## 3 cookpad

# A Global Analysis of Cooking Around the World <br> Year 2 

A Report by Gallup \& Cookpad



## Picture on cover: A woman in India

is interviewed by a Gallup World Poll interviewer in November 2019.

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## Introduction

This is the second year that questions about cooking have been included in the Gallup World Poll. Prior to Cookpad's partnership with Gallup in 2018, there had never been a thorough global analysis of cooking around the world. This report builds on the findings from the Year 1 report and explores if - and how home cooking correlates with other life factors (Gallup \& Cookpad, 2020).

Ideas about what constitutes cooking vary, especially across food cultures. Gallup defines cooking as a meal prepared at home, mostly from ingredients such as vegetables, meats and grains (Figure 1).

## FIGURE 1: GALLUP WORLD POLL QUESTIONS ON HOME COOKING CREATED WITH COOKPAD

The next few questions will ask you about cooking at home. By "cooking at home" I mean a meal prepared AT HOME from ingredients such as vegetables, meats, grains, or other ingredients. Please do not think about pre-made foods or leftovers that you reheat.

- Thinking about the past 7 days, on how many days did YOU, personally, COOK LUNCH AT YOUR HOME?
- Thinking about the past 7 days, on how many days did YOU, personally, EAT LUNCH that was cooked AT YOUR HOME, either by you or someone else?
- Please tell me whether any of the following people COOKED any of those LUNCHES AT YOUR HOME in the past 7 days?
- (if married:) Your spouse/partner
- A family member/(if married:) Some other family member
- Some other person who is not a family member
- Thinking about the past 7 days, on how many days did YOU, personally, COOK DINNER AT YOUR HOME?
- Thinking about the past 7 days, on how many days did YOU, personally, EAT DINNER that was cooked AT YOUR HOME, either by you or someone else?
- Please tell me whether any of the following people COOKED those DINNERS AT YOUR HOME in the past 7 days?
- (if married:) Your spouse/partner
- A family member/(if married:) Some other family member
- Some other person who is not a family member

Worldwide cooking trends remained stable from 2018 to 2019 with no substantial changes to who was cooking and how often. However, in some regions and countries there were significant and meaningful increases in cooking and eating home-cooked meals. Specific circumstances - such as economic recession and social unrest - overlapped with increases in cooking and staying home to eat. This is consistent with the early insights from the 2018 data analysis which found that low-income individuals and countries are more likely to cook and eat at home.

In this report, by combining data across 2018 and 2019, we look at home-cooking typologies, with a special focus on the evening meal. These groupings reveal how some people - mainly women - prepare and eat home-cooked meals nearly every day of the week, while others - overwhelmingly men - eat dinner at home very frequently but hardly ever cook. There are also some home cooks who eat home-cooked dinners less frequently throughout the week and even report eating said home-cooked dinners fewer times than they cook them. In some cases, people hardly ever eat or prepare a home-cooked dinner for themselves or anyone else. We discuss how this may be a result of food scarcity or eating outside of the home.

## A NOTE ABOUT THE 2020 REPORT

In the early months of 2020, as Gallup and Cookpad began drafting the Year 2 report on the global cooking analysis, the world had already begun to respond to the COVID-19 pandemic. The Gallup World Poll made the decision to halt face-to-face interviewing and re-evaluate the approach to conducting nationally representative surveys. Despite the challenges, Gallup remained steadfast in its commitment to understanding the most pressing problems facing humankind and, with Cookpad's support, decided to undertake the first-ever entirely phone-assisted global survey (Srinivasan \& Clifton, 2020). The 2020 wave will be the third year of data collection for the global cooking analysis.


# Trends in Home Cooking in 2019 

Between 2018 and 2019, Gallup and Cookpad interviewed over 300,000 individuals, aged 15 and older, in 146 countries about their cooking and eating habits.

In 138 of those countries, the questions were asked in both 2018 and 2019. Table 6 in the Annex lists the remaining eight countries where the questions were asked in only one of the two years.

FIGURE 2: GLOBAL HOME COOKING (LUNCH AND DINNER) IN 2019


## Global and Regional Results

In 2019, people worldwide said they personally cooked 6.9 meals at home in the past week (out of a possible total of 14 lunches or dinners), compared to 6.5 in 2018. This is a global increase of $6 \%$ in the number of meals personally cooked at home (Figure 3); this increase is also statistically significant, suggesting cooking habits at the global level did change in a meaningful, if slight, way in 2019.

FIGURE 3: NUMBER OF MEALS COOKED AT HOME (LUNCH AND DINNER), GLOBAL AVERAGE FOR 2018 AND 2019

-     -         - Lower bound U Upper bound


Cooking habits also varied at the regional level, but not always to a statistically significant degree (Figure 4). In most regions (and countries), the number of meals cooked at home remained stable. In Europe, the Commonwealth of Independent States and the Baltics, the Middle East and North Africa, Sub-Saharan Africa and Northern America there were no significant changes in the frequency of cooking meals at home.

The global increase is due to higher levels of cooking meals at home in 2019 in Asia and Latin America. In Asia, the average number of meals cooked at home rose by $7 \%$ in 2019 (from 6.8 to 7.3 ), a statistically significant increase. Given also the large share of the global population living in Asia (close to 60\%), this accounts for a large part of the global increase in home cooking in 2019. ${ }^{1}$ Results from Latin America similarly reveal a nearly $6 \%$ increase in the number of meals people cooked at home in 2019 (from 6.4 to 6.8).

FIGURE 4: NUMBER OF MEALS COOKED AT HOME (LUNCH AND DINNER), REGIONAL AVERAGES FOR 2018 AND 2019

```
2018 2019
```


*Denotes statistically significant change between 2018 and 2019

[^0]Globally, the number of home-cooked dinners rose by approximately $9 \%$ in 2019, from an average of 3.4 to 3.7 (Figure 5). The average number of home-cooked lunches did not increase in a similar manner (3.1 in 2018 compared to 3.2 in 2019).

FIGURE 5: AVERAGE NUMBER OF MEALS PEOPLE COOKED FOR LUNCH AND DINNER IN THE PAST WEEK, 2018 VS. 2019, GLOBAL RESULTS


*Denotes statistically significant change between 2018 and 2019

Consistent with previous results, Asia and Latin America had statistically significant increases in the number of dinners cooked. Regionally, only Latin America saw a statistically significant change in the number of meals cooked for lunch in 2019 compared to 2018; Latin America remains the only region where people report cooking lunch more often than dinner.

It is generally unexpected to see large changes in the span of a year for deeply rooted human behaviors like cooking, so these findings raise interesting questions. The next section will review factors - based on both World Poll data as well as national events - that could explain the increase and the implications of cooking patterns around the world.

FIGURE 6: AVERAGE NUMBER OF MEALS PEOPLE COOKED FOR LUNCH AND DINNER IN THE PAST WEEK, 2018 VS. 2019, BY REGION


## Home Cooking by Country

FIGURE 7: GLOBAL RANKINGS (LUNCH AND DINNER) FOR 2018 AND 2019 (ONLY COUNTRIES WITH BOTH YEARS SHOWN)

```
| Lunch | Dinner
```

Change: $\uparrow$ — $\downarrow$

*Country only surveyed in 2019 wave. See Annex for additional information.
Note: Burundi, Comoros, Czech Republic and Haiti data not included due to lack of surveying in 2019. See Annex for additional information.

FIGURE 7: GLOBAL RANKINGS (LUNCH AND DINNER) FOR 2018 AND 2019 (ONLY COUNTRIES WITH BOTH YEARS SHOWN) CONTINUED

*Country only surveyed in 2019 wave. See Annex for additional information.
Note: Burundi, Comoros, Czech Republic and Haiti data not included due to lack of surveying in 2019. See Annex for additional information.

FIGURE 7: GLOBAL RANKINGS (LUNCH AND DINNER) FOR 2018 AND 2019 (ONLY COUNTRIES WITH BOTH YEARS SHOWN) CONTINUED

| - Lunch Dinner |  |  | Change: $\uparrow$ - $\downarrow$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 | 2019 | 2018 | 2019 | total |
| Kazakhstan | $\square$ | 2.9 | $\square$ | 3.1 | $6.0 \downarrow$ |
| Albania | $\square$ | 3.1 | $\square$ | 2.9 | $6.0 \downarrow$ |
| Bolivia | ] | 3.4 | $\square$ | 2.6 | $6.0 \uparrow$ |
| Swaziland | ] | 2.9 | $\square$ | 3.1 | 6.0 ¢ |
| Paraguay |  | 3.3 | $\square$ | 2.6 | $5.9 \downarrow$ |
| Kyrgyzstan |  | 2.6 |  | 3.3 | $5.9 \uparrow$ |
| Nigeria | $\square$ | 2.5 | [ | 3.4 | $5.9 \downarrow$ |
| Mauritius |  | 3.0 | $\square$ | 2.9 | $5.9 \uparrow$ |
| Ivory Coast |  | 2.6 |  | 3.2 | $5.8 \uparrow$ |
| Mongolia |  | 2.5 |  | 3.3 | $5.8 \uparrow$ |
| Chile |  | 3.6 | $\square$ | 2.1 | $5.7 \uparrow$ |
| Finland | $\square$ | 2.6 | $\square$ | 3.1 | $5.7 \downarrow$ |
| Namibia | $\square$ | 2.5 |  | 3.2 | $5.7 \downarrow$ |
| Bahrain* |  | 3.0 |  | 2.7 | 5.7 |
| Uzbekistan | I | 2.7 | ] | 2.9 | $5.6 \uparrow$ |
| Ghana |  | 2.4 |  | 3.2 | $5.6 \uparrow$ |
| Hong Kong* |  | 2.0 |  | 3.5 | 5.5 |
| Pakistan |  | 2.5 |  | 3.0 | $5.5 \uparrow$ |
| Iraq |  | 2.7 |  | 2.7 | 5.4 ¢ |
| Mali |  | 3.4 | $\square$ | 2.0 | $5.4 \downarrow$ |
| Malaysia | $\square$ | 2.8 |  | 2.6 | $5.4 \downarrow$ |
| Cyprus | ] | 2.8 |  | 2.6 | 5.4 ¢ |
| Chad |  | 2.5 |  | 2.9 | $5.4 \uparrow$ |
| Turkmenistan |  | 2.5 |  | 2.8 | $5.3 \uparrow$ |
| Bulgaria | $\square$ | 2.3 | $\square$ | 3.0 | $5.3 \downarrow$ |
| Georgia |  | 2.1 |  | 3.1 | $5.2 \downarrow$ |
| Rwanda |  | 2.0 |  | 3.2 | 5.2 - |
| Egypt | $\square$ | 2.6 | $\square$ | 2.6 | $5.2 \downarrow$ |
| North Macedonia | $\square$ | 2.9 |  | 2.3 | $5.2 \downarrow$ |
| Liberia |  | 2.4 |  | 2.8 | $5.2 \uparrow$ |
| Serbia |  | 2.9 | $\square$ | 2.2 | $5.1 \downarrow$ |
| Tunisia |  | 2.6 | $\square$ | 2.5 | $5.1 \downarrow$ |
| Mauritania |  | 2.5 | $\square$ | 2.5 | $5.0 \uparrow$ |
| Morocco |  | 2.7 |  | 2.3 | $5.0 \uparrow$ |
| Turkey |  | 1.9 |  | 3.1 | $5.0 \uparrow$ |
| Tajikistan |  | 2.4 |  | 2.6 | 5.0 - |
| Gabon |  | 2.7 | $\square$ | 2.3 | $5.0 \uparrow$ |
| Bangladesh |  | 2.5 | $\longrightarrow$ | 2.4 | $4.9 \downarrow$ |
| Kosovo |  | 2.5 | $\square$ | 2.4 | $4.9 \downarrow$ |

*Country only surveyed in 2019 wave. See Annex for additional information.
Note: Burundi, Comoros, Czech Republic and Haiti data not included due to lack of surveying in 2019. See Annex for additional information.

FIGURE 7: GLOBAL RANKINGS (LUNCH AND DINNER) FOR 2018 AND 2019 (ONLY COUNTRIES WITH BOTH YEARS SHOWN) CONTINUED

*Country only surveyed in 2019 wave. See Annex for additional information.
Note: Burundi, Comoros, Czech Republic and Haiti data not included due to lack of surveying in 2019. See Annex for additional information.
Globally, Asia, Latin America, Europe and the Commonwealth of Independent States and the Baltics are the regions where home cooking was most common in 2019. China continues to be the country where most people cooked at home in 2019, alongside Madagascar (in 2018, China and Ukraine were the two countries where most people cooked at home). They are followed closely by Laos, Venezuela, Spain, Nicaragua, El Salvador, Italy and Mexico. The most notable change in the rankings is related to India, which rose from the midpoint of the global ranking to making it to the top 10. In India, people said they cooked 7.5 meals a week compared to 6.1 in 2018 (Table 1). This country alone accounts for much of the sharp increase in the average number of meals cooked in Asia.

Turning to the countries that reported cooking the fewest amounts of meals in 2019, many of these nations also reported lower-than-average cooking habits in 2018, even if, as was the case in countries such as Lebanon and Jordan, the overall level of meals prepared by individuals increased in 2019.

TABLE 1: TOP- AND BOTTOM-RANKED COUNTRIES BY HOME COOKING IN 2019

| Country | 2018 | 2019 |
| :---: | :---: | :---: |
| China | 8.0 | 8.4 |
| Madagascar | 7.7 | 8.4 |
| Laos | 7.4 | 8.0 |
| Venezuela | 7.4 | 8.0 |
| Spain | 7.3 | 7.9 |
| Nicaragua | 7.0 | 7.8 |
| El Salvador | 7.6 | 7.7 |
| Italy | 7.2 | 7.6 |
| Mexico | 6.8 | 7.6 |
| India | 6.1 | 7.5 |
| Poland | 7.4 | 7.5 |
| Ukraine | 8.0 | 7.5 |
| Cameroon | 4.0 | 4.2 |
| Taiwan | 3.7 | 4.1 |
| Lebanon | 2.8 | 3.9 |
| Hungary | 3.8 | 3.7 |
| Singapore | 3.5 | 3.7 |
| South Korea | 3.9 | 3.6 |
| Kuwait | 3.7 | 3.5 |
| Palestinian Territories | 3.8 | 3.5 |
| Saudi Arabia | 3.4 | 3.5 |
| Jordan | 2.8 | 3.4 |

## Countries Where Cooking Habits Changed in 2019

In most countries, cooking habits remained stable in 2019 compared to 2018. In the 138 countries surveyed in both years, the median change - either positive or negative - in the average number of meals cooked in

2019 compared to 2018 was 6.7\%, a difference which is generally not statistically significant. ${ }^{2}$ In both years, people in most countries reported personally cooking between five to seven meals per week; the median level of cooking in countries where the survey was conducted both years was close to six meals ( 6.0 in 2018 and 6.1 in 2019).

FIGURE 8: PERCENTAGE CHANGE IN AVERAGE NUMBER OF MEALS COOKED BY COUNTRY IN 2019 COMPARED TO 2018


## In thirteen countries, the average number of meals cooked changed by more than $15 \%$.

In most of these countries - including Lebanon, Mauritius, the Ivory Coast, India and Pakistan, among others - the typical amount of cooking a person reported engaging in over the past week increased in 2019. In four countries where habits changed by $15 \%$ or more, including Montenegro, North Macedonia, Bosnia and Herzegovina, and Georgia, people reported cooking fewer meals in 2019.

[^1]TABLE 2: COUNTRIES WHERE CHANGES IN HOME COOKING (LUNCH AND DINNER) INCREASED OR DECREASED BY MORE THAN 15\% BETWEEN 2018 AND 2019

| Rank | Country | 2018 | 2019 | Year-over-year change |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Lebanon | 2.8 | 3.9 | $39 \% \uparrow$ |
| 2 | Mauritius | 4.5 | 5.9 | $31 \% \uparrow$ |
| 3 | Ivory Coast | 4.6 | 5.8 | $26 \% \uparrow$ |
| 4 | India | 6.1 | 7.5 | $23 \% \uparrow$ |
| 5 | Pakistan | 4.5 | 5.5 | $22 \% \uparrow$ |
| 6 | Jordan | 2.8 | 3.4 | $21 \% \uparrow$ |
| 7 | Montenegro | 5.7 | 4.5 | $-21 \% \downarrow$ |
| 8 | North Macedonia | 6.5 | 5.2 | $-20 \% \downarrow$ |
| 9 | Slovenia | 5.5 | 6.6 | 20\% $\uparrow$ |
| 10 | Gabon | 4.2 | 5.0 | 19\% $\uparrow$ |
| 11 | Georgia | 6.4 | 5.2 | $-19 \% \downarrow$ |
| 12 | Bosnia and Herzegovina | 7.4 | 6.1 | $-18 \% \downarrow$ |
| 13 | Mozambique | 6.3 | 7.3 | 16\% $\uparrow$ |

It is worth noting that the question order of the survey was changed between the 2018 and 2019 fielding periods to ease respondent burden and improve the speed of the module (see Table 4 in the Methodology). If analysis of the 2018 and 2019 data had shown a systematic variation in the data, this change could be attributed to this fact. However, as the next section will show, many of the countries where personal cooking habits changed by more than $15 \%$ in 2019 also experienced serious economic or social shocks, which very well might have forced people to alter aspects of their day-to-day lives, including their cooking habits. This suggests changes to the questionnaire had a minimal impact on reported cooking habits.


In 2019, the amount of cooking in Lebanon rose by $39 \%$, to 3.9 meals per week compared to 2.8 in 2018. While this is a substantial increase, cooking remains, compared to other countries globally, more infrequent in Lebanon. In 2018, Lebanon, along with Jordan, cooked less than any other country in the world, averaging 2.8 meals per week. Indeed, most people in Lebanon (56\%), said they did not cook a single meal (lunch or dinner) in the past week. However, the percentage of Lebanese respondents who reported not cooking a single meal fell to 48\% in 2019.

The 2019 wave of the Gallup World Poll was conducted during a time of near-total economic collapse in Lebanon. ${ }^{3}$ This is reflected in the responses; in particular, the percentage of people in Lebanon who said they were "satisfied" with their standard of living fell nearly 30 percentage points in 2019; likewise, the percentage who are considered "thriving" fell to 4\% last year, from 18\% in 2018. This indicates a strong likelihood that people would not be able to afford eating out anymore coupled with the fact that "some 25,000 employees lost their jobs in the [four]-month period between October [2019] and January [2020] ... in [the restaurant] sector that used to employ 150,000 people" (Azhari, 2020).

## Mauritius



In 2019, Mauritius saw the second-biggest increase in the number of meals personally cooked at home, rising from 4.5 in 2018 to 5.9 in 2019. The number of home-cooked meals people ate also rose in Mauritius, though not to the same extent as meals respondents cooked themselves.

According to the Mauritius Meteorological Services, 2019 may have been the hottest year on record, and heavy rains continued into the period ordinarily scheduled for World Poll fielding (Mauritius Meteorological Services, 2020). ${ }^{4}$ Such extreme weather conditions affect people's daily lives and thus their cooking and eating habits.

[^2]Ivory Coast<br>

In Ivory Coast, the number of home-cooked meals per person rose to 5.8 in 2019 from 4.6, an increase of $26 \%$ from 2018. The increase in personally cooked meals applied to both lunch and dinner, even as, strangely, the total number of meals eaten at home stayed essentially the same.

Ivory Coast is one of the fastest-growing countries in the world. However, GDP growth has gradually slowed since 2012 and "the country is facing the dual challenge of maintaining a rapid growth rate while making this growth more inclusive (poverty remains high at 46.3\%)" (World Bank, 2019d).

The 2019 World Poll found a higher rate of under- or unemployed individuals in the country, which aligns with World Bank figures showing an increase of unemployment in Ivory Coast starting in 2018 (World Bank, 2020c). As previous analysis of the Cookpad data has shown, changing economic conditions are associated with higher rates of personal cooking.

This is possibly compounded by the continued urbanization (in 2017, for the first time on record, slightly more than half of the country's population lived in an urban area according to the World Bank) as well as the changes to the food supply chain in Sub-Saharan Africa that have led to wider spread of supermarket chains and processed foods (van Berkum et al., 2017; World Bank, 2019b, 2020d).

## India



The number of meals personally cooked in India rose from 6.1 in 2018 to 7.5 in 2019. However, the number of meals eaten at home fell to 9.9 in 2019 from 11.0 in 2018.

The 2019 wave of the Gallup World Poll in India saw several interesting trends which may help explain the similar changes in cooking habits. The percentage of Indians categorized as "suffering" (as opposed to "thriving" or "struggling") based on the World Poll Life Evaluation Index increased from $27 \%$ in 2018 to $39 \%$ in 2019. This sharp drop in life evaluation, which combines both current and future self-assessments of quality of life, offers further evidence that, as many economists suggest, India is headed for a recession (Chakravarty, 2019; Das, 2019; Horowitz, 2019; Raja, 2019). Past Gallup research has repeatedly found that a country's Life Evaluation Index tends to fall during periods of economic difficulty.


Like several other countries where cooking habits increased in a statistically significant manner in 2019, economic perceptions in Pakistan worsened substantially compared to 2018. Gallup's Local Economic Confidence Index, which measures how people feel about the economy on a -100 (bad) to +100 scale, fell to -13 in 2019 compared to +20 in 2018. Likewise, fewer than four in 10 people in Pakistan (38\%) said their standard of living was "getting better" last year, compared to 49\% the year before. In 2019, Pakistan registered its lowest rate of economic growth since 1972, with gross domestic product expanding by slightly less than $1 \%$ according to World Bank statistics (World Bank, 2019a). In 2018, by comparison, the economy grew by a robust 5.8\%. In Pakistan, as well as in other countries, declining views about standard of living are associated with higher cooking rates.

## Jordan



The number of personally cooked meals in Jordan rose from 2.8 in 2018 to 3.4 in 2019. The 2018 figure had been one of the lowest results for any country in that survey, though it was in line with the regional data. Jordanians also reported eating more home-cooked meals (regardless of who prepared them) than in 2018, with that figuring rising to 8.6.

Jordan continued to struggle with a rise in unemployment in 2019, which reached 19\%. In particular, unemployment among 15 - to 19-year-olds reached a rate of 48.7\%, while the rate for those 20 to 24 years of age stood at $38.5 \%$ (Chappelle, 2019; Jordan Times, 2019; World Bank, 2019c). Like the other countries highlighted here, attitudes about the economy soured significantly in Jordan in 2019; the percentage of people who said their local economy was "getting worse" in 2019 rose from 53\% to 65\%. As seen in other countries, rising economic difficulty tends to be associated with a higher rate of eating at home.


# Mozambique 



In Slovenia, Gabon and Mozambique, there were relatively modest rises in the amount of cooking in 2019, albeit statistically significant. These increases may simply reflect regular survey variation more than anything else. In all three countries, economic perceptions were generally stable over the two-year period, and the cooking habits of key demographic subgroups, such as men and women, did not change in notable ways, except in Slovenia, where cooking by men rose notably while habits among women did not.

Montenegro


## North

 Macedonia

## Georgia



Bosnia and Herzegovina


Montenegro, North Macedonia, Georgia, and Bosnia and Herzegovina all saw decreases in the number of home-cooked meals per week in 2019.

In 2019, people in Montenegro cooked an average of 4.5 meals (lunch and dinner) in a week compared to 5.7 in 2018. Dinner habits, more so than lunch, were most disrupted in 2019, with the percentage of Montenegrins who said they did not cook a single dinner in the past seven days climbing 15 percentage points to 55\%, compared to a six-point rise for lunch.

Similarly, the average number of meals cooked by people in North Macedonia fell to 5.2 from 6.5. This decline in cooking affected both lunch (fell to 2.9 from 3.4) and dinner (2.3 from 3.1).

This group of Balkan countries, as well as Georgia, are all strikingly characterized by low fertility rates and high emigration toward Western European countries (Judah, 2019; Tembon et al., 2018). This disruption of traditional family units paired with increased availability of processed and fast foods across the region is possibly to blame for a longer trend in the decrease in home cooking (World Health Organization \& Regional Office for Europe, 2015).


## Preparing and Eating HomeCooked Dinners Around the World

In many cultures, dinner has traditionally played a significant role in people's lives other than providing another source of sustenance and nutrition - it brings together families or communities to not just eat, but form connections and deepen bonds (Fresco, 2015).

Globally, people are more likely to cook and eat dinner rather than lunch at home. Worldwide, $81 \%$ of people said they ate a home-cooked dinner at least four times in the past week, compared to $71 \%$ who said they ate a home-cooked lunch with a similar frequency. In most countries, moreover, people report eating a home-cooked dinner more frequently than a home-cooked lunch. In several regions, such as Europe and the Commonwealth of Independent States and the Baltics, the difference tends to be substantial. For Latin America as a whole and many countries in the Middle East and Northern Africa, the reverse is true. People prepare and eat home-cooked lunches more frequently than dinners.

This section takes a closer look at people's dinner habits.

## Profiles of Home-Cooked Dinners: Cooking and Eating

An analysis of home-cooked dinners - both preparing and eating - suggests individuals fall into one of four categories highlighted below. Cluster analysis, a statistical technique which identifies similarities or differences between subjects based on variables of interest (in this case the number of dinners eaten at home and the number of dinners an individual personally cooked), was used to create these four groups:

- THE STAY-IN-AND-COOK GROUP: Frequently eat and prepare home-cooked dinners. This group includes individuals who report eating home-cooked dinners frequently - $93 \%$ say they ate a home-cooked dinner at home every day in the past seven days; likewise, the vast majority - $83 \%$ - say they cooked dinner every day in the past week.
- THE WHAT'S-FOR-DINNER GROUP: Frequently eat a home-cooked dinner but rarely prepare it. People in this group eat dinner at home often ( $83 \%$ having eaten the meal at home all seven days of the past week) but rarely cook themselves, with nearly three-quarters (74\%) saying they cooked no days in the past week.
- THE COOK-DINNER-MIGHT-EAT-NOW-OR-MAYBE-LATER GROUP: Prepare a home-cooked dinner less frequently and eat it equally or less frequently. This group does not eat a home-cooked dinner with the same regularity of the first two groups - nearly half (48\%) ate a home-cooked dinner on three or fewer days in the past week - however, these individuals tend to report cooking as much or more often than they eat homecooked dinners ( $64 \%$ cooked as many or more meals than they said they ate worldwide).
- THE NEITHER-COOKS-NOR-HOME-DINERS GROUP: This group rarely eats or prepares a home-cooked dinner - a majority (56\%) did not eat a home-cooked dinner at all in the past week.

FIGURE 9: PROFILE OF INDIVIDUALS BASED ON FREQUENCY OF EATING AND PREPARING HOME-COOKED DINNERS, GLOBAL RESULTS

■ \% Stay in and cook

- \% What's for dinner
$■$ \% Cook dinner, might eat now or maybe later
■ \% Neither cooks nor home diners


TABLE 3: DEMOGRAPHIC COMPARISONS OF DINNER PROFILE GROUPS, GLOBAL RESULTS

|  | Stay in and cook | What's for dinner | Cook dinner, might eat now or maybe later | Neither cooks nor home diners |
| :---: | :---: | :---: | :---: | :---: |
| GENDER | \% | \% | \% | \% |
| Men | 28 | 75 | 41 | 62 |
| Women | 72 | 25 | 59 | 39 |
| AGE GROUP |  |  |  |  |
| 15 to 29 | 24 | 39 | 32 | 36 |
| 30 to 49 | 40 | 32 | 41 | 37 |
| 50 or older | 36 | 29 | 27 | 26 |
| AREA RESPONDENT LIVES IN |  |  |  |  |
| A rural area or on a farm | 37 | 35 | 24 | 25 |
| A small town or village | 33 | 32 | 35 | 31 |
| A large city | 20 | 22 | 27 | 30 |
| A suburb of a large city | 10 | 10 | 14 | 14 |
| EDUCATIONAL ATTAINMENT |  |  |  |  |
| Complete elementary education or less (up to eight years) | 53 | 42 | 36 | 37 |
| Secondary (nine to 15 years) | 38 | 47 | 45 | 45 |
| Completed four years of education beyond high school and/or received a four-year college degree | 9 | 11 | 19 | 18 |
| EMPLOYMENT STATUS |  |  |  |  |
| Employed full time for an employer | 21 | 28 | 34 | 35 |
| Employed full time for self | 14 | 17 | 12 | 13 |
| Employed part time, do not want full time | 7 | 7 | 9 | 8 |
| Unemployed | 6 | 6 | 6 | 6 |
| Employed part time, want full time | 8 | 8 | 9 | 8 |
| Out of workforce | 44 | 35 | 30 | 30 |

## The Stay-in-and-Cook Group: Individual and Regional Characteristics

The Stay-in-and-Cook group represents 40\% of people worldwide, though the group accounts for half or more of the population in countries such as Thailand (55\%), Ukraine (53\%), Laos (51\%) and China and Comoros (both $50 \%$ ). In general, countries from Asia and the Commonwealth of Independent States and the Baltics tend to have higher rates of people who report frequently eating and preparing home-cooked dinners (Figure 10).

## KEY TAKEAWAYS:

The most common of the four groups at the individual level. This group's profile is clear: they are very likely to be women, older and to live in rural areas. It is less clear what cultural or other societal factors might be important in understanding this group's relative size in a country. Poorer countries, as well as more rural societies, tend to have more people of this type.

FIGURE 10: PERCENT WHO FREQUENTLY STAY IN AND COOK, SIMPLE AVERAGE OF COUNTRY RESULTS BY REGION


The types of people who fall into this group are similar in one key way - they are predominantly women. Worldwide, women are over twice as likely to be in this group than men, with $57 \%$ of all women being people who frequently cook and eat compared to $22 \%$ of men. This large gap is persistent across all regions of the world except Northern America, where women are only slightly more likely to be in the group that frequently cooks and eats dinner at home, with $34 \%$ of women in this region falling in this group compared to $23 \%$ of men (Figure 11). This finding echoes what was initially seen in the Year 1 report by Cookpad and Gallup as well as a review of existing academic literature on home cooking (Gallup \& Cookpad, 2020, p. 25; Mills et al., 2017).

FIGURE 11: PERCENT OF PEOPLE WHO STAY IN AND COOK DINNERS BY GENDER, BY REGION

- Women ■ Men


This group also tends to be relatively older - about $46 \%$ of people aged 50 or older globally are in this group, compared to $31 \%$ of those aged 15 to 29 and $43 \%$ of people aged 30 to 49 . People who describe themselves as living in a rural area or farm are much more likely to be in this group than people in a large city, at $45 \%$ to $35 \%$, respectively.

As the regional results might suggest, it is difficult to identify clear societal markers - such as geography or economic development - that seem to influence how many people in a country are considered frequent athome cookers and eaters of dinner. A correlation analysis of GDP per capita and the percentage of people who frequently eat or cook dinner at home shows a weak and statistically insignificant relationship. ${ }^{5}$

However, country-level characteristics can provide some clues as to how popular frequent at-home cooking and eating of dinner will be in each nation. Among countries that are not classified as high-income, and especially among low- and lower-middle-income countries - as defined by the World Bank - there is a moderately strong, positive relationship between how rural a country is and how many people frequently eat and cook dinner at home (World Bank, 2020b). As the following chart shows, however, this relationship is less apparent among economies that are considered high- and upper-middle income countries.

[^3]FIGURE 12: RELATIONSHIP OF PERCENT WHO STAY IN AND COOK DINNER IN A COUNTRY AND URBANICITY, GROUPED BY INCOME LEVEL OF COUNTRY

- Low income ■ Lower-middle income ■ Upper-middle income ■ High income



## The What's-for-Dinner Group: Individual and Regional Characteristics

The What's-for-Dinner group includes people who frequently eat a home-cooked dinner but rarely prepare it. This group tends to eat dinner at home very often - virtually everyone in this group (96\%) reports eating dinner at least five times at home in the past seven days. Substantially fewer eat lunch at home with such frequency, with $73 \%$ saying they did so at least five times in the past week.

## KEY TAKEAWAYS:

This male-dominated group is particularly prevalent in societies where there are relatively large gaps between men and women in key areas of human development as defined by the International Development Association gender equality rating and the UNDP Gender Inequality Index.

While this group is frequently at the dinner table, they are almost never the ones who prepare the meal. Threequarters (74\%) say they did not cook at all in the past week, and even among those individuals who cook the most among this group, none report cooking more than one-third of all the home-cooked meals they ate in a week (e.g., if they ate seven dinners in a week, they prepared no more than three).

This group is least common in high-income countries (as defined by the World Bank) where these types of diners who seldom cook generally constitute less than $30 \%$ of the population. Meanwhile in all other income groups this group is typically around or above 40\% (Figure 13).

FIGURE 13: BOX-PLOT OF PERCENTAGE WHO BELONG TO THE WHAT'S-FOR-DINNER GROUP BY COUNTRY, GROUPED BY COUNTRY-INCOME LEVEL


In three countries - Azerbaijan, Afghanistan and Yemen - 60\% or more of the population fall into the What's-for-Dinner group. Notably, two of these three countries, already affected by civil war and extreme poverty - Afghanistan and Yemen - receive the lowest rating on the International Development Association's CPIA gender equality rating (World Bank, 2020a). ${ }^{6}$ Both countries received a score of 1.5 , the lowest score of any country scored on this metric dating back to 2005. ${ }^{7}$

Looking at another metric, which measures gender inequality but has wider country coverage - the United Nations Development Programme (UNDP) Gender Inequality Index — there is a moderately strong (0.33) and statistically significant relationship between the degree of gender inequality in a society and the percentage of people who frequently eat dinner at home but rarely cook (United Nations, 2020).

[^4]FIGURE 14: PERCENT WHO BELONG TO THE WHAT'S-FOR-DINNER GROUP BY UNDP GENDER INEQUALITY INDEX


The link between this group and gender inequality is likely a reflection that men are substantially more likely than women to fall into this group - $51 \%$ of men globally qualify as part of the What's-for-Dinner group, often eating home-cooked dinners but very rarely preparing them, compared to $17 \%$ of women. This gender divide is especially wide in low- and lower-middle-income countries.

FIGURE 15: PERCENT WHO BELONG TO THE WHAT'S-FOR-DINNER GROUP, BY GENDER AND WORLD BANK COUNTRY-INCOME CLASSIFICATION

- Women ■ Men
\% What's-for-Dinner group


Perhaps related to this difference in gender is the fact that people who are employed full time for an employer, as measured by the Gallup World Poll, are more likely to fall in this group, at least in low- and lower-middleincome countries where nearly half of such people ( $49 \%$ each) eat dinner frequently at home but rarely cook. By contrast, $42 \%$ of those in low-income countries who are not employed full time for an employer and $36 \%$ of those in lower-middle-income countries likewise fall into this dinner habits group. However, full-time employment is not associated with any increased likelihood of falling into this dining group in upper-middle or high-income countries.

FIGURE 16: PERCENT WHO BELONG TO THE WHAT'S-FOR-DINNER GROUP BY EMPLOYMENT STATUS AND WORLD BANK COUNTRY-INCOME CLASSIFICATION

- Full time for an employer $\quad$ Not full time for an employer
\% What's-for-Dinner group



## The Cook-Dinner-Might-Eat-Now-or-Maybe-Later Group: Individual and Regional Characteristics

The Cook-Dinner-Might-Eat-Now-or-Maybe-Later group, who infrequently prepare a home-cooked dinner and eat it equally or less frequently, is harder to describe in broad terms. While worldwide members of this group tend to report cooking dinner more often than they eat it, the country-by-country analysis reveals two distinct stories based on the income level of the country. In higher-income countries, where this group is most common (see Figure 17), these people tend to prepare roughly as many home-cooked dinners as they eat, or even fewer. In lower-income countries, however, people in this group are often cooking more dinners than they say they are eating.

FIGURE 17: PERCENT WHO BELONG TO THE COOK-DINNER-MIGHT-EAT-NOW-OR-MAYBELATER GROUP


However, in lower-income countries, this group tends to report preparing substantially more home-cooked dinners than they eat. In low-income economies, people report cooking an average of 1.2 more dinners than they eat; in lower-middle-income economies, the gap is $2.8,8$ and in upper-middle-income economies it is 1.3 dinners. Among high-income countries, however, there is essentially no difference between how many meals a person in this group says they cook and how many meals they eat.

Across all country-income levels, people in this group tend to have smaller household sizes than the other groups. However, the demographic profile of this group otherwise varies by region and country-income type. This group tends to be younger in high-income countries and much more educated than people not in this group. These characteristics, however, do not apply to lower-income countries. Unlike the other groups here, there is no decisive gender difference, though women are slightly more likely than men to fall in this group.

Analysis of this group further confirms the findings about individuals who cook more meals than they eat from the first Cookpad and Gallup report on cooking (Gallup \& Cookpad, 2020, p. 30). While the current analysis focuses only on dinner habits, the relationship between income level and preparing more home-cooked meals than are eaten holds true. The previous analysis revealed that these individuals might also struggle to afford food based on the percentage of people in each country who reported that there were times they did not have enough money to buy food in the past year. This suggests that people in this group are cooking dinner for other members of their household but forgoing the evening meal themselves.

Likewise, in low- and lower-middle-income countries, people in this group - who prepare a home-cooked dinner less frequently and eat it equally or less frequently - are more likely to also say they have struggled to afford food in the past 12 months. A majority of people in this group who live in low- or lower-middle-income countries (57\%) say there was a time in the past 12 months when they struggled to buy the food they needed; this figure is $47 \%$ among people living in low- or lower-middle-income countries who are not in this dinner habits group.

[^5]
## The Neither-Cooks-nor-Home-Diners Group: Individual and Regional Characteristics

The Neither-Cooks-nor-Home-Diners group, who rarely eat or prepare a home-cooked dinner, represent just over one in 10 people around the world (13\%). Though small, the group is markedly heterogenous, both in terms of their general geographical and cultural background, as well as in terms of their own personal background. However, this group does encompass a substantial portion of individuals who are reasonably well off in terms of their living standards in addition to some whose financial situation is far more precarious.

## KEY TAKEAWAYS:

A number of important factors - cultural, economic and socioeconomic - play a role in why some individuals rarely prepare or eat home-cooked dinners. People from the Middle East, where lunch is more commonly eaten at home, are much more likely than people from all other regions to be in this group. In low-income countries, food insecurity likely plays a role. In high-income countries, younger and relatively well-off people often fall into this group.

Regionally, this group is most common in the Middle East and North Africa region, where lunch tends to be the most important at-home meal. In about half of the 17 Middle East and North African countries included in the Cookpad survey, this groups represents at least $20 \%$ of the national population, ${ }^{9}$ well above the comparable figure for the other regions. In high-income nations, especially in Asia, Northern America, and the Middle East and North Africa, this group skews slightly younger and richer, and, perhaps unsurprisingly, less likely to say they have any children under the age of 15 living in their house. This suggests that this group tends to have greater disposable income and fewer family commitments and therefore may spend less time cooking or eating at home.

FIGURE 18: BOX-PLOT OF PERCENTAGE WHO BELONG TO THE NEITHER-COOKS-NOR-HOMEDINERS GROUP BY COUNTRY (GROUPED BY REGION)


[^6] countries is $21 \%$.

Cultural and regional differences provide some explanation as to why some countries appear more inclined to skip homemade dinners. In several of the countries where a plurality or a majority of people rarely cook or eat dinner at home - such as Greece (where $52 \%$ rarely cook or eat dinner at home) and Chile ( $51 \%$ ) - the average number of lunches eaten at home in the past week exceeded the average number of dinners by over two meals. This indicates that in the evenings, people in this group may be eating a lighter meal of leftovers or prepared foods rather than eating out.

There is a clear statistical relationship between countries where lunch tends to be the most popular meal to be consumed (eaten or cooked) at home rather than dinner and the percentage of people in a country who fall in the Neither-Cooks-nor-Home-Diners group. ${ }^{10}$

Individuals from this group are relatively common in richer countries, particularly in population-dense East Asian countries like South Korea (where 42\% fall into this group), Taiwan (33\%) and Singapore (28\%). More broadly, people living in countries designated as high-income economies by the World Bank are more likely $(18 \%)$ than people elsewhere ( $12 \%$ ) to be a part of this group.

Cultural and personal preferences do not, however, tell the full story. Widespread food insecurity can certainly play a role, such as in the Republic of the Congo - a country where $53 \%$ rarely cook or eat dinner at home and where $76 \%$ say they struggled to afford food in the past year. These results from the Republic of the Congo align with the increase in the country's extreme poverty rate since 2016, especially in rural areas (World Bank, 2019d). Similarly, Haiti is the poorest country in the Western Hemisphere with decades of social instability and many natural disasters (World Bank, 2020e). Haiti also has a high percentage of people (46\%) who rarely cook or eat dinner at home, and $55 \%$ of people in the country report they struggled to afford food in the past year. This suggests that not only are people not actively cooking food in the evenings but that they are unable to consistently eat three meals a day.

[^7]
## Conclusions

In 2019, Gallup and Cookpad expanded upon the first global wave of the home-cooking survey from 2018. This allows for a growing body of knowledge about how cooking plays into people's daily lives.

While cooking habits are not likely to see major shifts year-to-year, the global 6\% increase in 2019 in preparing meals was due to specific regions (most notably Asia) and countries cooking more, in particular in the evening. Diving deeper into specific countries, India in particular saw a large increase in cooking alongside other countries where people reported greater economic challenges compared to the previous year.

Analysis of cooking groups also built on previous insights by looking at people across countries rather than just at the national level. These groupings are particularly insightful when it comes to people who prepare and eat home-cooked meals very frequently - many of whom are women in rural areas of low- and lower-middle-income countries - and also people who eat home-cooked meals very frequently but hardly ever cook them - a male-dominated group particularly prevalent in societies with relatively large gaps in terms of gender equality.

More analysis is needed to better understand individuals who fall into the other two groups - people who either don't cook very frequently and sometimes eat home-cooked meals even less frequently and those who report both cooking and eating home-cooked meals extremely rarely. Our analysis suggests that in some countries this may not only be a personal preference due to small living quarters and ample availability of cheap prepared and takeout food, but possibly also a factor of food scarcity at the national level and selfreported challenges in affording food in the past year.

Looking ahead to our next report, 2020 is a year unlike any other. The results of the 2020 wave of the Gallup World Poll will give clear insights into how the COVID-19 pandemic has changed daily life. In light of the results from the 2019 wave of the survey, we anticipate significant changes in home cooking around the world. The economic impacts of the pandemic have already been proven to impact vulnerable populations the hardest. Research from the United Nations University predicts that food insecurity could double worldwide and reverse a decade of progress (Mukherjee \& Bonini, 2020; Sumner et al., 2020). In addition, the World Bank points out that fragile and conflict-affected states, countries affected by multiple crises resulting from more frequent extreme weather events (e.g., floods, droughts), populations that were already chronically food insecure before the pandemic, and countries with significant currency depreciation and collapse of other commodity prices will be most affected (World Bank, 2020f). This means that many of the countries already highlighted in the first two Gallup and Cookpad reports as having significant cooking increases or decreases will no doubt also be among the most affected by food scarcity during the pandemic.

## Methodology

The typical Gallup World Poll includes at least 1,000 surveys of individuals in each country. In some countries, Gallup collects oversamples in major cities or areas of special interest. Additionally, in some large countries, such as China and Russia, sample sizes include at least 2,000 adults. Although rare, in some instances, the sample size falls between 500 and 1,000.

Samples are probability-based and nationally representative of the resident adult population. In all countries, the coverage area is the entire country including rural areas, and the sampling frame represents the entire civilian, noninstitutionalized, aged 15 and older population. Exceptions include areas where the safety of interviewing staff is threatened or areas that are difficult to access.

## Questionnaire Design

The Cookpad survey module was first conducted in 2018 (Year 1). In Year 2 (i.e., 2019), Gallup and Cookpad evaluated the efficacy and length of the questions based on feedback from the field and the results of Year 1 , and this led to some changes in the order of the questions and the number of response options. This was prompted by feedback from some respondents who indicated that the questions appeared repetitive and the information could be obtained faster and more easily.

In Year 1, respondents were first asked about the number of home-cooked meals they ate (Q1 and Q4), then asked whether they had cooked a meal that they ate (yes or no response in Q2 and Q5) and finally asked how many times they had cooked a meal during the week (Q3 and Q6). While this appeared to be a logical progression, there was some confusion and respondents sometimes answered differently based on how the question about cooking was asked. When respondents were asked the question about how many times they had cooked rather than simply the yes or no question (Q3 and Q6 vs. Q2 and Q5), this improved recall and led to respondents providing a more precise answer. For this reason, Gallup and Cookpad decided to consider the responses people provided in Q3 and Q6 regardless of previous responses to Q2 and Q5 in the Year 1 report.

In Year 2, Gallup and Cookpad decided to change the question order to ask about the number of days a respondent cooked either lunch or dinner first, thus establishing the respondent's mindset to continue to ask about other information in the previous week. Having a respondent think about the meals they cooked in the past week first assisted recall when they were then asked about how many meals they ate that were cooked at home. They simply took the number of meals they cooked and added to it any meals someone else cooked that they ate.

In addition, Gallup and Cookpad decided to ask about the types of people who cooked meals respondents had eaten (Q2 and Q5) last and reduce the number of response options. In the 2019 version of the survey, respondents were only asked about a spouse (if married), another family member or some other person who is not a family member. This helped respondents answer more easily because they weren't asked to repeat that they themselves had cooked the meals and so the response options were easier to understand.

The final questions used in 2019 are shown side by side with the questions from 2018 in the following table.
TABLE 4: CHANGES TO THE SURVEY BETWEEN 2018 AND 2019

## 20182019

Q1. Thinking about the past 7 days, on how many days did YOU, personally, EAT LUNCH that was cooked AT YOUR HOME, either by you or someone else?

Q1. Thinking about the past 7 days, on how many days did YOU, personally, COOK LUNCH AT YOUR HOME?

## Q2. Please tell me whether any of the following

 people COOKED any of those LUNCHES AT YOUR HOME in the past 7 days?- Yourself
- (if married:) Your spouse/partner
- Your child
- Your parent
- Some other family member
- Some other person who is not related to you who cooks at your home

Q2. Thinking about the past 7 days, on how many days did YOU, personally, EAT LUNCH that was cooked AT YOUR HOME, either by you or someone else?

## Q3. Thinking about the past 7 days, on how many

 days did YOU, personally, COOK LUNCH AT YOUR HOME?Q3. Please tell me whether any of the following people COOKED any of those LUNCHES AT YOUR HOME in the past 7 days?

- (if married:) Your spouse/partner
- A family member/(if married:) Some other family member
- Some other person who is not a family member

Q4. Thinking about the past 7 days, on how many days did YOU, personally, EAT DINNER that was cooked AT YOUR HOME, either by you or someone else?

Q4. Thinking about the past 7 days, on how many days did YOU, personally, COOK DINNER AT YOUR HOME?

## Q5. Please tell me whether any of the following people COOKED those DINNERS AT YOUR HOME in the past 7 days?

- Yourself
- (if married:) Your spouse/partner
- Your child
- Your parent
- Some other family member
- Some other person who is not related to you who cooks at your home

Q5. Thinking about the past 7 days, on how many days did YOU, personally, EAT DINNER that was cooked AT YOUR HOME, either by you or someone else?

Q6. Thinking about the past 7 days, on how many days did YOU, personally, COOK DINNER AT YOUR HOME?

Q6. Please tell me whether any of the following people COOKED those DINNERS AT YOUR HOME in the past 7 days?

- (if married:) Your spouse/partner
- A family member/(if married:) Some other family member
- Some other person who is not a family member


## Sampling

Gallup used a combination of face-to-face and computer-assisted telephone interviewing (CATI) and created random sampling plans for each approach.

## Face-to-Face Sampling

In countries where face-to-face surveys were conducted, sampling units were stratified by population size and/or geography and clustering was achieved through one or more stages of sampling. Where population information was available, sample selection was based on probabilities proportional to population size; otherwise, simple random sampling was used. Samples were drawn independently of any samples drawn for surveys conducted in previous years. The goal was to identify 100 to 125 ultimate clusters (sampling units), consisting of clusters of households.

Random-route procedures were used to select sampled households. In each ultimate cluster, the supervisor or field manager preselected a starting point/address for the interviewer. Once the interviewer reached the starting point, he or she followed strict rules to determine the households to visit to attempt an interview. The interviewer's next step was to randomly select the respondent within the household. The interviewer listed all household members aged 15 and older who lived in the household. The CAPI (computer-assisted personal interviewing) system then randomly selected the household member to be interviewed. If the country survey was collected using paper-and-pencil (PAPI), then selection of the household member to interview was performed using the KISH grid. If the selected respondent was temporarily unavailable, the interviewer revisited the household at another time. If the selected respondent refused to take part in an interview or
was unavailable for the remainder of the field period, the household was replaced with another household (following the random-route procedure).

## CATI Sampling

In countries where interviews were conducted by telephone, a dual sampling frame was used (landline and mobile telephone), except for Finland and Libya which were mobile-telephone-only.

For respondents contacted by landline telephone, the respondent was randomly selected within the household (among eligible respondents aged 15 and older). In all Western Europe, Northern America and developed Asia, random selection of the respondent was performed by asking for the person aged 15 and older who had the next birthday. For Gulf Cooperation Council countries in the Middle East, the respondent was selected by first listing all household members aged 15 and older, and the CATI program randomly selected the household member to be interviewed.

Interviewers made at least five attempts to reach a potential respondent spread over different days and times of the day.

## Fieldwork

Gallup used two modes for data collection: face-to-face and telephone. Face-to-face interviews were between 30 minutes and one hour, while telephone interviews were between 15 and 30 minutes. All fieldwork took place between April 1, 2019, and Feb. 17, 2020.

In Central and Eastern Europe, much of Latin America, the Commonwealth of Independent States and the Baltics, nearly all of Asia, and the Middle East and Africa, an area frame design was used for face-toface interviewing. Using CAPI handheld devices, 103 country surveys were collected in person, three were conducted using PAPI (Afghanistan, Azerbaijan, Israel), and four were conducted using both CAPI and PAPI (portions of Iraq, Lithuania, the Palestinian Territories and Yemen).

Gallup used telephone surveys in countries where telephone coverage represents at least $80 \%$ of the population or is the customary survey methodology. Thirty-four country surveys were conducted over the telephone using CATI, primarily in Western Europe, Northern America, developed Asia and GCC countries. Most countries included both landline and mobile telephone numbers. Two countries were mobile phone-only: Finland and Libya.

## Data Weighting

Data weighting was used to ensure results were nationally representative for each country and was intended to be used for calculations within a country.

First, Gallup constructed base-sampling weights to account for household size. Weighting by household size (number of residents aged 18 and older) was used to adjust for the probability of selection, as residents in large households have a disproportionately lower probability of being selected for the sample.

Second, to ensure the sample was projectable to the target population, poststratification weights were constructed to correct for nonresponse. Population statistics were used to weight the data by gender, age and, where reliable data were available, education or socioeconomic status.

All results presented by country were weighted to enhance the representativeness of the data. Results that were aggregated across more than one country (for instance by region or country-income level) were weighted by the 15 or older population size of the countries included in the analysis. This gives larger countries more weight than smaller countries.

Projection weighting accounts for the differences in population sizes across countries so that respondents from bigger countries have more weight as they represent more people.

Simplifying the idea, the projection weighting is multiplying the within-country-level weights by a factor that will raise the sum of the weights to the population of a country.

## Margin of Error

Gallup calculated approximate study design effect and margin of error. The design effect calculation reflected the influence of data weighting and did not incorporate intra-class correlation coefficients. The maximum margin of error was calculated based on reported proportions for each country-level data set, assuming a $95 \%$ confidence level. Because these surveys were a clustered sample design, the margin of error varied by the question, and if the data user is making decisions based on the margin of error, he or she should consider inflating the margin of error.

Other errors that can affect survey validity include measurement error associated with the questionnaire, such as translation issues, and coverage error, where a part of the target population has a zero probability of being selected for the survey.

## TABLE 5: REGIONAL BREAKS BY COUNTRY

| Europe | Commonwealth of Independent States and the Baltics | Asia | Middle East and North Africa | Sub-Saharan Africa | Latin America | Northern <br> America |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Albania <br> Austria <br> Belgium <br> Bosnia and <br> Herzegovina <br> Bulgaria <br> Croatia <br> Cyprus <br> Czech Republic <br> Denmark <br> Finland <br> France <br> Germany <br> Greece <br> Hungary | Armenia <br> Azerbaijan <br> Belarus <br> Estonia <br> Georgia <br> Kazakhstan <br> Kyrgyzstan <br> Latvia <br> Lithuania <br> Moldova <br> Russia <br> Tajikistan <br> Turkmenistan <br> Ukraine | Afghanistan <br> Australia <br> Bangladesh <br> Cambodia <br> China <br> Hong Kong <br> India <br> Indonesia <br> Japan <br> Laos <br> Malaysia <br> Mongolia <br> Myanmar <br> Nepal | Algeria <br> Bahrain <br> Egypt <br> Iran <br> Iraq <br> Israel <br> Jordan <br> Kuwait <br> Lebanon <br> Libya <br> Morocco <br> Palestinian <br> Territories <br> Saudi Arabia <br> Tunisia | Benin <br> Botswana <br> Burkina Faso <br> Burundi <br> Cameroon <br> Chad <br> Comoros <br> Ethiopia <br> Gabon <br> Ghana <br> Guinea <br> Ivory Coast <br> Kenya <br> Lesotho | Argentina <br> Bolivia <br> Brazil <br> Chile <br> Colombia <br> Costa Rica <br> Dominican <br> Republic <br> Ecuador <br> El Salvador <br> Guatemala <br> Haiti <br> Honduras <br> Jamaica <br> Mexico | Canada United States |


| Europe | Commonwealth of Independent States and the Baltics | Asia | Middle East and North Africa | Sub-Saharan Africa | Latin <br> America | Northern <br> America |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ireland <br> Italy <br> Kosovo <br> Luxembourg <br> North <br> Macedonia <br> Malta <br> Montenegro <br> Netherlands <br> Norway <br> Poland <br> Portugal <br> Romania <br> Serbia <br> Slovakia <br> Slovenia <br> Spain <br> Sweden <br> Switzerland <br> United Kingdom | Uzbekistan | New Zealand <br> Pakistan <br> Philippines <br> Singapore <br> South Korea <br> Sri Lanka <br> Taiwan <br> Thailand <br> Vietnam | Turkey <br> United Arab <br> Emirates <br> Yemen | Liberia <br> Madagascar <br> Malawi <br> Mali <br> Mauritania <br> Mauritius <br> Mozambique <br> Namibia <br> Niger <br> Nigeria <br> Republic of the <br> Congo <br> Rwanda <br> Senegal <br> Sierra Leone <br> South Africa <br> Swaziland <br> Tanzania <br> The Gambia <br> Togo <br> Uganda <br> Zambia <br> Zimbabwe | Nicaragua <br> Panama <br> Paraguay <br> Peru <br> Uruguay <br> Venezuela |  |

## Annex

TABLE 6: COUNTRIES SURVEYED ONLY ONCE BETWEEN 2018 AND 2019

| Country | Year of module | Reason for exclusion |
| :--- | :--- | :--- |
| Burundi | 2018 only | Did not receive government approval |
| Comoros | 2018 only | Not part of the core country list |
| Czech Republic | 2018 only | No suitable local partner to execute |
| Haiti | 2018 only | Civil unrest |
| Bahrain | 2019 only | No suitable local partner in 2018 |
| Jamaica | 2019 only | Not part of the core country list |
| Hong Kong | 2019 only | No suitable local partner in 2018 |
| Lesotho | 2019 only | Not part of the core country list |

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[^0]:    1 Regional and global results are calculated using projection weights, which take into account the population size of each country and give larger countries greater representation in the overall figure. In particular, the region of Asia includes two of the largest countries included in the study, China and India, which together represent nearly $40 \%$ of people aged 15 or older.

[^1]:    2 For instance, the average number of meals cooked in the United Arab Emirates rose by 6.8\% in 2019, from 4.4 to 4.7. However, this increase is not statistically significant.

[^2]:    3 Field dates were November 2019 to January 2020.
    4 The 2018 survey was conducted from May to June 2018, whereas the 2019 wave was completed over a longer time frame - due to challenges during fieldwork - from May to September 2019.

[^3]:    5 Pearson's correlation coefficient of 0.003 for 146 countries.

[^4]:    6 Gender equality assesses the extent to which the country has installed institutions and programs to enforce laws and policies that promote equal access for men and women in education, health, the economy and protection under law.
    7 Azerbaijan received a score of 4.0, though this score dates back to 2010.

[^5]:    8 This larger gap is largely due to India - the biggest lower-middle-income country where the difference is 4.1.

[^6]:    9 In other words, the median percentage of people who fall into the Neither-Cooks-nor-Home-Diners group among Middle East and North African

[^7]:    10 Pearson's correlation of -0.53 for 146 countries (significant at the .01 level).

