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Papua New Guinea Low-Skill Urban Wage Survey (2025) Report

Kristi Mahrt, Emily Schmidt, Helmtrude Sikas-Iha, and Kwaw S. Andam

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Executive Summary

The Papua New Guinea Low-Skill Urban Wage Survey (PLUWS 2025) was designed to fill an information gap on low-skill wage employment and dietary purchasing power in select urban areas across Papua New Guinea. Telephone interviews were conducted from June 2nd through November 10th of 2025, that purposefully interviewed urban wage earners in low- or low-medium[1] skill occupations in cities where the Fresh Produce Development Agency (FPDA) is also collecting monthly fresh food prices. In doing so, the survey collected information from individuals based in Port Moresby, Kokopo, Lae, Mount Hagen, Banz, Goroka, and Daru, with a focus of achieving a total survey sample that supported gender disaggregated analysis of wage rates, payment preferences, purchasing power, and household and individual characteristics of low- and medium-low skill wage earners. The International Food Policy Research Institute (IFPRI) partnered with a large PNG mobile phone company, Digicel, who randomly selected mobile phone clients from comprehensive lists of users geographically mapped to each of the urban cities identified for survey implementation. Two sampling strategies were implemented (described in more detail below) which resulted in a lower-bound (e.g., greater share of informal employment, less training or education, and lower wage rates) and upper-bound sample of low-wage earners. The final survey sample consists of 590 low- and medium-low skilled wage workers. Of which, approximately 2/3 of survey respondents are men (69% men and 31% women).

The survey asked questions about individual characteristics (gender, age, marital status, education, etc.) of the respondent and the respondent's household (assets, household composition, decision-making regarding earned incomes, etc.); characteristics of respondents' employment; preferences for wage payment in money or in-kind; and the respondents' diet quality. This report provides results tables and a discussion of the descriptive statistics by gender and sample approach (lower-bound and upper-bound) of low-skill wage workers.

Descriptive results suggest that most sample respondents are employed in the industrial, wholesale/retail trade, and other market services sectors. Respondents reported working about 50 hours per week with approximately 70% working in low-skill jobs and the remainder working in low-medium skill jobs for which they have received no formal training. On average, men work 5 more hours per week than women (about 51 hours compared to 46 hours). Most respondents report earnings as hourly wages (83.7%). On average, respondents earn between 4.3 to 5.8 PGK/hour. Median wages of sample respondents are highest in Lae (5.0 PGK/hour) followed by Port Moresby (4.4 PGK/hour) and Kokopo (4.3 PGK/hour). Wages are lowest in the Highlands (4.0 PGK/hour) (Figure 2b). Men respondents earn about 0.5 PGK/hour more than women respondents. Across both the lower- and the higher-bound samples, greater skills, more education, and formal employment are associated with increased wages.

In low-skilled wage-earning households in Port Moresby, nearly half of a day's wage is required to feed a household healthy food for one day (45%). This healthy diet wage burden is lower in the other survey areas — 41% in Kokopo, 38% in Lae, and 37% in the Highlands. When asked whether the respondent

[1] "Low-medium" skills include relatively simple tasks that require no formal training. Examples of low-medium-skill occupations include shop assistants and taxi drivers. Throughout this report we use the term "low-skill" to refer to both low-skill and low-medium-skill occupations.

would prefer some of their wages as in-kind meals at work or food to take home, more than half of respondents expressed a preference for at least some of their wages to be paid in the form of food.

To evaluate diet quality among urban low-skilled workers, respondents were asked a Dietary Quality Questionnaire which asks respondents whether they consumed each of 29 healthy and unhealthy food groups in the day and night prior to the survey. Overall, most respondents consumed starchy staples (98%), meat/poultry/fish (89%), dark leafy greens (77%), and sugary beverages (92%) in the day prior to being interviewed. Sampled women consumed more healthy food groups compared to sampled men, however, women respondents also reported consuming more unhealthy food groups than men respondents.

We compared dietary quality in the PNG sample from the PLUWS 2025 with urban lower-income adults (bottom two income quintiles) interviewed by the Global Diet Quality Project (2024) in 91 countries. Low-skilled urban wage workers in PNG, on average, consume more food groups that increase the risk of non-communicable diseases (2.9) compared to the lower-income adults in lower-middle income countries (2.0). Rather, the number of higher risk food groups consumed in the PLUWS is similar to the urban average across high-income group countries (3.0). The relatively high number of risk foods consumed in the PLUWS is driven by above average consumption of instant noodles, sugary beverages, and processed meat compared to lower-income urban individuals sampled in low- and middle-income countries (LMICs). Urban adults in the PLUWS have a lower average likelihood of achieving micronutrient adequacy (53%) than urban adults in lower-middle income countries (65%).

The remainder of this executive summary provides a detailed summary by topic. Following the executive summary, each of the thematic sections provides detailed tables and bulleted results to assist in interpretation of the descriptive data analysis.

Respondent characteristics

- Two sampling approaches were employed to reach low-skilled workers for interview. We hypothesize that these separate approaches resulted in upper-bound and lower-bound categories of low- to low-medium skilled workers:

    1) Upper bound: Enumerators randomly dialed mobile phone numbers from a listing of employer-provided closed user groups (CUG) – where the employer provides the employee a mobile phone and mobile credit to facilitate work-related communication. Respondents are interviewed if they meet a selection criterion to confirm they are low-skilled wage workers.

    2). Lower bound: Enumerators randomly dialed phone numbers from a listing of all personal numbers (PN). Respondents are interviewed if they meet a selection criterion to confirm they are low-skilled wage workers.

- Data from the survey suggest that employees who are part of the CUG sample (employers provide employees a cell phone and mobile credit) are more likely to be part of the formal sector and be working for larger, well-established companies. Conversely, the PN sample is more

likely to be informal (fewer or no written contracts or superannuation payments) and includes employees who earn lower wages and have fewer benefits.

- Overall, the average respondent is about 36 years old, married, works in an urban (as opposed to peri-urban) area, and has no education beyond primary school. Generally, men respondents are household heads whereas women respondents are spouses.

- CUG respondents live in households with significantly higher asset quintiles (3.23) compared to PN respondents (2.87).

- CUG respondents are nearly 10 percentage points more likely to have a bank account (95%) compared to PN respondents (85%) and are about 10–15 percentage points more likely than PN respondents to live in households with improved housing materials, improved drinking water, and clean cooking fuel.

- Women respondents within the CUG sample are the most highly educated group of the sampled low-skilled workers — 24% completed secondary school and 38% completed education beyond secondary school. Further investigation should be conducted to understand if poor employment opportunities result in higher educated individuals working in low-skilled wage work.

- Women low-skilled wage earners live in households with higher asset quintiles than men for both the CUG and PN samples.

- PN respondents live in households with more members than those in the CUG sample (on average, 6.3 vs 5.5 household members, respectively).

- PN women respondents live in households where a lower share of adults (at least 15 years old) are employed (70%).

- PN women respondents are the least likely to have internet access 75% compared to men in the PN sample (90%) and CUG respondents overall (85%).

Employment

- Most workers (regardless of CUG or PN sample) are employed in the industrial, wholesale/retail trade, and other market service sectors. However, men are more likely to work in the industrial sector than women, and women are more likely to work in the wholesale/retail sector.

- The majority of CUG workers are engaged in formal employment (86%) compared to less than half of PN respondents (40%).

- A relatively higher share of CUG women respondents work in low-skill jobs (77%), rather than low-medium skill jobs, compared to 70% of the total sample that works in low-skill jobs.

- On average men work 5 more hours per week than women (about 51 hours compared to 46 hours).

Wage earnings

- Greater skills, more education, and formal employment are associated with increased wages.
    - Wage earners with low-medium skills earn K1 per hour more than those with low skills.
    - Workers with education beyond secondary school earn higher wages than those who completed primary school
- CUG respondents (comprised of more formal wage earners) earn a median wage 1.4 PGK/hour greater than PN respondents (5.3 PGK/hour compared to 3.9 PGK/hour).
- Men in both the CUG and PN samples earn about 0.5 PGK/hour more on average than women, even when comparing within sector.
- Men are considerably more likely than women to report spousal co-decision making in the use of their own wages— e.g., 30% of CUG men compared to 12% of CUG women.
- Wage workers in the CUG sample are more likely to receive in-kind compensation (61%) than PN wage workers (45%). The most common forms of in-kind compensation are transportation, food provided at work, and mobile phone credit for personal use.
- More than half of respondents expressed a preference for at least some of their wages to be paid in the form of food.

Dietary purchasing power of wages

We estimate the purchasing power of low-skilled wage workers in terms of the cost of acquiring a healthy food diet for one adult and for an entire household for one day.

- Overall, 21% of daily CUG wages and 28% of daily wages in the PN sample are required to feed one adult a healthy diet for one day. These shares are highest in Port Moresby where healthy diet costs are high and wages are relatively low (particularly for PN respondents).
- In low-skilled wage-earning households in Port Moresby, nearly half of a day's wage is required to feed a household healthy food for one day (45%). This healthy diet wage burden is lower in the other survey areas — 41% in Kokopo, 38% in Lae, and 37% in the Highlands.

Diet quality

To evaluate diet quality among urban low-skilled workers, respondents were asked to report whether they consumed each of 29 healthy and unhealthy food groups in the day and night prior to the survey.

- There is little difference in the number of healthy food groups consumed by the CUG and PN respondents, respectively.
- Overall, most respondents consumed starchy staples (98%), meat/poultry/fish (89%), dark leafy greens (77%), and sugary beverages (92%) in the day prior to being interviewed.

- Overall, 20% of respondents consumed red meat (e.g., beef, lamb, and pork) and 35% of respondents consumed processed meat, both of which are less healthy forms of meat and are associated with increased risk of noncommunicable diseases.

- Women in both the CUG and PN samples consumed more healthy food groups compared to men in the respective samples. However, women also consumed more unhealthy food groups than men.

- Women in the CUG sample have a greater likelihood of attaining micronutrient adequacy (67%) than CUG men (48%) and PN respondents overall (54%).

Global diet quality comparisons

To provide global context for diet quality of low-skilled urban wage workers in PNG, we compare the PLUWS respondents' (both CUG and PN sample) diet quality indicator outcomes with the same outcomes of urban lower-income adults (bottom two income quintiles) in 91 countries between 2021 and 2024 (Global Diet Quality Project, 2024).[2]

- Adults in the PLUWS sample had a lower average likelihood of achieving micronutrient adequacy (53%) than the 2024 Global Diet Quality Project lower-middle income country average for lower-income adults (65%).

- The number of food groups that *protect* against non-communicable diseases (3.0) consumed by low-skilled urban wage workers in PNG falls between the averages for lower-income urban adults in low-income (2.7) and lower-middle income countries (3.4).

- In contrast low-skilled urban wage workers in PNG, on average, consume more food groups that *increase the risk* of non-communicable diseases (2.9) compared to lower-income adults in lower-middle income countries (2.0). Rather, the number of higher risk food groups consumed in the PLUWS is similar to the urban average across high-income group countries (3.0).

- The relatively high number of risk foods consumed in the PLUWS is driven by above average consumption of instant noodles, sugary beverages, and processed meat compared to lower-income urban individuals sampled in the low- and middle-income countries.

[2] For this comparison, we restrict the comparator sample to the bottom two income quintiles in each country to approximate lower income households.

1. Introduction

Household surveys designed to monitor welfare and food security, using quantitative measurements such as consumption expenditure estimates, are implemented infrequently—often with years between surveys. In Papua New Guinea (PNG), the PNG 2009/10 Household Income Expenditure Survey (HIES 2009/10) and the 1996 Papua New Guinea Household Survey are the two most recent nationally representative surveys designed to construct consumption-expenditure aggregates. The International Food Policy Research Institute (IFPRI) implemented rural household surveys in 2018 and 2023 to assess rural welfare using detailed consumption expenditure data (Mahrt et al., 2025; Schmidt et al., 2021, 2023). However, little is known about urban welfare over the last 15 years.

IFPRI, in collaboration with the Fresh Produce Development Agency (FPDA), has taken a first step to inform the affordability of nutritious foods in PNG via collecting fortnightly prices of fresh fruits, vegetables, root crops, and rice in urban markets located throughout PNG (IFPRI, 2025). The 2025 PNG Low-Skill Urban Wage Survey (PLUWS 2025) aims to inform a second gap to understanding urban welfare by assessing urban wages. Headey et al. (2024) illustrate that wages of low- and unskilled workers deflated by diet costs provides a powerful low-cost approach for high frequency food security monitoring in lower-income populations. Studies in India, Ethiopia, Sri Lanka, and Myanmar use diet-adjusted wages of low-skilled or casual workers measured in shorter intervals (weekly–semi-annually) as a means of monitoring food affordability in vulnerable populations over time and space (Bachewe and Headey, 2017; Headey et al. 2024; MAPSA, 2024; Raghunathan, Headey, and Herforth, 2021).

Traditionally, price monitoring in low- and middle-income countries (LMICs) is built around bundles of foods that reflect average food expenditure shares. Though aligned with typical diets, these bundles tend to be excessively weighted toward starchy staples at the expense of nutrient dense food groups and, therefore, do not reflect dietary needs. In response to this shortfall, recent indicators have emerged that measure economic access to diets that meet nutrition guidelines (Akhter et al., 2018; Dizon, Herforth & Wang, 2019; FAO et al. 2020, 2025; Herforth et al., 2020, 2022, 2024; Hirvonen et al., 2020; Mekonnen et al., 2021, 2023; Mwambi, 2023; Raghunathan, Headey & Herforth, 2021; Van, 2024). Following these more recent studies, the PLUWS 2025 collects important wage information of low-skilled workers, as well as individual characteristics of low-skilled wage workers, preferences for payments, and dietary intake using a Dietary Quality Questionnaire (DQQ). This report presents gender disaggregated findings of the PLUWS with a particular focus on healthy diet affordability and diet quality.

2. Wages in PNG – a review of past studies and data

As is typically the case in developing country contexts, the underlying trends in wages in PNG are driven by prominent features of PNG's macroeconomy, which has been dominated by resource extraction for the past four decades (Blunch and Davies, 2024). The nature of the resource industry in PNG — mining for precious minerals such as copper and gold or extracting oil and gas — has meant that the resource sector is a valuable source of economic growth as measured by gross domestic product (GDP). However, the resource sector has contributed relatively little to employment and wages (Laveil, 2024) due to the expertise required and the heavy reliance on major equipment for resource extraction. Comparatively, sectors such as agriculture and food services employ a greater share of the working population, with agriculture's share alone estimated around 80 percent. The PNG macroeconomic

structure has also resulted in relatively higher shares of rural employment, mainly in agricultural sub-sectors such as coffee, oil palm, and timber, while urban employment has lagged.

Although the country's development goals for the next few years are focused on improving labor market outcomes for the population[3] wages are relatively low in PNG. The most up-to-date picture of national wage levels comes from a nationally representative survey of more than 2000 urban and rural respondents conducted by the Business Coalition for Women (BCFW, 2024). The survey found that the mean monthly wage for PNG workers in formal employment (including both rural and urban areas) is around PGK1,500 (~US$350), with a median of about US$150, indicating a wage skewed distribution. Previously, Howes et al. (2022) analyzed minimum wage data from the International Labour Organisation (ILO) across Pacific island countries based on market exchange rates and purchasing power parity (PPP). They found that wages in PNG are below levels in 18 other Asia-Pacific countries except for Samoa and Kiribati. Minimum wages are 18-37 percent below the average in the region, depending on the extent to which the higher cost of living in PNG is considered. Despite the 2025 increase in the minimum wage in PNG from PGK3.50 to PGK5.00, the latest comparisons still show the minimum wage to be a third of its value 50 years ago and below comparable international standards (ILO, 2025). From these comparisons we surmise that based on the relationship between minimum wages and average wages in labor markets, PNG is likely to have lower average wages than other countries in the Asia-Pacific region, though this remains to be confirmed.

Some key factors to consider in understanding wages in PNG include levels of formality versus informality, sectoral distributions of employment and wage levels, and wage differences between women and men in the labor force. The formal wage sector is estimated to be a relatively small share of the labor force. Laveil (2024) estimated that while the formally employed accounted for 16% of the working age population in PNG (including both rural and urban areas) in 2014, the share had fallen to around 5% by 2021. The outcome for 2021 most likely reflects impacts from the 2020 COVID-19 pandemic. Nevertheless, recent data do not show substantial increases in formal employment (Laveil, 2024). According to the 2024 BCFW survey, only 18% of workers in urban and rural areas can be classified as 'salaried' and 44% work without receiving monetary remuneration.[4]

Other relevant findings from the 2024 BCFW survey include gender differences across the labor market. In the BCFW, surveyed men earn, on average, around 14% higher wages than women, largely driven by higher earnings from self-employment, and lower participation of women in formal employment. Outside of the BCFW survey, evidence from trend analyses indicate that in PNG men experience both larger increases and decreases in wages during periods of rapid economic growth and downturns, respectively (Blunch and Davies, 2024). However, there is some evidence that in selected private or informal sectors, women's median wages may be higher than men's median wages (Jones and McGavin, 2015).

[3] An example of the policy focus on improving labor market outcomes is an oft-cited goal of the Government of PNG to generate one million jobs by 2030 (Medium Term Development Plan (MTDP4).

[4] This category of workers includes those who work in a family setting without pay and workers exchanging their labor for in-kind compensation through bartering.

Blunch and Davies (2024) analyzed trends in wages in PNG from 1999 to 2018 and found that while conditional wage rates increased by about 4.5% over the period, the increase could be mostly attributed to sectors such as resources and services, and not to agriculture, which employs the highest share of the PNG labor force. Wages in agriculture also tend to experience more adverse impacts during economic downturns than wages in other sectors.

In an earlier study, Jones and McGavin (2015) collected data on urban formal and informal sector wages from Port Moresby, Lae, Kokopo, Madang, Goroka, Mount Hagen, Alotau and Kimbe.[5] Jones and McGavin (2015) provide findings on semi-formal sector wages by splitting the informal sector into two categories, namely 'informal traders' and 'unregulated employees', of small-scale stores. Their analysis confirmed that the unregulated employees are typically women, and that in urban areas this is likely to be the largest source of employment for low-skilled workers. Jones and McGavin (2015) reported a higher median wage than the 2009/2010 HIES and attribute the increase over the 5–6 years to the 2009 minimum wage increase, or differences in reporting (the HIES wages were self-reported, while Jones and McGavin interviewed employers). However, due to category differences, they were unable to compare their study to previous research findings.

In summary, several important gaps remain in the data and analyses of wages in PNG. Although the available literature gives some insights on sectoral wage patterns, gender disparities, and structural features of PNG's labor market, we know relatively little about wage dynamics within the vast informal economy, which employs the majority of workers but is only partially captured in existing surveys. Moreover, current studies provide insufficient understanding of how wages may affect affordability of healthy diets differentially for workers by gender, region, and skill level over time. Finally, the lack of longitudinal, nationally representative labor market data constrains the ability to assess mobility between informal and formal work, measure returns to skills and education, and evaluate the impacts of policy changes such as minimum wage adjustments.

3. The Papua New Guinea Low-Skill Urban Wage Survey (PLUWS 2025)

The PLUWS was conducted between 2 June through 10 November 2025 via phone interviews with low-skilled wage workers in seven urban areas of PNG: Port Moresby, Kokopo, Lae, Mount Hagen, Banz, Goroka, and Daru (Figure 1). These areas were chosen to coincide with ongoing fresh produce food price data collection by the Fresh Produce Development Agency (FPDA).

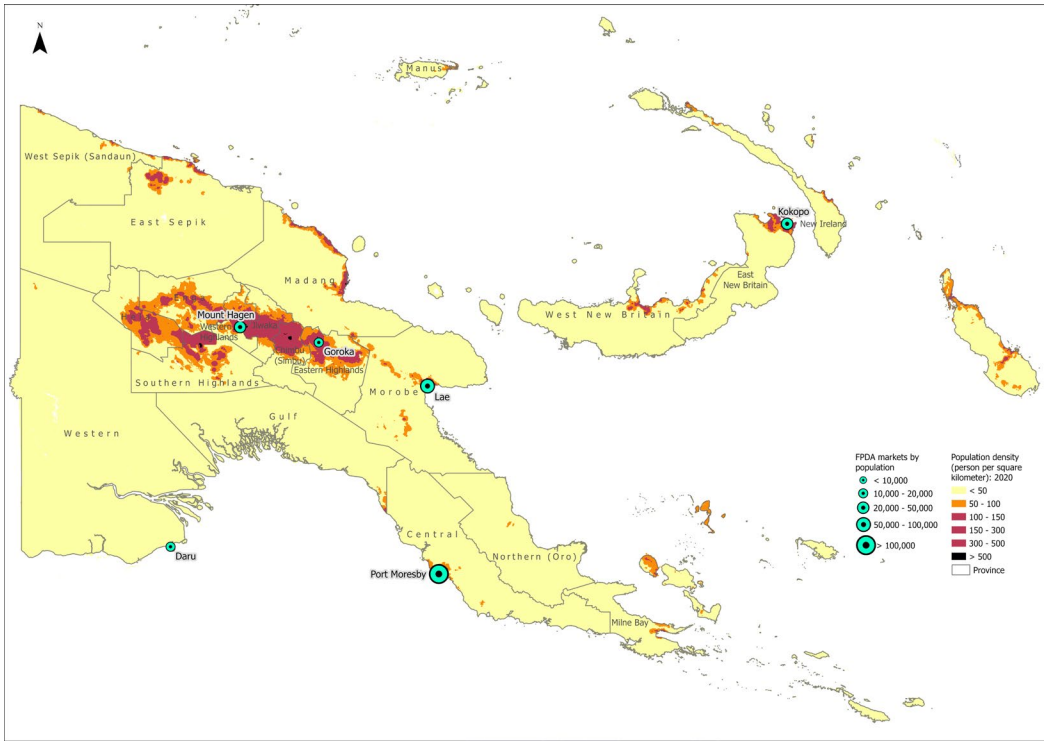
The PLUWS 2025 focuses on wage earners in low- or medium-skill occupations (Appendix Table A1 provides descriptions of occupations) as defined in the International Labor Organization's (ILO) International Standard Classification of Occupations (ILO, 2023). We restrict medium-skilled workers to those with "low-medium" skills — relatively simple tasks that require no formal training. Examples of low-medium-skill occupations include shop assistants and taxi drivers. Throughout this report we use the term "low-skill" to refer to both low-skill and low-medium-skill occupations.

[5] The data, collected in 2013-2014 is neither random nor nationally representative, but it provides a detailed assessment of wages for a purposive sample across the main urban centers in PNG (Jones and McGavin, 2015).

3.1. Survey questionnaire

The questionnaire includes modules on characteristics of the respondent and the respondent's household; respondent's household asset ownership; characteristics of the respondent's job including wages earned and hours worked; preferences for wage payment in money or in-kind; and the Dietary Quality Questionnaire (DQQ). The questionnaire was developed in English and translated to Tok Pisin allowing enumerators to conduct interviews in either language (e.g., a selection of respondents in Daru speak English as a first language).

Figure 1: Sample urban areas and population density



Source: IFPRI

3.2. Survey Sampling

Power calculations, considering the differences in male and female low-skill wage earnings in urban areas (estimated using the 2009/10 PNG Household Income and Expenditure Survey), indicated that a sample of 600 workers would allow for robust gender disaggregated analysis. We aimed to equally interview men and women with approximately 80 interviews in each city except Port Moresby, PNG's largest urban center, where we aimed for 120 interviews (Table 1).

Table 1 Original PLUWS target sample, by urban area

Urban area	Region	Province	Target sample size	Target percentage female
Port Moresby	Southern	Central	120	50%
Lae	Momase	Morobe	80	50%
Banz	Highlands	Jiwaka	80	50%
Goroka	Highlands	Eastern Highlands	80	50%
Mount Hagen	Highlands	Western Highlands	80	50%
Daru	Southern	Western	80	50%
Kokopo	Islands	East New Britain	80	50%
Total			600	50%

We used two approaches to reach low-skilled workers for telephone interview.[6] The first approach utilized closed user group (CUG) mobile phone plans, that are provided to employees to facilitate work-related communication, to identify wage workers. The second approach was not tied to a CUG plan, but rather randomly called any personal phone numbers within the Digicel database. As the survey progressed, we learned the pros and cons of both approaches, which we describe in turn.

Sampling CUG phone numbers nearly guaranteed reaching individuals who earned a wage or salary. However, employers who provide CUG mobile phones to their employees are more likely to be part of the formal sector and more likely to be larger, well-established companies. After the initial sampling from CUG numbers, data revealed that low-skill respondents from CUG plans had higher than expected wages and were largely formal sector low-skill workers. Furthermore, efforts to reach an equal share of women and men were not successful. Women were less likely to answer the phone than men (see Table 3) in the CUG sample. It is unknown whether this imbalance was due to a higher share of men working for employers with CUGs or whether women were simply less likely to answer phone calls.

To target lower-skilled (lower income) workers, we hypothesized that mobile phone usage patterns (top-off rates) may be correlated with employee income categories. For CUG plans, employees receive employer-provided phone credit, however, employees can also add credit to their CUG mobile phones for personal use. Assuming that low credit top-off rates would be associated with lower income and employment in lower skill occupations, the survey firm (Digicel) constructed a listing of CUG mobile phone numbers associated with employers registered in the defined survey area that also had low phone credit top-off rates under 20 PGK per month.

Enumerators randomly called CUG phone numbers in proportion to the urban sample targets (Table 1). During the interview, workers were screened to ensure that they worked in one of the seven survey locations and earned wages in low-skill occupations. If these characteristics were not met, the interview

[6] Respondents who consented to be interviewed received a small payment in the form of a phone credit for their participation in the study.

was terminated and the mobile phone number of a new worker in the same area was randomly selected. CUG sampling ran from 2 June through 22 July 2025.

Though efforts were made to ensure that employers represented a variety sectors, company sizes, and levels of formality, in practice this was not achieved. In addition, as described above, the low-skilled worker sample from the CUG listings didn't provide a gender-balanced sample, and reported earnings seemed inflated compared to previous wage data collection and analysis. To address these concerns, a second sampling strategy was deployed where Digicel randomly called personal phone numbers in each of the seven urban locations proportional to revised sample targets (Table 2). Sampling personal numbers improved the possibility of reaching workers in the informal sector. However, it also considerably reduced the likelihood of reaching people engaged in wage employment. As with the CUG sample, only personal numbers with phone credit less than 20 PGK per month were selected. Personal number (PN) sampling ran from July 22 through November 10, 2025.

Sample targets and survey goals were revised to achieve a gender balance in each urban area, (Table 2). In the revised plan, a greater number of calls were required in Port Moresby, Lae, and Kokopo to achieve gender balance. Due to a low number of observations in the Highlands, Banz, Goroka, and Mount Hagen were consolidated for analysis purposes. The number of observations were sufficiently low in Daru (a total of 40 respondents were interviewed) that results are not presented separately for this location.

Table 2 Revised PLUWS target sample, by urban area

Urban area	Region	Province	Target sample size	Target percentage female
Port Moresby	Southern	Central	165	50%
Lae	Momase	Morobe	165	50%
Banz Goroka Mount Hagen	Highlands	Jiwaka Eastern Highlands Western Highlands	120	50%
Daru	Southern	Western	40	50%
Kokopo	Islands	East New Britain	110	50%
Total			600	50%

Individuals reached in PN sampling were distinctly different from individuals reached in CUG sampling. Those who answered calls in PN sampling, compared to the CUG sampling, were more likely to agree to participate but considerably less likely to qualify for the survey (not meeting the criteria of a low-skill wage worker). Overall, women were less likely than men to agree to participate in the survey or to qualify to be interviewed (Table 3).

- Few individuals reached during the PN sampling had jobs working for wages (72% of men and 68% of women who agree to participate in interviews did not have wage jobs) and thus did not qualify to be interviewed.

- As expected, most individuals reached during the CUG sampling were wage workers. However, some individuals with phone numbers associated with employer CUGs did not have wage employment at the time of the survey. This was more likely to be true for women than men (15% of women vs 7% of men who agreed to participate in interviews).

- In both CUG and PN samples, women who agreed to participate were less likely than men to have low-skill wage jobs. This was more pronounced in the CUG sample where 70% of men respondents had qualifying low-skill jobs compared to only 52% of women.

Table 3 Response rates by gender and sampling strategy

	CUG sample		PN sample	
	Male	Female	Male	Female
All answered calls*				
N	407	155	562	980
Gender by sample (%) (sample adds to 100%)	72%	28%	36%	64%
Agreed to participate (%)	77%	71%	88%	77%
If agreed to participate				
N	471	147	507	739
Worked for a wage (%)	93%	85%	28%	32%
Has low-skill wage job (%)	70%	52%	19%	16%
If qualified for interview				
N	331	76	93	115
Interview completed (%)	96%	96%	97%	96%

Note: *Excludes 207 answered calls without gender data. Gender of the respondent is collected for all observations when the respondent agrees to participate. In the fourth week of the survey, enumerators also began recording gender in answered calls prior to agreement to participate. The gender-disaggregated answered calls reported in the PN sample very likely reflects that enumerators stopped submitting terminated calls that were answered by men given the amended focus to interview solely women towards the end of the survey campaign to increase gender balance in survey data collection.

The final sample consists of 590 low-skilled wage workers, 69% men and 31% women (Table 4) — falling short of the revised sampling targets outlined in Table 2.[7] Only 18% of respondents in the CUG sample are women, stemming both from few women answering calls and relatively fewer CUG women holding low-skill jobs. In contrast, 55% of respondents in the PN sample are women. This greater share of women interviewed within the PN sampling approach reflects (1) a more equal likelihood of male and female wage workers holding a low-skill wage job, and (2) deploying a purposive approach of not completing interviews with all men who answer calls in cities where sample shares of women had been low in the CUG completed interview sample (i.e. Port Moresby, Lae, and Kokopo samples).

[7] The final dataset includes an additional 25 observations with incomplete data. These observations are not included in the survey report.

The remainder of the report presents descriptive survey findings by sample and gender. We test for statistically significant differences in means by gender within the CUG sample and within the PN sample. We also test for significant differences in the combined sample (both CUG and PN sample) between men and women by urban location. Due to small sample sizes, in some cases differences are large but not statistically significant. All means and statistical tests disaggregated by sample approach (CUG or PN) but not by gender are presented in the appendix tables.

Table 4 PLUWS employer CUG and PN samples, by urban area

	CUG sample			PN sample			Combined samples		
Urban area	N	Male (%)	Female (%)	N	Male (%)	Female (%)	N	Male (%)	Female (%)
Port Moresby	107	84.1	15.9	57	36.8	63.2	164	67.7	32.3
Lae	119	80.7	19.3	40	37.5	62.5	159	69.8	30.2
Banz	23	78.3	21.7	20	55.0	45.0	43	67.4	32.6
Goroka	28	57.1	42.9	26	76.9	23.1	54	66.7	33.3
Mount Hagen	11	63.6	36.4	12	66.7	33.3	23	65.2	34.8
Daru	34	85.3	14.7	7	71.4	28.6	41	82.9	17.1
Kokopo	68	88.2	11.8	38	26.3	73.7	106	66.0	34.0
Total	390	81.0	19.0	200	45.0	55.0	590	68.8	31.2

Source: IFPRI 2025 PLUWS

4. Characteristics of the PLUWS sample

4.1. Respondent characteristics

Respondent characteristics differ by gender and sample. Overall, the average respondent is about 36 years old, married, works in an urban (as opposed to peri-urban) area, and has no education beyond primary school. Generally, men respondents are household heads whereas women respondents are spouses (Table 5 and Table A2).

- Women respondents are younger than men, particularly in the PN sample where women are 4.1 years younger.
- 24.4% of men in the PN sample work in peri-urban settings (i.e., in areas not far outside urban centers), which is greater than the share of CUG men (16.1%) and PN women (11.8%) that work in peri-urban settings.
- Both men and women PN respondents are less educated than CUG respondents. 35% of PN respondents completed education beyond primary school compared to 46% of CUG respondents. 29.0% of CUG respondents completed education beyond secondary school compared to only 14.6% of PN respondents.

- CUG women are the most highly educated group — 24.3% completed secondary school and 37.8% completed education beyond secondary school.

Table 5 Respondent characteristics

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Age (years)	37.3	10.3	35.1	9.4	*	36.9	10.8	32.8	9.4	***		
Married (%)	80.1	40.0	77.0	42.4		87.8	32.9	81.7	38.9		*	
Relationship to household head (%)												
Head	78.0	41.5	32.4	47.1	***	73.6	44.4	10.0	30.1	***		***
Spouse	0.6	8.0	47.3	50.3	***	1.1	10.7	53.6	50.1	***		
Younger generation	16.6	37.3	16.2	37.1		19.5	39.9	21.8	41.5			
Older generation	1.0	9.8	0.0	0.0		1.1	10.7	1.8	13.4			
Location of employment												
Peri-urban area	16.1	36.8	13.5	34.4		24.4	43.2	11.8	32.4	**	*	
Urban area	82.0	38.5	86.5	34.4		75.6	43.2	88.2	32.4	**		
Education level completed (%)												
<Primary	6.0	23.8	4.1	19.9		12.2	32.9	7.3	26.2		**	
Primary	51.7	50.0	33.8	47.6	***	54.4	50.1	57.8	49.6			***
Secondary	15.2	36.0	24.3	43.2	*	18.9	39.4	20.2	40.3			
>Secondary	24.4	43.0	35.1	48.1	*	14.4	35.4	14.7	35.6		**	***
University	2.5	15.8	2.7	16.3		0.0	0.0	0.0	0.0			*
Alone during call (%)	59.5	49.2	36.5	48.5	***	53.3	50.2	52.7	50.2			**
Speaker on (%)	28.2	45.1	33.8	47.6		28.9	45.6	26.4	44.3			
N	316		74			90		110				

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

4.2. Respondents' household characteristics

On average, households have about 5.8 members of whom 30% are younger than 15 years old and 70% are adults. Of the adults in the household, 76% work for renumeration. The ratio of the number of non-working children and adults in the household to the number of working adults is 1.6, whereby greater values over 1 indicate a greater dependency burden on working adults (Table 6 and Table A3).

- Households in the PN sample have nearly one more member than in the CUG sample (on average, 6.3 vs 5.5 household members).

Table 6 Respondents' household characteristics

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Household size (#)	5.5	3.1	5.9	3.4		6.6	3.4	6.1	3.8		***	
Children <15 years old (%)	29.5	20.4	31.2	19.0		31.0	17.5	29.0	19.4			
Adults ≥15 years old (%)	70.5	20.4	68.8	19.0		69.0	17.5	71.0	19.4			
Adults who work for renumeration (%)	76.7	29.3	78.8	28.6		76.4	28.6	70.0	28.2			**
Dependency ratio	1.6	1.8	1.5	1.6		1.5	1.5	1.7	1.6			
N	316		74			90		110				

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

4.3. Access to resources

Using their normal mode of transportation, respondents report that travel time between home and the market where the household buys food is on average about 20 minutes. It takes respondents about 10 minutes more to get to their most frequently used ATM.[8]

Most respondents have a bank account of which they are the sole account holder.

- Notably, respondents in the CUG sample are nearly 10 percentage points more likely to have a bank account (94.6%) compared to PN respondents (85.0%).
- This difference holds when comparing men and women across the two samples (Table 7 and Table A4).

[8] Respondents who do not have bank accounts report the travel time between the nearest ATM and home.

Table 7 Access to resources

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Time to food market (minutes)	19.3	20.9	19.2	15.2		21.0	19.1	22.5	22.3			
Respondent has bank account (%)	94.6	22.6	94.6	22.8		85.9	35.0	82.3	38.5		***	**
Shared access to bank account (%)	23.7	42.6	11.4	32.0	**	12.3	33.1	19.6	40.1		**	
Time to ATM (minutes)	28.5	27.7	23.5	19.5		31.2	26.9	29.6	29.4			
N	316		74			86		63				

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

4.4. Asset ownership

Earnings of a single wage earner may not reflect overall household welfare as other household members may also earn income. To understand household material living standards, the PLUWS asks respondents about household asset ownership from which we construct a household-level asset index.

In the absence of income or expenditure data, ownership of specific goods as well as household characteristics such as housing quality can provide an indication of wealth. Rather than simply counting the number of assets owned, an asset index can be constructed using factor weights which estimate the relative contribution of each asset to wealth (Filmer & Pritchett, 2001). Households can then be divided into asset quintiles based on the value of the household asset index, where falling in the first quintile indicates lower household wealth and the fifth quintile indicates greater household wealth.

We are interested in identifying how households fare relative to the full urban population, however the PLUWS is limited to low-skilled wage earners. Therefore, we use asset ownership in the nationally representative 2022 PNG Sociodemographic and Economics Survey (SDES) (NSO, 2023) to define asset weights and asset index values associated with each asset quintile. We apply these values to information on household asset ownership provided by PLUWS respondents.[9]

CUG respondents live in households in significantly higher asset quintiles (3.23) compared to PN respondents (2.87), and women wage earners live in households within higher asset quintiles than men wage earners (Table 8 and Table A5).

[9] We use principal component analysis to construct factor weights in the SDES. We apply these weights to asset ownership in the PLUWS and generate an asset index value for each respondent. We assign each respondent to an asset quintile using the SDES asset quintile ranges. See Fry et al. (2014) for more details on this approach.

- More than 80% of respondents report having access to the internet at home. PN women are the least likely to have access 74.5% compared to PN men (90.0%) and CUG respondents overall (84.6%).

- While nearly all respondents live in households that use improved sources of drinking water and electricity to power lights, only about half live in households with improved housing materials (having a finished roof, finished floor, AND finished walls), improved sanitation facilities, and clean cooking fuel (see the Table 8 note for definitions).

- CUG respondents are about 10–15 percentage points more likely than PN respondents to live in households with improved housing materials, improved drinking water, and clean cooking fuel (see Table 8 note for definitions).

- CUG respondents also live in households that are about 10 percentage points more likely to own a computer/ laptop/ tablet, a refrigerator/freezer, or a stove relative to PN respondents.

5. Employment

5.1. Employment characteristics

Respondents work about 50 hours per week with approximately 70% working in low-skill jobs and the remainder working in low-medium skill jobs for which they have received no formal training (Table 9 and Table A6). On average men work 5 more hours per week than women (about 51 hours compared to 46 hours).

We also consider wage workers' sector of employment. Sectors are defined by the main activities of an employer and are distinct from the occupation of the worker. (Table 9 and Table A6).

- Most workers are employed in the industrial, wholesale/retail trade, and other market service sectors.

- Men are more likely to work in the industrial sector than women, and women are more likely to work in the wholesale/retail sector.

We expect to find important differences in wage workers and their employment depending on whether they work in the formal or informal sectors. However, as employers who use CUGs are likely registered with the government, questions about formal employment were omitted from the original questionnaire. As the survey transitioned from CUG to PN sampling, questions were introduced to assess formality of employment.

We proxy formal employment to include jobs with both a written contract and employer provided super-annuation or leave. The majority of CUG workers are engaged in formal employment (86.0%) compared to less than half of PN respondents (40.3%) (Table 10).

Table 8 Asset ownership (%)

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Internet access at home:												
Anyone in household	87.9	32.6	86.5	34.4		93.0	25.6	77.8	41.9	***		
Respondent	84.8	35.9	83.8	37.1		90.7	29.2	71.4	45.5	***		
Anyone in household owns:												
Radio	33.9	47.4	35.1	48.1		31.1	46.6	36.4	48.3			
Television	36.4	48.2	37.8	48.8		27.8	45.0	32.7	47.1			
Computer/tablet	27.8	44.9	39.2	49.2	*	17.8	38.4	22.7	42.1		*	**
Refrigerator	41.1	49.3	47.3	50.3		30.0	46.1	33.6	47.5		*	*
Stove	42.1	49.4	50.0	50.3		30.0	46.1	37.3	48.6		**	*
Washing machine	15.8	36.6	18.9	39.4		7.8	26.9	16.4	37.2	*	*	
Motorcycle/scooter	3.2	17.5	0.0	0.0		2.2	14.8	4.5	20.9			*
Car/truck/van	12.3	32.9	13.5	34.4		5.6	23.0	12.7	33.5	*	*	
Improved housing:												
Housing materials	55.4	49.8	52.7	50.3		28.9	45.6	46.4	50.1	**	***	
Sanitation facilities	53.8	49.9	71.6	45.4	***	50.0	50.3	57.3	49.7			**
Drinking water	92.1	27.0	95.9	19.9		73.3	44.5	90.0	30.1	***	***	
Electricity	97.2	16.7	97.3	16.3		92.2	26.9	98.2	13.4	**	**	
Clean cooking fuel	47.5	50.0	66.2	47.6	***	32.2	47.0	38.2	48.8		**	***
Asset index quintile	3.17	1.16	3.47	1.05	**	2.60	1.20	3.08	1.10	***	***	**
N	316		74			90		110				

Note: Improved housing materials are defined as having finished roofing, flooring, AND walls as specified in the 2022 SDES (NSO, 2023). Finished roofing materials include metal sheet/tin, finished wood, concrete, or ceramic tiles. Finished flooring materials include polished wood, tiles, cement, metal/ceramic, unpolished floors, and brick/concrete. Finished wall materials include fibro, cement, metal sheet/tin, brick/concrete, or wood/planks/shingles/timber. Improved drinking water and sanitation facilities are defined according to WHO/UNICEF JMP (https://washdata.org/topics/methods/facility-types). Improved sources of drinking water are piped supplies, boreholes/tubewells, protected wells/springs, rainwater, and packaged and delivered water. Improved sanitation facilities are flush toilets/latrines connected to sewers, septic tanks, or pits, ventilated improved latrines, pit latrines with slabs, and composting toilets. Clean cooking fuel includes electricity and gas which is consistent with the definition used for Sustainable Development Goal 7 (e.g., see https://trackingsdg7.esmap.org/methodology). SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1. **Source:** IFPRI 2025 PLUWS

Table 9 Employment characteristics

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Skill level (%):												
Low skill	69.3	46.2	77.0	42.4		68.9	46.6	68.2	46.8			
Low-medium skill	30.7	46.2	23.0	42.4		31.1	46.6	31.8	46.8			
Employment sector (%):												
Industry	37.3	48.4	21.6	41.4	**	41.1	49.5	16.4	37.2	***		
Wholesale/retail	12.3	32.9	31.1	46.6	***	10.0	30.2	37.3	48.6	***		
Other market services	36.1	48.1	32.4	47.1		40.0	49.3	28.2	45.2	*		
Non-market services	12.3	32.9	14.9	35.8		7.8	26.9	18.2	38.7	**		
Usual hours worked per week	51.4	14.1	46.9	12.6	**	52.0	14.5	45.9	14.3	***		
N	316		74			90		110				

Note: Fewer than 2% of respondents report working in the agricultural sector. SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1. Industry includes manufacturing, construction, and mining. Other market services include transportation, hotel, restaurant, business, and administration services. Non-market services include services such as education, health, and social work provided by government organizations or non-profit institutions.
Source: IFPRI 2025 PLUWS

Table 10 Indicators of formal employment

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Has a written contract	93.2	25.3	55.6	49.8	***
Employer pays superannuation or provides paid leave	87.0	33.8	49.5	50.1	***
Written contract and superannuation/paid leave	86.0	34.9	40.3	49.2	***
N	118		191		

Note: Questions used to proxy formality of employment were asked to 118 out of 390 CUG respondents and to all PN respondents. SD denotes standard deviation, and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

5.2. Hourly wages

Most respondents report earnings as hourly wages (83.7%). The remaining hourly wages are imputed based on reported earnings and average time worked in the relevant time frame. On average, CUG respondents earn 5.8 PGK/hour compared to 4.3 PGK/hour in the PN sample — a 1.5 PGK/hour difference. Median wages are about 0.5 PGK/hour lower than average wages as medians are less influenced by outliers. Men in both samples earn about 0.5 PGK/hour more than women (Table 11 and Table A6.

Table 11 Hourly wages (PGK/hour)

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Mean hourly wages	5.9	2.5	5.4	2.0		4.6	2.8	3.9	1.3		***	***
Median hourly wages	5.5		5.0			4.0		3.8				
N	316		74			90		110				

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Figure 2a–d presents median wages by skill, urban area, and education level — in aggregate and by sample. [10]

- Learning a skill, even a simple skill in an informal setting, is associated with median higher wages. Wage earners with low-medium skills earn K1 more per hour (5.0 PGK/hour) than workers with low skills (4.0 PGK/hour) — differences which hold in CUG and PN samples (Figure 2a).
- Median wages of sample respondents are highest in Lae (5.0 PGK/hour) followed by Port Moresby (4.4 PGK/hour) and Kokopo (4.3 PGK/hour). Wages are lowest in the Highlands (4.0 PGK/hour) (Figure 2b).
- Median wages of sample respondents increase with education. Those whose highest education level is completed primary school (about half of all respondents) earn 5.0 PGK/hour in the CUG sample and 3.8 PGK/hour in the PN sample. In comparison, those who have education beyond secondary school earn 7.0 PGK/hour in the CUG sample, and 4.5 PGK/hour in the PN sample (Figure 2c).

[10] As the CUG and PN samples were not designed to be representative for laborers' skill, location or education levels, shares of respondents interviewed with each characteristic (e.g., achieving a given education level) do not necessary reflect the population. To correct for arbitrary differences in the shares of respondents interviewed between samples, overall wage medians are calculated using a simple weighting scheme which gives equal weights to subgroups in each sample.

Figure 2a Median hourly wages by skill level

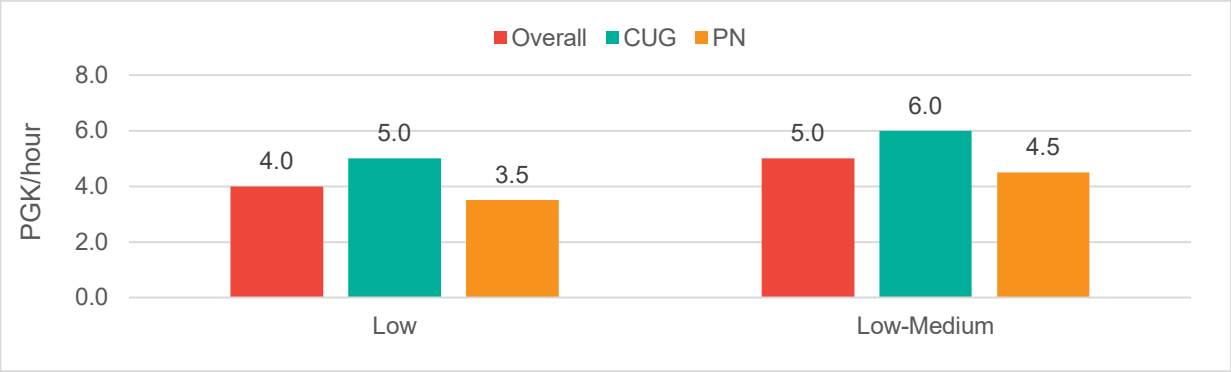


Figure 2b Median hourly wages by urban area

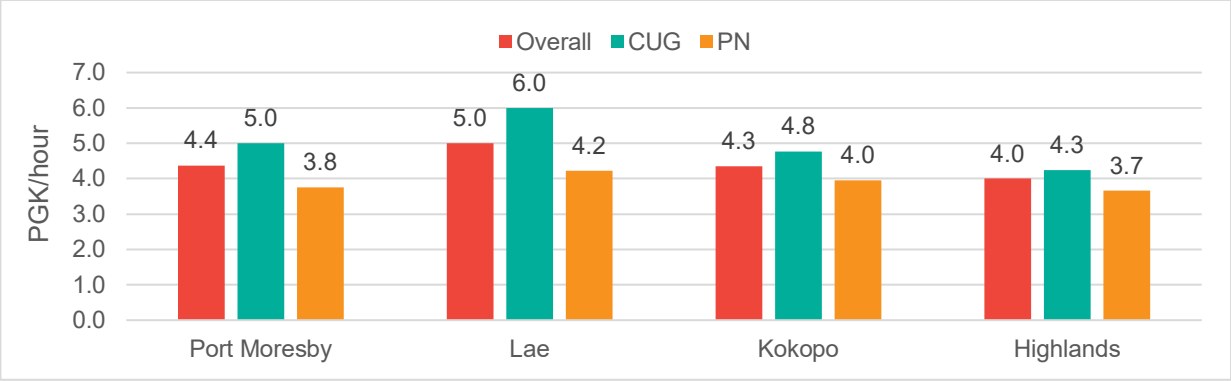
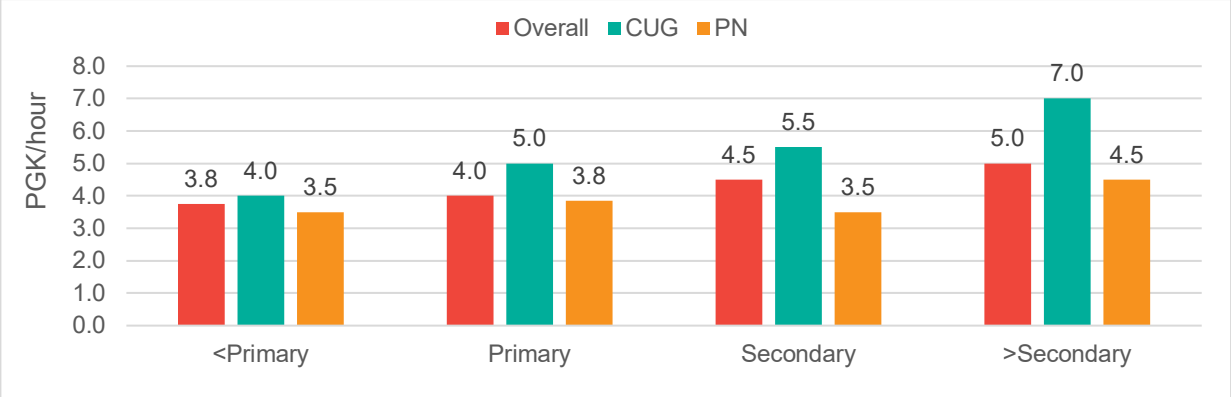


Figure 2c Median hourly wages by education level

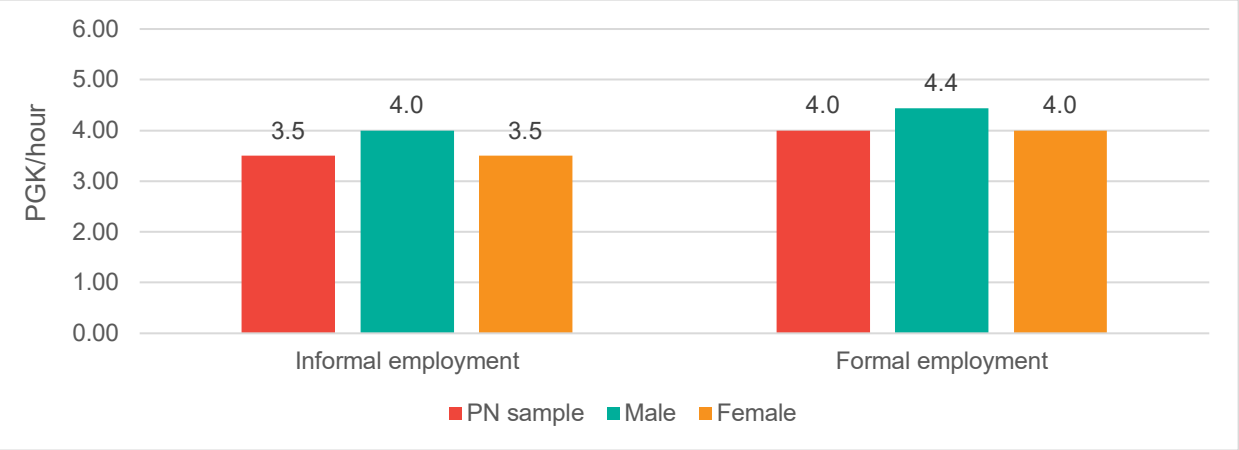


Source: IFPRI 2025 PLUWS

Figure 3 presents median PN respondent wages by gender in the formal sector and informal sectors, where formal employment is proxied as having both a written contract and employer provided superannuation and leave. CUG wages are not disaggregated by formality due to the low number of informal observations (Table 10).

- In the PN sample, median wages are 0.5 PGK/hour higher for formal workers (4 PGK/hour) than informal workers (3.5 PGK/hour).
- In both sectors women's median wages are 0.5 PGK/hour lower than men's median wages.

Figure 3 Median hourly wages by formal/informal employment in the PN sample



Note: Formal employment is proxied as having both a written contract and employer provided superannuation and leave. Questions about formality were introduced mid-way through CUG sampling. **Source**: IFPRI 2025 PLUWS

5.3. Decisions on how to use respondents' wages

To better understand autonomy of decision-making regarding earned wages, the questionnaire included a set of questions that asked who in the household is the primary decision-maker regarding how their wages are spent, and who else in the household makes decisions regarding how the respondent's wages are spent. Virtually all respondents report being the primary decision-maker in terms of how their earnings are used. Respondents also report their spouse is involved in deciding how to use their wages (Table 12 and Table A7).

- CUG respondents are more likely to report spousal co-decision making — 26.7% compared to 19.7% in the PN sample.
- In both samples, men are considerably more likely to report spousal co-decision making than women — e.g., 30.3% of CUG men compared to 12.2% of CUG women.

Table 12 Who makes decisions on how to use respondents' wages (%)

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Respondent	98.7	11.2	100.0	0.0		100.0	0.0	100.0	0.0			
Spouse	30.2	46.0	12.2	32.9	***	22.5	42.0	17.4	38.1			
Mother/mother-in-law	3.2	17.6	5.4	22.8		3.4	18.1	8.3	27.7			
Father/father-in-law	2.2	14.8	5.4	22.8		3.4	18.1	7.3	26.2			
Other female household members	10.2	30.3	6.8	25.3		6.7	25.2	7.3	26.2			
Other male household members	10.2	30.3	8.1	27.5		5.6	23.2	7.3	26.2			
N	316		74			90		110				

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

5.4. In-kind compensation

Wage workers in the CUG sample are more likely to receive in-kind compensation (60.8%) than PN wage workers (45.0%). The most common forms of in-kind compensation are transportation, food provided at work, and mobile phone credit for personal use (Table 13 and Table A8).

- The higher prevalence of in-kind compensation in the CUG sample is driven by employer provided transportation and mobile phone credit. Phone credit for personal use is a benefit linked to employer provided CUG phones — virtually no PN respondents receive phone credit as compensation.
- PN women wage workers are the most likely group to receive meals at work (22.7%) compared to 16.6% among all respondents.
- CUG women wage workers are twice as likely to receive housing related compensation (16.2%) compared to CUG men wage workers (8.5%). Only 2% of PN respondents receive housing benefits.

Table 13 In-kind compensation (%)

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Receives any in-kind compensation	58.5	49.3	70.3	46.0	*	40.0	49.3	49.1	50.2		***	***
Meals at work	16.5	37.1	14.9	35.8		11.1	31.6	22.7	42.1	**		
Food to take home	1.6	12.5	0.0	0.0		0.0	0.0	2.7	16.4			
Food vouchers	6.6	24.9	10.8	31.3		3.3	18.1	4.5	20.9			
Transportation	40.5	49.2	47.3	50.3		25.6	43.9	25.5	43.8		***	***
Mobile phone/credit (personal)	18.7	39.0	21.6	41.4		1.1	10.5	3.6	18.8		***	***
Housing/rent/utilities	8.5	28.0	16.2	37.1	**	2.2	14.8	1.8	13.4		**	***
Clothing (other than uniforms)	7.3	26.0	2.7	16.3		10.0	30.2	8.2	27.5			
Medical insurance	2.8	16.7	6.8	25.3		0.0	0.0	0.9	9.5			**
Other	2.8	16.7	8.1	27.5	**	0.0	0.0	0.9	9.5			**
N	316		74			90		110				

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

5.5. Preferences for food payments

To understand wage workers' preferred payment mechanism, the PLUWS asks respondents hypothetical questions about the number of kina out of a 40-kina daily wage that they would prefer to be paid in the form of meals at work or food to take home in lieu of money. The total value of hypothetical wages is the same regardless of the form of payment. We find no statistically significant differences in responses by sample or by gender (Table 14 and Table A9). Further econometric analysis is warranted to evaluate preferences across asset index quintiles.

- More than half of respondents would prefer at least some of their wages to be paid in the form of food — 57.2% in the CUG sample and 55.0% in the PN sample.
- More respondents would prefer to be paid in-kind than to receive meals at work — 8.5 percentage points more CUG respondents and 4.5 percentage points more PN respondents.
- Those who express an interest in receiving meals at work indicate a preference for about 30% of wages to be paid in the form of meals at work .
- Those who express an interest in receiving food to take home indicate a preference for about 50% of wages to be paid in food in-kind.

Table 14 Preferences for food payments (%)

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Prefers some payment in food:												
Meals at work	46.8	50.0	47.3	50.3		52.2	50.2	49.1	50.2			
In-kind	55.4	49.8	55.4	50.0		54.4	50.1	55.5	49.9			
Meals at work or in-kind	57.3	49.5	56.8	49.9		54.4	50.1	55.5	49.9			
Share of 40 kina/day preferred in food (if some food preferred):												
Meals at work	30.5	14.4	27.5	14.4		28.7	15.7	29.1	18.3			
In-kind	47.7	19.3	49.5	17.5		52.0	21.6	49.1	23.4			
N	316		74			90		110				

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

The survey also asks respondents to identify reasons for preferring a portion of wages in the form of food or for preferring all wages in money (depending on their reported payment preferences). The most common reasons for preferring to be paid in food are (1) being able to share food at home with their families, (2) the guarantee of at least one complete meal per day, and (3) less control of their own wages when paid in money. The most common reasons for preferring the entire wage to be paid in money are related to having more budget control when paid in money — generally, in terms of food choice, and in terms of allocating earnings to non-food expenses (Table 15 and Table A10).

- PN respondents are more likely than CUG respondents to express safety concerns when buying food or at the ATM as reasons for desiring wages in food (22.7% vs 9.8%).
- PN respondents are more likely than CUG respondents to note food choice (62.2% vs 42.8%) and non-food expenses (62.2% vs 38.6%) as reasons for preferring wages in money.
- On the other hand, CUG respondents are more likely to note greater overall budget control (92.2% vs 78.9%) and the need to save for emergencies (36.1% vs 20.0%) as reasons for preferring wages in money.

Few differences between men and women in the reasons for wage preferences are statistically significant, and most differences do not hold across CUG and PN samples.

- Women are more likely than men to note budget control (significant in PN sample only) and food choice as a reason for not wanting wages paid in food (not statistically significant).

- Men are more likely than women to note children's school fees, non-food expenses, and saving for emergencies (not statistically significant) as well as already having sufficient food (significant in PN sample only) as reasons for not wanting wages paid in food.

Table 15 Reasons food payment preferences (%)

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Reasons for preferring some food payments (if some food preferred):												
Guarantees complete meal	55.2	49.9	55.8	50.2		49.0	50.5	60.7	49.3			
Share with family	81.8	38.7	79.1	41.2		83.7	37.3	83.6	37.3			
Less control over own money wages within household	51.9	50.1	41.9	49.9		30.6	46.6	47.5	50.4	*	***	
Long ATM lines	30.4	46.1	44.2	50.2		51.0	50.5	29.5	46.0	**	***	
Difficult to get to ATM/market	22.1	41.6	30.2	46.5	*	28.6	45.6	13.1	34.0	**		**
ATM/market unsafe	9.9	30.0	9.3	29.4		26.5	44.6	19.7	40.1		***	
Reasons for preferring only money payments (if no food preferred):												
More budget control	91.1	28.6	96.8	18.0		63.4	48.8	91.8	27.7	***	***	
More food choice	41.5	49.5	48.4	50.8		58.5	49.9	65.3	48.1		*	
Other household member prefers money	16.3	37.1	25.8	44.5		24.4	43.5	24.5	43.4			
Need money for non-food expenses	39.3	49.0	35.5	48.6		65.9	48.0	59.2	49.7		***	**
Need money for school fees	27.4	44.8	19.4	40.2		26.8	44.9	14.3	35.4			
Household has sufficient food	14.1	34.9	12.9	34.1		19.5	40.1	4.1	20.0	**		
Need money to remit home	14.8	35.7	16.1	37.4		12.2	33.1	8.2	27.7			
Need to save for emergencies	38.5	48.8	25.8	44.5		24.4	43.5	16.3	37.3		*	
N	316		74			90		110				

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

6. Healthy diet purchasing power of low-skilled wages

In this section, we estimate the purchasing power of low-skilled wage workers in terms of the cost of acquiring a healthy diet. We consider both the number of adults that can consume a healthy diet with an individual worker's daily wage as well as the share of workers' wages needed to provide a healthy diet to their household. These calculations combine data on household composition (number of household members and respective ages) and wages, which we derive from the PLUWS, as well as the cost of a healthy diet which we derive from the food price data collected by FPDA.

6.1. Cost of a healthy diet in urban PNG

The Cost of a Healthy Diet (CoHD) indicator, developed by Herforth et al. (2020a, 2022) and the FAO (2024), measures economic access to healthy diets defined as the minimum cost of purchasing a diet that is consistent with a reference healthy diet, such as national food-based dietary guidelines.[11] In this context, reference healthy diets are specified in terms of food groups—typically, starchy staples, vegetables, fruits, animal source foods, nuts and pulses, and fats—in proportions that are nutritious, promote health, and reduce the risk of disease. The CoHD equals the total cost of attaining the cheapest foods (in terms of price per calorie) in each food group in proportion to quantities outlined by a reference healthy diet (Herforth et al., 2024).[12]

We adopt the CoHD methodology to monitor the cost of a nutritious basket of foods in PNG using staple, vegetable, and fruit prices collected by the Fresh Produce Development Agency (FPDA) between May and October 2025 in seven urban areas (Port Moresby, Lae, Kokopo, Mount Hagen, Goroka, Banz, and Daru), a time frame closely corresponding to the PLUWS (IFPRI, 2025). Fresh produce prices were supplemented with tinned fish and coconut prices collected for each market in May and November 2025, except for Daru where prices were collected in July 2025.[13] [14]

Given that PNG has yet to develop country-specific food-based dietary guidelines, we adapt a reference healthy diet developed for PNG by Mahrt et al. (2025), depicted in Figure 4.[15] To ensure that we monitor a consistent set of foods across the PLUWS urban areas, we calculate the cost of a healthy food basket by market using the set of foods described in Table 16. We use the PNG 2009/10 HIES to calculate the shares of calories consumed by staple and by area. The most consumed two staples across all sample areas are rice and sweet potatoes, except Daru where rice and sago are more commonly consumed. Thus, calories per food group presented in Table 16 are calculated from the reference diet and sum to the calorie needs of an average moderately active adult man and woman (Mahrt et al., 2025).

[11] The CoHD has been used in both national (Herforth et al., 2024) and international (FAO et al., 2020 and 2024) applications.

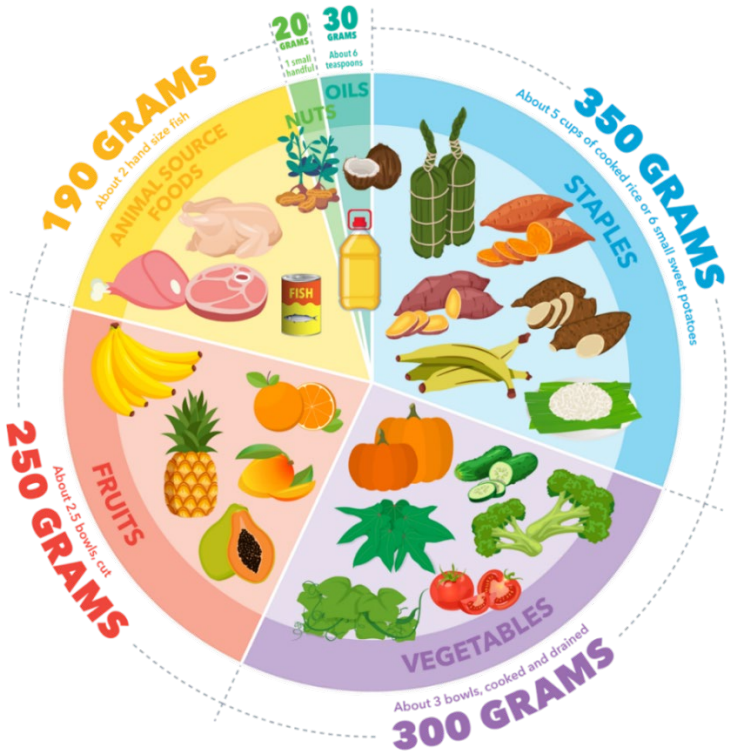
[12] Hereforth 2024 imputes the CoHD by incorporating the least expensive: 2 staples, 3 vegetables, 2 fruits, 2 animal source food, 1 legume, nut seed, and 1 oil food.

[13] With the aim of reducing the cost of living, PNG's Internal Revenue Commission eliminated the 10 percent Goods and Services Tax (GST) on some essential goods, including tinned tuna, for the period of 1 June 2025 – 30 June 2026 (https://irc.gov.pg/news/media-releases/media-release-gst-relief-on-essential-goods-takes-effec-businesses-be-warned-the-irc-is-watching). For comparability we remove the GST from tuna prices collected in May 2025. This simple zero-GST price estimation does not consider other potential factors such as shifts in consumer demand due to price decreases, which could in turn impact prices. However, these influences were likely small or nonexistent at the beginning of the survey period.

[14] Tinned fish and coconut prices in Kokopo were collected only in May 2025

[15] Due to a lack of price data for nuts, the calories allocated to the 'nuts' food group are added to 'animal source foods' food group. Animal source foods are limited to tinned fish, while fruits are limited to bananas; recommended calories for these food groups are adjusted accordingly. The reference healthy diet described in Mahrt et al. (2025) includes discretionary foods, such as sweets. As we do not have food prices of discretionary foods, discretionary calories are added to the staple food group.

Figure 4 Reference healthy diet for Papua New Guinea, per adult per day



Source: Adapted from the Indonesia food-based dietary guidelines (Ministry of Health of the Republic of Indonesia 2014) and authors' calculations (Mahrt et al., 2025).

Table 16 Healthy diet food basket*, per adult per day

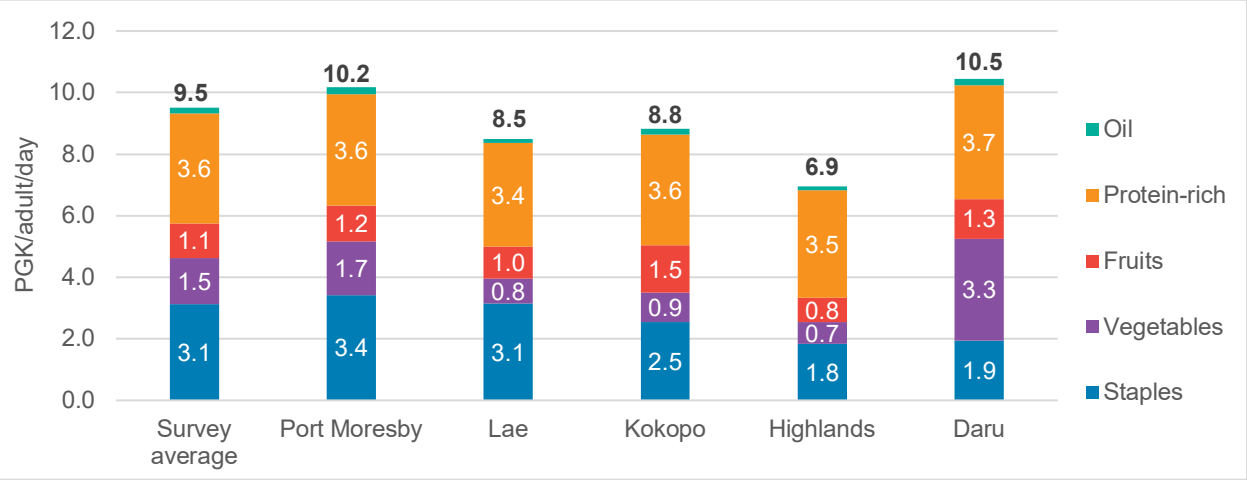
Food group	Food	Calories per average adult
Starchy staples	Two most consumed staples in each region	1,362
Vegetables	Least expensive 2 vegetables in the market	110
Fruits	Bananas	220
Animal sourced foods	Tinned fish	465
Fats	Coconut	300
Total		2,432

Note: *Calories per food group in the reference healthy diet for PNG outlined by Mahrt et al. (2025) are modified for the limited set of food consistently available in the price data (IFPRI, 2025). See Table A11 for the starchy staples and vegetables selected by area. **Source:** Authors' calculations following Mahrt et al. (2025) and the Indonesia food-based dietary guidelines (Ministry of Health of the Republic of Indonesia, 2014).

The average urban cost of a healthy diet per adult per day across the PLUWS survey locations is 9.5 PGK which varies from over 10 PGK in Daru and Port Moresby to 6.9 PGK in the Highlands (Figure 5). Differences in diet costs are primarily driven by banana, vegetable, and staple food prices.

- In Daru, although staple food prices are relatively low, vegetable costs are more than twice as expensive as the average.
- In Port Moresby, all food groups are more expensive than the average, while in the Highlands, all food groups are less expensive than average.

Figure 5 Cost of the healthy diet in urban areas (PGK/adult/day), May–November 2025



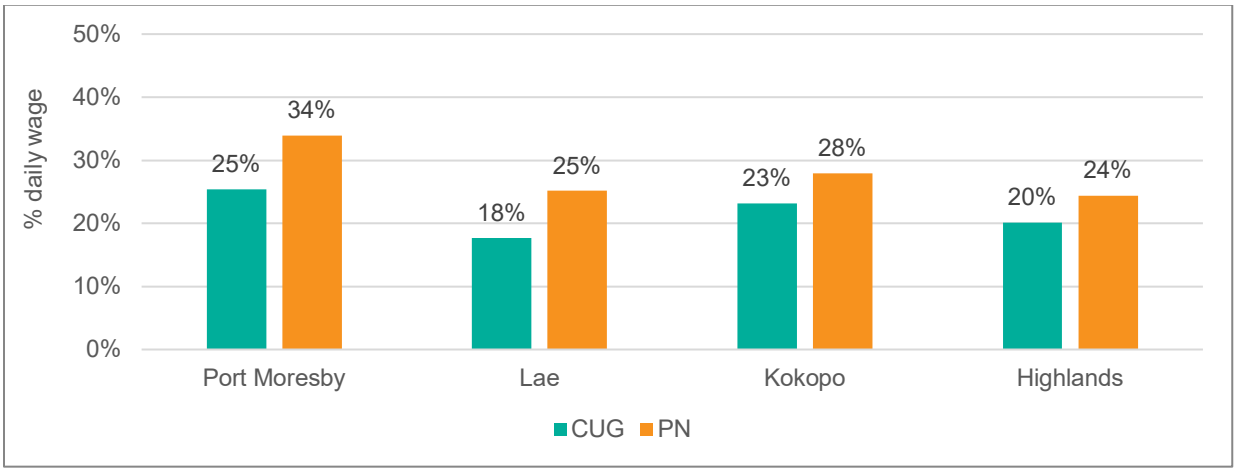
Note: Average diet costs in the PLUWS area are population weighted based on LLG populations from the 2011 census (NSO, 2014). **Source:** Authors' calculations using prices from IFPRI (2025)

6.2. Diet costs relative to wages

Figure 6 illustrates the relationship between wages (Figure 2b) and healthy diet costs (Figure 5), both of which vary by urban area. Daily wages are calculated assuming an 8-hour workday, which is the median number of hours worked per day in both the CUG and PN samples. Overall, 21% of daily CUG wages and 28% of daily PN wages are required to feed one adult a healthy diet for one day.

- Wages are relatively high in Lae while diet costs are moderate. Wages and diet costs are low in the Highlands. As a result, the share of daily wages required to purchase a healthy diet in both areas is roughly the same (about 20% for CUG wage earners and 25% for PN wage earners).
- The share of a daily wage needed to secure one healthy diet for one adult is highest (34%) in Port Moresby, especially for PN wage earners who face a combination of high diet costs and relatively low wages.

Figure 6 Median share of daily wage required to feed a healthy diet to one adult/day, by urban area



Source: Authors' calculations using prices from IFPRI (2025) and IFPRI 2025 PLUWS

To gain insight into the affordability of healthy diets for households where income earners are low-skilled wage workers, we examine the share of a worker's daily wage required to purchase sufficient healthy food for the household, adjusted for the number of workers in the household. This healthy diet burden is calculated for each household based on the wage of the respondent and the respondent's household composition. First, the daily total cost of the healthy diet for each household is determined by scaling up the cost of the healthy diet for one adult (Figure 5) by the household's total calorie requirement, which is determined by the number of children and adults in the household.[16] Next, the daily household healthy diet cost is divided by the respondent's wage. Finally, this ratio is adjusted for the number of working adults in the household. This yields an estimate of the share of each wage earner's daily wage required to feed the household a healthy diet. The healthy diet wage burden is a stylized indicator in that we do not actually know the earnings of other working household members — we assume that working members are fully employed earning the same wage as the respondent. Nonetheless, it provides a useful indication of the affordability of diets for households where the primary income earners are low-skilled wage workers.

- In Port Moresby, the healthy diet burden is 45%. In other words, for low-skill wage earning households, nearly half of a day's wage is required to feed a household healthy food for one day.
- The healthy diet burden is lower in the other survey areas — 41% in Kokopo, 38% in Lae, and 37% in the Highlands (Figure 7).[17]

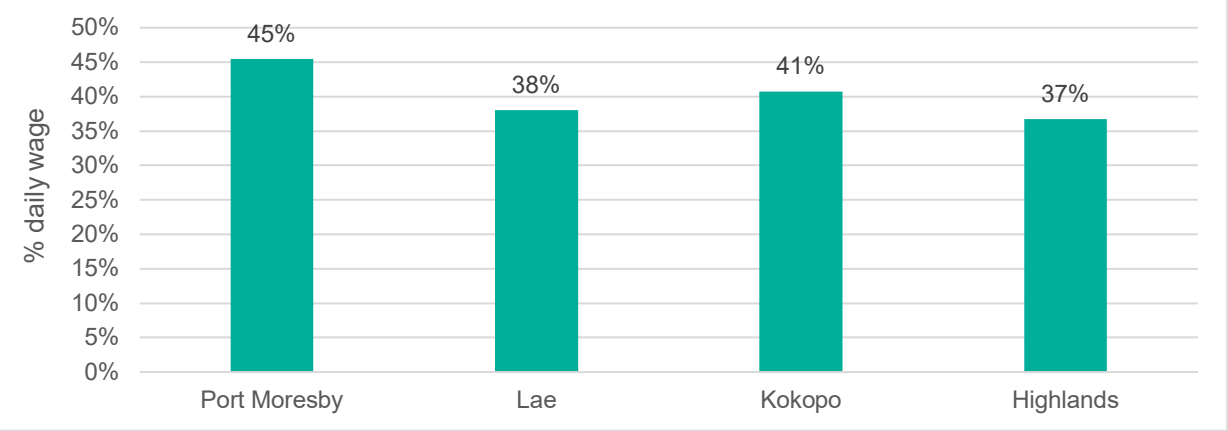
[16] A total household's daily calorie requirement equals the number of children in a household multiplied by the average calorie needs of a child (1,229 calories) plus the number of adults in a household multiplied by the average calorie needs of an adult (2,432 calories) (Mahrt et al., 2025). The household's daily healthy diet cost equals the cost of the healthy diet in the respondent's urban area (Figure 5) scaled up by the ratio of total the household's calorie needs to the calories in one healthy diet (2,432 calories, Table 16).

[17] To correct for arbitrary differences in the shares of respondents interviewed between samples, overall wage medians are calculated using a simple weighting scheme which gives equal weights to subgroups in each sample.

- In assessing diet affordability, it is crucial to factor in the cost of attaining basic non-food needs. Due to a lack of recent cost of living assessments for urban PNG, we are unable to evaluate whether the remaining 55–63% percent of wages is sufficient to meet basic household non-food needs.

While we were able to report the cost of a healthy diet for Daru (Figure 5) using time-series food price data collected by FPDA (IFPRI, 2025), we are unable to do a similar calculation of the healthy diet burden (which takes into account wage rates for low-skilled workers) given the small sample size that was achieved for Daru in the PLUWS.

Figure 7 Healthy diet wage burden, by urban area



Source: Authors' calculations using prices from IFPRI (2025) and IFPRI 2025 PLUWS

7. Diets

7.1. Decisions on respondents' diets

Household dynamics may play a role in the foods and drinks that an individual consumes. When asked who makes choices regarding the foods they eat, virtually all respondents report that they are the primary decision-makers. Men are significantly more likely than women to also indicate their spouse is involved in diet decisions, potentially due to gendered roles in household allocation duties related to food acquisition and preparation (Table 19 and Table A13).

- Compared to women wage workers, CUG and PN men respondents are 20 and 10 percentage points, respectively, more likely to report that their spouses make decisions about their diet.
- Women wage workers in the PN sample are more likely than PN men wage workers and all CUG respondents to report that household members other than their spouse influence diet decisions.

Table 17 Who makes decisions on respondents' diets (%)

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Respondent	99.0	9.8	97.3	16.3		100.0	0.0	99.1	9.7			
Spouse	31.9	46.7	10.8	31.3	***	25.6	43.9	14.0	34.9	**		
Other female household members	13.4	34.1	12.2	32.9		17.8	38.4	22.4	41.9			*
Other male household members	10.5	30.8	10.8	31.3		7.8	26.9	17.8	38.4	**		
N	316		74			90		110				

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

7.2. Diet quality

We measure diet quality within the survey using the Diet Quality Questionnaire (DQQ) module that is included in the PLUWS (Global Diet Quality Project, 2023). The Global Diet Quality Project (2022) designed the DQQ as a tool for calculating population level indicators of both healthy and unhealthy dietary patterns by identifying whether individuals consumed each of 29 food groups in the previous day and night. The DQQ does not collect quantities or full listings of food consumed.[18] The DQQ questionnaire used in this study was adapted by the Global Diet Quality Project for use specifically in PNG (Global Diet Quality Project, 2023).

We consider four diet quality indicators, which are defined in Table 17: the dietary diversity score (DDS), minimum dietary diversity for women of reproductive age (MDD-W), protection against non-communicable disease (NCD) (NCD-protect), and dietary risk of NCDs (NCD-risk).

The consumption of a variety of healthy foods is a key component of diet quality and is associated with greater micronutrient intake. The DDS measures the number of healthy food groups consumed (out of ten) in the previous day or night. Individuals who consumed at least five out of the ten food groups are classified as having minimally adequate dietary diversity (MDD-W=1). The MDD-W was developed and validated for predicting adequate levels of micronutrients in populations of women of reproductive age (aged 14–49 years) (Martin-Prevel et al., 2015 2017).[19] Gómez et al. (2024) demonstrate the utility of the MDD-W in also predicting micronutrient adequacy in populations of men.

[18] The DQQ instrument has been validated against the 24-hour recall reference method (Uyar et al., 2023) and undergone extensive cognitive testing (Global Diet Quality Project, 2022).

[19] Micronutrient adequacy assessments are based on consumption 11 micronutrients: vitamin A, thiamine, riboflavin, niacin, vitamin B-6, folate, vitamin B-12, vitamin C, calcium, iron and zinc.

Diet quality is associated with the incidence of NCDs such as diabetes, heart disease, stroke, and cancer. In addition to adequate micronutrient intake, diets rich in fiber protect against NCDs, while red meat, ultra-processed foods, and foods high in sugar, fat, and salt increase NCD risks. Herforth et al. (2020b) developed and validated the NCD-protect and NCD-risk indices to be indicators of food consumption that adheres to global dietary recommendations for consuming healthy foods and limiting unhealthy foods, respectively, to reduce the risk of NCDs.

Table 18 Diet quality indicators

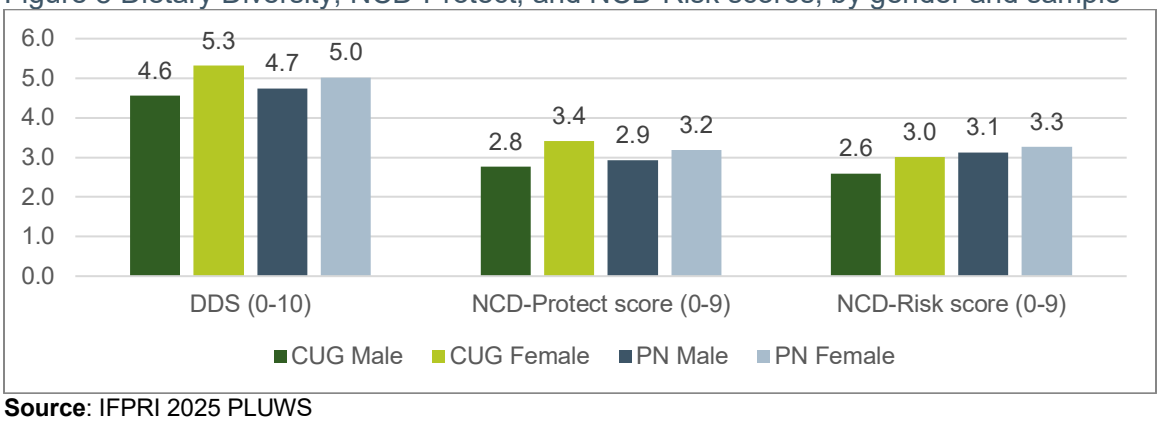
Indicator	Definition
Dietary Diversity Score (DDS)	Indicator of consuming a variety of foods, which is a key component of a diet quality and is associated with greater micronutrient intake. Definition: The number of food groups consumed the previous day or night (0-10). The ten food groups are 1) grains, white roots and tubers, and cooking bananas, 2) pulses (beans, peas and lentils), 3) nuts and seeds, 4) dairy, 5) meat, poultry, and fish, 6) eggs, 7) dark green leafy vegetables, 8) other vitamin A-rich fruits and vegetables, 9) other vegetables, and 10) other fruits.
Minimum Dietary Diversity for Women of Reproductive Age (MDD-W)	Indicator of achieving a minimum level of dietary diversity, which is associated with micronutrient adequacy. Definition: Proportion of individuals who in the previous day or night consumed at least five out of the ten DDS food groups.
NCD-protect	Indicator of dietary factors protective against NCDs based on nine food groups identified according to WHO recommendations on plant-based foods. Definition: The number of food groups consumed the previous day or night (0-9). The nine food groups are 1) whole grains, 2) legumes, 3) nuts/seeds, 4) vitamin A rich vegetables, 5) dark green leafy, 6) other vegetables, (7) vitamin A rich fruit, 8) citrus, 9) other fruit.
NCD-risk	Indicator of dietary risk factors for NCDs based on of eight food groups identified according to WHO recommendations on sugar, salt, total and saturated fat, and red and processed meat. Definition: The number of food groups consumed the previous day or night (0-9). The food groups are 1) soft drinks, 2) grain-based sweets, 3) other sweets, 4) processed meat, 5) unprocessed red meat (double weighted), 6) deep fried food, 7) fast food and instant noodles, 8) packaged ultra-processed salty snacks.

Source: Global Diet Quality Project (2022)

The PLUWS survey data suggest that women in both the CUG and PN samples of low-skilled wage workers consume more healthy food groups (DDS and NCD-protect) than men. However, women also consume more unhealthy food groups than men (NCD-risk). (Figure 8, Figure 9, Table 18 and Table A12).

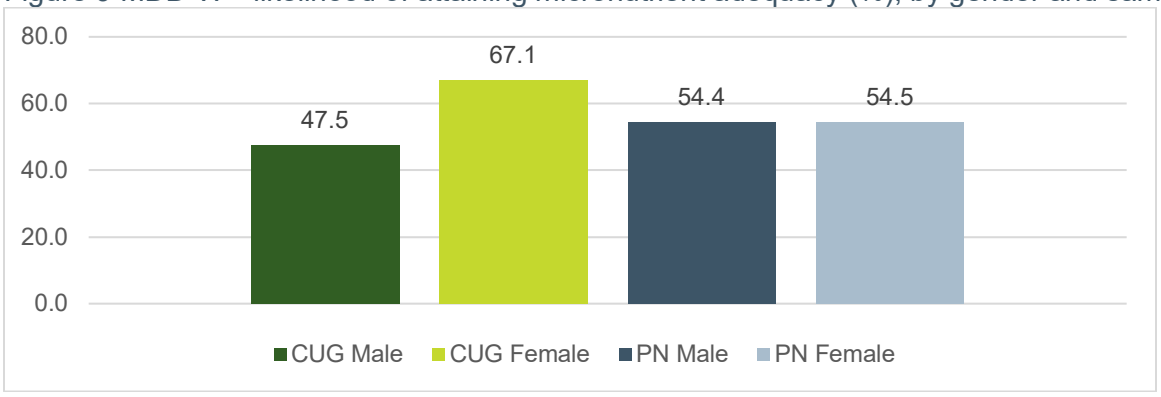
- Between the CUG and PN samples, there is little difference in the number of healthy food groups— about 4.8 DDS food groups and 3.0 NCD-Protect food groups.[20]
- PN respondents consume more unhealthy NCD-Risk food groups than CUG respondents (3.2 versus 2.7 food groups, respectively).
- CUG women respondents are considerably more likely to achieve levels of dietary diversity associated with micronutrient adequacy (67.1.%) than CUG men (47.5%) and PN respondents (54.4%).

Figure 8 Dietary Diversity, NCD-Protect, and NCD-Risk scores, by gender and sample



Source: IFPRI 2025 PLUWS

Figure 9 MDD-W—likelihood of attaining micronutrient adequacy (%), by gender and sample



Source: IFPRI 2025 PLUWS

[20] DDS and NCD-Protect both count healthy foods groups but have different measurement goals. DDS counts a range of healthy food groups while NCD-Protect focuses on nutrient and fiber rich plant-based foods. For instance, NCD-Protect only measures the consumption of wholegrains whereas DDS measures all forms of starchy staples.

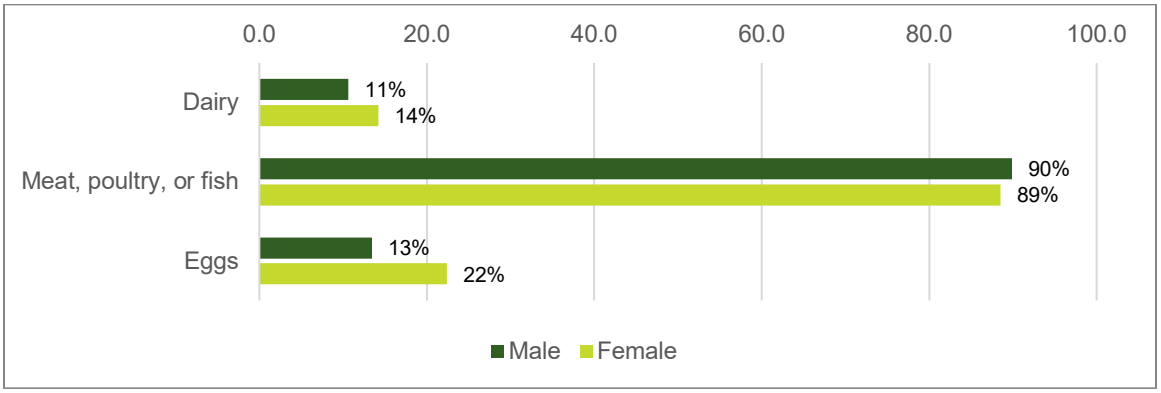
Most respondents reported consuming starchy staples (98%), meat/poultry/fish (89%), dark leafy greens (77%), and sugary beverages (92%) in the day prior to being interviewed. (Figure 10–Figure 12, Table 18 and Table A12).

- Women sampled in the PLUWS are equally likely or more likely to report consuming all healthy food groups in the day before the survey compared to their male counterparts. These differences are statistically significant in the CUG or PN sample for nuts and seeds, non-leafy vegetables or vitamin A rich fruits, and eggs.

- Nearly all low-skilled wage workers, regardless of gender, reported consuming meat, poultry or fish (89%) in the day before the survey. However, 20% of respondents consumed red meat (e.g., beef, lamb, and pork) and 35% of respondents consumed processed meat, both of which are less healthy forms of meat and are associated with increased risk of noncommunicable diseases.

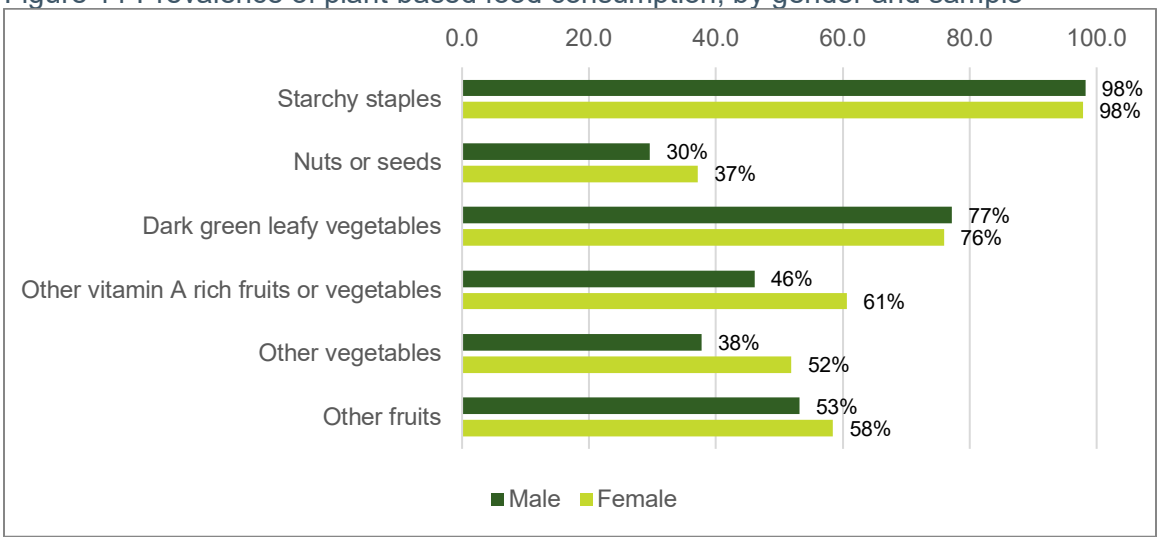
- Women are also more likely to report consuming salty snacks, fried food, instant noodles, and sugary foods, though this difference in only significantly different in the for salty snacks/fried food in the CUG sample.

Figure 10 Prevalence of animal source food consumption, by gender and sample



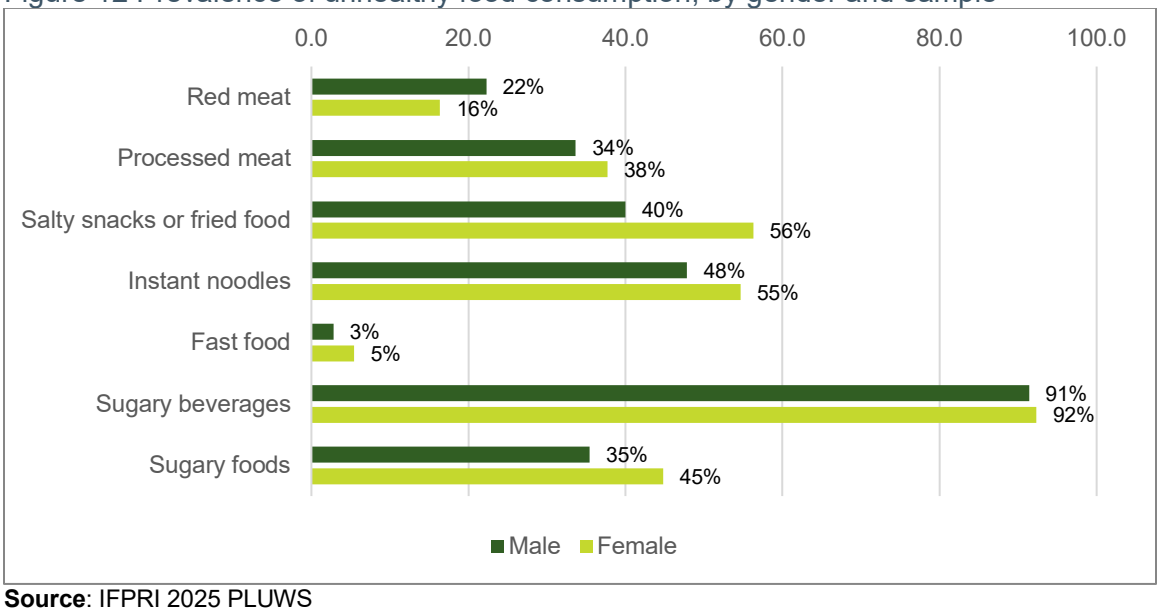
Source: IFPRI 2025 PLUWS

Figure 11 Prevalence of plant-based food consumption, by gender and sample



Source: IFPRI 2025 PLUWS

Figure 12 Prevalence of unhealthy food consumption, by gender and sample



Source: IFPRI 2025 PLUWS

Table 19 Diet quality

	CUG sample					PN sample					CUG vs PN t-test	
	M	SD	F	SD	t-test	M	SD	F	SD	t-test	M	F
Diet quality indicators												
Dietary diversity score (0-10)	4.6	1.8	5.3	1.9	***	4.7	1.8	5.0	1.9			
MDD-W (%)	47.5	50.0	67.1	47.3	***	54.4	50.1	54.5	50.0			*
NCD-Protect score (0-9)	2.8	1.9	3.4	1.9	***	2.9	1.9	3.2	1.8			
NCD-Risk score (0-9)	2.6	2.0	3.0	2.3		3.1	2.0	3.3	2.2		**	
MDD-W food group consumption (%)												
Starchy staples	98.0	13.9	98.6	11.7		98.9	10.5	97.3	16.4			
Pulses	4.3	20.2	4.1	20.0		3.3	18.1	8.2	27.5			
Nuts or seeds	26.9	44.4	45.2	50.1	***	38.9	49.0	31.8	46.8		**	*
Dairy	10.8	31.1	19.2	39.6	*	10.0	30.2	10.9	31.3			
Meat, poultry, fish	89.2	31.1	89.0	31.5		92.2	26.9	88.2	32.4			
Egg	13.4	34.2	27.4	44.9	***	13.3	34.2	19.1	39.5			
Dark green leafy vegetable	76.4	42.5	79.5	40.7		80.0	40.2	73.6	44.3			
Other vit. A rich fruit or veg.	47.9	50.0	61.6	49.0	**	40.0	49.3	60.0	49.2	***		
Other vegetable	38.7	48.8	49.3	50.3	*	34.4	47.8	53.6	50.1	***		
Other fruit	50.2	50.1	57.5	49.8		63.3	48.5	59.1	49.4		**	
Other NCD-protect foods (%)												
Whole grains	8.9	28.5	17.8	38.5	**	5.6	23.0	4.5	20.9			***
Citrus	14.8	35.5	24.7	43.4	**	22.2	41.8	14.5	35.4		*	*
NCD-risk foods (%)												
Red meat	20.3	40.3	12.3	33.1		28.9	45.6	19.1	39.5		*	
Processed meat	31.8	46.6	38.4	49.0		40.0	49.3	37.3	48.6			
Salty snacks or fried foods	36.4	48.2	53.4	50.2	***	52.2	50.2	58.2	49.6		***	
Instant noodles	46.6	50.0	58.9	49.5	*	52.2	50.2	51.8	50.2			
Fast food	2.3	15.0	2.7	16.4		4.4	20.7	7.3	26.1			
Sugary beverages	91.1	28.5	89.0	31.5		92.2	26.9	94.5	22.8			
Sugary foods	34.8	47.7	42.5	49.8		37.8	48.8	46.4	50.1			
N	316		74			90		110				

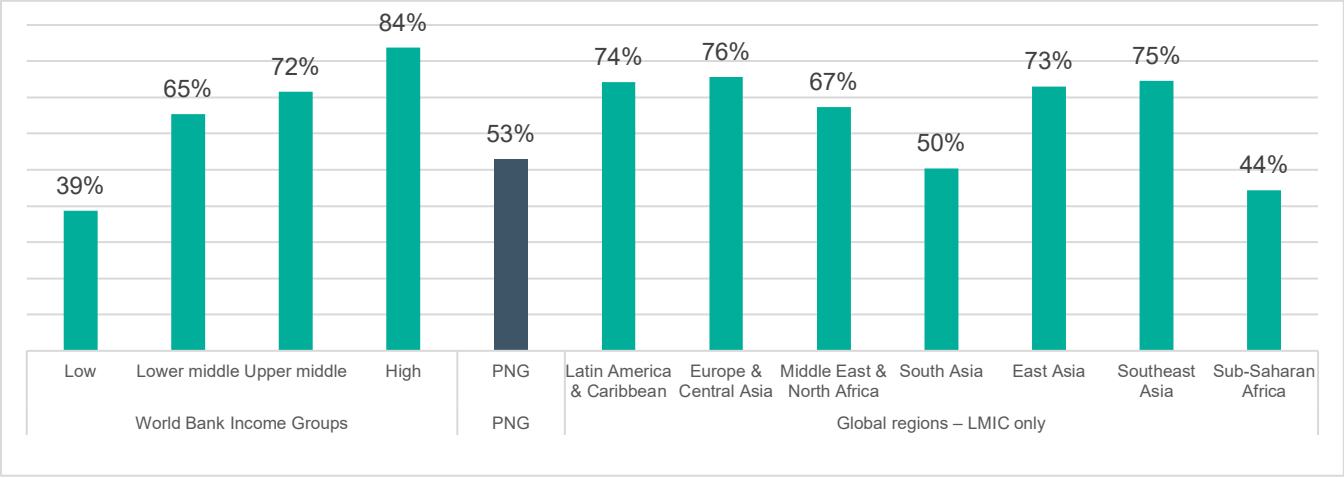
Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

7.3. Global diet quality comparisons

To provide global context for the diet quality of low-skilled urban wage workers in PNG, we compare average MDD-W, NCD-protect, and NCD-risk outcomes across all PLUWS low-skilled wage workers to outcomes in 91 countries between 2021 and 2024 — see Tables A14 and A15 for country information (Global Diet Quality Project, 2024). Figure 13–Figure 15 present results by income groups and by region. Regional results are limited to low and middle income countries. We restrict the global sample to urban respondents in the bottom two quintiles of each country's income distributions. Though the PLUWS sample of low-skilled wage workers is far more targeted than the Global Diet Quality Project samples, rendering results not fully comparable, this exercise is useful for providing global context.

- The likelihood of low-skilled urban wage workers in PNG achieving MDD-W adequacy (53%) falls between the low income country average (39%) and the lower-middle income country average (65%). MDD-W is associated with a greater likelihood of achieving micronutrient adequacy.
- The PLUWS MDD-W rate is similar to adults in urban areas of LMICs in South Asia (50%) and Sub-Saharan Africa (44%).
- In contrast, adults in the urban samples in Southeast Asian LMICs have an average MDD-W prevalence of 75%.

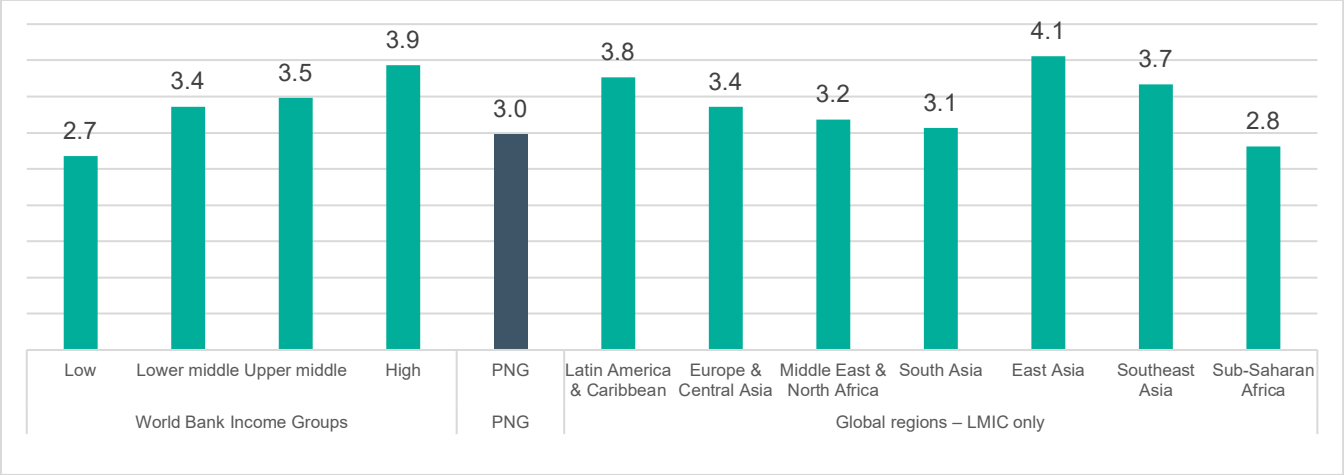
Figure 13 Global comparison* of MDD-W for urban adults



Note: *To improve comparability with the PLUWS, global comparisons are limited to individuals in the bottom two income quintiles in each country. In the PLUWS averages, CUG and PN samples are given equal weight. See Tables A14 and A15 for country information. **Source:** Authors' calculations using IFPRI 2025 PLUWS and DQQ Microdata 2021-2024 (Global Diet Quality Project, 2024).

Low-skilled urban wage workers in PNG have a relatively low average NCD-protect score (3.0), which falls between the averages in low-income (2.7) and lower-middle income countries (3.4), and is similar to LMICs in the Middle East/North Africa (3.2), South Asia (3.1), and Sub-Saharan Africa (2.8).

Figure 14 Global comparison* of NCD-Protect Risk score (0-9) for urban adults

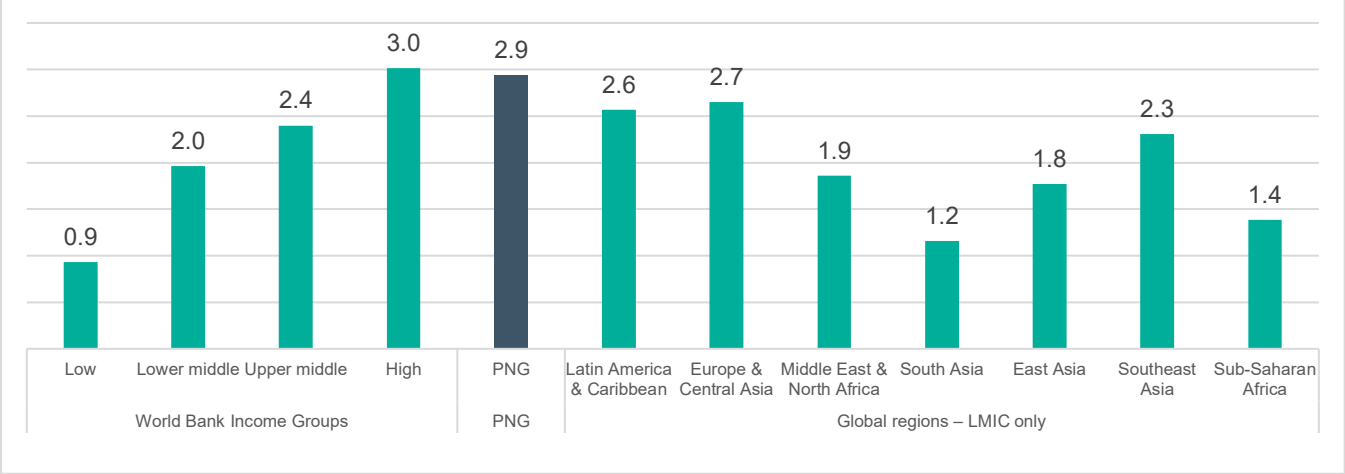


Note: *To improve comparability with the PLUWS, global comparisons are limited to individuals in the bottom two income quintiles in each country. In the PLUWS averages, CUG and PN samples are given equal weight. See Tables A14 and A15 for country information. **Source:** Authors' calculations using IFPRI 2025 PLUWS and DQQ Microdata 2021-2024 (Global Diet Quality Project, 2024).

Low-skilled urban wage workers in PNG have a relatively high average NCD-risk score (2.9), which is similar to high-income countries (3.0) and LMICs in Latin America/Caribbean (2.6) and Europe/Central Asia (2.7).

- The high PLUWS NCD-risk score is driven by above average consumption of instant noodles (50% vs 12% in sampled urban LMICs), sugary beverages (92% vs 70% in sampled urban LMICs), and processed meat (36% compared to 20% in sampled urban LMICs).
- Urban areas in neighboring Indonesia also have high rates of instant noodle (63%) and sugary beverage (71%) consumption coupled with a high NCD-risk score (3.4).

Figure 15 Global comparison* of NCD-Risk score (0-9) for urban adults



Note: *To improve comparability with the PLUWS, global comparisons are limited to individuals in the bottom two income quintiles in each country. In the PLUWS averages, CUG and PN samples are given equal weight. See Tables A14 and A15 for country information. **Source:** Authors' calculations using IFPRI 2025 PLUWS and DQQ Microdata 2021-2024 (Global Diet Quality Project, 2024).

8. Conclusion / Summary

The 2025 PNG Low-Skill Urban Wage Survey (PLUWS 2025) aimed to understand urban welfare by assessing urban wages alongside healthy diet costs and food consumption trends. In addition, the survey was designed to allow for gender disaggregated analysis to evaluate differences between male and female low-skill wage workers in terms of their employment, wages, payment preferences, diet choices, and individual and household characteristics.

During survey implementation, the enumeration team faced difficulties in assuring that a robust sample of women wage workers was achieved and had to shift sampling strategies midway through enumeration. This shift resulted in costs and benefits for data analysis. An important benefit was that the two samples (1st sample was the closed user group sample and the 2nd sample was the personal number sample – explained in detail in the introduction) resulted in an upper- and lower-bound grouping of low-skill wage workers. Upper-bound wage workers exhibited higher earned wages, greater skills, and more formal employment compared to personal number sample respondents that were more characteristic of informal wage workers with less pay, benefits, and education. Given that these two sampling strategies revealed significant differences between the two samples, data analysis and interpretation should be carefully taken into consideration. The authors of this report suggest using diverse econometric techniques to account for potential innate differences between the samples. Bearing this in mind, for this report, data are disaggregated by sampling strategy and gender.

The survey data reveal several important insights with regards to low-skill wage workers. On average, low-skill workers earn from 4.3 PGK/hour (lower-bound sample) to 5.8 PGK/hour (upper bound sample). Men in both the lower- and upper-bound samples earn about 0.5 PGK/hour more than women. Learning a skill, even a simple skill in an informal setting, is associated with median higher wages

across both samples. Wage workers with low-medium skills earn 1 kina more per hour (5.0 PGK/hour) than workers with low skills (4.0 PGK/hour).

Women respondents within the upper-bound sample are the most highly educated compared to men in either sample or women in the lower-bound sample. For example, over 24% of women in this upper-bound low skilled wage worker category completed secondary school and 37.8% completed education beyond secondary school. Further investigation should be conducted to understand if poor employment opportunities result in higher educated individuals working in lower-skilled wage work, and whether this trend is more strongly associated with women wage workers compared to men.

Evaluating wages with regards to affordability of a healthy diet, across the sample in Port Moresby, nearly half of a day's wage is required to feed a household healthy food for one day (45%). This healthy diet wage burden is lower in the other survey areas — 41% in Kokopo, 38% in Lae, and 37% in the Highlands. This is due to a variety of reasons. For example, wages are relatively high in Lae while diet costs are moderate. Wages and diet costs are low in the Highlands. As a result, the share of daily wages required to purchase a healthy diet in both areas is roughly the same. We asked all respondents if they would be interested in receiving part of their wages in food or food to take home. Over half of respondents preferred to have some of their wages paid in-kind.

Recognizing that an important share of low-skill wages are spent on food, we focus our attention on dietary patterns of low-skilled wage workers. In addition, a growing interest in diet-related health outcomes among low-income populations has shifted policy focus from merely securing sufficient calorie consumption to securing healthy diets as well. Comparing men and women low-skill wage workers, we find that women, regardless of the sample group, consumed more healthy food groups and have a greater likelihood of attaining micronutrient adequacy (67% of women compared to 54% of men). However, women also consumed more unhealthy food groups than men (largely consisting of instant noodles, sweet beverages, and processed meats).

To provide global context for diet quality of low-skilled urban wage workers in PNG, we compare the PLUWS respondents' (both CUG and PN sample) diet quality indicator outcomes with the same outcomes of urban lower-income adults (bottom two income quintiles) in 91 countries between 2021 and 2024 (Global Diet Quality Project, 2024). Overall, low-skill workers in the PLUWS sample had a lower average likelihood of achieving micronutrient adequacy (53%) compared to the 2024 Global Diet Quality Project average for lower-income urban adults in lower-middle income countries (65%). In contrast, low-skilled urban wage workers in PNG, on average, consume more food groups that increase the risk of non-communicable diseases (2.9) compared to the lower-middle income country average (3.4). Rather, the number of higher risk food groups consumed in the PLUWS is similar to the urban average across high-income group countries (3.0).

While the descriptive statistics provided in this report illustrate the characteristics of men and women low-skilled wage workers, respectively, further analysis should be undertaken to better understand some of the trends that are emerging from the survey. For example, given a large preference for in-kind payments across men and women workers, an important inquiry should be evaluated to understand the key driving factors for such preference. Similarly, given the reportedly vast underemployment in PNG and the important share of higher-skilled women (with post-secondary education) working in formal low-skill work demonstrated in the PLUWS data, future research should evaluate where options exist to reduce barriers for women to be employed in higher skilled employment. Finally, while the data suggest

that women workers have a greater likelihood of achieving micronutrient adequacy, the data reveal that women workers also consume more unhealthy foods. Several factors may be at play here that should be further investigated. For example, further research should investigate whether women wage workers may choose to eat fast meals (instant noodles etc.) not by preference or lack of knowledge of unhealthy foods, but rather for time savings given the myriad of other responsibilities they face as working women. The PLUWS (2025) data allows for more in-depth analysis of differences between men and women low-skill wage workers, and will continue to inform barriers, preferences, opportunities, and challenges in upcoming analyses.

ABOUT THE AUTHORS

Kristi Mahrt (mahrtka@gmail.com) was a Senior Research Analyst in the Development Strategies and Governance (DSG) Unit, International Food Policy Research Institute (IFPRI), Washington, DC. She is currently an independent consultant.

Emily Schmidt (e.schmidt@cgiar.org) is a Senior Research Fellow with IFPRI's DSG Unit, Washington, DC.

Trudie Sikas-Iha is an IFPRI consultant and Program Coordinator with IFPRI's DSG Unit, Washington, DC.

Kwaw S. Andam (k.andam@cgiar.org) is the PNG Country Program Leader with IFPRI's DSG Unit, Washington, DC.

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9. Appendix

Table A1 International Classification of Occupations

Skill level	Occupation group	Descriptions
Low-skill Occupations		
	Elementary	
		Cleaners and Helpers
		Agricultural, Forestry and Fishery Laborers
		Laborers in Mining, Construction, Manufacturing and Transport
		Food Preparation Assistants
		Street and Related Sales and Services Workers
		Refuse Workers and Other Elementary Workers
Low-Medium-skill Occupations (no simple skills with no formal training)		
	Services And Sales Workers	
		Personal Services Workers
		Sales Workers
		Personal Care Workers
		Protective Services Workers
	Craft and Related Trades Workers	
		Building and Related Trades Workers
		Metal, Machinery and Related Trades Workers
		Handicraft and Printing Workers
		Electrical and Electronics Trades Workers
		Food Processing, Woodworking, Garment and Other Craft Trades Workers
	Plant and Machine Operators and Assemblers	
		Stationary Plant and Machine Operators
		Assemblers
		Drivers and Mobile Plant Operators

Note: The PLUWS includes medium-skilled workers only if they have received no formal training. Workers with complex skills are excluded. **Source:** International Labour Organization ISOC-08 (ILO, 2023)

Table A2 Respondent characteristics

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Age	36.9	10.2	34.6	10.2	**
Married	79.5	40.4	84.4	36.4	
Relationship to household head					
Head	69.3	46.2	38.1	***	***
Spouse	9.6	29.4	30.5	***	***
Younger generation	16.5	37.2	20.8		
Older generation	0.8	8.8	1.5		
Location of employment					
Peri-urban area	15.6	36.4	17.5		
Urban area	82.8	37.8	82.5		
Education level completed					
<Primary	5.7	23.1	9.5	29.5	*
Primary	48.3	50.0	56.3	49.7	*
Secondary	17.0	37.6	19.6	39.8	
>Secondary	26.5	44.2	14.6	35.4	***
University	2.6	15.8	0.0	0.0	**
Alone during call	55.1	49.8	53.0	50.0	
Speaker on	29.2	45.5	27.5	44.8	
N	390		200		

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Table A3 Respondents' household characteristics

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Household size (#)	5.5	3.1	6.3	3.6	***
Children <15 years old (%)	29.8	20.2	29.9	18.5	
Adults ≥15 years old (%)	70.2	20.2	70.1	18.5	
Adults who work for renumeration (%)	77.1	29.2	72.9	28.5	*
Dependency ratio	1.6	1.8	1.6	1.6	
N	390		200		

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Table A4 Access to resources

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Time to food market (minutes)	19.3	19.9	24.5	65.0	
Respondent has bank account	94.6	22.6	85.0	35.8	***
Shared access to bank account	21.4	41.1	13.5	34.3	**
Time to ATM (minutes)	27.6	26.4	34.0	67.5	*
N	390		200		

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Table A5 Asset ownership

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Internet access:					
Anyone in household	87.7	32.9	88.0	32.6	
Respondent	84.6	36.1	81.5	38.9	
Anyone in household owns:					
Radio	34.1	47.5	34.0	47.5	
Television	36.7	48.3	30.5	46.2	
Computer/tablet	30.0	45.9	20.5	40.5	**
Refrigerator	42.3	49.5	32.0	46.8	**
Stove	43.6	49.7	34.0	47.5	**
Washing machine	16.4	37.1	12.5	33.2	
Motorcycle/scooter	2.6	15.8	3.5	18.4	
Car/truck/van	12.6	33.2	9.5	29.4	
Improved housing:					
Housing materials	54.9	49.8	38.5	48.8	**
Sanitation	57.2	49.5	54.0	50.0	
Water	92.8	25.8	82.5	38.1	***
Electricity	97.2	16.6	95.5	20.8	**
Clean cooking fuel	51.0	50.1	35.5	48.0	
Asset index quintile	3.23	1.14	2.87	1.17	***
N	402		149		

Note: See the Table 8 note for definitions of improved housing and clean cooking fuel. SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1. **Source:** IFPRI 2025 PLUWS

Table A6 Employment characteristics

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Skill level:					
Low skill	70.8	45.5	68.5	46.6	
Low-medium skill	29.2	45.5	31.5	46.6	
Employment sector:					
Industry	34.4	47.6	27.5	44.8	*
Wholesale/retail	15.9	36.6	25.0	43.4	***
Other market services	35.4	47.9	33.5	47.3	
Non-market services	12.8	33.5	13.5	34.3	
Agriculture	1.5	12.3	0.5	7.1	
Usual hours worked per week	50.5	13.9	48.5	13.3	*
Mean hourly wage (PGK/hour)	5.8	2.4	4.3	1.7	***
Median hourly wage (PGK/hour)	5.3		3.9		
N	390		200		

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Table A7 Who makes decisions on how to use respondents' wages (%)

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Respondent	99.0	10.1	100.0	0.0	
Spouse	26.7	44.3	19.7	39.9	*
Mother/mother-in-law	3.6	18.7	6.1	23.9	
Father/father-in-law	2.8	16.6	5.6	23.0	
Other female household members	9.5	29.4	7.1	25.7	
Other male household members	9.8	29.7	6.6	24.8	
N	390		200		

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Table A8 In-kind compensation

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Receives any of in-kind compensation	60.8	48.9	45.0	49.9	***
Meals at work	16.2	36.8	17.5		
Food to take home	1.3	11.3	1.5		
Food vouchers	7.4	26.3	4.0		
Transportation	41.8	49.4	25.5	***	***
Mobile phone/credit for personal use	19.2	39.5	2.5	***	***
Housing/rent/utilities	10.0	30.0	2.0	***	***
Clothing (other than uniforms)	6.4	24.5	9.0		
Medical insurance	3.6	18.6	0.5	**	**
Other	3.8	19.3	0.5	**	**
N	390		200		

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Table A9 Preferences for food payments

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Preference for some payment in food:					
Meals at work	46.9	50.0	50.5	50.1	
In-kind	55.4	49.8	55.0	49.9	
Meals at work or in-kind	57.2	49.5	55.0	49.9	
Share of 40 kina/day preferred in food (if some food preferred):					
Meals at work	29.9	14.4	28.9	17.0	
In-kind	48.0	19.0	50.4	22.6	
N	390		200		

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Table A10 Reasons food payment preferences

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Reasons for preferring some food payments (if some food preferred):					
Guarantees complete meal	55.4	49.8	55.5	49.9	
Share with family	81.3	39.1	83.6	37.2	
Less control over own money wages within household	50.0	50.1	40.0	49.2	*
Long lines at ATM	33.0	47.1	39.1	49.0	
Difficult to get to ATM/market	23.7	42.6	20.0	40.2	
ATM/market unsafe	9.8	29.8	22.7	42.1	***
Reasons for preferring only money payments (if no food preferred):					
More budget control	92.2	26.9	78.9	41.0	***
More food choice	42.8	49.6	62.2	48.8	***
Other household member prefers money	18.1	38.6	24.4	43.2	
Need money for non-food expenses	38.6	48.8	62.2	48.8	***
Need money for school fees	25.9	43.9	20.0	40.2	
Household has sufficient food	13.9	34.7	11.1	31.6	
Need money to remit home	15.1	35.9	10.0	30.2	
Need to save for emergencies	36.1	48.2	20.0	40.2	***
N	390		200		

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Table A11 Starchy staples and vegetables in the healthy diet food basket, by area

	Most common two starchy staples	Cheapest two vegetables
Port Moresby	Sweet potato Rice	Aibika Onion
Lae	Sweet potato Rice	Aibika Fresh beans/peas
Kokopo	Sweet potato Rice	Aibika Fresh beans/peas
Banz	Sweet potato Rice	Aibika Cabbage
Goroka	Sweet potato Rice	Carrots Fresh beans/peas
Mount Hagen	Sweet potato Rice	Aibika Cabbage
Daru	Sago Rice	Aibika Cabbage

Note: We use the PNG 2009/10 HIES to calculate the shares of calories consumed by staple and by area to determine the most relevant two staples in each area. **Source:** Authors' calculations using the 2009/10 HIES and prices from IFPRI (2025)

Table A12 Diet quality

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Diet quality indicators					
Dietary diversity score (0-10)	4.7	1.9	4.9	1.8	
MDD-W (%)	51.3	50.0	54.5	49.9	
NCD-Protect score (0-9)	2.9	1.9	3.1	1.8	
NCD-Risk score (0-9)	2.7	2.1	3.2	2.2	***
MDD-W food group consumption (%)					
Starchy staples	98.1	13.5	98.0	14.0	
Pulses	4.2	20.2	6.0	23.8	
Nuts or seeds	30.4	46.1	35.0	47.8	
Dairy	12.4	33.0	10.5	30.7	
Meat, poultry, fish	89.2	31.1	90.0	30.1	
Egg	16.1	36.8	16.5	37.2	
Dark green leafy vegetable	77.0	42.1	76.5	42.5	
Other vit. A rich fruit or veg.	50.5	50.1	51.0	50.1	
Other vegetable	40.7	49.2	45.0	49.9	
Other fruit	51.6	50.0	61.0	48.9	**
Other NCD-protect foods (%)					
Whole grains	10.6	30.8	5.0	21.8	**
Citrus	16.7	37.3	18.0	38.5	
NCD-risk foods (%)					
Red meat	18.8	39.1	23.5	42.5	
Processed meat	33.1	47.1	38.5	48.8	
Salty snacks or fried foods	39.7	49.0	55.5	49.8	***
Instant noodles	48.9	50.1	52.0	50.1	
Fast food	2.4	15.3	6.0	23.8	**
Sugary beverages	90.7	29.0	93.5	24.7	
Sugary foods	36.2	48.1	42.5	49.6	
N	390		200		

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Table A13 Who makes decisions on respondents' diets (%)

	CUG sample	SD	PN sample	SD	CUG vs PN t-test
Respondent	98.7	11.3	99.5	7.1	
Spouse	27.9	44.9	19.3	39.6	**
Other female household members	13.2	33.9	20.3	40.3	**
Other male household members	10.6	30.8	13.2	33.9	
N	390		200		

Note: SD denotes standard deviation and asterisks indicate statistical significance where *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI 2025 PLUWS

Table A14 Global dietary quality comparison countries by income group

Income group	Country	Survey year	Income group	Country	Survey year
Low income	Afghanistan	2022-23	Lower-middle income, cont.	Senegal	2021
	Burkina Faso	2021		Sri Lanka	2021
	Chad	2022		Tajikistan	2021
	Congo Kinshasa	2023		Tanzania	2021
	Ethiopia	2023		Tunisia	2022
	Liberia	2023		Ukraine	2023
	Madagascar	2023		Uzbekistan	2022
	Malawi	2022-23		Vietnam	2021
	Mali	2022		Zambia	2023
	Mozambique	2021		Zimbabwe	2022
	Niger	2022	Upper-middle income	Albania	2022
	Sierra Leone	2021-23		Armenia	2022
	Somalia	2023		Azerbaijan	2022
	Togo	2023		Bosnia Herzegovina	2024
	Uganda	2021		Botswana	2023
	Yemen	2022		Brazil	2023
Lower-middle income	Algeria	2024		China	2021
	Bangladesh	2021		Colombia	2021
	Benin	2021		Costa Rica	2023
	Bolivia	2021		Dominican Republic	2023
	Cambodia	2021		Ecuador	2021
	Cameroon	2021		Gabon	2021
	Comoros	2023		Georgia	2024
	Congo Brazzaville	2023		Guatemala	2023
	Egypt	2021		Iraq	2024
	Ghana	2021		Kazakhstan	2021
	Guinea	2023		Kosovo	2024
	Honduras	2022		Libya	2024
	India	2021		Malaysia	2023
	Indonesia	2021		Mexico	2021
	Iran	2023		Moldova	2023
	Ivory Coast	2023		Namibia	2023
	Jordan	2021		North Macedonia	2024
	Kenya	2021		Paraguay	2023
	Kyrgyzstan	2022		Peru	2023
	Laos	2021		Russia	2021
	Lebanon	2021		Serbia	2024
	Mauritania	2023		South Africa	2021
	Mongolia	2023		Thailand	2023
	Morocco	2021		Turkey	2021
	Myanmar	2023	High Income	Chile	2021
	Nepal	2021		Greece	2021
	Nicaragua	2021		Israel	2021
	Nigeria	2021		Switzerland	2023
	Pakistan	2021		United States	2021-23
	Philippines	2021			

Note: Income classification based on survey year. **Source:** Global Diet Quality Project (2024) and World Bank.

Table A15 LMIC global dietary quality comparison countries by region

Region	Country	Region	Country
Latin America & Caribbean	Bolivia	East Asia	China
	Brazil		Mongolia
	Colombia	Southeast Asia	Cambodia
	Costa Rica		Indonesia
	Dominican Republic		Laos
	Ecuador		Malaysia
	Guatemala		Myanmar
	Honduras		Philippines
	Mexico		Thailand
	Nicaragua		Vietnam
	Paraguay	Sub-Saharan Africa	Benin
	Peru		Botswana
Europe & Central Asia	Albania		Burkina Faso
	Armenia		Cameroon
	Azerbaijan		Chad
	Bosnia Herzegovina		Comoros
	Georgia		Congo Brazzaville
	Kazakhstan		Congo Kinshasa
	Kosovo		Ethiopia
	Kyrgyzstan		Gabon
	Moldova		Ghana
	North Macedonia		Guinea
	Russia		Ivory Coast
	Serbia		Kenya
	Tajikistan		Liberia
	Turkey		Madagascar
	Ukraine		Malawi
	Uzbekistan		Mali
Middle East & North Africa	Algeria		Mauritania
	Egypt		Mozambique
	Iran		Namibia
	Iraq		Niger
	Jordan		Nigeria
	Lebanon		Senegal
	Libya		Sierra Leone
	Morocco		Somalia
	Tunisia		South Africa
	Yemen		Tanzania
South Asia	Afghanistan		Togo
	Bangladesh		Uganda
	India		Zambia
	Nepal		Zimbabwe
	Pakistan		
	Sri Lanka		

Source: Global Diet Quality Project (2024).

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IFPRI is a CGIAR Research Center

1201 Eye Street, NW, Washington, DC 20005 USA | T. +1-202-862-5600 | F. +1-202-862-5606 | Email: ifpri@cgiar.org | www.ifpri.org | www.ifpri.info