

COVID-19 pandemic and its impact on the
statistical operations of Consumer Price Index.
2nd meeting Caribbean region

Statistics Division

Economic Commission for Latin America and the Caribbean

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Introduction

This is the second virtual meeting organized with the Caribbean region to address the impact of the outbreak of COVID-19 pandemic in the price statistics.

The sanitary measures taken by the Government in each country have impacted importantly the regular data collection and the compilation of the CPI.

Currently, the national statistical offices around the world are facing the challenge to deal with the data gaps, the imputation techniques, and the mechanisms to explain to the users the impact of the health emergency in the production of the CPI.

ECLAC has organized a series of videoconferences and regular consultations to assess the impact of the virus COVID-19 pandemic on the statistical operation in the Latin American and Caribbean region.



Objective and outcomes

Objective:

- Identify the status of the compilation of the consumer price index in the region, the main problems and challenges faced.
- Exchange experiences and share some of the recommendations raised during former meetings with the Latin American region.



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Objective and outcomes

Outcomes:

A summary of the problems faced and solutions proposed to be included in the document *"Producing the consumer price index (CPI) and the COVID-19 pandemic in Latin America and the Caribbean"*. This document has been placed at the website of the Knowledge Transmission Network (KTN) of the Statistical Conference of the Americas:

<https://rtc-cea.cepal.org/sites/default/files/document/files/Producing-CPI-covid.pdf>



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Structure of the meeting

- I. CPI price survey and data processing.
- II. Challenges observed in the implementation of alternative collection modalities.
- III. Imputation methods according to international CPI methodological criteria and calculation process.
- IV. Recommendations.



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I. CPI price survey and data processing in April-May 2020

Main aspects of CPI price data collection as of April 2020

Percentage of prices collected	Effects of the health emergency	Categories affected by the health emergency
Between 60% and 80% in the Latin American region.	Restrictions on the movements of price collectors	All those sectors where prices are collected face-to-face
	Establishments closed	Recreation services: cinemas, theatres, sporting events, among others
	Products temporarily unavailable	Food away from home services, hotel services



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I. CPI price survey and data processing in April-May 2020

The representativeness of the CPI

It is of high importance to ensure that CPI calculations are of sufficient quality for it to be considered an adequate statistical instrument for monitoring inflation and household consumer prices.

Given that a certain percentage of prices are usually missing, owing to non-observation, it is suggested that, in the current situation, at least 50% of the information should be observed in the month in order to calculate and publish the CPI.



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II. Challenges observed in the implementation of alternative collection modalities

The restrictions implemented by the Governments imposed challenges, especially for those statistical operations that involve ongoing and face-to-face research. New price collection modalities had to be implemented, based on information and communications technologies (ICTs).

The statistical institutions decided to carry out their collection operations by:

- ❖ Telephone or email,
- ❖ Via the Internet (some data sources have websites or social media accounts, which facilitates direct research)
- ❖ E-commerce websites, as well as updated catalogues (printed or digital),
- ❖ And price and product information provided by institution officials as a result of personal purchases.



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II. Challenges observed in the implementation of alternative collection modalities

The impact of the new modalities in the coverage of the price survey is for between 10% and 30% of the prices to be collected, in March. These new modalities applied in specific to cover the data gaps in the collection because of the health emergency.

As a result of the use of these alternatives, the statistical institutes collected sufficient data to calculate the CPI for March (observations that covered over 50% of total data to be collected).

Finally, the information that was not collected should have been imputed according to the methods defined in the respective calculation algorithms of each institution as set out in their methodologies.



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III. Imputation methods according to international CPI methodological criteria and calculation process

Imputation procedures seek to assign a price variation to a missing price observation.

The imputation rules are applied in ascending order from the elementary aggregate (variety-outlet) to the higher levels of aggregation (product). The traditional imputation mechanisms are the following:

- (a) Price observation missing for a specific variety from a specific outlet: the geometric mean for the same specific variety from other outlets is imputed.
- (b) Price observations missing for a specific variety from all reporting outlets: the geometric mean for all varieties of the same product for which price information is available is imputed for that variety and for all outlets.
- (c) Price observations missing for all varieties of the product from all outlets: the geometric mean for all products on the next aggregation level up is imputed.



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IV. Recommendations

Under the current scenario of a health emergency, the main objectives are:

- Maintain adequate coverage and ensure the quality of the information collected, as well as the quality of the CPI.
- The statistical institutions compiling the CPI should continue to work on adapting their data (price) collection processes.
- Build capacities in their teams quickly, to implement remote collection modalities using digital technologies instead of traditional methods based on face-to-face interviews.
- Regarding the continuity of the survey processes, one key factor in selecting new modalities is the time it will take to implement them, in case of the need to train staff in using new methodologies, technologies and skills to obtain the widest and best coverage possible.



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IV. Recommendations

- The additional information collected will have to be incorporated into the price databases in a differentiated manner, so that it can be excluded, if it is so decided, once the current health emergency has passed and institutions return to face-to-face collection.
- In light of the current situation, institutions may introduce some flexibility into the price collection process and their imputation methods. Ideally, these options should be exhausted, instead of expanding the sample to include new sources. If outlets are closed, they should not be replaced.



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IV. Recommendations

COVID-19 Business Continuity notes

- The international organisms are working jointly on preparing clarification on methodological and conceptual questions that may arise in compiling macroeconomic accounts.
- The list of topics for which business continuity notes will be developed has been circulated for discussion around the different regional agencies.
- Currently, some notes are already available and others are in progress. In the following links you may find this information:

EUROSTAT: <https://ec.europa.eu/eurostat/data/metadata/covid-19-support-for-statisticians>

OECD: <https://community.oecd.org/community/official-stats-workspace-covid19>

UNSD Resource for Official Statisticians: <https://covid-19-response.unstatshub.org/>



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Thank you for your participation!



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