

# Guide on producing CPI under lockdown



UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

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# Preface

The lockdown that followed the outbreak of the Covid-19 pandemic in 2020 posed unprecedented challenges to produce the consumer price index (CPI) in many countries. Regular price collection for the CPI could not take place from sectors of the economy and retail stores that were closed. Price collection from outlets that remained open was in many cases prevented because price collectors were not allowed to travel or entering outlets to collect prices due to safety measures or social distancing. As a result, the lockdown caused drops in the number of collected prices beyond historic norms. To ensure the compilation of a reliable CPI, statistical offices therefore had to explore new data sources and new ways of collecting prices and implement methods to make up for missing price observations and changes in data sources and collection methods. The lockdown also created challenges for the dissemination and communication of the CPI as users requested additional information about the lockdown's impact on the CPI.

Based on countries' experiences with producing the CPI during the pandemic, this Guide provides recommendations and emerging best practices for CPI data collection, calculation methods and communication under lockdown conditions. Countries may refer to the Guide in future periods of lockdown or similar exceptional circumstances as they find it useful.



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# Chapter 1 Introduction

## 1.1 Background

1.1 The outbreak of the Covid-19 pandemic in early 2020 and the measures implemented in countries to reduce its spread raised unprecedented challenges for national statistical offices around the world. In many countries different sectors of the economy were closed and there were restrictions on the movement of people and social distancing. Staff in statistical offices were not able or allowed to work or were asked to work remotely. This made it difficult to maintain data collection and the regular compilation and publication of official statistics. In many cases the usual statistical operations could not be carried out and the lack of data raised methodological and conceptual questions in the calculation of the statistics.

1.2 In most countries the consumer price index (CPI) is compiled and published monthly adhering to a tight production schedule to allow time for collection and validation of data and index compilation and ensuring publication on a pre-announced release date. The production of the CPI was therefore immediately and directly impacted by the pandemic and the resulting lockdowns, which created an abrupt surge in missing and potentially unusable input data for CPI compilation.

1.3 The regular price collection for the CPI was hampered because of temporary closure of outlets and difficulties with collecting prices from outlets that remained open. Some businesses and retail establishments were closed by government order, others were temporarily forced to close due to lack of supply or lack of demand, or because outlet employees were prevented from working. When outlets remained open, price collectors in many instances were not allowed to travel or not allowed to enter the outlets to collect prices for health and safety reasons, while statistical offices had to ensure that collection activities did not contravene emergency rules or place staff at risk. Outlets that report prices on questionnaires in some cases were not able to submit prices for the full set of sampled products because of disrupted supply chains preventing inventory from getting to retail locations or were delayed in reporting the prices.

1.4 The lockdown led to significant drops in the number of collected prices and demonstrated the vulnerability of depending on a single data source or a single data collection mode. To collect as many prices as possible statistical offices had to consider alternative data sources and different modes of price collection and how to integrate price data from different sources in the CPI compilation. The lockdown

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