) and the data were sent from the team leaders' tablets to the project's secure Dropbox (a file-hosting service operated by Dropbox, Inc. that offers cloud storage and file synchronization), OPS staff and CAPI consultant Mr. Leo Ocampo monitored the integrity and completion of the electronic data coming from the field.

With the community quarantines, some teams faced difficulty in transmitting data immediately as they were having difficulty to meet up with their team leaders to sync encoded interviews thru Bluetooth technology. As designed, the team leaders held tablets that were programmed to transmit data to the project Dropbox. By end of March, 89% of the interviews had been transmitted, and all the transmissions were completed by April 2020.

Community questionnaires, conducted in PAPI, were shipped to OPS. The Visayas teams, being Cebu-based, were the first among the domains to submit all questionnaires. Editing and encoding were done at OPS. Given the uncertainty of the reliability of cargo or courier services, the Luzon and Mindanao teams were asked to encode the data (using OPS formatted files) before shipping the questionnaires to OPS to ensure back-up.

The community survey data, done in PAPI, were shipped to OPS (Cebu) where office editors encoded the data in Excel spreadsheet for analysis.

3.8 Problems encountered in the Wave 4 survey implementation

Field survey data collection is a very challenging task and the challenges were heightened during the Wave 4 data collection, which coexisted with the onset of the coronavirus pandemic in the Philippines. As mentioned earlier, around mid-March of 2020, the study implementors and domain research partners decided to halt data collection (at 62 percent coverage) and recall all teams that were still in the field. This was to protect the research personnel (and respondents) from potential COVID-19 infection and also to keep the field teams from being caught in local community lockdowns already being implemented during that time. Even with this prompt decision-making, some teams were indeed caught in the local lockdowns and it took a few weeks before they finally were able to get home, with the help of the domain research centers, the local government units, various government agencies, OPS and the UNFPA.

Other problems and difficulties encountered during the Wave 4 fieldwork were the following:

- *Slow response of LGUs to courtesy letters.* In some areas, no approval was given even after nearly two months despite the weekly follow-ups.

- *Availability of appropriate respondents for the community survey* was also a challenge delaying completion of community surveys. Other areas would seek endorsements from other offices/agencies such as Municipal Health Office for health data access. Some community surveys remain incomplete.

- *No adult available for household interview.* In these cases, since no adult could give consent, no IC interviews were conducted.

- The *availability of the Index Children (ICs)* also posed a difficulty. Most of the IC are now in high school with longer/different class schedules, late evening interviews cannot be avoided.

- *Outmigration (OM) among sample households.* OM, defined as movement of sample household outside the municipality of the sample barangay, is generally considered attrited but may be followed-up when feasible (i.e. they move to another sample barangay, or close to another sample area, etc). In some cases, no clear or specific address of the new residence could be given by the informant (from the last barangay where the household resided in).

- One household in Luzon withdrew participation due to data privacy concerns raised by another household member (the mother and IC had earlier given consent to the interview). OPS and the DRDF investigators responded to the household member's concern, explaining why the survey was compliant to confidentiality and data privacy procedures.

- An interviewer misread weight measures of some ICs. Their weights were remeasured with the supervision by the monitoring team.

- *Community quarantines* presented difficulties during and after suspension of fieldwork. Particularly in the latter part of data collection, more and more LGUs were closing their borders to visitors/outsiders. Teams were refused entry as they reached these areas. After data collection cessation, as mentioned above, the community quarantine brought about difficulties in data synchronization between interviewers and their team leaders as this required personal meeting. Data transmission was consequently affected.

- *Slow/Unstable/Unavailability of internet connection in some areas*. This presented a challenge in program updating and data transmission. Coupled with the community quarantine, this also presented difficulty in transmitting liquidation reports to OPS.

CHAPTER 4
WAVE 4 SURVEY SAMPLE AREAS

4.1 Profile of Wave 4 sample barangays

The Wave 4 Community dataset consisted of 213 barangays with collected community information. Table 4.1 compares the characteristics of the baseline sample barangays with those that obtained during the Wave 4 survey. Luzon in the past 3 survey rounds had significantly more urban barangays compared to Visayas and Mindanao. In Wave 4, the proportion of urban barangays for Luzon decreased from 64.4% at baseline to 60.7% in Wave 4, indicating that slightly less urban barangays had been visited before the stoppage of data collection. Visayas also showed a decrease in the proportion of urban barangays from 33.0% in 2016 to 27.8% in the present survey, while Mindanao showed a pro-urban bias with an increase in the proportion of urban barangays, from 27.0% to 35.6%. These patterns may provide context important to the interpretation of the differences of statistics per domain. The significant differences observed in Waves 1 through 3 across the three domains in terms of population size, population density, Internal Revenue Allotments, agriculture being the main source of income, 4Ps households and presence of indigenous populations still obtained in Wave 4. Luzon barangays were still largest, and Visayas barangays the smallest, in terms of population size, population density and IRA. Mindanao had the greatest proportions of barangays that had indigenous peoples, and were also leading in the number of 4Ps households in the barangay. The domain pattern for the proportion of barangays with agriculture as main source of income changed between baseline and Wave 4. While at baseline Mindanao had the largest proportion of barangays with agriculture as main source of income, at Wave 4 it was Visayas that had the largest proportion (66.7%), followed by Mindanao (at 45.8%).

Table 4.2 shows the programs reported to be existing or being implemented in the barangays where the children lived. Among the domains, Mindanao had the highest levels

of programs with related to poverty alleviation, social housing, disability, drug use, and water, sanitation and hygiene. Luzon had the highest reported level of having a livelihood program sponsored by the government.

Table 4.1Comparing selected barangay characteristics in Waves 1 and 4by island group[a]

Selected community characteristics	Luzon		Visayas		Mindanao		ALL	
	Wave 1 (n=115)	Wave 4 (n=61)	Wave 1 (n=115)	Wave 4 (n=93)	Wave 1 (n=115)	Wave 4 (n=59)	Wave 1 (n=345)	Wave 4 (n=213)
Urban barangays*,%	64.4	60.7	33.0	28.0	27.0	35.6	41.4	39.4
Population*,#,mean±SD	24,673.2± 46,923.4 (n=113)	24,754.1± 42,179.0 (n=59)	5,963.2± 9,829.1	5,106.7± 6,293.0 (n=92)	9,499.9± 16,529.6 (n=113)	13,948.8± 23,685.4 (n=55)	13,335.2± 30,227.3 (n=341)	13,094.6± 27,141.4 (n=206)
Population density (persons/km^2)*,#,$, mean±SD	14,258.0± 26,590.4 (n=97)	15,388± 32,286 (n=52)	3,882.1± 13,358.2 (n=101)	4,582± 15,101 (n=80)	4,323.0± 8,577.4 (n=109)	9,873± 39,209 (n=54)	7,317.0± 18,123.4 (n=307)	9139±29074 (n=186)
Internal Revenue Allotment (in pesos)*,#, mean±SD	In 2016 11,015,370± 19,480,693 (n=99)	In 2019 12,422,206± 17,142,302 (n=54)	In 2016 3,948,215± 7,185,689 (n=110)	In 2019 5,364,046± 8,932,301	In 2016 5,253,258± 7,629,480 (n=113)	In 2019 8,301,980± 12,454,878 (n=55)	In 2016 6,579,017± 12,757,827 (n=322)	In 2019 8,050,813± 12,812,886 (n=202)
Agriculture as main source of livelihood*,#,%	48.7	36.1	67.0	66.7	72.2	45.8	62.6	52.1
With local waterworks,%	62.3 (n=114	54.1	61.7	64.1 (n=92)	73.9	66.1	66.0 (n=344	61.8
Households enrolled in 4Ps*,#,mean±SD (among barangays with 4Ps)	In 2016 251.9± 396.2 (n=65	In 2019 217.9± 365.8 (n=44)	In 2016 136.8± 121.2 (n=100	In 2019 124.3±99.2 (n=86)	In 2016 252.1± 216.8 (n=95	In 2019 285.1±330.4 (n=50)	In 2016 207.7± 254.2 (n=260)	In 2019 191.8± 267.3 (n=180)
With barangay health station, rural/city health unit/office,#$,%	87.8	78.7 (n=61)	80.9	83.7 (n=92)	89.6	84.8 (n=59)	86.1	82.6 (n=212)
With indigenous peoples*,#,%	21.9 (n=114	30.0 (n=60)	7.8	4.4 (n=91)	81.6 (n==114	86.4	37.0 (n=343	34.8 (n=210)

[a]Unweighted results presented as percentage of barangays or mean ± SD; Wave 1 data presented for non-varying attributes; In some cases, values are set to missing if data were reported in a different format

*Significantly different at p<0.05 across domains in Wave 1, # across domains in Wave 4,$between original (baseline) and new barangays; Test for significant differences were based on chi-squared test of independence, mean comparison tests, and one-way analysis of variance tests.

Table 4.2Programs in the barangay, Wave 4

Characteristics	Luzon (n=61)	Visayas (n=92)	Mindanao (n=59)	ALL (N=212)
With poverty alleviation program other than 4Ps***	39.34	72.83	71.19	62.74
With social housing program*	9.84	2.17	15.25	8.02
With program for infant and young child health and nutrition	80.33	93.48	86.44	87.74
With program for adolescent pregnancy	77.05	76.09	84.75	78.77
With geriatric health and nutrition program	78.69	70.65	84.75	76.89
With family planning program	80.33	89.13	86.44	85.85
With program on disability**	52.46	43.48	71.19	53.77
With program on communicable diseases	75.4	69.57	86.44	75.94
With program on non-communicable diseases	73.77	77.17	83.05	77.83
With program on water, sanitation and hygiene**	44.26	42.39	69.49	50.47
With youth program	81.97	89.13	84.75	85.85
With livelihood program sponsored by government**	75.41	46.74	64.41	59.91
With livelihood program sponsored by civil society	19.67	15.22	15.25	16.51
With reforestation program	36.07	44.57	40.68	41.04
With program or treatment intervention for drug users***	68.85	48.91	83.05	64.15

*p<.05, **p<.01, ***p<.001

CHAPTER 5
PROFILE OF THE FILIPINO CHILD AT AGE 13

5.1 Basic profile of the index children

IC age

The Cohort Study tracks a group of children who were ten year old at baseline (aged 10.01 to 10.99 years). Age was based on self-report of age and birth date (please see Chapter 2 on inclusion and recruitment criteria) and supplemented with birth certificate information if available. The age of the children were checked, and for a few corrected, in the two subsequent waves of the study (see OPS, 2019). Updated birth dates of the children were included in the updated masterlist information sheet provided to the interviewers at the start of the Wave 4 survey. By Wave 4, the children were on the average aged 13 years old.

Household profile

Some characteristics of IC households, stratified by domain, are presented in Table 5.1. About 8 out of 10 household respondents were mothers of the index child, although the proportion was a bit lower in Mindanao where only about 75% of the HRs were mothers. Other types of household respondents were fathers (7.4%), grandmothers (8.8%) and other household members (4.8%).

IC profile

Table 5.1 also shows selected characteristics of the index children. As can be seen, the sample children were on the average 13.7 years old during the time of the Wave 4 survey. By sex, there were 51.9% males and 48.1% females. About 95.5% of the children were enrolled in school, which was a bit lower than the 97.1% proportion in Wave 3. There was also a bit higher grade repetition in Wave 4, with 2.9% of the children having repeated a grade, compared to only 1.6 in the previous survey round.

Table 5.1 Basic characteristics of index children at Wave 4[#]

Characteristics	Luzon (n=935)	Visayas (n=1,281)	Mindanao (n=863)	ALL (N=3,079)
Age in years,n	13.7 ± 0.30	13.7 ± 0.32	13.7 ± 0.32	13.7 ± 0.31
Males,%	53.5	50.0	49.6	51.9
Main household respondent[##], %				
Mothers	80.6	79.7	74.8	79.0
Fathers	6.6	6.9	9.6	7.4
Grandmothers	8.5	9.2	9.2	8.8
Other household members	4.4	4.2	6.4	4.8
Parents in household[##], %:				
Both parents	76.4	77.8	72.6	75.9
Mother only	13.0	9.7	13.6	11.8
Father only	4.0	3.7	4.7	4.1
No parents	6.6	8.7	9.0	8.2
Household size[b], n	6.3±0.12	6.2±0.11	6.3±0.15	6.3±0.08
4Ps beneficiary household[a,b], %	38.4	51.2	48.3	43.3
Currently in school,%	96.0	95.4	94.6	95.5
Current grade[b,c],%				
Grade 4 or below; SPED or none completed	1.7	1.6	4.8	2.5
Grade 5	1.0	1.5	2.8	1.7
Grade 6	4.4	2.9	7.1	4.5
Grade 7	29.9	25.9	28.2	27.8
Grade 8	61.9	66.8	56.0	62.2
Grade 9	1.1	1.1	1.2	1.1
Grade 10	0.0	0.2	0.0	0.1
Alternative Learning System (ALS)	0.1	0.1	0.0	0.1
Age first enrolled in Grade 1[####]	6.3±0.02	6.2±0.02	6.3±0.04	6.3±0.02
Repeated a grade in current school year, %	1.9	2.4	5.3	2.9

[#]Weighted results presented as percentages or mean ± standard error (SE). Tests for significant differences in weighted proportions and
means were based on Pearson chi-square test for independence and adjusted Wald test respectively.
[##]Mother/father refers to biological or step/adoptive/foster
[###] Current grade if in school; last grade completed if not in school
[a] Significantly different at p<0.05 between Luzon and Visayas; [b] Luzon and Mindanao; [c] Visayas and Mindanao

5.2 Status of children's vulnerabilities

The first three survey reports (OPS, 2017, 2018, 2019) discussed the state of the children's vulnerabilities as assessed in various aspects. Wave 4 continued gathering information in many of these vulnerabilities that are the concern in the SDGs as well as in the Convention on the Rights of the Child (UN General Assembly, 1989).

Differences between boys and girls

Data on vulnerabilities stratified by sex are shown in Table 5.2. Comparing between boys and girls, boys had higher levels of vulnerabilities in all but a few of the indicators, in Wave 4 and in the previous survey rounds. Boys were more likely to have repeated a grade in the past school year, to have watched porn, and to have more than kissed. Boys were also more likely than girls to be hungry but did not eat, thin, stunted, working, physically hurt by friends, forcefully hurt by parents, physically hurt by adults other than parents, smoking, drinking alcoholic drinks. Girls however had higher reported disability, at 5.1% compared to only 2.1% among boys, continuing a pattern also seen in the previous wave. Boys in the past three rounds had higher levels reporting chatting with strangers, but in Wave 4 the proportion of girls reporting chatting with strangers roughly equalled that of boys.

Vulnerabilities Across the Four Waves

Since the baseline in 2016, several vulnerabilities have shown increases over the years. Chatting with strangers, for instance, has seen significant increases per survey, starting from only 4.2% at baseline (when the children were 10 years old) to 40.2% in Wave 4 (at around 13 years old). The level of reported sickness in the past 6 months had also increased in the past 2 survey rounds, with the level in Wave 4 (56.2%) almost twice that in Wave 1 (29.1%). Other vulnerabilities that saw increases over the four-year period were reported disability (from 1.4% to 3.8%), currently drinking alcoholic drinks (from 4.4% to 8.1%) and currently working (from 4.5% to 6.3%). Some vulnerabilities fluctuated over the years, such as the level of hunger (hungry but did not eat). It was highest in Wave 1 (43.0%), then decreased in the two succeeding waves, but bounced back again in Wave 4 (36.0%). The same pattern can be seen with being physically hurt by parents: it was highest in baseline, declined in the next two years, but bounced back to almost the same level in the most recent survey round. Other vulnerabilities, however, showed promising declines over the years. Among these were being physically hurt by friends (from 38.1%

to 18.2%), being physically hurt by adults (from 22.4% to 10.2%) and more than kissed (from 4.6% to 2.0%). The decline in the levels of those who report experiencing “more than kissed” is interesting, since it means that some of those who had reported “more than kissed” in the previous rounds must have answered negatively in the succeeding survey rounds. It can be hypothesized that there may be a change in understanding of the question’s meaning or what the question is actually about (the question is in the self-administered questionnaire). Two other vulnerabilities showed a decline from a high baseline to lower and more stable levels in the succeeding rounds. Current smoking was 4.3% at baseline but proved to be fluctuating at around 2% in succeeding three rounds. Watching porn was also highest in Wave 1 (17.4%) but was stable at around 10% in Waves 2 to 4.

5.3 Internet and Cellphone Use

Important changes in the lifestyle of the growing cohort in the past few years pertain to the rise in the use of internet and cellphone. As can be seen in Figure 1, from Waves 1 to 4, there are increasing levels in using the internet, having an e-mail account, and owning a cellphone. Playing games also clearly increased from Waves 1 to 3 but decreased in the Wave 4 survey. The reason for this decrease is not known and merits further analysis of the data.

Figure 1. Internet and cellphone access (Waves 1-4)

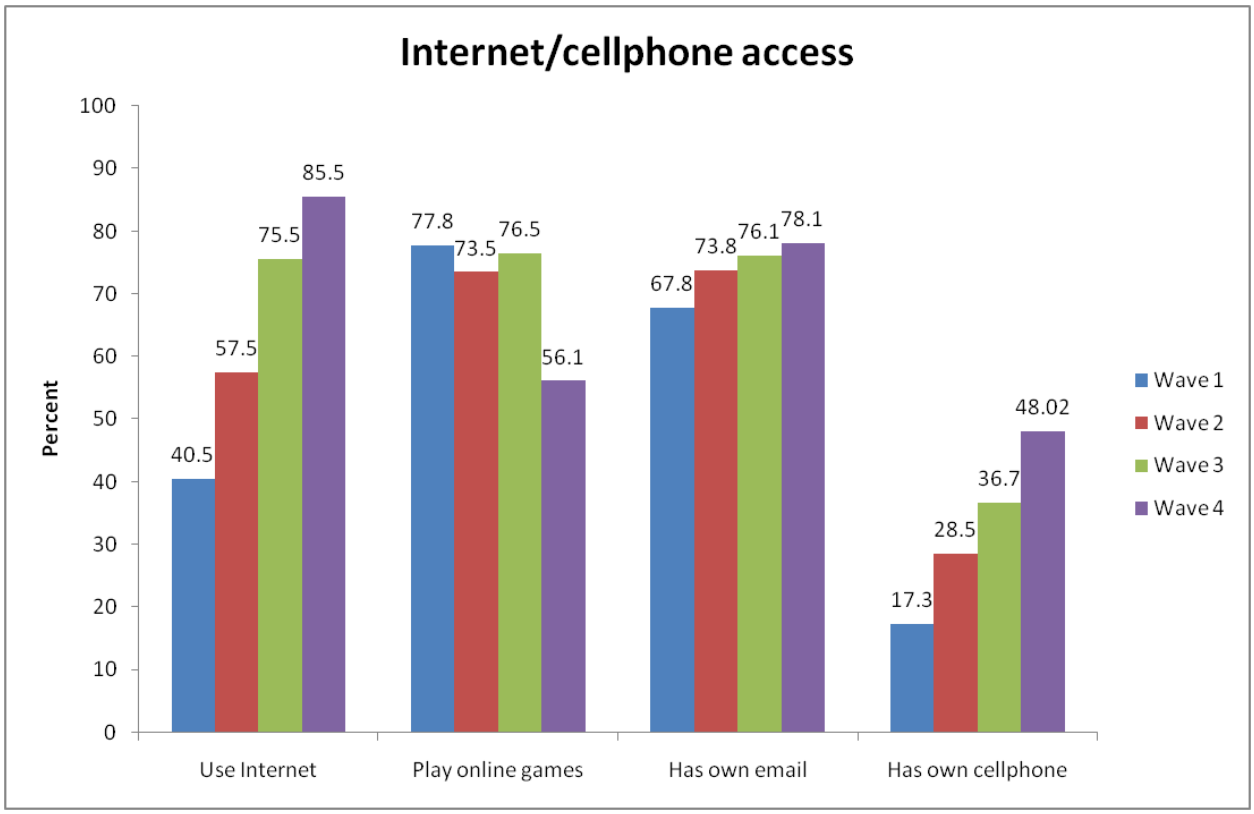

Table 5.2 Comparing vulnerabilities by sex across Waves[a]

Vulnerabilities	Wave 1			Wave 2			Wave 3			Wave 4			General Trend, Waves 1-4
	Boys	Girls	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	All	
Ever repeated a grade[b]	14.1** *	9.1	11.7	3.8***	1.6	2.7	2.0**	1.1	1.6	3.9	1.7	2.8	Fluctuating at around 2% per year. Boys consistently had higher levels.
Ever sick last 6 months[c]	30.8	27.2	29.1	19.0	18.5	18.8	49.2	49.7	49.4	56.7	55.7	56.2	Highest in Waves 3 and 4. No significant gender difference.
With disability[c]	1.2	1.7	1.4	2.3	2.4	2.3	2.3***	5.2	3.7	2.5***	5.1	3.8	Highest in Waves 3 and 4, where girls had significantly higher levels.
Stunted	32.3	29.9	31.1	30.4***	24.7	27.6#	28.7***	20.3	24.6##	23.1	19.8	21.5	Decreasing. Boys had significantly higher levels in W2 & W3
Thin (<normal BMI-for-age)[d]	16.4	14.7	15.5	17.6***	13.2	15.5	19.2***	11.5	15.5	14.0***	7.8	11.07	Lowest in Wave 4. Boys had significantly higher levels in W2-4.
Hungry but did not eat	46.7** *	38.9	43.0	37.1***	30.4	33.8#	29.5***	23.5	26.6##	38.5	33.4	36.0	Fluctuating at around 1/3 of the children. Boys had significantly higher levels in W1-3.
Currently working (paid/unpaid)	5.2**	3.7	4.5	6.0	5.0	5.5	5.5	4.9	5.2	6.8	5.9	6.3	Slowly increasing. Boys have slightly higher levels, esp. in W1
Physically hurt by friends	43.3** *	32.4	38.1	33.4***	24.5	29.1#	27.5***	17.3	22.6##	22.0***	14.1	18.2	Declining. Boys consistently had higher levels.
Forcefully hurt by parents	18.9** *	12.9	16.0	16.6 ***	8.3	12.6#	13.5***	6.9	10.4##	17.1	14.4	15.8	Declined in Waves 2 and 3 but bounced back in Wave 4. Boys

													significantly higher in W1-3.
Physically hurt by adults	27.8***	16.4	22.4	18.0***	10.0	14.2#	15.0***	8.1	11.6##	12.1**	8.0	10.2	Declining. Boys consistently had higher levels.
Currently smoking	5.6**	2.8	4.3	3.4 ***	1.3	2.4#	2.7***	0.8	1.8	3.6***	0.4	2.1	Declined from Wave 1 to about 2% level in Waves 2-4. Boys consistently had higher levels.
Currently drinks alcohol	5.9***	2.8	4.4	7.8 ***	3.2	5.5#	6.2***	2.8	4.6	9.9**	6.1	8.1	Drastic increase in Wave 4. Boys consistently had higher levels.
More than kissed	5.5***	3.6	4.6	5.4***	2.1	3.8	4.3***	1.7	3.1	3.3***	0.6	2.0	Decreasing. Boys consistently had higher levels.
Watched porn movies	19.4***	15.3	17.4	14.0***	5.7	10.0#	13.8***	5.3	9.7	14.9***	6.7	10.9	Declined from Wave 1 to about 10% level in Waves 2-4. Boys consistently had higher levels.
Chats with strangers	4.5	3.9	4.2	20.7***	11.3	16.1#	29.8***	22.7	26.4##	40.4	40.0	40.2	Steadily increasing. Boys had significantly higher levels in W2-3. Girls' level roughly equalled that of boys in W4.

[a]Weighted results are presented as percentages or mean ± standard error;
[b] Repeated a grade in Wave 1 means ever repeated a grade; in Waves 2/3/4: repeated grade within current school year
[c] Values in Wave 3 and 4 may not be comparable with previous waves given expanded version of the morbidity section in Waves 3 and 4
[d] Classified using the 2007 WHO Reference Standards (update)
[f] Among those with non-missing values in all vulnerability variables
** Significant between boys and girls at p<0.05; *** at p<0.01

5.4 Sexual maturity rating

One of the most important transitions occurring in the lives of the cohort is the pubertal transition. Puberty is a time of dynamic physical, emotional and relational changes (Rosen, 2004; Lee and Styne, 2013; Chulani and Gordon, 2014). The pubertal status of the cohort is being assessed using the Sexual Maturity Rating (SMR) Scales (Marshall & Tanner, 1969, 1970), a widely used tool consisting of two sets of body drawings. Each set showed drawings depicting stages of pubertal transitions from pre-pubertal stage (drawing 1) through adult (drawing 5). The scales were differentiated by sex: the girls' scale consisting of breast and pubic hair drawings, and the boys' scale consisting of drawings of the penis, scrotum, testes and pubic hair. The SMR was not administered at baseline but were administered in Waves 2, 3 and 4.

Table 5.4A shows the SMR-based pubertal stages in Waves 2, 3 and 4, when the cohort was at ages of approximately 11, 12 and 13 respectively. About a third of girls at Wave 4 reported being either Stage 4 or Stage 5 in terms of breast development, although only about 15% had reported being Stage 4 or 5 in terms of pubic hair development. Among boys in Wave 4, more than half had reported being Stage 4 or 5 in terms of penis/testicular development, and about 18.7% had reported being Stage 4 or 5 in terms of pubic hair development. There is a medium-sized but significant pairwise relationship among the various sexual maturity indicators (Table 5.4B), which means that these characteristics tend to appear together at about the same time. Clearly, the children in the cohort are currently in the midst of their pubertal transition. The study intends to document this transition and analyze its interrelationships with other variables in the succeeding survey rounds.

Table 5.4A Sexual maturity ratings by sex, Waves 2-4[a]

Pubertal stages		Wave 2		Wave 3		Wave 4	
		Weighted %	Mean Stage ± SE	Weighted %	Mean Stage ± SE	Weighted %	Mean Stage ± SE
Girls: breast development		(n=2,238)					
Stage 1	Prepubertal[##]	20.37		8.05		4.29	
Stage 2	Breast bud stage[##]	40.65		31.71		20.24	
Stage 3	Further breast enlargement[##]	30.44		42.16		46.02	
Stage 4	Areola form a secondary mound[##]	7.71		16.12		26.36	
Stage 5	Mature stage[##]	0.83		1.96		3.09	
All girls[##]			2.28±0.03		2.72±0.03		3.04±0.04
Girls: pubic hair development		(n=2,235)					
Stage 1	Prepubertal[##]	57.12		28.82		12.91	
Stage 2	Sparse growth[##]	29.62		41.13		40.52	
Stage 3	Darker, coarser growth[##]	9.41		21.39		30.98	
Stage 4	Adult hair, covering small area[##]	3.22		8.33		14.15	
Stage 5	Adult hair in type and quantity	0.63		.032		1.44	
All girls[##]			1.61±0.03		2.10±0.03		2.51±0.05
Boys: penile/testicular development		(n=2,263)					
Stage 1	Prepubertal[##]	15.02		8.14		3.82	
Stage 2	Enlargement of scrotum and testes[##]	28.68		19.61		16.49	
Stage 3	Enlargement of penis (length)[#]	31.03		34.86		26.73	
Stage 4	Increased size of penis, scrotum, testes[##]	17.88		29.27		38.32	
Stage 5	Adult genitalia	7.39		8.11		14.65	
All boys[##]			2.74±0.04		3.10±0.04		3.43±0.04
Boys: pubic hair development		(n=2,255)					
Stage 1	Prepubertal[##]	48.91		2.47		10.05	
Stage 2	Sparse growth[##]	33.92		39.87		27.83	
Stage 3	Darker, coarser growth[##]	13.45		25.52		43.39	
Stage 4	Adult hair, covering small area[##]	2.60		8.96		17.10	
Stage 5	Adult hair in type and quantity	1.11		0.95		1.62	
All boys[##]			1.73±0.02		2.22±0.03		2.72±0.05

[a]Weighted results are presented as percentages or mean ± standard error; We used linear combination of estimators (LINCOM) to test for significant differences in proportions between boys/girls within waves, between Waves 2 and 3. Analysis sample limited to those in Wave 3 and have remained in the baseline domain.
[#]Significant between Waves 2 and 3 at p<0.05; [##]at p<0.01;

Table 5.4B Pairwise correlation between measures of puberty (Wave 4)

Measures for Girls	Pubic hair development stages	Menarcheal (1=yes; 0=no)
Breast development stages	0.5408***	0.3363***
Pubic hair development stages		0.3803***
Measures for Boys	Pubic hair development stages	Voice Change (1=yes; 0=no)
Genital development stages	0.5336***	0.1259***
Pubic hair development stages		0.2044***

*** Significant at p<0.01

5.5 Functional Limitations Disability

In Wave 4, we continued to administer a modified version of the Washington Group Short Set of Questions on Disability (http://www.washingtongroup-disability.com) that we also administered in Wave 3. This instrument assesses the level of impairment or functional limitations related to vision, hearing, walking, remembering/concentrating, engaging in self-care activities like bathing, dressing and communicating/capacity to be understood.

The results from the Washington Group disability questions in Wave 3 and 4 are shown in Table 5.5, stratified by sex. The level of wearing glasses among the cohort children are about 2 to 3 percent in waves 3 and 4. In Wave 4, the pattern of having a bit more girls reported wearing glasses compared to boys (3.9% versus 1.2%) continued. Girls also had the higher percentage reporting having some difficulty seeing among those not wearing glasses (10% compared to 6%) at Wave 4, indicating greater unmet need for eyeglasses among girls than among boys. The level of wearing hearing aids among the cohort children was less than 1 percent in both Waves 3 and 4, but among those who did not wear hearing aids, girls also had a bit higher percentage saying they had some difficulty hearing (4.5%) compared to boys (only 2.9%).

Disability was then assessed based on reported levels of difficulty in five characteristics:1) difficulty in seeing even with glasses, 2) difficulty in hearing even with hearing aids, 3) difficulty walking or climbing steps, 4) difficulty in remembering or concentrating, and 5) difficulty in engaging in self-care activities. One question from the Washington Group Short Set was dropped (difficulty in communicating, in understanding or being understood

using customary language) in both Waves 3 and 4 because of the difficulty in administering this particular question.

The overall level of disability, as shown in the last row of Table 5.5, appeared to have decreased a bit from Wave 3 to Wave 4, with those who reported having no difficulty increasing from 69.28% in Wave 3 to 71.67% in Wave 4. In Wave 4 as in Wave 3, however, there were no significant differences in the level of difficulties between boys and girls except for difficulty seeing (even with glasses). In Wave 4, girls reported a significantly higher level of difficulty in this area compared to boys.

Table 5.5 Washington group short questionnaire results (Waves3& 4)[#]

	Wave 3			Wave 4		
Characteristics	**Boys (n=2,153)**	**Girls (n=2,161)**	**ALL (N=4,314)**	**Boys (n=1,566)**	**Girls (n=1,513)**	**ALL (N=3,079)**
Wears glasses,%	(p<.001)			(p<.01)		
	1.77	4.30	3.00	1.20	3.93	2.51
If not wearing glasses: level of difficulty in seeing,%	(p<.001)			(p<.01)		
No difficulty	96.3	92.4	94.4	93.67	89.60	91.74
With some difficulty	3.44	7.17	5.21	6.10	10.29	8.08
A lot of difficulty	0.23	0.43	0.33	0.23	0.11	0.17
Cannot see at all	0.03	0.02	0.02	0.00	0.00	0.00
Wears hearing aids,%	(NS)			(NS)		
	0.16	0.18	0.17	0.15	0.48	0.31
If not wearing hearing aids: level of difficulty in hearing,%	(NS)			(NS)		
No difficulty	97.0	97.0	97.0	97.14	95.03	96.12
With some difficulty	2.66	2.78	2.72	2.86	4.50	3.65
A lot of difficulty	0.32	0.24	0.28	0.00	0.13	0.06
Cannot hear at all	0.00	0.01	0.00	0.00	0.34	0.16

Assessing level of disability						
1) Have difficulty seeing even with glasses, %	(NS)			(p<.05)		
No difficulty	69.75	67.17	67.92	60.84	41.01	45.94
With some difficulty	30.25	30.76	30.61	33.63	58.69	52.46
A lot of difficulty	0.00	2.08	1.47	5.52	0.30	1.60
Cannot see at all	0.00	0.00	0.00	0.00	0.00	0.00
2) Have difficulty hearing even with hearing aids, %	(NS)			(NS)		
No difficulty	100.00	100.00	100.00	68.62	68.28	68.37
With some difficulty				31.38	31.72	31.63
A lot of difficulty				0.00	0.00	0.00
Cannot hear at all				0.00	0.000	0.00
3) Have difficulty walking or climbing steps, %	(NS)			(NS)		
No difficulty	97.11	97.08	97.10	98.40	98.29	98.34
With some difficulty	2.69	2.53	2.61	1.52	1.65	1.58
A lot of difficulty	0.20	0.29	0.24	0.08	0.06	0.07
Cannot walk or climb at all	0.00	0.10	0.05	0.00	0.00	0.00
4) Have difficulty remembering or concentrating, %	(NS)			(NS)		
No difficulty	71.76	72.12	71.93	73.64	71.32	72.52
With some difficulty	26.47	26.67	26.57	25.07	27.76	26.37
A lot of difficulty	1.75	1.10	1.44	1.22	0.83	1.03
Cannot remember or concentrate at all	0.02	0.10	0.06	0.00	0.00	0.00
Refused to answer	0.00	0.00	0.00	0.07	0.09	0.08
5) Have difficulty engaging in self-care activities, %	(NS)			(NS)		
No difficulty	98.55	99.07	98.80	99.26	99.81	99.52
With some difficulty	1.03	0.67	0.86	0.66	0.19	0.43
A lot of difficulty	0.31	0.25	0.28	0.08	0.00	0.04
Cannot engage in self-care at all	0.11	0.00	0.05	0.00	0.00	0.00
Level of disability (based on responses in functions #1-5), %	(NS)			(NS)		
No difficulty in all	69.19	69.38	69.28	73.06	70.17	71.67
With at least 1 done with some difficulty	28.99	29.33	29.15	25.59	28.94	27.20
With at least 1 done with a lot of difficulty/can't do at all	1.82	1.28	1.56	1.35	0.89	1.13

5.6 Youth Self Report (YSR)

In Wave 2 (at age 11), we administered the Child Behavior Checklist or CBCL (Achenbach and Rescorla, 2001) to the children's mothers/caregivers to assess the children's competency levels and test their adaptive functioning. With this instrument, competency was measured in the areas of a) activities such as sports, hobbies, household chores and jobs, b) social network and interaction, and c) school performance. To measure adaptive

functioning, a suite of 113 questions were asked the respondents specifically to establish certain mental and behavioral syndromes defined in the Diagnostic and Statistical Manual for Mental Disorders (Achenbach, 2013). The syndrome scales are categorized as either internalizing or externalizing. Internalizing factors refer to behaviors such as anxious/depressed, withdrawn/depressed and having somatic complaints. Externalizing factors include rule-breaking and aggressive behaviors. Reports of having social problems, unusual behaviors, attention-seeking and related behaviors were scored as other problems.

In Wave 4 (at age 13) the Youth Self Report (YSR) was administered to the index children. The YSR covers the same competency and adaptive functioning domains as the CBCL, this time from the perspective of the children themselves.

The Child Behavior Checklist (CBCL/6-18) and Youth Self-Report (YSR) are part of the Achenbach System of Empirically Based Assessment (ASEBA) forms that measure competencies, adaptive functioning, and problem behaviors (Achenbach and Rescorla, 2001). It is a widely used tool not only for clinical practice to evaluate mental health and psychological functioning of children and adolescents, but also useful for epidemiological studies that assess patterns and prevalence of problems from a population sample (Rescorla et. al., 2012; Bordin et. al., 2013; Achenbach, 2019; Rescorla et. al., 2019).

Since CBCL and YSR are parallel forms, it provides an integrative approach in evaluating children's functioning through a systematic comparison from multiple perspectives (Achenbach and Rescorla, 2001). Both forms are also suitable for research that entails re-assessments of children over a period (Achenbach, 2019), like in follow-up studies (Bordin et. al., 2013) and longitudinal studies, as well as developmental studies that identify continuities and changes in the psychosocial functioning of children as they progress to adolescents (Achenbach, 2019).

We received license from the Achenbach group to translate the YSR to the four languages (Tagalog, Cebuano, Waray, and Ilonggo) used in the survey areas.

Of the 3,079 children who participated in the Wave 4 Survey 3,046 completed the YSR module. In both the CBCL and YSR questionnaires, the first part of the instrument consists of questions that relate to the child's competency level. Some of these are open-ended questions were the respondent is asked to enumerate certain items. The second half consists of questions (113 in CBCL; 112 in YSR) on a 3 point Likert scale (not true, somewhat/sometimes true, very/often true). The Wave 2 Survey was a pen-and-paper-interview survey and CBCL was entirely interviewer-administered. The Wave 4 Survey was computer-assisted and the first section of the YSR was interviewer-administered while the second half was self-administered. The YSR total competency score is calculated as the sum of the scores from the activity, social, and academic performance scales, with higher values corresponding to being higher on the competency scale. The sum of the internalizing, externalizing and other problem scores constitute the YSR total problem score, with higher values corresponding to having more mental and behavioral problems.

Table 5.6A presents a comparison of mean competency scale scores (raw and t scores) by sex, latest grade level, domain and stratum. Female index children had significantly higher academic performance scores than males but there were no sex differences in total competency scores. These results reflect the same pattern observed in the CBCL data (OPS, 2019), indicating that both index children and mothers/caregivers responded similarly on this segment. About 94% of the index children with YSR data were recorded to be between Grades 6-10 as of latest available current grade data (about 87% are in Grades 7 or 8). As expected, those in age-appropriate grade levels have higher competency scores than those behind in their schooling. Significant differences were also observed across domains: children in the Visayas had lower activity scale scores compared to those in Luzon and Mindanao but scored higher in the social and academic performance scales compared to children from the two other domains. Overall, children from Luzon had the lowest competency scores. These results differ from the CBCL findings where Luzon children had higher scores in the social, school and total

competency scales. There were no significant differences between rural and urban children in these scales.

Table 5.6A YSR competency scores by categories[#]

Categories	Activity scale Raw score (n=3,046)	Social scale Raw score (n=3,046)	Academic performance scale Raw score (n=2,890[##])	Total competency Raw/t score (n=2,890)
By sex:				
Male	6.60±0.11	6.54±0.10	1.64±0.02***	14.82±0.19/32.24±0.39
Female	6.64±0.09	6.40±0.08	1.78±0.02	14.86±0.15/32.11±0.29
By grade levels[#][##]:	5.54±0.31***	5.79±0.27***	1.50±0.07***	13.07±0.46/28.99±0.82***
Below grade 6	6.68±0.07	6.51±0.07	1.72±0.02	14.92±0.13/32.32±0.27
Grade≧6				
By domain:				
Luzon	6.71±0.10[a,c]	6.29±0.10[a,c]	1.58±0.02[a,b,c]	14.57±0.18/31.69±0.37[b]
Visayas	6.15±0.13	6.90±0.10	1.96±0.02	15.07±0.19/35.57±0.38
Mindanao	6.75±0.17	6.55±0.12	1.82±0.03	15.26±0.26/32.96±0.51
By stratum:				
Rural	6.53±0.09	6.42±0.11	1.74±0.03	14.76±0.17/32.01±0.34
Urban	6.68±0.11	6.50±0.09	1.68±0.02	14.90±0.19/32.30±0.38

[#]Weighted results presented as mean ± standard error (SE). Test for significant differences in means based adjusted Wald test.
[##]Not scored if not currently enrolled in school
[###]Latest reported current grade in school
** Significantly different between categories at p<0.05; ***at p<0.01
[a] Significantly different at p<0.05 between Luzon and Visayas; [b] Luzon and Mindanao; [c] Visayas and Mindanao

Table 5.6B presents mean standardized syndrome scale scores (t scores) by sex, latest grade level, domain and stratum. Male index children scored higher (thus have more problematic behaviors) than females across all categories particularly in internalizing factors. The sex difference in externalizing and total problem scores in the YSR, at age 13, is not as pronounced as in the CBCL findings, at age 11,with male t-scores being slightly lower in the YSR. Similar to the CBCL findings, grade levels were not significantly associated with problematic behaviors. Children from Mindanao scored higher in the syndrome scales compared to those from other domains, and even higher than how they scored in the CBCL. Unlike in the CBCL, there were no highly significant differences between urban and rural children in the YSR syndrome scales.

Table 5.6B YSR syndrome scale scores by categories[#]

Categories	Internalizing factors t score (n=4,732)	Externalizing factors t score (n=4,732)	Total syndrome scale t score (n=4,732)
By sex:			
Male	54.55±0.47***	48.30±0.46*	50.46±0.51*
Female	52.43±0.46	47.40±0.39	49.49±0.44
By grade levels[##]:			
Below grade 6	52.34±2.45	46.06±1.68	48.20±2.35
Grade≧6	53.58±0.35	47.96±0.33	50.08±0.36
By domain:			
Luzon	52.32±0.48[a,b,c]	47.75±0.46	49.38±0.50[b]
Visayas	53.96±0.41	47.04±0.51	49.70±0.45
Mindanao	55.90±0.85	48.73±0.72	51.57±0.89
By stratum:			
Rural	53.58±0.56	47.18±0.50*	49.56±0.59
Urban	53.49±0.49	48.39±0.42	50.33±0.48

[#]Weighted results presented as mean ± standard error (SE). Test for significant differences in means based adjusted Wald test.

[###]Latest reported current grade in school

* Significantly different between categories at p<0.10; **at p<0.05; ***at p<0.01

[a] Significantly different at p<0.05 between Luzon and Visayas; [b] Luzon and Mindanao; [c] Visayas and Mindanao

CHAPTER 6
IMPLICATIONS AND RECOMMENDATIONS

Since the baseline survey in 2016, the Longitudinal Cohort Study on the Filipino Child yields information that can help the government and development institutions craft programs to help the Filipino children, their families, and their communities. The Wave 4 results add to this growing data set. Several vulnerabilities have been observed in the present and previous surveys, such as the increasing proportions of reported sickness, disability, work, alcoholic drinking and chatting with strangers. Also observed is in internet and cellphone use. There have been decreases in physical violence by friends and adults, but other vulnerabilities, such as experiencing physical violence by parents and experiencing hunger, do not show clear signs of decline. It is recommended that programs can be crafted or improved to better address these vulnerabilites. While the Wave 4 survey captured the conditions of the children, their families, and their communities at the start of the COVID-19 pandemic, we can assume that the pandemic had created additional dimensions and complications to existing vulnerabilites. For instance, home confinement and longer hours on the internet can worsen online risks such as those associated with cyberbullying and chatting with strangers.

Furthermore, several laws and government policies enacted in recent years, such as the 2012 Anti-bullying Law (RA 10627), the 2012 Responsible Parenthood and Reproductive Health Law (RA 10354), the 2016 Tuberculosis Law (RA 10767), and the 2018 Mental Health Law (RA 11036), among others, may have opened up more resources, programs and assistance for children and adolescents, once implemented. Implementation of programs at the community and institutional levels, however, may take years, as some findings from the Wave 4 survey show that programs are not uniformly implemented at the barangay level, at least as reported by community informants.

A series of policy notes have been prepared by the LCSFC study team discussing the policy implications of several emerging trends in greater detail. Some policy notes are

also currently in the pipeline. Anyone interested in the policy implications of emerging trends can read the policy notes listed below.

Policy Notes:

Largo, F.M., Bacungan, C.C., Alegado, J.L.G., Borja, J.B., Mayol, N.L., Bechayda, S.A.,Bautista, C.A.P., Herrin, A.N. (2019). **Mitigating the effects of undernutrition on schooling performance among 10-year-old children: What can be done?** Longitudinal Cohort Study on the Filipino Child. UNFPA-OPS Policy Notes Series_No. 1. USC-Office of Population Studies Foundation, Inc. Retrieved from https://www.opsusc.org/paper_series.php.

Largo, F.M., Bacungan, C.C., Alegado, J.L.G., Borja, J.B., Mayol, N.L., Bechayda, S.A.,Bautista, C.A.P., Herrin, A.N. (2019). **Reducing the incidence of bullying and improving elementary school performance: Enhancing effectiveness of school programs.** Longitudinal Cohort Study on the Filipino Child. UNFPA-OPS Policy Notes Series_No. 2. USC-Office of Population Studies Foundation, Inc. Retrieved from https://www.opsusc.org/paper_series.php.

Largo, F.M., Bacungan, C.C., Alegado, J.L.G., Borja, J.B., Mayol, N.L., Bechayda, S.A.,Bautista, C.A.P., Herrin, A.N. (2019). **Mitigating the effect of children's disabilities on elementary education outcomes.**Longitudinal Cohort Study on the Filipino Child. UNFPA-OPS Policy Notes Series_No. 3. USC-Office of Population Studies Foundation, Inc. Retrieved from https://www.opsusc.org/paper_series.php.

Largo, F.M., Alegado, J.L.G., Borja, J.B., Mayol, N.L., Bechayda, S.A.,Bautista, C.A.P., Herrin, A.N. (2020). **Early work/labor patterns of Filipino children and their implications on policy.**Longitudinal Cohort Study on the Filipino Child. UNFPA-OPS Policy Notes Series_No. 4. USC-Office of Population Studies Foundation, Inc. Retrieved from https://www.opsusc.org/paper_series.php.

Alegado, J.L.G., Largo, F.M., Borja, J.B., Mayol, N.L., Bechayda, S.A.,Bautista, C.A.P., Herrin, A.N. (2020). **Closing the gender gap in schooling outcomes and cognitive ability among Filipino children.** Longitudinal Cohort Study on the Filipino Child. UNFPA-OPS Policy Notes Series_No. 5. USC-Office of Population Studies Foundation, Inc. Retrieved from https://www.opsusc.org/paper_series.php.

The published reports of the LCSFC per survey round are also listed below.

Survey Reports:

USC-Office of Population Studies Foundation, Inc. (OPS). (2018). Longitudinal cohort study on the Filipino child. **Baseline survey technical report**. OPS Report Series No. 2. Retrieved from https://www.opsusc.org/paper_series.php.

USC-Office of Population Studies Foundation, Inc. (OPS). (2019). Longitudinal cohort study on the Filipino child. **Baseline qualitative study report** . OPS Report Series No. 3. Retrieved from https://www.opsusc.org/paper_series.php.

USC-Office of Population Studies Foundation, Inc. (OPS). (2019). Longitudinal cohort study on the Filipino child. **Wave 2 final report**. OPS Report Series No. 4. Retrieved from https://www.opsusc.org/paper_series.php.

USC-Office of Population Studies Foundation, Inc. (OPS). (2020). Longitudinal cohort study on the Filipino child. **Wave 3 final report.** OPS Report Series No. 5. Retrieved from https://www.opsusc.org/paper_series.php .

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USC-Office of Population Studies Foundation, Inc. (OPS). (2019). *Longitudinal cohort study on the Filipino child. Wave 2 final report*. OPS Report Series No. 4. Retrieved from https://www.opsusc.org/paper_series.php.

APPENDIX 1

Representatives to the Steering Committee for the Longitudinal Cohort Study on the Filipino Child

Agency	Principal Representative
National Economic and Development Authority (NEDA)	Usec. Rosemarie G. Edillon
Department of Health (DOH)	Asec. Maria Rosario S. Vergeire, MDm MPH, CESO IV
Department of Education (DepEd)	Usec. Jesus Lorenzo R. Mateo
Department of Social Welfare and Development (DSWD)	Asec. Glenda D. Relova
National Youth Commission (NYC)	Comm. James Ceasar A. Ventura
Philippine Statistics Authority (PSA)	ANS Wilma Guillen
Philippine Commission on Women (PCW)	Dep. Dir. Maria Kristine Josefina G. Balmes
Council for the Welfare of Children (CWC)	ED Mary Mitzi Cajayon-Uy
Philippine Statistical Research and Training Institute (PSRTI)	ED Josefina C. Venegas-Almeda, PhD

APPENDIX 2

USC- Office of Population Studies Foundation,Inc.

W. Flieger Bldg., University of San Carlos
Talamban, Cebu City

History, Mission and Vision

The USC-Office of Population Studies Foundation, Inc. (OPS) is a non-stock and non-profit population and health research institute affiliated with the University of San Carlos (USC), Cebu City, Philippines. It was established in 1971 by a German demographer and SVD priest, Dr. Wilhelm Flieger, in response to the government's call for more academic involvement in national development and to formalize demographic and related-research activities at USC. From an extension office of the Sociology-Anthropology Department and later, of the university, OPS became a USC foundation in 2005 with links to various academic units in the interest of promoting multi- and inter-disciplinary research. Through the years, OPS has evolved into one of the country's leading population and health research institutions.

Our mission is to strengthen local, regional, and national development initiatives through the conduct of quality, multi-disciplinary and socially responsible research on population, health, nutrition, and all other aspects of human development. The OPS is also committed in enhancing research capacities at USC and in the greater community. We aim to disseminate our research findings to relevant stakeholders through publications, lectures, and policy briefs, and share our research expertise through teaching and extension work.

Our vision is to become a world-renowned research organization with a credible track record in relevant research and related activities that influence programs and policies for uplifting human and social development.

Research Staff

The OPS research core group consists of 9 locally and internationally trained Research Fellows and Associates with expertise in the fields of demography, economics, nutrition, epidemiology, sociology, and reproductive health. In addition, most are survey specialists with vast experiences in designing and implementing surveys. Many have risen from the ranks of field supervisors and data managers. Former Research Fellows/Associates continue to actively engage in OPS research as consultants. In support of research, OPS has a programmer/network administrator, GIS personnel, as well as a Data manager who takes charge of data processing (encoding, editing and validation), documentation, and storage. Administrative work is handled by a Human Resources Manager and a Finance/Grants Officer and their respective staff members. The OPS also has a pool of field research staff, office data editors, and encoders that are hired on a contractual basis for survey operations.

Research Services

The OPS has an established track record in conducting large-scale, multi-site, multi-level (person, household, community, facility, line agencies) surveys that require elaborate data collection protocols and the construction of complex, hierarchical data file structures. The OPS Research Fellows/Associates are also trained to analyze data, run statistical programs, and write research papers and grant proposals. For more details on our governance, research portfolio and research collaborators, please visit the OPS website at: http://opsusc.org.

Longitudinal Cohort Study on the Filipino Child
Wave 4 Survey
OPS Project Management Team

Principal Investigator	Dr. Nanette L. Mayol
Investigator-Consultant	Dr. Judith Rafaelita B. Borja
Project Leader	Sonny A. Bechayda
Field Operations Consultant	Tita Lorna L. Perez
Project Coordinator	Marilyn V. Cinco
Project Lead Monitor	Delia B. Carba
Data Manager	Isabelita N. Bas
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	Floriza S. Repaso

Demographic Research and Development Foundation (DRDF, Inc.)

About Us

The Demographic Research and Development Foundation, Inc. (DRDF), established in 1983, is a non-stock, non-profit organization registered with the Philippine Securities and Exchange Commission that aims to promote and undertake research, training and other related activities in population and development. More specifically, DRDF as a group of population and development specialists aims to: (1) undertake studies in the general area of population and development; (2) lend technical expertise in planning, policy formulation, project conceptualization, project implementation, human resource development in population and development; and (3) disseminate important, policy-relevant and research-based information.

In pursuing its mission and vision, DRDF works closely with the University of the Philippines Population Institute (UPPI), with whom it has special working relationship and arrangements. DRDF is temporarily housed in the UPPI premises. They share library resources (e.g. books, journals, electronic references), facilities and human resources, creating a synergistic environment for the improvement of the quality of demographic studies and research outputs.

DRDF is an active player in the Philippine demographic arena, working closely with other organizations. It is an active member of the Philippine Population Association (PPA), Philippine NGO Council on Population, Health and Welfare, Inc. (PNGOC), and Reproductive Health Advocacy Network (RHAN). It is accredited by the Department of Science and Technology.

ACTIVE MEMBER:

Philippine Population Association

PNGOC
Philippine NGO Council on Population, Health and Welfare Inc.

Reproductive Health Advocacy Network

ACCREDITED:

DEPARTMENT OF SCIENCE AND TECHNOLOGY

Longitudinal Cohort Study on the Filipino Child: Wave 4 Survey
Project Staff List
Demographic Research and Development Foundation (DRDF, Inc.)

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CENTER FOR SOCIAL RESEARCH AND EDUCATION

Harnessing Research, Building Better Communities

The Center for Social Research and Education (CSRE) was established as the research arm, research coordinating body and grant-seeking center of the School of Arts and Sciences, University of San Carlos. It aims to establish strategic alliances and collaborative agreements with other research organizations and professional groups, and produce relevant, timely and interdisciplinary research that could be utilized in community development efforts. CSRE, formerly the Social Science Research Center, undertakes research and development work in areas that relate to: (i) environment (including disaster risk-reduction), water and sanitation; (ii) women, gender and health (including MCH, HIV and AIDS, reproductive health, ethno-medicine); (iii) food, culture and local knowledge; (iv) poverty, child labor and migration; and (v) other development-related concerns e.g. assessment and social acceptability. Technical assistance for community-based initiatives (community assessment, project planning, monitoring and evaluation) is also part of the services it offers. To do this, CSRE harnesses social science researchers and occasionally invites practitioners from other disciplines within and outside USC for endeavors that require their expertise. For many years now, the research associates and field personnel of CSRE have been involved in several collaborative undertakings, advocacy endeavors, consultancy, and networking activities.

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Research Institute for Mindanao Culture

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RIMCU Profile

The **Research Institute for Mindanao Culture (RIMCU)** was founded in 1957 by Rev. Francis C. Madigan, S.J., PhD. RIMCU's mandate is the pursuit of high-quality social science research to advance the development of the Philippines, in general, and Mindanao in particular. RIMCU envisions of becoming a leading research institute in the country that produces high-quality research that informs both policy and practice in the areas of socially just and sustainable development. It aims to: a) pursue academic and research excellence, professionalism, interaction with its network in an inclusive and empowering environment; b) contribute to societal transformation and development through research and training; and c) engage in socially and ethically responsible and evidence-based advocacy.

RIMCU has conducted a considerable number of locally, nationally, and internationally funded studies. Moreover, it established not only a track record in research but also as a social and cultural center where research findings are generated and shared to a wider audience of students, policy-makers, line agency executives, local government units, non-government organizations, and research respondents/participants. Included in these research studies conducted are its engagement with the IP communities as well as in health-related issues.

To date, more than 600 research undertakings have been successfully completed and disseminated and to some extent utilized by planners and decision-makers. These undertakings cover a wide range of interest, such as:

- conflict situations, peace, and ethnic relations
- preventing/countering violent extremism
- operations research on health
- development studies (socio-economic and cultural factors of the development process)
- violence against women and children, women's concern and gender relations/issues
- sexual and reproductive health and rights
- demographic studies on mortality, fertility, and migration
- natural disasters
- poverty and employment-related issues
- ecological and environmental concern
- evaluation studies
- anthropological studies
- governance and democratization

The research experiences and skills are closely intertwined with education and training, communication and advocacy, and networking endeavors. The twin-affiliation of senior research associates in both the Institute and the Department of Sociology & Anthropology fuels and feeds upon their research and teaching in the academe.

RIMCU envisions of becoming a leading research institute in the country that produces high-quality research that informs both policy and practice in the areas of socially just and sustainable development. It aims to: a) pursue research excellence, professionalism, and interaction with its network in an inclusive and empowering environment; b) contribute to societal transformation and development through research and training; and c) engage in socially and ethically responsible and evidence-based advocacy.

To fulfill its aim, RIMCU engages with policymakers, civil society, researchers and students to promote their use of RIMCU's research to strengthen their research capacity and to create opportunities for analysis, reflection and debate.

RIMCU conducts discussions and sharing of research outputs with stakeholders within and outside the university. Within the university, RIMCU shares research experiences and utilizes findings in appropriate courses/subjects. Doing so would increase students' awareness and appreciation of research and research utilization

Thus, it is reflected in its Strategic Plan for 2016-2018 under Mission 2 – "Contributes to societal transformation and development through Research and Teaching;" and under its Goal 3: Informed policymakers and practitioners. Its strategies are:

1. Popularize research outputs in tri-media through linkages with academic units with communication courses
2. Establish strong linkages and partnership with GOs, NGOs, POs, and CSOs
3. Establish strong linkages with policy-makers, planners and political leaders
4. Conduct capability building project/activities in utilizing research outputs in policy-making

At present, the Institute Staff is composed of 8 senior research associates, an experienced administrative staff headed by the Institute's Operations Manager, data processing unit, and a pool of field operations personnel (survey specialists/field supervisors and data collectors/ interviewers). It has also established a network of relationship and partnerships with the academe, LGUs, and NGOs.

RIMCU's research projects were funded locally, nationally, and internationally. International agencies include World Bank, USAID, DFAT (formerly AusAid), International Development Studies (IDS), UN agencies such UNICEF, UNFPA, ILO, WHO, and FAO, and Oxfam GB, among others; while local or national institutions include the Department of Health (DOH), the Philippine Commission for Health Research and Development (PCHRD), the National Commission for Culture and the Arts (NCCA), and the Philippine Center for Population and Development (PCPD).

RIMCU STAFF

Domain Investigator: Dr. Chona Echavez
John Mari Migallon
Joseryl Amba

FIELD STAFF

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Pioh, Alshaira
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Jamin, Ildelyn
Ucat, Roxendo Jason

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Montejo, Michael Lou – Team Leader
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Sutacio, Rex Adryan
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APPENDIX 3

Sampling Design

Samples are selected using two-stage sample selection. Barangays are considered the Primary Sampling Units (PSU) and are selected using probability proportional to size systematic sampling (PPS Systematic Sampling) with number of target children (age 4 in 2010, age 10 in 2016) per barangay as the size measure. In each sample barangays, sample children are selected using equal probability systematic sampling.

Sampling Domain and Frame

The survey considers three domains corresponding to the main island groups of Luzon, Visayas, and Mindanao, i.e., estimates for the key indicators will be generated for each of these domains. The frame is based on single digit age distribution in Census 2010 (children age 4). Children age 4 in 2010 are expected to be age 10 in 2016. The number of target children is aggregated at the barangay level, this serves as the size measure in the sample selection.

Selection of Barangays

To increase the likelihood of observing the target children, barangays are selected with probability proportional the number of children age 4 in systematic sampling (PPS Systematic Sampling). Some barangays with too many eligible respondents are included as certainty units.

Implicit Stratification

To ensure selection of sample barangays that includes certain subdomains (rural-urban, IP children, and PWD children), implicit stratification was used. In each domain, barangays are sorted by urban-rural classification, then by number of IP children, and by number of PWD children. PPS Systematic is then used with these subdomains as the control variable.

Selection of Sample Children

In each of the sample barangays, a listing operation was be conducted to enumerate children 10 years at that time, information on sex, IP/non-IP, with/without disability, etc., were included in the listing operation. From the list, sample children were selected using systematic sampling.

Sample Size and Margin of Error

The target of 5,000 respondents is divided into 3 to be allocated equally into the three domains. With a target of 15 sample children in each sample barangay, approximately 115 barangays were selected for total of 1,725 sample per domain.

Sampling Weights

The original weights are based on the inclusion probabilities based on the selection of PSU (barangays) through probability proportional to size. Since the households are selected using systematic sampling, the sample households have equal weights within the sample barangays.

Since the 2010 Census was used as the frame, further adjustments need to be done from the original base weights. The number of households in 2015 Census and the number of households screened, eligible, and those interviewed are used in further adjustment of the weights as follows:

$$Adjusted\ Weights = Original * \frac{2015HH}{No.of\ HH\ Screened} * \frac{Eligible\ HH}{HH\ Interviewed}$$

If the Eligible HH is missing or less than the HH interviewed, the last multiplier ($\frac{Eligible\ HH}{HH\ Interviewed}$) is deleted from the adjustment process.

With the availability of single-digit age population from the 2015 Census, the above weights are adjusted further as follows:

$$FinalAdjusted\ Wegihts = Adjusted\ Wegihts * \frac{2015ChildrenAge9}{Total\ AdjustedWeightDomain}$$

There are 2,110,186 children age 9 in 2015 Census (age 10 in 2016), 1,134,767 are from Luzon, 414,166 are from Visayas, and 561,253 are from Mindanao. The idea of the final adjustment above is to make sure that the weights per domain sum up to the total of the target population (age 10).

The baseline weights are carried over to Waves 2 and 3 since the attrition rates are “negligible” enough to influence inclusion probabilities of the sample. For both Waves 2 and 3, weights of samples attritted in the previous wave are distributed proportionally to the responding samples in each domain.

Data collection for Wave 4 has been interrupted initially by the eruption of Taal for Luzon, while COVID-19 pandemic halted data collection in Luzon, Visayas, and Mindanao. Even subsamples cannot be collected in some barangays during the lockdown. The weights for samples lost due to attrition or those in barangays who were not enumerated due to volcanic eruption and the COVID-19 pandemic were distributed proportionally to all responding samples within each domain. The weights are further adjusted to approximate the projected population of the cohort group.

APPENDIX 4

USC-Office of Population Studies Foundation, Inc.
University of San Carlos
Talamban, Cebu City, Philippines
Phone #: (63-32) 346-0102, Fax #: (63-32) 346-6050
Website: http://opsusc.org

Data Confidentiality and Child Protection Agreement

This confidentiality agreement takes effect on this date: 7 January 2020 between the USC-Office of Population Studies Foundation, Inc. (OPS), University of San Carlos, Talamban Campus, Cebu City, represented by its Director, Dr. Nanette L. Mayol and

Name of Researcher: _____

Residing at: _____

Affiliated with: Center for Social Research and Education, University of San Carlos

This agreement is to acknowledge that any data gathered in the conduct of the **Longitudinal Cohort Study on the Filipino Child (Wave 4 Survey)** including names, addresses, and contact information of study participants are confidential in compliance with the Data Privacy Act of 2012 (Republic Act No. 10173).

As a Researcher involved in this study, I agree to respect and preserve the privacy, confidentiality, and security of these information. I also fully understand that I am not allowed to disclose any of these information in writing, orally or otherwise to unauthorized study personnel or people who are not part of this OPS study including family members and friends of the study participants.

I further certify that I have read the OPS Child Protection Policy and have been briefed on its guidelines. I agree to abide by these guidelines throughout the conduct of this study.

The parties agree to this agreement by executing this below

_____ _____
Signature and Printed Name of Researcher Date Signed

Nanette L. Mayol
OPS Director

The OPS Child Protection Policy

The OPS is an academic research institution that conducts data collection, other research-related and outreach activities involving direct contact with children and their caregivers. As an institution and as individuals, we advocate for the rights, protection and general welfare of children. Through the years, the OPS research activities have included studies that increase knowledge and inform policies on the improvement of children's nutritional status, physical and cognitive health, as well as their health and social capital potentials as adults.

We therefore abide by the Philippine government's stand regarding the rights and protection of children as mandated in Article XV, Section 3 of the 1987 Constitution[2], stating that the "*State shall defend… (2) The right of children to assistance, including proper care and nutrition, and special protection from all forms of neglect, abuse, cruelty, exploitation, and other conditions prejudicial to their development;*".

All OPS staff (see definition below) are asked to abide by this mandate in their professional and personal lives. All activities conducted in the name of OPS will ensure the general safety and protection of the children that OPS staff are in direct contact with, or have direct knowledge of by way of our data collection or outreach activities.

Definitions

1. *Children* refers to persons under the age of 18.
2. The term *OPS staff* refers to:
    - OPS management officers: OPS Board of Trustees, Director, and Management Council
    - OPS personnel: all OPS Fellows, Research Associates, and regular/contractual/daily office and field staff
    - OPS research collaborators: all local and international experts/researchers/consultants conducting research or related activities in the name of OPS.
3. The term "OPS activity/ies" refers to data collection, research-related, outreach or any other activities conducted in the name of OPS
4. The term "child abuse" refers to the neglect or physical, sexual, verbal or psychological abuse of a child and other forms of child cruelty or maltreatment specified in DepEd Order No. 40, s. 2012.
5. The term "child exploitation" includes sexual and economic exploitation and refers to any form of using a child (which often translates to child abuse) for someone's advantage or gratification as specified in DepEd Order No. 40, s. 2012.

CHILD PROTECTION POLICY GUIDELINES

1. All members of the OPS staff must:

a) immediately report to authorized *barangay* officials **any verifiable evidence or justifiable concern that a child is a victim of abuse or exploitation;**

b) upon consultation with authorized officials and whenever possible within their capacities, assist children who are victims of child abuse or exploitation with the children's general welfare and safety in mind;

c) when called upon by authorized officials, cooperate fully and confidentially in any investigation of concerns and/or allegations of child abuse/exploitation;

d) ensure that audio recording, photographs and videos of children that are used professionally and personally are decent and respectful, not sexually suggestive, and not subject to abuse by any irresponsible members of the public;

e) avoid involving children in any activity or undertaking that presents any possibility of putting the children at risk of abuse/exploitation

2. All members of the OPS staff must ***never***:

a) physically hurt or abuse children;
b) engage in any form of sexual activity or inappropriate behavior, or have sexual intercourse with children. Claiming being misinformed of the child's age is not an excuse;
c) engage in a relationship with children that could in any way be deemed exploitative or abusive;
d) treat children or behave in the presence of children in ways that may be inappropriate, sexually provocative or abusive;
e) use language, make suggestions or offer advice which is inappropriate, offensive or abusive to children;
f) spend an inappropriate time alone with children with whom they are working. **All data collection activities will be conducted within sight of mothers or responsible adult household members (but not within hearing distance).**
g) sleep in the same room with children with whom they are working;
h) condone or participate in any activity involving children that are illegal, unsafe, abusive or exploitative;
i) behave in ways intended to shame, humiliate, belittle or degrade children, or otherwise perpetrate any form of emotional abuse on children;
j) discriminate against, show unfair differential treatment to, or favor particular children to the exclusion of others;
k) engage or assist in the negotiation of any financial settlement between the family of a child victim of sexual abuse or exploitation and the perpetrator;

3. The following applies to all OPS activities:

a) If any of the incidences cited in #1 and #2 above is encountered in the course of an OPS activity: **immediately report this to your direct supervisor** for proper assessment and action

b) Notify your direct supervisor of any concerns regarding an OPS staff member violating any of the items in #1 and #2.
c) All OPS activities that require direct contact with children **must be done with the consent of the children's parent(s) or legal guardian(s).**

d) The design, supervision and implementation of data collection activities involving children or households with children must comply with the OPS Child Protection Policy and the Institutional Review Board (IRB) child protection stipulations specific to a research grant/ project. All involved OPS staff must be trained on and monitored for compliance with said OPS/IRB stipulations.

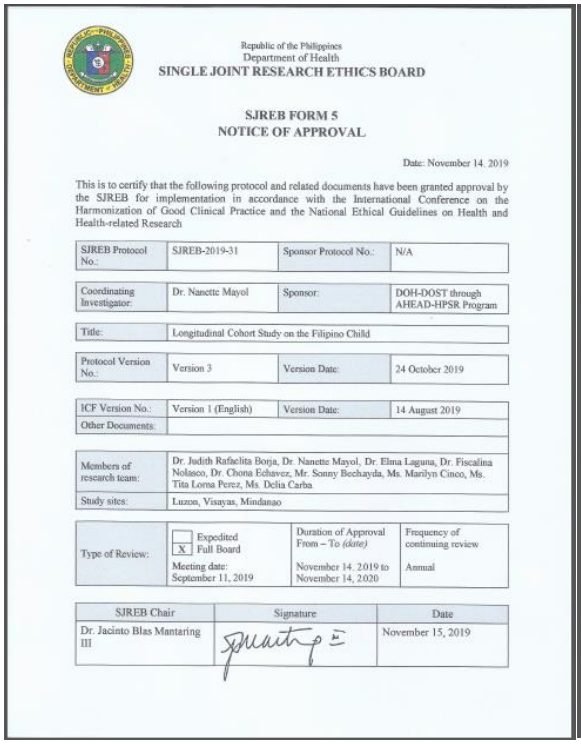
e) All physical assessments required in data collection (e.g. anthropometric measurements, biospecimen extraction) on children must be done under the supervision of a parent, caregiver or a responsible adult member of the household.

f) **All data, whether quantitative, qualitative, voice (audio)or image (photographic or video)** involving children must be kept confidential, and used only for research purposes (without personal identifiers) by authorized researchers and in compliance with the OPS Child Protection policy.

g) All OPS staff undertaking any new OPS activity involving children must undergo an OPS Child Protection policy briefing.

APPENDIX 5

Notice of Approval from the Single Joint Research Ethics Board



Republic of the Philippines
Department of Health
SINGLE JOINT RESEARCH ETHICS BOARD

SJREB FORM 5
NOTICE OF APPROVAL

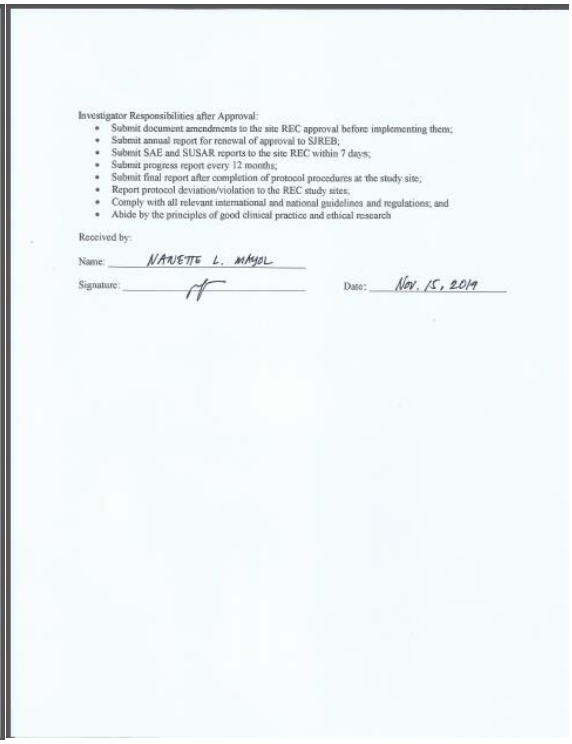
Date: November 14. 2019

This is to certify that the following protocol and related documents have been granted approval by the SJREB for implementation in accordance with the International Conference on the Harmonization of Good Clinical Practice and the National Ethical Guidelines on Health and Health-related Research

SJREB Protocol No.:	SJREB-2019-31	Sponsor Protocol No.:	N/A
Coordinating Investigator:	Dr. Nanette Mayol	Sponsor:	DOH-DOST through AHEAD-HPSR Program
Title:	Longitudinal Cohort Study on the Filipino Child		
Protocol Version No.:	Version 3	Version Date:	24 October 2019
ICF Version No.:	Version 1 (English)	Version Date:	14 August 2019
Other Documents:			
Members of research team:	Dr. Judith Rafaelita Borja, Dr. Nanette Mayol, Dr. Elma Laguna, Dr. Fiscalina Nolasco, Dr. Chona Echavez, Mr. Sonny Bechayda, Ms. Marilyn Cinco, Ms. Tita Lorna Perez, Ms. Delia Carba		
Study sites:	Luzon, Visayas, Mindanao		

Type of Review:	Duration of Approval From – To *(date)*	Frequency of continuing review
[ ] Expedited [X] Full Board Meeting date: September 11, 2019	November 14. 2019 to November 14, 2020	Annual

SJREB Chair	Signature	Date
Dr. Jacinto Blas Mantaring III		November 15, 2019



Investigator Responsibilities after Approval:

- Submit document amendments to the site REC approval before implementing them;
- Submit annual report for renewal of approval to SJREB;
- Submit SAE and SUSAR reports to the site REC within 7 days;
- Submit progress report every 12 months;
- Submit final report after completion of protocol procedures at the study site;
- Report protocol deviation/violation to the REC study sites;
- Comply with all relevant international and national guidelines and regulations; and
- Abide by the principles of good clinical practice and ethical research

Received by:

Name: NANETTE L. MAYOL

Signature: _____ Date: Nov. 15, 2019

USC-Office of Population Studies Foundation, Inc.
University of San Carlos
Talamban, Cebu City, Philippines
Phone #: (63-32) 346-0102, Fax #: (63-32) 346-6050
Website: http://opsusc.org

CONSENT FORM FOR MOTHERS AND CAREGIVERS

Consent Form Approval Date: November 14, 2019
Title of Study: LONGITUDINAL COHORT STUDY ON THE FILIPINO CHILD (Wave 4 Survey)
Funded by: Department of Health and United Nations Population Fund (UNFPA)

Study Contact:
Nanette L. Mayol, PhD
Director
USC-Office of Population Studies Foundation (OPS), Inc.
Telephone number: 63-32-3460102; Email: opsfoundation@**opsusc.org**

What you need to know about this study or "research" and participating in this study
Research studies are done to obtain new information to help us learn more about certain aspects in life that may help people in the future. People like you are asked to participate in these studies so that researchers can collect important information for their research.

The **USC-Office of Population Studies Foundation, Inc.** and (**NAME OF PARTNER RESEARCH INSTITUTION)** are conducting a research on a group of children from the time they were age 10 until they will reach the age of 24. The purpose of this study is to find out how their lives are changed by programs that are run by the government and non-government agencies, which are aimed to improve the health and well-being of all Filipinos.

Not everyone is asked to participate in a research project. Our researchers followed a special procedure in selecting households who would participate in this study. (NAME OF INDEX CHILD) is among the children selected for this study and has participated since he/she was 10 years old. His/her family has given us permission to visit (NAME OF INDEX CHILD) until he/she reaches the age of 24.

This year, we would like to interview you and (NAME OF INDEX CHILD) once again. Participation in the study is voluntary. Even if you have already agreed to participate, you may withdraw from the study for any reason and at any time without penalty. You can also choose to participate in some parts of the study but not others. The researchers also have the right to stop your participation at any time. This may happen because you have failed to follow instructions, or because the entire study has been stopped.

You should not hesitate to ask me any question you may have about this study. When I have answered all your questions, you can decide if you want to remain in the study or not.

How many people will take part in this study?
(NAME OF INDEX CHILD) is one of about 5,000 children across the country who is participating in this study.

How long will your participation last in this study?
Our visit this year may take about 2 hours. If we can't finish the interview in one visit, we will need to return to complete the interview. If you agree to participate in this study, we can start today or whenever it is convenient for you while our research team is in your area.

What will happen if you take part in the study?
Just like in our previous visits, we will ask you questions about your household, pregnancy experiences and health. We will ask about the schooling, health, diet and activities of (NAME OF INDEX CHILD). His/her height and weight measurements will again be taken.

We will also ask (NAME OF INDEX CHILD) some questions about him/herself, his/her friends, experiences and opinions on certain things. We also have a questionnaire that he/she will fill out him/herself. We will also show him/her drawings of a child's body and ask which drawing is closest to his/her body. Just like in our previous visit, we will take his/her picture for our records. We will use this picture to properly identify (NAME OF INDEX CHILD) in future visits. His/her picture will not be used for any other purpose. In our next visit we will give you a copy of his/her picture.

INTERVIEWER: SHOW MOTHER/CAREGIVER COPIES OF THE PRINTED QUESTIONNAIRES FOR REFERENCE.

What are the possible benefits for being in this study?
There are no direct benefits to you for participating in this study except that you will know about (NAME OF INDEX CHILD's) height and weight at each visit. You will know how his/her height and weight compare to those of children his/her age. However, what we learn from the study may be useful in improving programs for children and the youth.

What are the possible risks or discomforts involved from being in this study?
We think the risks related to your participation are very small. Some of the questions may make you uncomfortable, but you can choose to not answer these questions. None of the measurements we will take on your child will cause him/her any physical discomfort or pain. All the information you give will be kept confidential. There is a very small chance that someone who is not part of this research might learn of your responses to our questions. We will take great care to prevent this from happening.

How will your privacy be protected?
Participants in this study will NOT be identified in any report or publication about this study. Except for the researchers involved in this study, no one else will know about your responses to our questions or of the results of our measurements. All our records are kept in locked files. Only authorized research personnel will have access to your name, address and phone numbers.

Will you receive anything for being in this study?
In appreciation of your time, you will receive P200 and (NAME OF INDEX CHILD) will receive P100 for completing the study this year. We will also give you a card with the weight and height measurements of (NAME OF INDEX CHILD).

Will it cost you anything to be in this study?
There will be no costs to you for being in the study.

What if you have questions about your rights as a research participant?
If you have questions, complaints, concerns, or if an injury occurs as a result of this visit, you should contact the researchers listed on the first page of this form. You may also contact the SINGLE JOINT RESEARCH ETHICS BOARD of the Department of Health who makes sure that you are treated fairly as a participant of this study and that your welfare is protected.

SINGLE JOINT RESEARCH ETHICS BOARD
Department of Health
Bldg. 3, San Lazaro Compound, Rizal Avenue, Sta. Cruz, Manila
Trunkline: (02) 651-7800 local 1328/1326

INFORMED CONSENT FROM MOTHER/CAREGIVER

Do you give your consent to participate in this study this year and in the next visits? __ YES __NO

IF CONSENT IS GIVEN TO PARTICIPATE:

Do you give your consent for us to interview to NAME OF INDEX CHILD? __ YES __NO

Do you give your consent to have him/her answer our questionnaire on his/her own? __ YES __NO

Do you give your consent for us to measure his/her height and weight? __ YES __NO

Do you give your consent for us to take his/her picture? __ YES __NO

Since you have agreed for us to visit you again, being able to contact you will be important to us. May we ask for a cell phone number where we can reach you? __ YES __NO

Will you give us permission to contact other members of your family or a close friend, in the event that we have problems in reaching you for our future visit?

___ YES IF YES: Will you kindly ask their cell phone numbers for us? Please inform them too that you are giving us their numbers.

____NO

Certification of interviewer obtaining consent:
I certify that I have read and explained the contents of this consent form to the respondent. The respondent's responses above were given freely without any due influence from me.

_____ _____

Printed name and signature of study staff obtaining consent Date

_____

Printed Name of Research Participant

IC ASSENT FORM

Hello, my name is _____ and I am a researcher from the USC-Office of Population Studies,
University of San Carlos in Cebu City. (SHOW YOUR ID)

A. PRIOR TO ADMINISTERING THE INTERVIEWER-ADMINISTERED QUESTIONNAIRE:

I am here because your household has been chosen to participate in a research study about the health and wellbeing of children your age. I have already talked to your mother (or NAME OF CAREGIVER) to ask some questions about your household and your health. I would like to ask you a few questions, too, about your schooling, your activities, and the things you like to do, your friends, about yourself and other questions like these.

No one else except me and our researchers will know about your answers. Just like in our past visits, I will measure your weight and height. This will only take a few minutes.

INTERVIEWER: SHOW THE YOUTH SELF-REPORT (PART 1) AND IC INTERVIEWER-ADMINISTERED QUESTIONNAIRES.
Do you have any questions?
Do you agree to answer our questions? _____YES _____NO
Do you agree to have your height and weight measurements taken? _____YES _____NO
IF CHILD GIVES ASSENT: PROCEED WITH INTERVIEWER-ADMINISTERED QUESTIONNAIRE

B. PRIOR TO ADMINISTERING THE SELF-ADMINISTERED SECTIONS:

Now I would like you to answer a few more questions, but this time, I will ask you to read the questions and enter the responses yourself. (SHOW THE YOUTH SELF-REPORT (PART 2) AND IC-SELF ADMINISTERED QUESTIONNAIRES).

I will also show you drawings of a child's body. Please mark the drawing that you think is closest to how your own body looks like. (SHOW THE SMR DRAWINGS.) Once again, no one else except me and our researchers will know about your answers. This will only take a few minutes.
Do you have any questions?
Do you agree to answer our questionnaires? _____Yes _____No

IF CAPI: Please enter your responses on this tablet (SHOW TABLET). If you don't know the answer or don't want to answer a question, just skip that question and go to the next question (SHOW CHILD HOW TO ENTER RESPONSE AND SKIP QUESTIONS).

IF DONE ON HARD COPY: Please write down your answers on this questionnaire (SHOW QUESTIONNAIRE). If you don't know the answer or don't want to answer a question, just skip the question and go to the next question. Please answer the questions as best you can and as honestly as you can. There are no right or wrong answers for any of these questions.

C. PRIOR TO TAKING CHILD'S PICTURE:

Next I will take your picture so that our research office will have a copy. We will give you a copy of this picture in our next visit.

Will you allow me to take your picture? _____YES _____NO

NAME OF IC: _____ Age: ____ Date: _____

Signature of interviewer: _____