

Impact of the COVID-19 Pandemic on the Consumer Price Index

May 2020

Impact on May 2020 CPI compilation

The lockdown in Male' and preventive measures in atolls taken due to Covid-19, has affected the routine price collection and compilation of Consumer Price Index. Regular price collections are primarily done by visiting the sampled shops, service providers, and outlets by NBS staff. However, the measures implemented by the Health Protection Agency (HPA) in response to Covid-19 has temporarily prevented field operators from visiting stores and required NBS staff to work remotely from home. Furthermore, due to the lockdown many outlets have been temporarily closed. As a result, there are more than normal numbers of missing prices because these restrictions on movement have impacted the routine collection of prices.

This statement summarizes the treatment of the challenges faced and methodology used in the imputation of missing prices while compiling CPI for the month of May 2020. Guidance from the International Monetary Fund (IMF) was provided as to how to address compilation issues in this pandemic. Thus, international guidelines were followed in the collection and imputation of missing prices, as well as the dissemination of the CPI.

Data Collection Issues

During the whole month of May 2020 Male' was under strict lockdown. However, price collection in the Atolls were largely unaffected as less restrictive measures were implemented. Nevertheless, even in Male' people are adopting new methods in selling goods and are adjusting to the new normal situation. For example, outlets have made more prices available online as compared to previous periods. This resulted in higher than expected response rates, fewer imputations, and a more reliable index overall given the lockdown and restrictions on movement.

While most of the major food shops were available for price collection, outlets selling non-essential items, such as salon services and airline tickets, were not available for price collection. Additionally, major markets that sold vegetables, fruits, and fish were closed and prices were not available. Since, consumers were forced to substitute these markets with major shops, the average relative change for food provides a reliable estimate of the change in prices paid. Yet, changes had to be made in the way prices were collected.

Prior to Covid-19 most of the food prices were collected mainly by personal visits. Even though, these food shops were not closed they implemented restrictions on the number of people that can be in a shop at any one time. Therefore, it was not possible to stay in shops for a long time for price collections especially in large food shops. Prices were collected using any means possible, including collection via email, websites, telephone, and by drop and pick form method. Although the lockdown in Male' is stated to ease and non-essential outlets are re-opening in July, in person visits were not regarded as safe in the month of May (*for further reference a timeline of covid-19 is attached with this statement*). However, the Atolls prices were collected by personal visits and also via email.

When the price collection of April was compared with May, it showed an improvement in data availability. In Male' in the month of April total 2,432 prices were collected while in May 2,877 prices were collected. Subsequently, more prices were missing in April (1,385) compared to May (940) in Male'. In April from the total 226 sampled outlets in Male', 87 outlets were temporarily closed, while in May only 73 were temporarily closed. In the Atolls, in the month of May only 4,705 prices were collected (Gdh. Thinadhoo 757, kulhudhufushi 1,387, Hithadhoo 1,429, Fuahmulah 1,132) compared to 4,764 prices in the month of April (Gdh. Thinadhoo 696, Hdh.kulhudhufushi 1,453, S.Hithadhoo 1,483, Gn.Fuahmulah 1,132). From the total sampled outlets in the Atolls only 7 outlets were temporarily closed and this remained the same even in the month of May. When prices were seen missing, standard imputation practices prescribed in the CPI Manual was adopted.

Imputations of missing prices

When a price is unavailable, either because an item was unavailable or because that outlet had closed temporarily, those prices were considered to be “temporarily unavailable”. Since, this is a temporary situation these outlets and varieties were not replaced. These temporarily unavailable prices were imputed using standard techniques by the NBS. When an item is missing rather than carrying forward the last price, imputation ensures that no bias is introduced in the index and that the index returns to the correct level when prices are available.

If a price of an item is unavailable other available prices of that item was used. For example, price of bread from a particular shop may not be available but it may be available from other shops in the sample. In this case other, available prices of bread was used to impute that particular missing price. When a whole item in the basket is unavailable for pricing the next level up of the basic heading was used.

In Male’, 22 items in the CPI basket happened to have indexes missing as it was not available to price. This is the first time such a situation had arisen where there are missing indexes as a result of no prices being available to collect. All these items were imputed using the next level up in aggregation as the basis for the imputation with the exception of “young coconut” where index of “coconut” was used as a basis to impute. The detail of these missing items is shown in the table below. In the Atolls, missing prices were imputed using the Atoll movement. For the Atolls, this reflects the normal procedure followed even before covid-19.

The detail of the 22 missing indexes in Male’

1	Food and non-alcoholic beverages incl fish
	Young Coconut, Kurumba
2	Tobacco and Aracanuts
	Tobacco Leaves
3	Clothing & footwear
	Sports uniform
4	Housing, water, electricity, gas & other fuels
	Sand
	Labor cost for repair

5	Furnishing, household equip., Carpets & Other Floor covering
	Curtain
	Blinds
	consumer goods repair
6	Health
7	Transport
	Travel Abroad
8	Information & Communication
9	Recreation, Sports & culture
	Cinema Ticket
10	Education Services
	Pre-school tuition fees
	Primary school tuition fees (1-7)
	Secondary school tuition fees (8-10)
	Other course fees (cake course fee)
	Other course fees (english course fee)
11	Restaurants and Accommodation services
12	Insurance and Financial Services
13	Personal Care, Social Protection and Miscellaneous goods and services
	Hair cut in salon
	Barber services
	Eyebrow threading
	Facial cleaning
	Hair coloring
	Ladies Makeup
	Manicure

Timeline of Covid-19 in the Maldives

- 7th March 2020 First confirmed case of covid-19
- 7th March 2020 Monitoring mechanisms initiated in 3 islands (resorts)
- 10th March 2020 First transfer of a suspect to quarantine facility
- 11th March 2020 First transfer of contacts to isolation facility
- 12th March 2020 Declaration of State of Public Health Emergency
- 14th March 2020 Temporary suspension of activities in all academic institutions
Temporary suspension of tourist check-ins to Guest houses, and city hotels in Greater Male' Area (Male', Hulhumale', Villimale')
Temporary ban on travel from resorts to inhabited islands

- 16th March 2020 Banning use of all public grounds and parks in Greater Male' region
- 19th March 2020 Government offices closed (excl. utilities, disaster related offices)
- 15th April 2020 First local cluster in Male'
- 27th March 2020 First Maldivian tested positive
- 15th April 2020 First positive Maldivian case in Male'
First confirmed case of local transmission in Male'
Public Health Risk alert level IV(Red) declared in Male'
Full Lockdown in Male' begins
- 19th April 2020 First confirmed case in an atoll (Ha. Uligam)
- 7th May 2020 First person passed away (source:
covid19.health.gov.mv/dashboard/)
- 28th May 2020 **Relaxation of lockdown-Phase 1** (allow 3 persons from a household to go out twice a week for 2 hours; allow 60-year-old plus to go out for exercising during a specific time, with a permit from authorities)
- 15th June 2020 **Relaxation-Phase 2** (allow people to go out from 5 a.m. to 10 p.m. without any permit)
- 1st July 2020 **Ease of lockdown-Phase 3** (schools, offices, businesses, cafés open); allowed to go out from 9:00 to 22:00; businesses open till 22:00; schools open for Grades 1-12; team sports resume; all are advised to follow safety measures
- 15th July 2020 **Ease of lockdown-Phase 3:** resorts, international airports to re-open

Current Situation* (as at 1st July 2020)

- Total Cases 2361
- Active Cases 403 (15 hospitalized)
- Recoveries 1944
- Deaths 9
- Alert level Yellow (in Greater Male')

Source: Ministry of health covid19 dashboards; HPA community group.