JAMAICA

Food Security Monitoring
Impact of Hurricane Melissa – Two Months On

Context

Hurricane Melissa made landfall in Jamaica on 28 October 2025 as a Category 5 storm, causing catastrophic damage across the country and marking the most powerful hurricane in the island's recorded history. The hurricane caused **significant damage particularly in the western and north-western parishes.** The storm triggered widespread flooding, landslides, and road blockages, crippling critical infrastructure including hospitals, schools, roads, and telecommunications networks.

Following Hurricane Melissa, **Real-Time Monitoring coverage was scaled up significantly**—from just over 500 observations before the event (January – October 2025) to over 2,500 calls post-event. **This expansion greatly improves visibility on emerging trends, though results should still be considered indicative** rather than fully representative at parish level until sample sizes grow further.

It is also important to note that **areas without mobile network coverage are not captured**, and food insecurity rates may rise as connectivity improves and more households are reached. **Despite these limitations, the current data already highlight the severe impact of the hurricane on food security and livelihoods**, providing an early signal of needs across Jamaica.

HIGHLIGHTS

After Hurricane Melissa, short-term indicators (FCS and rCSI) improved slightly with emergency aid and market recovery, but FIES worsened, reflecting persistent worry and severe experiences such as skipping meals. At the same time, households shifted toward more harmful coping strategies—emergency measures nearly doubled and remain concentrated in the west and north-west—signaling livelihood stress and the need for sustained, multi-dimensional support beyond immediate food assistance.

Insufficient food consumption surged from 7% pre-Melissa to 30% in November before easing to 23% in December, still far above pre-crisis levels. The worst impacts were seen in rural western and central parishes such as Clarendon, Saint Elizabeth, Hanover, Manchester and St Mary, where rates exceeded 30%. Diet quality also deteriorated sharply, with steep declines in fruits and vegetables and other nutrient-dense foods, while reliance on energy-dense food (sugar and fat) increased.

High coping (rCSI ≥ 19) more than doubled nationally after Hurricane Melissa, peaking at 36% in November before slowly declining to 30% in December, with the worst stress and largest increases concentrated in rural western and northern parishes such as Westmoreland, Trelawny, Saint Elizabeth, and Hanover.

Moderate or severe food insecurity rose sharply from 33% pre-Melissa to 54% in December, two months after the hurricane, with the highest levels in rural western and northern parishes such as, Westmoreland, Saint Ann, Trelawny, Saint Elizabeth, and Hanover—indicating sustained deterioration and acute vulnerability.

After Melissa, coping shifted toward severity: no coping fell from 32% to 22%, emergency nearly doubled to 19% (+9 pp) and crisis edged up to 27%, while stress strategies stayed roughly stable—indicating greater reliance on asset-depleting measures. Severity peaked in weeks 3–6 (crisis approx. 30%, emergency 22–23%) and partially eased by week 8. In December crisis declined to 25% but emergency rose to 20%, signaling persistent livelihood pressure and risk of irreversible asset loss. Post-Melissa, the burden of severe coping is concentrated in the west/north-west.

Market access deteriorated sharply after Melissa—53% of households faced challenges, peaking mid-month and remaining high into weeks 7–8—while fresh foods recovered slowly, staples and hygiene rebounded quickly, and medicines showed volatile availability. The worst access constraints are concentrated in the west and north-west (e.g., Hanover, Trelawny, Westmoreland, Saint Elizabeth).

JAMAICA FOOD SECURITY MONITORING: CONTENT

Demographics

Household Main Source of Income

Food Consumption

Food-based Coping Strategies and FIES
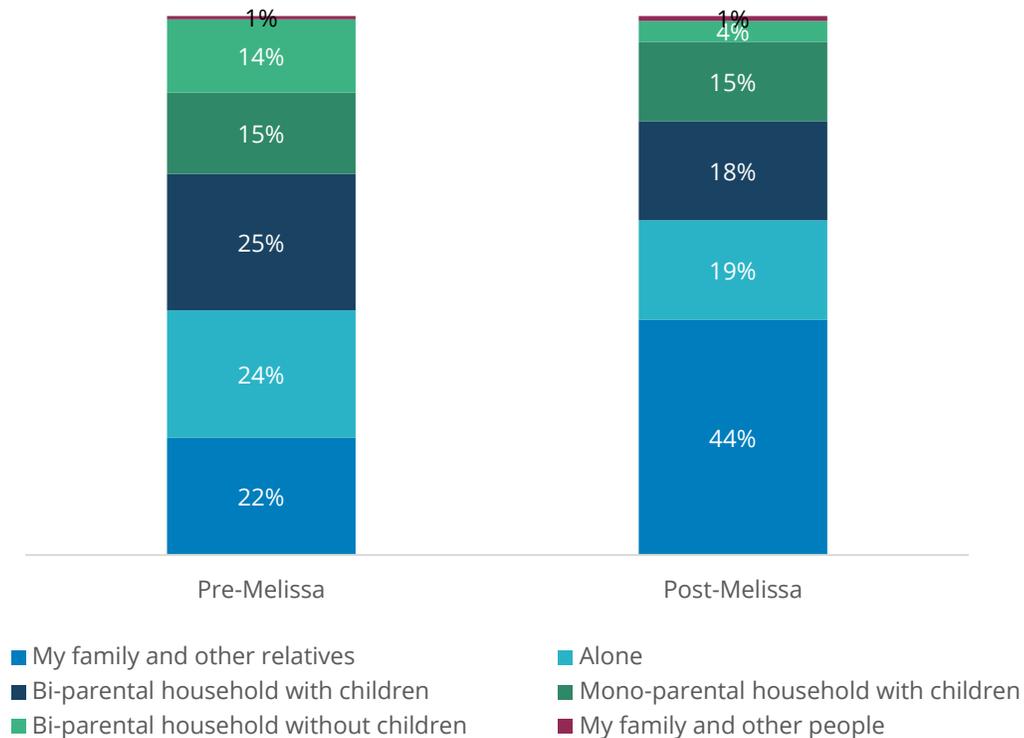
Livelihood Coping Strategies

Market Access

Methodology

DEMOGRAPHICS

Household composition patterns observed after Hurricane Melissa remain consistent with previous findings. **Extended family arrangements continue to dominate**, with households classified as "family and other relatives" accounting for 44% post-event—double the pre-Melissa share (22%). In contrast, **nuclear households declined further**: bi-parental households with children fell from 25% to 18%, and those without children dropped sharply from 14% to 4%. Living alone also became less common (24% → 19%), while single-parent households remained stable at 15%. These shifts suggest households are consolidating—likely to share resources and cope with storm-related disruptions—while non-relative groupings remain negligible (1%).

School attendance remains high but worsened post-Melissa: among households with school-aged children, non-attendance rose from 1% pre-event to 6% post-event (≈ six-fold increase). Nearly half (47%) of **post-event non-attendance is due to school closures and** another 33% directly linked to **hurricane impacts**.

Figure I: Household Composition pre- and post-Melissa

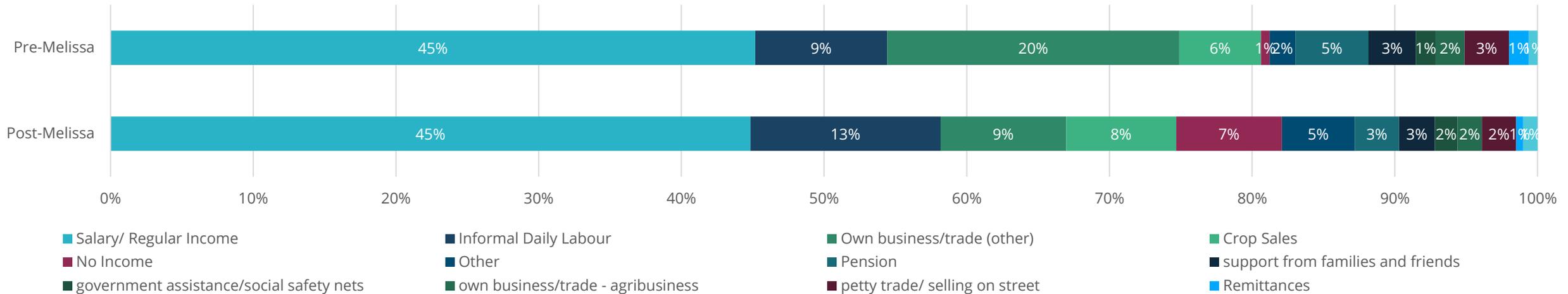Figure II: School Attendance and Reason for Non-Attendance post-Melissa
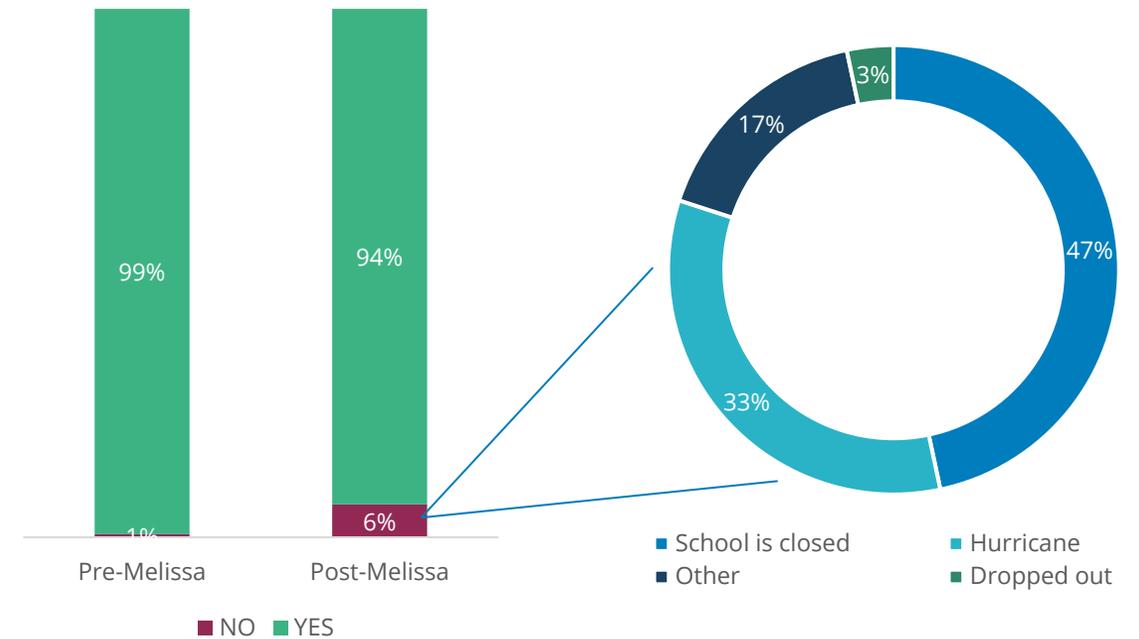
INCOME SOURCES

Post-Melissa, households experienced a marked shift away from stable income sources toward more precarious and informal activities.

- Own business/trade (other) fell sharply from 20% pre-event to 9% post-event (−11 pp), confirming a major contraction in self-employment.

- No income source surged from 1% to 7% (+6 pp), signaling a significant rise in households without earnings.

- Daily/casual labor increased from 9% to 13% (+4 pp), reflecting greater reliance on insecure work.

- Salaried employment remained dominant but stagnant at 45% (no change).Government assistance/social safety nets rose slightly (1% → 2%), while remittances stayed flat at 1%, showing limited external support.

- Sales from crop production increased modestly (6% → 8%), suggesting some households turned to small-scale farming for income.

- Other sources (petty trade, pensions, fishing) remained marginal and largely unchanged.

These trends underscore heightened vulnerability and the urgent need for livelihood recovery programs, cash assistance, and market revitalization to prevent prolonged economic distress.

Figure III: Income Sources

Legend:
- Salary/ Regular Income
- Informal Daily Labour
- Own business/trade (other)
- Crop Sales
- No Income
- Other
- Pension
- support from families and friends
- government assistance/social safety nets
- own business/trade - agribusiness
- petty trade/ selling on street
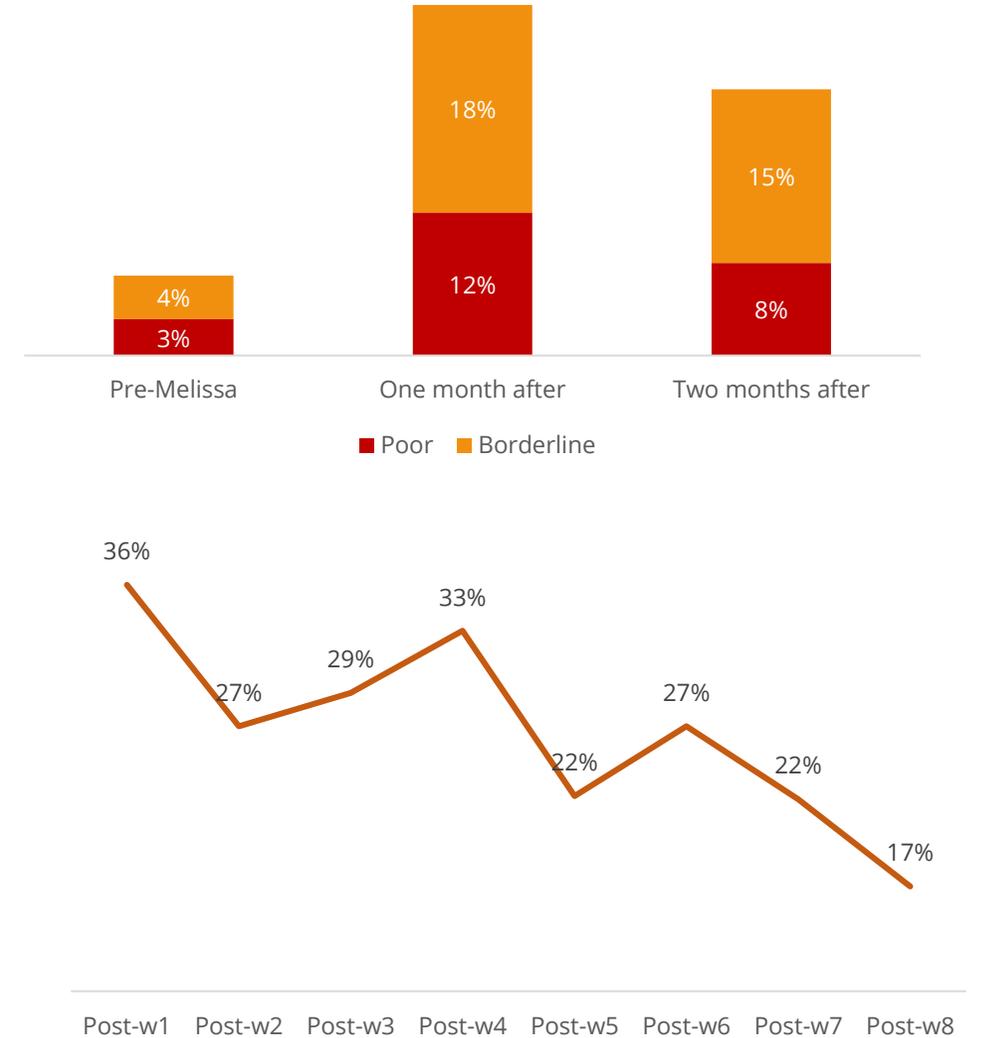- Remittances

◉ FOOD CONSUMPTION

Prior to Hurricane Melissa, insufficient food consumption (Poor + Borderline) **was relatively low, averaging 7% nationally**, with most parishes reporting single-digit levels. **After the hurricane, this figure surged to 27% nationally (+20 pp), signaling a sharp deterioration in food security. One month after the event (Nov 2025), insufficient consumption peaked at 30%, before easing slightly to 23% in the following month (Dec 2025), but remained well above pre-crisis levels**. **Weekly monitoring confirms this trajectory**: 36% (week 1), 27% (week 2), 29% (week 3), 33% (week 4), then gradually declining to 22–17% by weeks 7–8. This pattern reflects an initial shock followed by uneven recovery, with households not returning to pre-event conditions.

Where is the situation worst? Post-Melissa, the highest prevalence of insufficient consumption (Poor + Borderline) was observed in **Clarendon (37%), Saint Elizabeth (36%) and Hanover, Manchester and Saint Mary (30%).** Urban Kingston & Saint Andrew and Saint Thomas remained relatively better off, with rates below 20%.

Where did conditions deteriorate the most? The sharpest increases occurred in **Clarendon (+33 pp), Saint Elizabeth (+33 pp), Saint Mary (+30 pp)** and **Hanover (+26 pp). These patterns confirm that rural western and central parishes—where Hurricane Melissa's impact was most severe—experienced the greatest deterioration, underscoring the need for targeted assistance in these areas.**

Across all core food groups, consumption frequency declined after Hurricane Melissa, with the steepest drops in vegetables (−2.0 days/week on average) **and fruits** (−1.9), **followed by pulses** (−1.2), **protein** (−0.8), **and dairy** (−0.7); even staples fell (−0.5). The share of households eating vegetables daily halved (34%→16%) and fruits also fell sharply (39%→18%), while **zero-consumption of perishables surged** (e.g., vegetables 5%→30%; fruits 11%→35%). **In contrast, daily sugar** (44%→54%) **and fats** (50%→55%) **increased, indicating substitution toward cheaper energy-dense foods**. **By December, some recovery is evident**—particularly in protein and staples—but fruits deteriorated further, and overall diet diversity remains suppressed.

Figure IV: Trend of Insufficient Food Consumption by Period

Legend: ■ Poor ■ Borderline

Bar chart values:
- Pre-Melissa: Poor 3%, Borderline 4%
- One month after: Poor 12%, Borderline 18%
- Two months after: Poor 8%, Borderline 15%

Line chart values: 36% (Post-w1), 27% (Post-w2), 29% (Post-w3), 33% (Post-w4), 22% (Post-w5), 27% (Post-w6), 22% (Post-w7), 17% (Post-w8)

FOOD-BASED COPING STRATEGIES

High coping (rCSI ≥ 19), signaling severe consumption-based stress, more than doubled nationally—rising from 14% before Hurricane Melissa to 33% post-Melissa (+19 pp). While the overall post-Melissa average stands at 33%, **disaggregated data shows a sharp spike followed by gradual easing: one month after the event (November 2025), high rCSI peaked at 36%, then declined to 30% by December. Weekly monitoring confirms this trajectory**, starting at 38% in week 1 and remaining elevated through week 6 (37%, 37%, 31%, 34%, 33%) before tapering to 27% and 24% in weeks 7 and 8. This pattern reflects an initial shock and a slow recovery, with households still far from pre-crisis coping levels—indicating prolonged stress.

Where is the situation worst? Post-Melissa, the highest prevalence of severe coping is concentrated in **western and north-western parishes: Westmoreland (44%), Trelawny (44%), Saint Elizabeth (44%), and Hanover (41%), followed by Saint Ann (36%).** Central parishes—Clarendon (34%) and Manchester (33%)—also show elevated stress but remain below the western peak. Urban Kingston & St. Andrew stands at 27%, while Saint Thomas is lowest at 22%.

Where did conditions deteriorate the most? The sharpest increases occurred in Westmoreland (+35 pp), Trelawny (+34 pp), Saint Ann (+27 pp), Manchester (+27 pp), Saint Mary (+23 pp), and Hanover (+22 pp). Only Saint Thomas registered a slight decline (−1 pp).

These shifts confirm that the greatest deterioration and highest stress levels are concentrated in rural western and northern Jamaica, with notable worsening in parts of the central belt.

Figure V: Prevalence of Crisis or Above Food-based Coping Strategy by Period
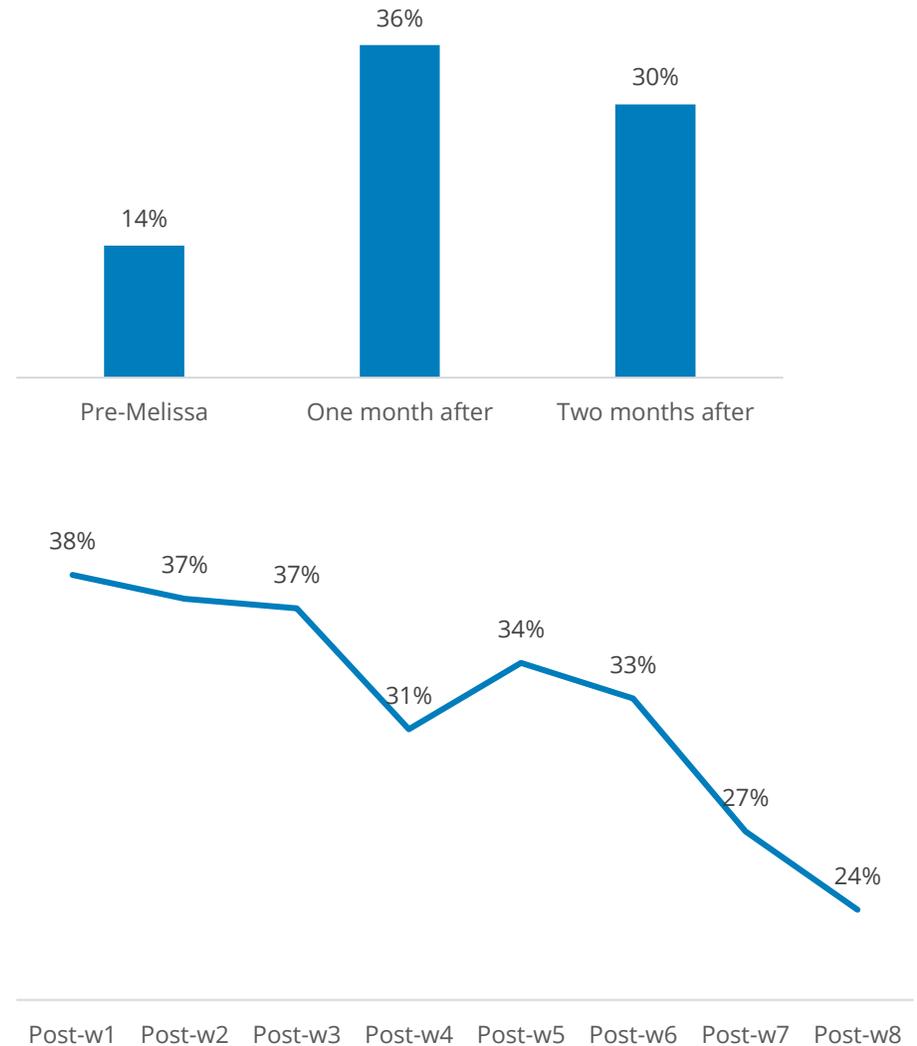
FIES

Prior to Hurricane Melissa, moderate or severe food insecurity affected 33% of households nationally (moderate: 25%, severe: 8%). **One month after the hurricane (Nov 2025), this figure surged to 51% (+18 pp), and two months post-event (Dec 2025) it climbed further to 54%, indicating a sustained deterioration in access to food. Weekly monitoring shows the same pattern**: starting at 45% in week 1, rising steadily to 56.8% by week 4, and remaining persistently high through week 8 (51%). This trajectory reflects an initial shock followed by prolonged stress, with households unable to return to pre-crisis conditions.
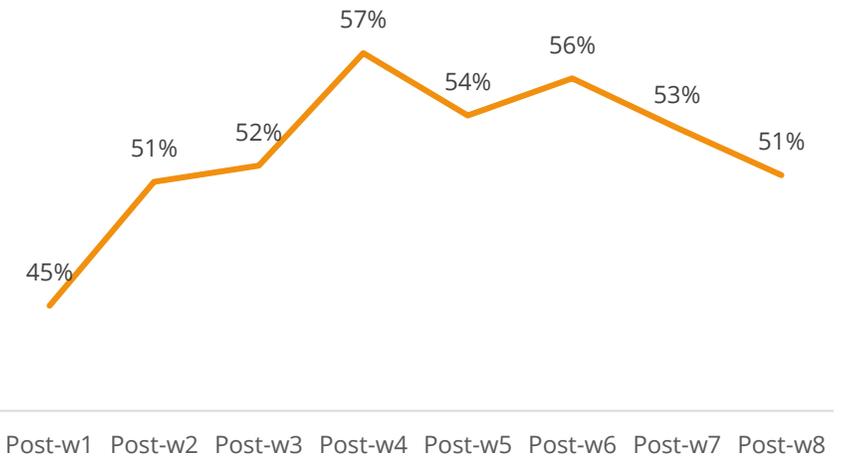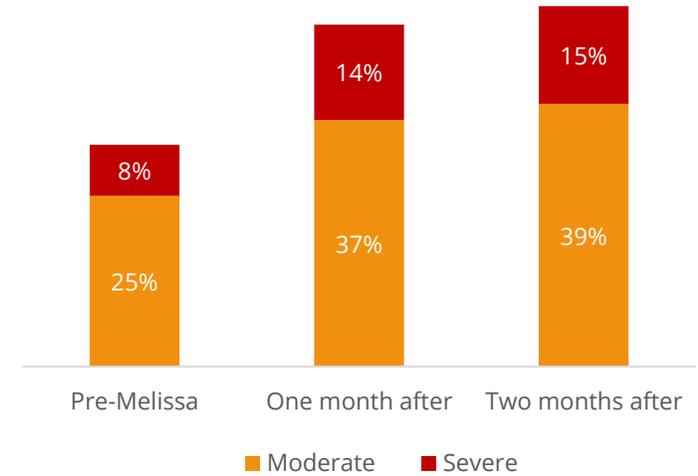
Where is the situation worst? Post-Melissa, the highest prevalence of moderate or severe food insecurity was recorded in Westmoreland (62%), Trelawny (59%), Saint Ann (59%), Saint Elizabeth (58%) and Hanover (58%). Severe food insecurity alone exceeded 17% in Clarendon, Hanover and Trelawny, underscoring acute vulnerability in these areas. Urban Kingston & Saint Andrew reported lower levels (43% moderate/severe), remaining relatively better off compared to rural western and northern parishes.

These patterns confirm that **rural western and northern Jamaica**—where Hurricane Melissa's impact was most severe—**experienced the greatest deterioration in food access, with both moderate and severe food insecurity rising sharply.** This underscores the need for targeted and sustained assistance in these areas.

WHAT DO THESE INDICATORS MEAN FOR FOOD SECURITY?

Food Consumption Score (FCS) and Reduced Coping Strategy Index (rCSI) show signs of improvement, while the Food Insecurity Experience Scale (FIES) continues to worsen. This divergence is explained by differences in measurement and recall periods. **FCS and rCSI reflect recent conditions** over the past seven days, **capturing short-term stabilization in dietary diversity and coping behaviors—likely driven by emergency assistance and partial market recovery. In contrast, FIES spans the last 30 days and includes psychological stress and severe deprivation experiences**, such as skipping meals or going to bed hungry. **Households that endured acute hardship immediately after the hurricane still report these experiences, even as current consumption improves**. Elevated FIES scores therefore signal persistent vulnerability and prolonged economic strain, underscoring the need for sustained support beyond immediate food aid.

*Figure VI: Prevalence of Moderate and Severe Food Insecurity (FIES) by Period*

Pre-Melissa: Moderate 25%, Severe 8%
One month after: Moderate 37%, Severe 14%
Two months after: Moderate 39%, Severe 15%

■ Moderate ■ Severe

Post-w1: 45%, Post-w2: 51%, Post-w3: 52%, Post-w4: 57%, Post-w5: 54%, Post-w6: 56%, Post-w7: 53%, Post-w8: 51%

LIVELIHOOD COPING STRATEGIES

Before Hurricane Melissa, 32% of households reported no coping, with most relying on stress strategies (33%), while crisis (26%) and emergency (10%) measures were less common. **After the hurricane, the balance shifted decisively**: no coping fell to 22%, stress remained broadly stable (32%), **crisis ticked up** to 27%, **and emergency coping nearly doubled** to 19%—**signaling a move toward more severe, asset-depleting behaviors**. **One month after the event, crisis strategies peaked** (29%) while emergency stood at 18%; **by month two** (Dec 2025), crisis eased to 25% but **emergency rose** to 20%, **indicating continued pressure on livelihoods and a shift toward the most harmful strategies.** Weekly monitoring shows severity building through weeks 3–6 (crisis peaking at 30%, emergency 22–23%) before easing by week 8; however, the share reporting no coping (27%) remains below the pre-crisis baseline (32%), underscoring persistent vulnerability and the need for livelihood protection to prevent irreversible asset loss.

Post-Melissa, the burden of severe coping is concentrated in the west/north-west: Hanover records the highest emergency coping (31%), followed by Westmoreland (25%), Saint Elizabeth (22%), Clarendon and Saint Ann (21%). Compared with pre-crisis, the largest jumps in emergency coping occurred in Westmoreland (+19 pp), Trelawny (+16 pp) and Hanover (+16 pp).

Figure VII: Prevalence of Livelihood Coping Strategy by Period

Legend:
- HH not adopting coping strategies
- Stress coping strategies
- Crisis coping strategies
- Emergency coping strategies
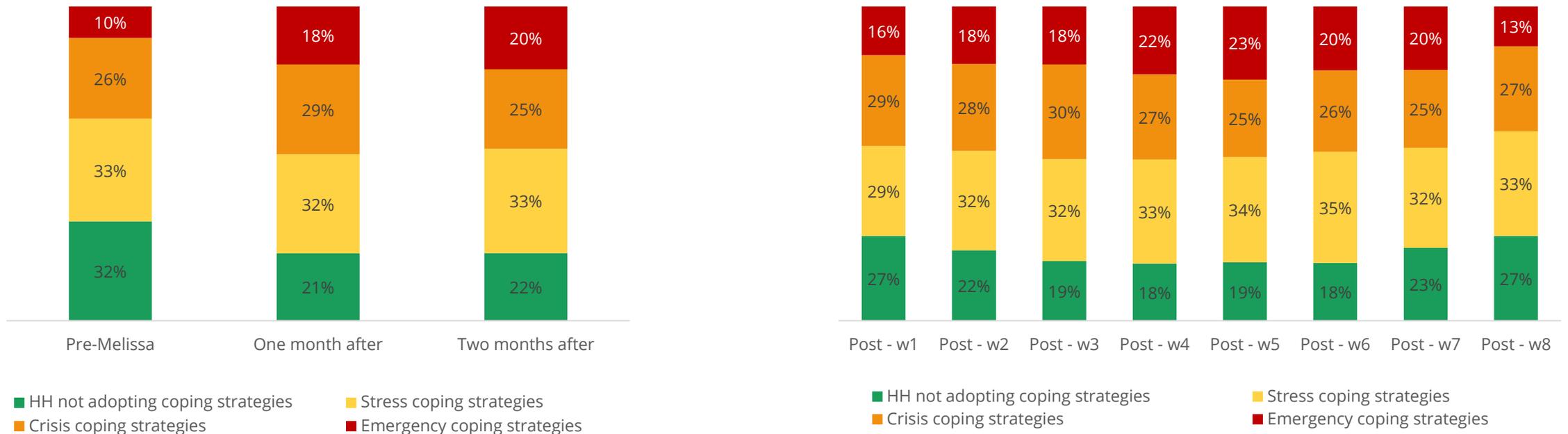
HOUSEHOLD MARKET ACCESS

Market access: sharp deterioration and slow, uneven recovery. Before Melissa, market access was relatively stable: 64% reported no challenge and 35% reported difficulties. **Post-event, this reversed—53% reported market access challenges** and only 40% had no challenge, with 8% saying they did not need to access markets (likely relying on stocks or alternative arrangements). **Week-by-week, the share reporting challenges peaked at 61% in week 4,** remained high in weeks 5–6 (57–59%), **and eased only to ~51% by weeks 7–8**. **Month-to-month, challenges are persistent** (52% one month after; 54% two months after), **indicating affordability constraints and intermittent supply rather than a transient, short-lived shock.**

Items availability - Fresh items experienced the steepest hit: complete unavailability jumped from 1% pre-event to 12% in week 1, stayed high in weeks 2–3 (9–11%), and then improved to 2% by week 8—still accompanied by frequent partial/sometimes availability (as seen across weeks). **Basic foods (staples) showed a rapid recovery** from 16% unavailability in week 1 to 1–3% by weeks 5–8. **Hygiene items were resilient overall**, with unavailability at 0–4%, returning to ~1–2% by the end of the period. **Medicines are more volatile**: unavailability fluctuated between 3–7% post-event (notably 7% in weeks 3 and 8), suggesting irregular restocking and information gaps at facilities even as some weeks approach pre-event levels (3–5%).

Post-Melissa, market access challenges are highest in western and north-western parishes: Hanover (66%), Trelawny (64%), Saint Elizabeth (63%), Westmoreland (62%), Portland (59%), Saint Ann (59%), and Saint James (59%). Relative to pre-event, the largest increases in access difficulties are in Westmoreland (+36 pp), Trelawny (+34 pp), Saint Mary (+30 pp), Manchester (+27 pp) and Hanover (+32 pp).
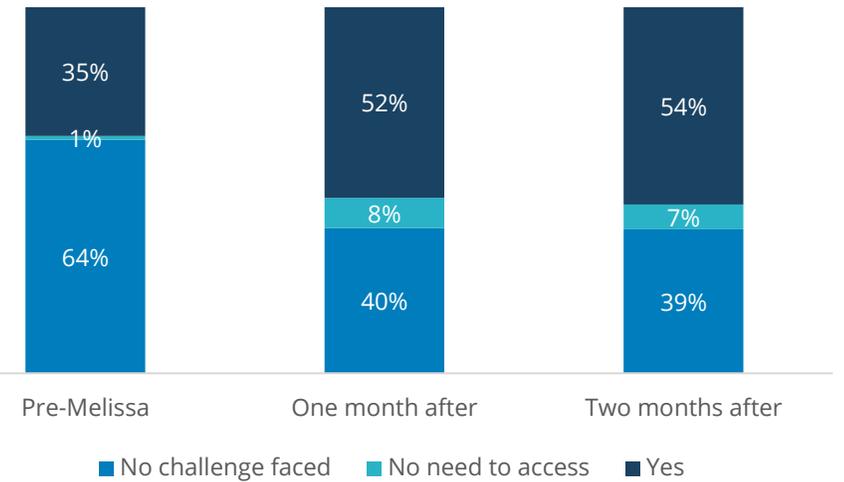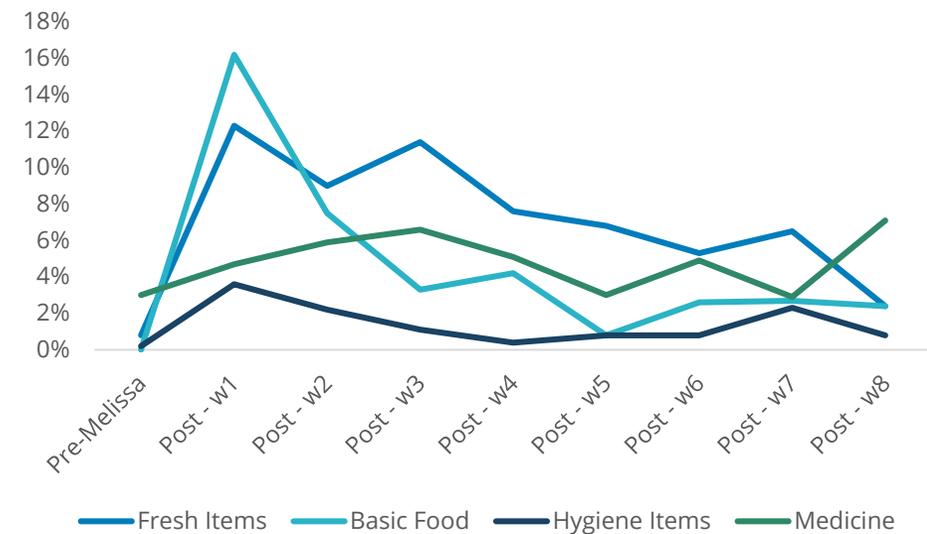
Figure VIII: Market Access by Period

Legend: No challenge faced | No need to access | Yes

Figure IX: Unavailability of key commodities in the market of by period

Legend: Fresh Items | Basic Food | Hygiene Items | Medicine

METHODOLOGY

Sampling

Real-time monitoring is conducted via Computer-Assisted Telephone Interviews (CATI) using Random Digit Dialling (RDD) to generate new numbers each round. RDD draws across all active mobile network operators to improve coverage. Collection runs on a rolling, 30-day cycle with weekly quotas to provide near real-time updates.

Limitations

The real-time monitoring rounds prior to Melissa were relatively small, totaling 511 observations. After Melissa, coverage expanded significantly to over 2,500 observations, improving visibility on emerging trends. However, figures at parish level remain indicative and should be interpreted with caution, especially where base counts are low. **Estimates are directional signals rather than definitive prevalence rates**. **It is important to note that these results do not fully capture conditions in areas without mobile network coverage, where households may not have been able to participate in the survey**. Despite these limitations, the current data already underline the severe impact of the hurricane on food security and livelihoods, providing an early indication of the scale and nature of needs across Jamaica.