

Main report

# Addressing the COVID-19 pandemic

Lessons and good practices from Indian states: Round 4

July, 2020



# This report is divided into the following five parts:



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5

Use of emerging technologies in COVID-19 management





## Background and approach

# Background and context of the study



## Context and key objectives

- MSC is conducting a comprehensive assessment to understand the preparedness and responsiveness of Indian states to the COVID-19 pandemic.
- The study assesses the response of states and the on-ground impact of social assistance programs and other measures taken to address the COVID-19 crisis.
- The study highlights good practices adopted by the states to create a cross-learning platform. This will enable the states to learn from each other.



## Approach

MSC adopted the multi-phase approach discussed below to attain the key objectives of the study:

- **Phase 1 (April, 2020-June, 2020):** In this phase, MSC produced **three reports** on the assessment of states using the COVID-19 Readiness and Response Index. The assessment was based on the announcements of the central and state governments to manage the COVID crisis.
- **Phase 2 (May, 2020-July, 2020):** This phase includes a validation of the response of the states to the pandemic. This is done by gathering on-ground evidence through telephonic surveys on the impact of different social assistance programs and other measures of the central and state governments. It also incorporates other elements such as economic recovery once the lockdown is lifted. **This is the fourth report and includes 17 States and 1 Union Territory.**
- **Phase 3 (August, 2020-March, 2021):** This phase would include mixed-method research to gather on-ground evidence of the impact of different social assistance programs of the central and state governments.

## Key components

Continuous evolution of the COVID-19 Readiness and Response Index and state assessments

A dashboard to track the performance of states and visualize key indicators

A cross-learning platform to share good practices among states to address the COVID-19 pandemic

Integration of on-ground evidence with state performance, dashboard, and the cross-learning platform

We are at this stage



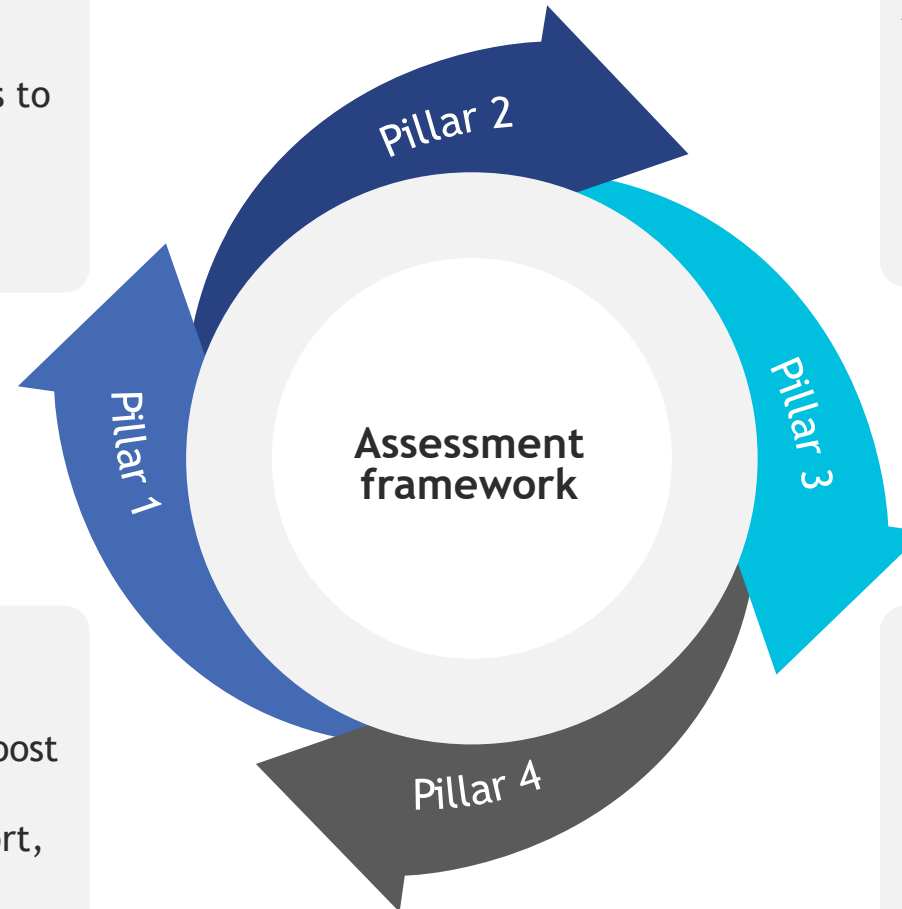
# A comprehensive assessment has been conducted to understand the preparedness and responsiveness of Indian states to address the COVID-19 pandemic based on four key pillars

## Robustness of the essentials chain

Assesses factors such as ease of access to essential services (utilities, financial services) and essential items (grocery, fruits & vegetables, and dairy)

## Assistance to the poor and vulnerable

Assesses the in-kind and cash support provided to the poor, women, vulnerable and disadvantaged groups, and migrant workers



## Health readiness

Assesses the availability of healthcare infrastructure, testing coverage, COVID-19 management, and government initiatives to curb the transmission of COVID-19

## Economic recovery

Assesses initiatives by the states to boost their local economies, such as fiscal stimulus, reforms, employment support, and targeted outreach

Note : Please refer to the appendix for details on the sub-pillars within each pillar

Key observations and  
recommendations based on the  
COVID-19 Readiness and Response  
framework



# Key observations

Most states continue their efforts to balance economic recovery with health readiness and provide support to the vulnerable. However, the states are yet to initiate power sector and ULB reforms to avail enhanced borrowing limits

01

A majority of the states took concrete steps towards economic recovery. They provided or facilitated subsidized loans to MSMEs, implemented reforms towards “ease of doing business”, allowed farmers to sell crops to private players, and provided employment to migrant workers through MGNREGA.

02

Though the states continue to provide cash-transfers to the needy, these transfers have become more targeted at specific occupational groups affected by the lockdown. Cash assistance has been extended to auto-rickshaw and taxi drivers, barbers, washermen, cinema workers, street vendors, construction workers, etc.

03

More than a month after the announcement of the Pradhan Mantri Garib Kalyan Yojana (PMGKY), only 41% of the beneficiaries were aware of the benefits under this package. Among PDS beneficiaries, 68% of households claimed to have received free ration under PMGKY during the lockdown.

04

Many states have started or are already conducting door-to-door screening to identify at-risk patients and check for community transmission. States have also taken proactive initiatives to promote the use of Ayurvedic and home-based remedies to boost the immunity of front-line workers and the general population.

# Key recommendations

The central and state governments can jointly implement the suggestions provided below.

1

## Transition to a smart DBT architecture

Awareness and communication appear to one of the biggest challenges in DBT. The priority should be an integrated smart DBT architecture to create transparency across the fund flow process that includes ministries, PFMS, banks, and end-point channels. This should be coupled with a grievance resolution mechanism that allows beneficiaries to check their status for free through multiple channels including the web, mobiles, a helpline, \* 99#, or USSD.

2

## Integrate the state's apps with Aarogya Setu

Mobile apps of different states could be hosted within the Aarogya Setu app. The latest trends in mobile app deployment such as micro-services and decentralized bundling can be harnessed to address the impending issues such as duplicity of efforts, data privacy, and confusion among users.

3

## Offer refurbished plants to foreign firms

Recognizing the difficulty of foreign manufacturing firms to shift to India, the states could offer immediate access to land and refurbished plants. Customized incentives can also be offered to facilitate a smooth transition. This is currently being planned in Uttar Pradesh.

4

## Outreach and training of village officials

Continuous engagement and training of *gram panchayats* and community leaders could be effective to safeguard rural India. The training can include ways and approaches to curb the spread of COVID-19 and the generation of awareness of various government programs and their benefits. The National Institute of Rural Development could be engaged for this task.

5

## Recognize the role of ASHA and ANM workers


Given their crucial role in health systems and reduced income during this period, a cash transfer program, similar to the one implemented in Karnataka, could be rolled out for ASHAs and ANMs. This could also boost their morale and public recognition and ensure the cadre built over the past so many years does not disintegrate.

6

## Pay special attention to *divyang* or the disabled

A dedicated helpline and initiative to manufacture and distribute transparent masks, like in Tamil Nadu, could be launched at the national level. The local authorities could also be sensitized to help disabled people access essential items and services.



A central graphic shows a clenched fist holding the Indian national flag (Tiranga). The fist is rendered in a realistic, muscular style. The background is white with several red, spherical COVID-19 virus particles scattered around. The entire scene is set against a dark blue background with a diagonal split and a light blue wave-like shape at the bottom right.

# Lessons and good practices from Indian states based on the COVID-19 Readiness and Response framework

# Robustness of the essentials chain: Key lessons and good practices from states

## Combining safety and accessibility



### Gujarat, Kerala

The use of digital payments is mandatory for all home deliveries in Ahmedabad. The Ahmedabad Municipal Corporation sensitized the shop owners who sell essential items to use digital payment platforms such as Unified Payments Interface (UPI).

The Kerala State Electricity Board (KSEB) has created a consumer-number-based timetable to avoid overcrowding while making payments at the KSEB counters.

## Tariff rebates for weaker sections



### Punjab, Gujarat

The Punjab State Electricity Regulatory Commission has reduced the tariff for domestic consumers with loads of up to 50 KW. The tariff is slashed by 50 paise/unit for the consumption of up to 100 units and by 25 paise/unit for consumption between 101 to 300 units. The tariff rebate will be applicable from 1<sup>st</sup> June, 2020 to 31<sup>st</sup> March, 2021.

As part of the Gujarat Atmanirbhar package, the state government has announced rebate on the first 100 units for domestic electricity consumers who use less than 200 units per month.

## Innovative home delivery models



### Odisha, Andhra Pradesh, Bihar

The women self-help groups (SHGs) under “Mission Shakti” in Odisha operated dry ration and vegetable shops and mobile vans to provide essential items to lakhs of households affected by the lockdown.

The Government of Andhra Pradesh has partnered with e-commerce players Zomato and Swiggy for home delivery of fruits and vegetables from the Rythu Bazaars. This initiative also helps farmers sell their produce in a timely manner.

The Fishery Directorate of the Government of Bihar has launched a mobile app for home delivery of fish within the state.

## Financial services in remote areas



### Uttar Pradesh, Odisha

India Post partnered with local administrations in Uttar Pradesh to organize camps to disburse cash through the Aadhaar-enabled payment system (AePS) in remote areas in 20 districts.

The district administration of Kendrapada (Odisha) facilitated the roll-out of dedicated mobile ATM operated by the HDFC Bank to provide cash withdrawal services in rural parts of the district.

Many states launched similar mobile ATM initiatives in coordination with the local administration.

# Assistance to the poor and vulnerable: Key lessons and good practices from states (1/2)

## Easy access to ration for the excluded



HR, UP, Rajasthan, Kerala

Haryana launched a “distress ration token” facility to provide ration to poor households that do not have ration cards. These tokens can be issued by the local committees during household surveys or through a call on the helpline.

Uttar Pradesh has been proactive in issuing ration cards to migrant workers. Rajasthan is also proactive in providing ration to migrant workers.

Kerala has started a facility of “e-ration cards” that can be issued by Akshaya centers (CSCs).

## Targeted cash transfers



AP, Karnataka, TN, Assam

Andhra Pradesh and Karnataka are providing cash assistance of INR 10,000 and 5,000, respectively, to barbers, washermen, and auto and taxi drivers.

The Government of Tamil Nadu extended relief assistance of INR 1000-2000 to hairdressers, weavers, platform vendors, cine-workers, and ration-card holders during the lockdown.

Assam has made a one-time payment of INR 25,000 to residents who are suffering from critical diseases and are stranded in other states.

## Easy movement of migrant workers



Uttar Pradesh, AP

Uttar Pradesh appointed nodal officers to proactively coordinate with multiple states and register migrants entering and leaving the state at the “Jan Sunvayi” portal for better allocation and distribution of tickets.

Many states, including Haryana and Rajasthan, launched similar portals and helplines to enable the movement of migrant workers.

Andhra Pradesh set-up food counters at every 50 km on highways to provide food and water to migrants.

## Proactive support to women



TN, Telangana, J&K

Tamil Nadu and Telangana allocated dedicated vehicles and ambulances for the transportation of pregnant women. ASHA and ANM workers in Telangana are keeping a track of expectant mothers and their delivery dates.

The UT of Jammu and Kashmir has a 24X7 helpline to provide end-to-end assistance to pregnant women.

Many states have launched a dedicated helplines to curb domestic violence.

## Assistance to the poor and vulnerable: Key lessons and good practices from states (2/2)

### Caring for the elderly & chronic patients



Kerala, Rajasthan, Telangana

Under Kerala's "Prasanthi" program, the elderly who live alone can call and request for essential medicines, food, treatment, and counseling.

Rajasthan has extended the availability of prescription-based medicines to senior citizens and chronic patients until July 31, 2020.

Telangana has added 17 more palliative health and home care vehicles to provide door-step services to immobile patients in 16 more districts.

### Helping hand to disabled & destitute



Tamil Nadu, Uttar Pradesh

The state of Tamil Nadu is distributing transparent face masks for people with hearing impairments. It is planned that nearly 81,000 masks will be distributed to 13,500 people with impaired hearing and speech difficulty as well as their parents, family members, caregivers, etc.

Uttar Pradesh is providing cash assistance of INR 1000 to the destitute and arranging for their treatment.

### Being sensitive to children's needs



Delhi, Tamil Nadu, Odisha

The Department of Women and Child Development, the Government of Delhi provided milk packets, nutritious biscuits, and food supplements to children.

The Government of Tamil Nadu distributed rehabilitation kits and special nutrition kits to children with autism who are attending early intervention services. The kits would help parents manage these children at home.

Odisha's "Bharosa" helpline helps students cope with stress amid COVID-19.

### Recognizing the transgender



J&K, Tamil Nadu, Karnataka

Jammu and Kashmir included transgenders in the Integrated Social Security Scheme. This will help resolve around 2,000 pending pension cases of transgenders within the state.

The Tamil Nadu government is providing essential commodities to transgender citizens who do not possess the family card (needed to get ration).

The Karnataka government, under the Mythri Yojana, provides cash assistance of INR 600 per month to trans women above the age of 25.

# Health readiness: Key lessons and good practices from states (1/2)

## Pool and mobile testing



UP, Punjab, TN, Delhi

Uttar Pradesh was the first state to start pool testing. It has also extended its testing coverage through the installation of TrueNAT\* machines in every district.

Many other states, such as Kerala, Tamil Nadu, Andhra Pradesh, Assam, and Karnataka, among others, have also started pool testing.

Punjab and Tamil Nadu have launched mobile testing labs to collect swab samples from rural and remote areas.

Delhi has deployed mobile testing vans to collect samples in Central Delhi district.

## Expansion of random testing & fever clinics



Kerala, Bihar, MP

The Kerala government has started sentinel surveillance or random testing to detect community transmission. Samples are collected from high-risk groups, such as healthcare professionals and other individuals with high social exposure which include delivery persons and police officers, etc.

Bihar conducted random testing on migrant workers who returned to the state to check the extent of COVID-19 transmission.

Madhya Pradesh runs fever clinics in every district to conduct community screening and identify people with the symptoms of COVID-19. Karnataka and Maharashtra are also running fever clinics.

## Door-to-door screening



Karnataka, Assam, Others

Karnataka conducted a statewide door-to-door survey to check for community transmission. This helped identify households with high-risk individuals, such as the elderly, people with comorbidities, pregnant women, and lactating mothers.

Assam conducted a door-to-door surveillance exercise to check for community transmission and identify cases of fever, influenza, and respiratory infections in the community.

Other states, such as Punjab, Delhi, Rajasthan, and Odisha have also initiated door-to-door screening to check for community transmission.

## Strong focus on contact tracing



Karnataka, Kerala

Karnataka has trained more than 10,000 field staff to conduct comprehensive contact tracing. The state has widened the definition of “contact” to include high-risk and low-risk contacts of patients with COVID-19. Karnataka also has a contact tracing mobile app and web application that supports on-ground contact tracing.

Kerala has adopted a comprehensive contact tracing strategy based on flow charts, in-depth interviews, and effective outreach through the field teams. The state uses both the Aarogya Setu app and its mobile application for contact tracing.

\* TrueNAT systems are originally used for TB testing. After successful validation, ICMR has allowed its usage for screening and confirmation of COVID-19 cases.

# Health readiness: Key lessons and good practices from states (2/2)

## Creativity in public awareness



### Maharashtra, WB, J&K

An innovative community awareness program is underway in **Maharashtra**. Under this program, **pre-recorded announcements are made through auto-rickshaws and tempos. Artists have recorded songs in local languages** to make the announcements more effective.

The local district administrations of **West Bengal** use **folk songs and street plays to increase the awareness of COVID-19**.

**Jammu and Kashmir** launched a **tele session program** called **Sukoon** on YouTube to spread information on COVID-19 and help people handle stress.

## Engaging *panchayats* and local committees



### UP, Telangana, AP, Karnataka

The **Uttar Pradesh** government created **local surveillance committees in all villages and cities for community surveillance and monitoring of home quarantine of migrant workers**. The committee comprises *panchayat* officials, ASHA workers, and ward councilors, among others.

The state governments of **Telangana, Andhra Pradesh, and Karnataka** partnered with the National Institute of Rural Development and UNICEF to **train rural community leaders on controlling the spread of COVID-19 in villages**.

## Boosting the immunity



### Rajasthan, UP, Punjab, TN

**Rajasthan** distributed a **decoction of ashwagandha and giloy to about 20 lakh (2 million) citizens** to boost their immunity.

**Uttar Pradesh** launched a **mobile app** called “**Ayush Kavach**” to spread awareness on enhancing **immunity through homemade products**. The app also facilitates live yoga sessions.

The **Punjab** government distributed **Ayurveda medicines** to boost the **immunity of frontline workers**.

The **Tamil Nadu** government also distributed a **herbal concoction** called “**Kabasura Kudineer**” to **families** located in **containment zones**.

## Other notable interventions



### Multiple states

The **Karnataka** government announced a **cash assistance of INR 3,000** to all ASHA workers.

**Tamil Nadu** created **human milk banks** to help infants separated from their mothers who tested **positive for COVID-19**. This will help improve **nutrition in the first few weeks** of the infants’ birth.

Many states, such as **Kerala, West Bengal, Jammu and Kashmir, Madhya Pradesh, and Bihar** offer **counseling and psychological help** through helplines.

# Economic recovery: Key lessons and good practices from states (1/3)

## Comprehensive packages for MSMEs



### Kerala, Andhra Pradesh

The Government of Kerala launched a special package worth an INR 3,434 crore (INR 34.34 billion) for MSMEs. The package, called “Vyasasaya Bhadratha,” covers interest subvention on term loans and working capital loans, waiver of rental and facility charges, etc.

Andhra Pradesh came up with an INR 1,110 crore (INR 11.10 billion) “ReSTART” policy to provide support to MSMEs. The policy includes the release of pending incentives, waiver of fixed demand charges, and working capital loans.

Many other states offer short-term loans at lower interest rates along with moratoriums on existing loans.

## Attracting foreign investments



### TN, Maharashtra, UP

Tamil Nadu signed MoUs with 17 foreign companies with investments worth INR 15,128 crore (INR 151.28 billion) to manufacture heavy vehicles, electronics, footwear, energy, medical equipment, etc.

Maharashtra signed MoUs with 12 Indian and foreign firms with investments worth INR 16,000 crore (INR 160 billion) in IT and IT-enabled services, automobiles, oil and gas, chemicals, and FMCG sectors.

Uttar Pradesh proactively reached out to foreign companies. It is currently in discussion with a South Korean electronics major to set up a plant worth more than INR 5,000 crore (INR 50 billion) in the state.

## Enacting the Doing Business reforms



### MP, UP, Punjab, Karnataka,

The Madhya Pradesh government decided to issue registrations or licenses under different labor laws in a single day through an online system. A provision to maintain a single register under the labor laws and self-certification for filing returns has been proposed.

Uttar Pradesh set up a nodal agency called “Invest UP” to clear all investment proposals in 15 days.

The Punjab government decided to grant Consent to Establish (CTE) or Consent to Operate (CTO) to green category industries in a single day, based on self-certification.

## Integrated services for the industry



### Haryana, UP, Kerala

The Haryana government launched a Haryana Udhyan Memorandum Portal (HUM) to provide unique identification (UID) to all enterprises and grant all permissions and services in an integrated manner.

The Government of Uttar Pradesh integrated the services of the State Industrial Development Authority with the “Nivesh Mitra” portal. This would enable additional one-stop accessibility of services to all entrepreneurs.

The Department for Promotion of Industry and Internal Trade in Kerala set up a control room to monitor and address issues that the industry faces.

# Economic recovery: Key lessons and good practices from states (2/3)

## Employment for migrant workers



### Uttar Pradesh, Others

Uttar Pradesh is mapping the skills of its almost 32 lakh (~3.2 million) migrant workers. The state has launched a Labour (Employment Exchange and Job) Commission for migrant workers to promote employment at the local level. Uttar Pradesh has also signed MoUs with four industrial bodies to employ around 11 lakh (1.1 million) migrant workers.

Madhya Pradesh, Rajasthan, and Odisha have also launched portals and mobile apps to connect migrant workers to employers.

West Bengal, Telangana, and Assam plan to start skilling programs for migrant workers.

## Promotion of self-employment



### Haryana, Gujarat

The Haryana government will facilitate loans of up to INR 15,000 through small business banks. Around 3 lakh (300,000) poor who want to start their own businesses will benefit from these loans and the state government will an interest rate subsidy of 2% on these loans.

The Gujarat government is offering an interest rate subsidy of 4% for loans up to INR 2.5 lakh (INR 250,000) for business and shop owners.

## Support for urban poor and weavers



### Kerala, Odisha

Odisha launched an INR 100 crore (INR 1 billion) urban wage employment initiative. This would provide livelihood opportunities to the urban poor by engaging them in various urban infrastructure building initiatives.

The Kerala government sanctioned INR 41 crore (INR 410 million) to “Ayyankali Urban Employment Guarantee Scheme (AUEGS)”. The program provides 100 days of employment to an urban household whose adult members volunteer to perform unskilled manual work.

The Odisha government is providing interest-free loans to the Odisha State Handloom Weavers Cooperative Society and others for the procuring goods from weavers.

## Sustaining self-help groups (SHGs)



### AP, West Bengal, TN

The Government of Andhra Pradesh announced interest-free loans worth INR 1,400 crore (INR 14 billion) to the 8.78 lakh (878,000) SHGs that operate in the state.

The West Bengal government has decided to double the coverage of SHGs to nearly 10 lakh (1 million) in FY 21. The loan target to SHG groups has been increased to INR 15,000 Crores (INR 150 billion) in FY 21.

The Government of Tamil Nadu has decided to offer short-term loans with a duration of approximately one year to members of SHG at an interest of 10.4%.



# Economic recovery: Key lessons and good practices from states (3/3)

## Reforms in the agriculture sector



### MP, UP, Gujarat

**Madhya Pradesh** was the first state to **amend the Mandi Act** during the **lockdown**. This allowed **farmers to sell their produce to private traders** from their homes.

As per the amended act, **private godowns and cold storages can operate as sub-markets** and farmers can also directly sell their crops to food processors, exporters, and others to realize the maximum price.

The states of **Uttar Pradesh and Gujarat** have also **introduced the agriculture marketing reforms** mentioned above.

## Income support to farmers



### Haryana, Karnataka, WB

**Haryana** has decided to provide an **incentive of INR 7,000 per acre to farmers** for the cultivation of **non-paddy crops** to address the shortage of labor and the groundwater crisis. The incentive will be provided in two installments.

The **Karnataka** government is providing **cash assistance of INR 5,000 to maize farmers**.

The **West Bengal** government has **increased the coverage of Kisan Credit Card (KCC) to 46 lakh (4.6 million) farmers**. The state has also increased the quantum of loans **for Kharif crops to INR 10,000 crore (INR 100 billion)**.

## Promotion of the allied sectors



### Odisha, J&K,

The government of **Odisha** announced the **setup of 2,000 hectares of new fish ponds, 4,500 broiler farms, and 750 layer farms in the cage system** to support the fisheries and animal husbandry sectors.

The UT of Jammu and Kashmir announced a **subsidy package worth INR 50 crore (INR 500 million) to establish broiler or layer farms and for allied activities** to support the poultry sector.

## Increase in wages under MGNREGA



### Tamil Nadu, Odisha

The Government of **Tamil Nadu** increased the wages provided under **MGNREGA to INR 256 per day**.

The **district administration of Keonjhar district in Odisha** increased the wages under **MGNREGA to INR 298 per day**. The additional burden will be met through the District Mineral Fund.

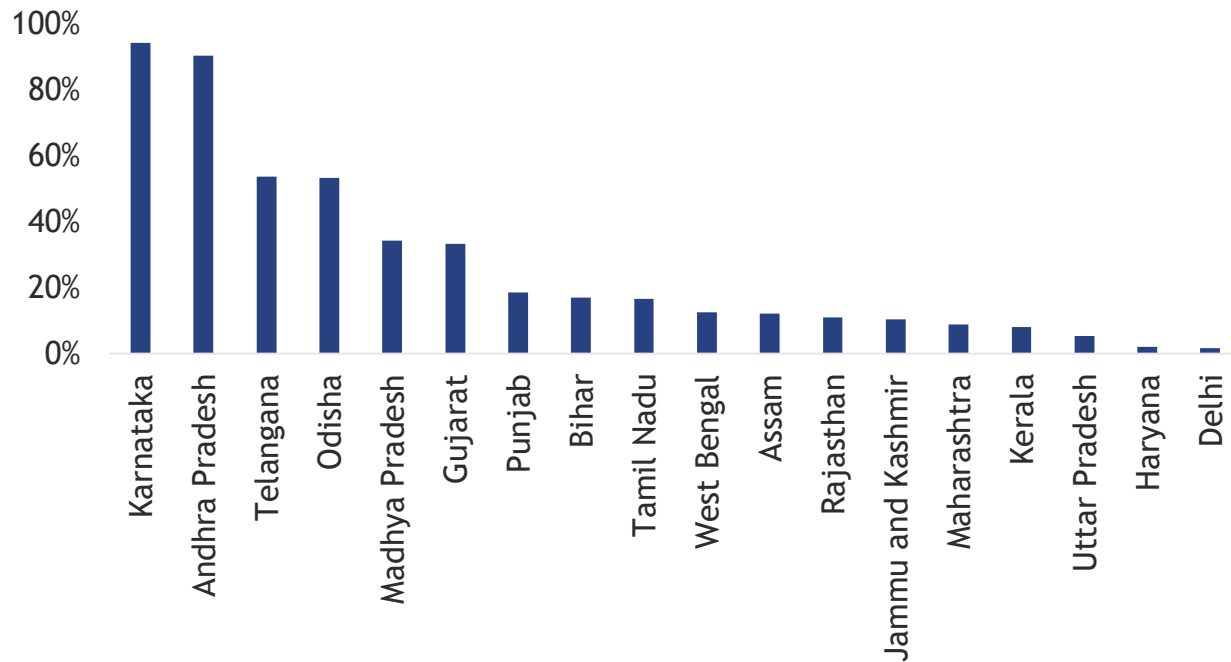
New enrollments for work under MGNREGA have increased significantly in Uttar Pradesh, Madhya Pradesh, Odisha, and Rajasthan, among others.

Insights from MSC's evaluation of the Indian government's response to COVID-19 and states analysis based on the COVID-19 Readiness and Response framework



# The southern states of Karnataka, Andhra Pradesh, and Telangana were front-runners in utilizing multiple channels to facilitate the home delivery of grocery items

**% of respondents who received home delivery of grocery\***

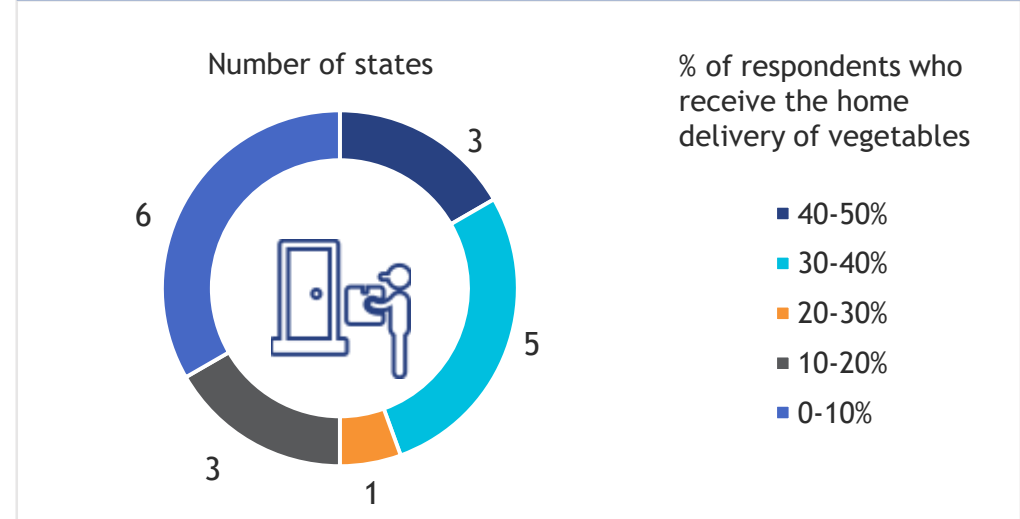


States adopted numerous channels, such as mobile vans for the delivery of fruits and vegetables as well as helplines, mobile apps, and dashboards to facilitate home delivery of groceries.

In the tele-survey, a few respondents observed a marginal inflation in the prices of essential items.

In Karnataka, community interventions, such as assisted home-delivery by *panchayat* officials and local workers, combined with dedicated mobile apps ‘such as ‘Homeline’ ensured the wider delivery of essential items.

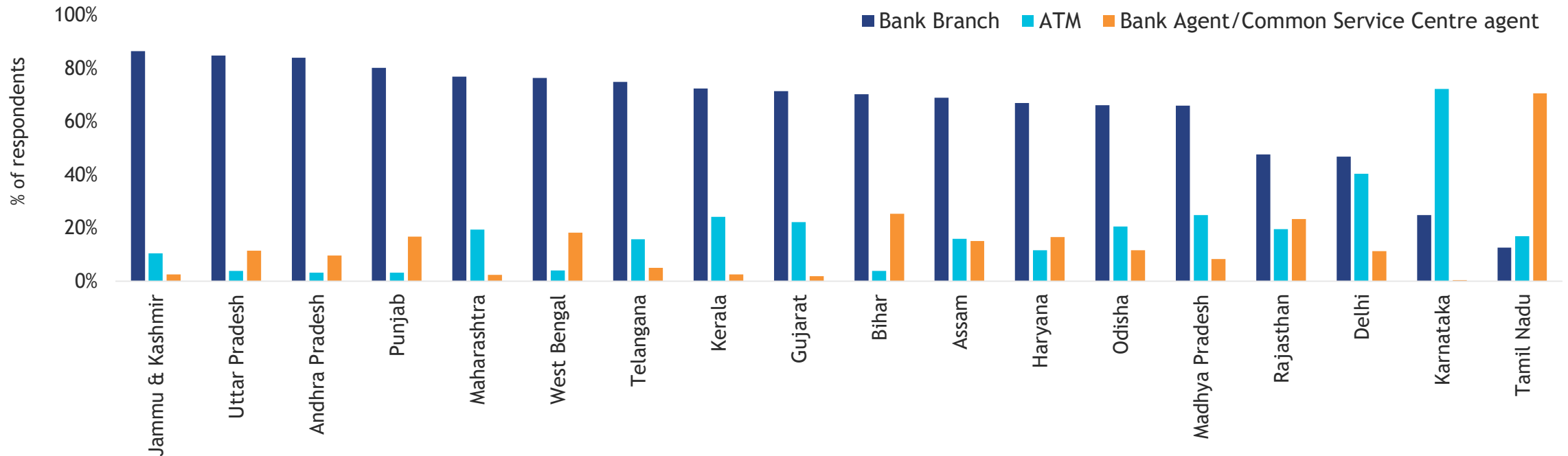
**Status of home delivery of vegetables in 18 states\***





\* Based on MSC’s evaluation of Indian government’s response to COVID-19. The tele survey was conducted between May 1-10, 2020


# Banks were the preferred channel, especially for lower-income groups. Trust in banks and beneficiaries needing to seek help in enquiring about status of cash transfers are likely reasons

## Cash withdrawal preferences of the respondents during the lockdown\*



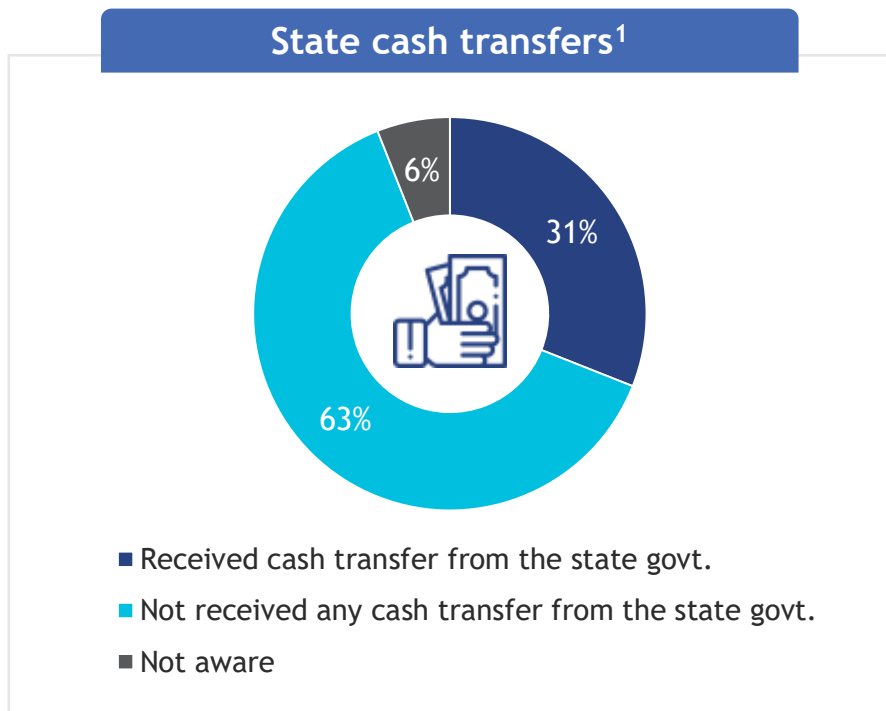
 In Karnataka, respondents in the tele survey (qualitative) said that the banks sent Micro-ATMs to the villages to withdraw cash.

 In Tamil Nadu, respondents in the tele survey (qualitative) pointed that they preferred bank agents as the banks are located far away.

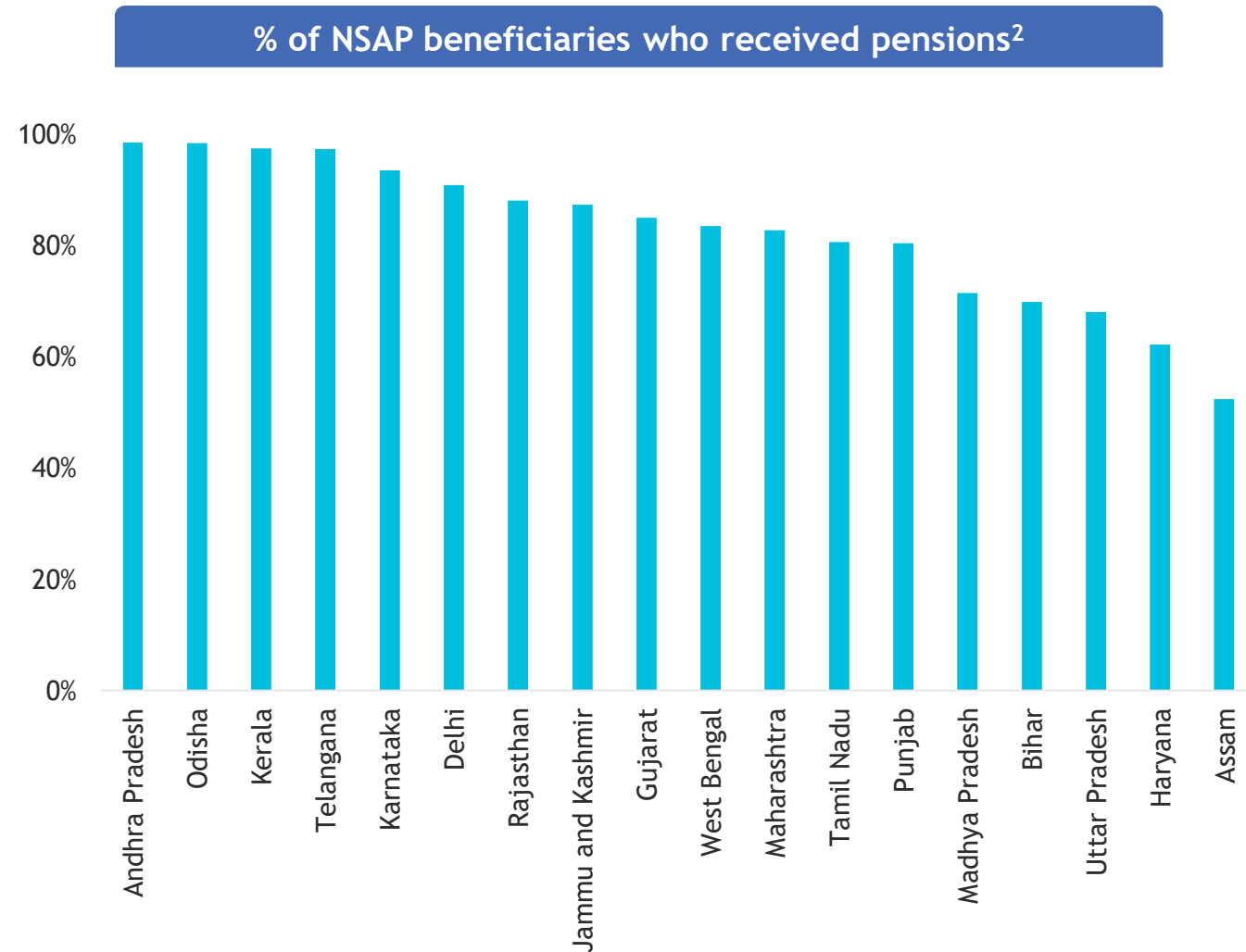
 The tele survey data\* indicated that cash withdrawal from Indian Post Payments Bank/ Post Office was only 2%-3%.

\* Based on MSC's evaluation of Indian government's response to Covid-19. The tele survey was conducted between May 1-10, 2020

# Most states have gone the extra mile to provide cash assistance to the poor and vulnerable, especially the segments that have been traditionally excluded



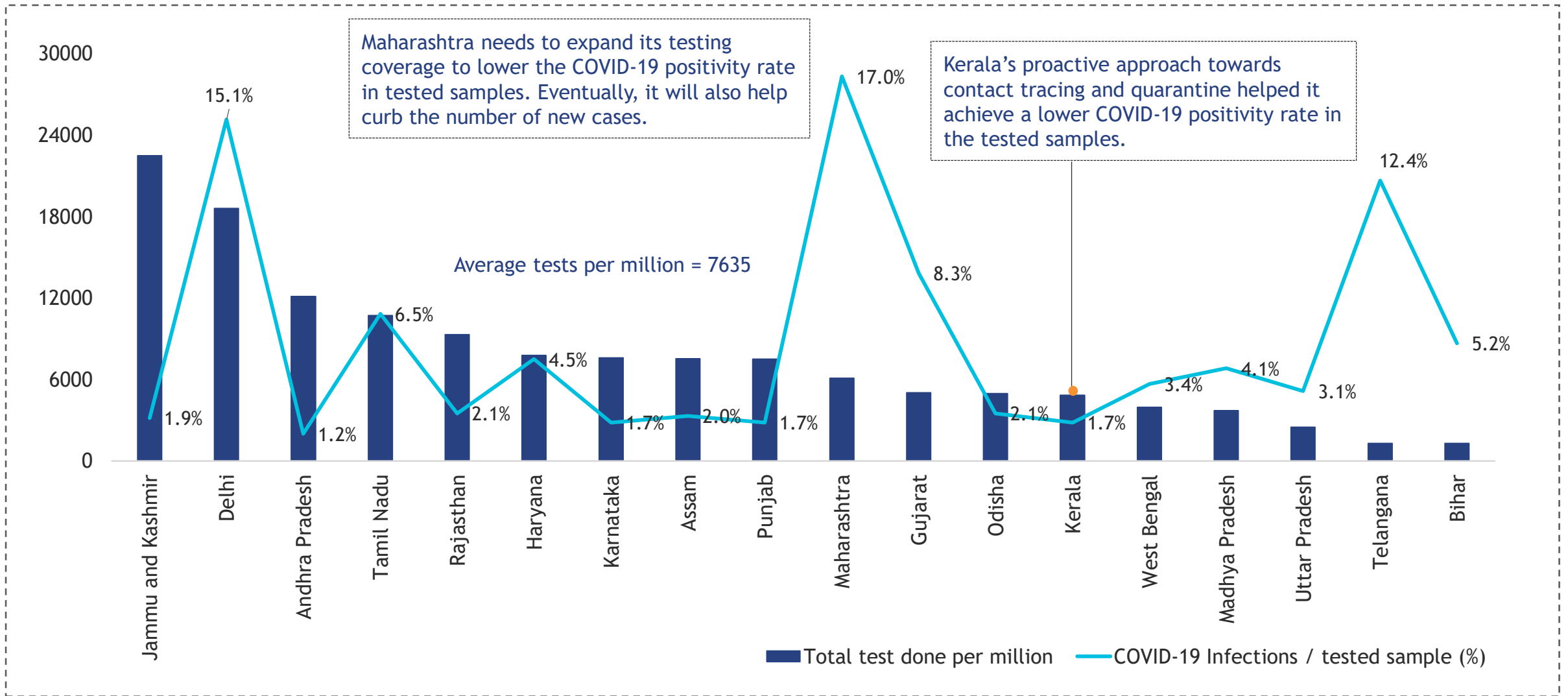
Many states such as Haryana, Uttar Pradesh, Rajasthan, Andhra Pradesh, and Tamil Nadu, among others, rolled out cash transfer programs for BPL households, workers in the unorganized sector, stranded migrant workers, etc.



1. Based on MSC's evaluation of the response of the Indian government to COVID-19. The tele survey was conducted between May 1-10, 2020.

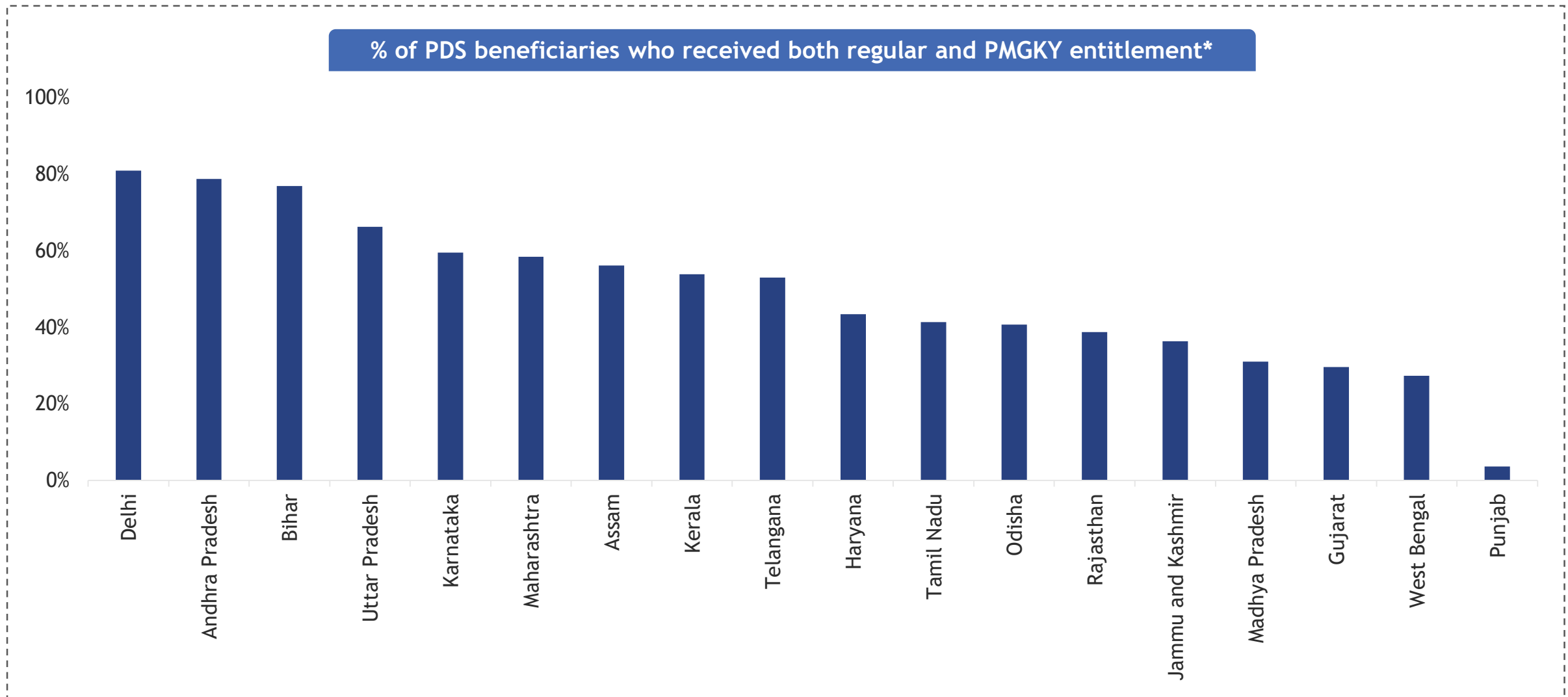
2. NSAP provides financial assistance in the form of pensions to widows, disabled, and the elderly. The data includes beneficiaries who received at least one pension under NSAP and were able to withdraw it.

Kerala, Karnataka, and Punjab used strict preventive measures, such as contact tracing and isolation effectively to keep COVID-19 positivity rate in tested samples below 2%. This was achieved despite conducting less than the average number of tests among the selected states\*



\* Based on COVID-19 cases and tests done until June 16, 2020

## More than 90% of beneficiaries under the Public Distribution System (PDS) received ration either through their regular entitlement or both regular and PMGKY entitlement or only PMGKY entitlement



\* Based on MSC's evaluation of the response of the Indian government to COVID-19. The tele survey was conducted between May 1-10, 2020

# Use of emerging technologies in COVID-19 management





# States continue to utilize emerging technologies to deploy innovative solutions to address the COVID-19 pandemic



## Open-source architecture

Creation of an open-source public platform called the Corona Safe Network. The software is designed by innovators and volunteers working to support the state government.

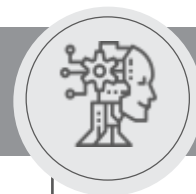
The open-source platform has been used to develop, test, and deploy multiple applications on contact tracing, telemedicine, availability of hospital beds and quarantine facilities, and ambulance services, among others. (Kerala)



## Geotagging and GIS

Use of geotagging in the delivery of pensions to bring more transparency and avoid leakages. (Andhra Pradesh)

Use of geospatial mapping to provide information on containment zones, hotspots, location of patients, primary and secondary contacts, testing and collection centers, isolation centers, fever clinics, etc. (Karnataka)



## Analytics and artificial intelligence

Partnership with SAS to deploy high-end analytical tools in COVID-19 dashboards. This would help implement epidemiological models to predict the timing and magnitude of the infection and the resources required. (Odisha, Uttar Pradesh, Maharashtra, Rajasthan, Assam)

Partnership with IBM for the deployment of a chatbot based on artificial intelligence and natural language processing to answer queries on COVID-19 in multiple languages. (Andhra Pradesh)



## Tele-ICU

Partnership with Cloud physician to deploy India's indigenously developed 24\*7 tele-ICU in the Gulbarga Institute of Medical Sciences (GIMS).

The tele-ICU enables remote monitoring of patients through audiovisual tools and internet sensors.

States such as Kerala have used open-source architecture to build healthcare applications on the principle of “Technology as a public good”

## State governments have used mobile apps and other IT applications widely as a public engagement tool during the COVID-19 pandemic

State	Application name	Category	Purpose	Downloads
Andhra Pradesh	COVID-19 Andhra Pradesh	Informative	<ul style="list-style-type: none"> <li>Provides information about the status of the district, <i>mandal</i>, or village as well as dos and don'ts, announcements, and media bulletins</li> </ul>	100k+
Assam	COVAAS	Informative	<ul style="list-style-type: none"> <li>Brings together all initiatives of the state under a single platform</li> <li>Provides information on donations, e-pass, volunteer, emergency support</li> </ul>	10k+
Bihar	No info available	N/A	<ul style="list-style-type: none"> <li>N/A</li> </ul>	N/A
Delhi	Delhi Corona	Informative	<ul style="list-style-type: none"> <li>Provides information on donations, lockdown services, such as ration, shelter, e-pass, etc.</li> </ul>	100k+
Gujarat	SMC COVID-19 tracker	Monitoring/Tracing	<ul style="list-style-type: none"> <li>Initially launched by the Surat Municipal Corporation and later adopted by the entire state. Primarily used to track quarantined individuals</li> </ul>	100k+
Haryana	Jan Sahayak - HelpMe App	Informative	<ul style="list-style-type: none"> <li>Provides services, such as telemedicine, movement passes, assistance in procurement, delivery of dry ration and cooked food, education etc.</li> </ul>	10k+
Jammu and Kashmir	No info available	N/A	<ul style="list-style-type: none"> <li>N/A</li> </ul>	N/A
Karnataka	<ul style="list-style-type: none"> <li>Corona Watch</li> <li>Quarantine Watch</li> </ul>	Informative, Tracking/ Monitoring	<ul style="list-style-type: none"> <li>Provides information on the nearest hospitals, sample collection centers and testing labs, and locations of the cases</li> <li>Self-reporting by individuals quarantined at home and their families (Quarantine Watch)</li> </ul>	100k+ (CW) 50k+ (QW)
Kerala	GoK Direct	Informative	<ul style="list-style-type: none"> <li>General awareness, quarantine protocols, advice to citizens and NRIs</li> </ul>	100k+

## Around two-thirds of the various mobile apps and dashboards that the states use are to disseminate information while the rest are used to monitor and track COVID-19 cases

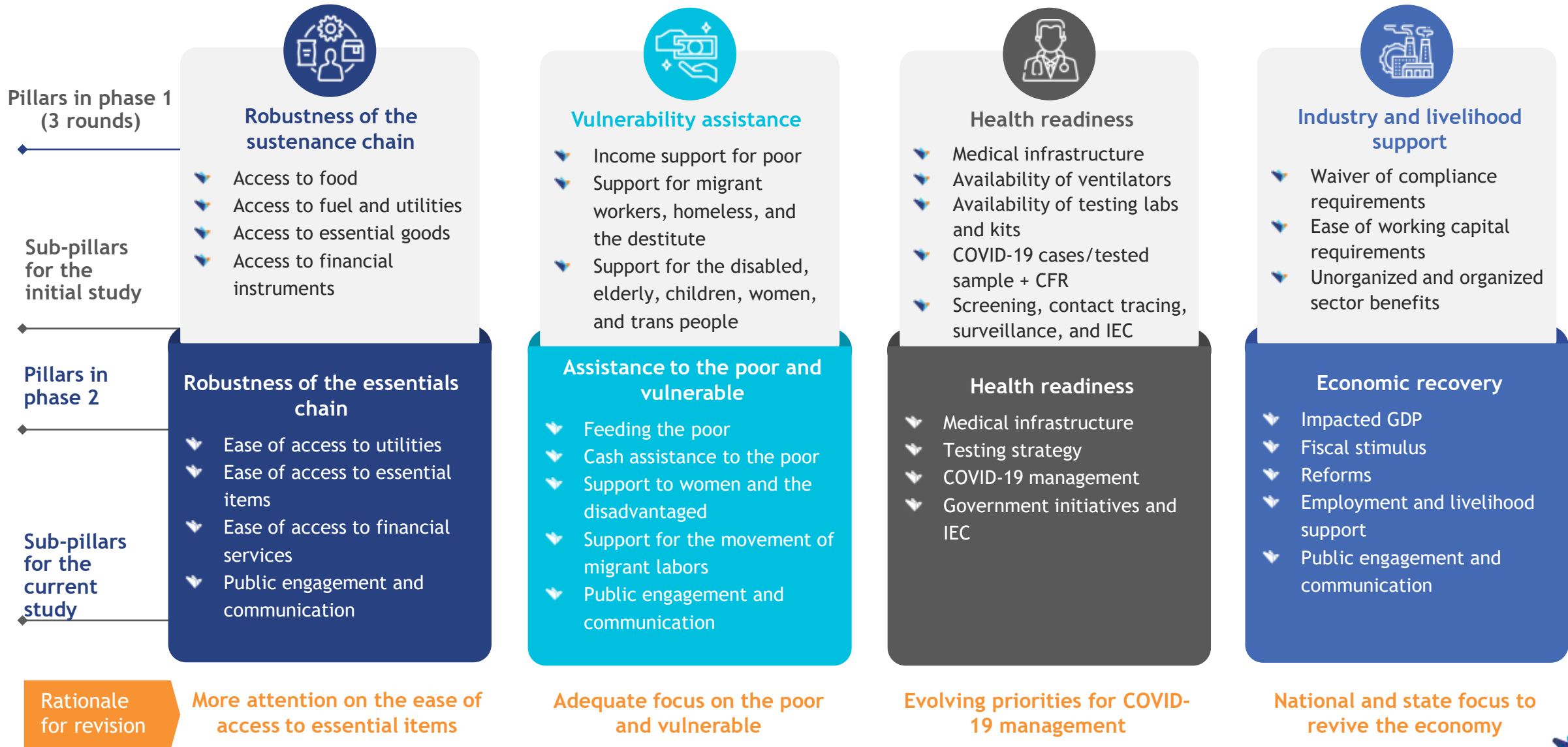
State	Application name	Category	Purpose	Downloads
Madhya Pradesh	Sarthak Lite	Informative	<ul style="list-style-type: none"> <li>Provides information about the nearest treatment facility, collection centre, or fever clinic as well as a health bulletin, etc.</li> </ul>	50k+
Maharashtra	Mahakavach	Tracing/Monitoring	<ul style="list-style-type: none"> <li>A digital contact tracing app that helps citizens contribute and assist in tracing contacts with the potential risk of COVID-19</li> </ul>	50k+
Odisha	<ul style="list-style-type: none"> <li>Odisha COVID Dashboard</li> <li>COVID-19 Odisha</li> </ul>	Informative, Monitoring/Tracing	<ul style="list-style-type: none"> <li>Provides services like general information, e-pass application, and self-assessment (Odisha COVID-19 Dashboard)</li> <li>Enables quarantine registration and quarantine reporting (COVID-19 Odisha)</li> </ul>	50k+ (OCD) 10k+ (CO)
Punjab	COVA	Informative	<ul style="list-style-type: none"> <li>Provides information on preventive care, travel instructions, self screening, general awareness, nearby hospitals and the helpline etc.</li> </ul>	1m+
Rajasthan	RajCovidInfo	Tracing/Monitoring	<ul style="list-style-type: none"> <li>Provides COVID-19 guidelines and health advisory, location-based push alerts, list of hospitals, dos and don'ts, helpline etc.</li> </ul>	100k+
Tamil Nadu	COVID-19 Care Tamil Nadu	Informative	<ul style="list-style-type: none"> <li>Provides real time COVID-19 outbreak info, statewide and district-wise spread, emergency contacts, containment zones etc.</li> </ul>	100k+
Telangana	T COVID'19	Informative	<ul style="list-style-type: none"> <li>Provides information on government and private hospitals with isolation wards, labs, telemedicine, helpline, Annapurna food location, essential services, announcements, etc.</li> </ul>	50k+
West Bengal	COVID-19 West Bengal	Monitoring/Tracing	<ul style="list-style-type: none"> <li>Monitors individuals in home isolation and quarantine</li> </ul>	100k+
Uttar Pradesh	Ayush Kavach - COVID	Informative	<ul style="list-style-type: none"> <li>Provides updates for a healthy lifestyle and measures to boost immunity, based on locally and easily available home remedies etc.</li> </ul>	1m+



Appendices



# For the fourth and current version of the study, we revamped the index to integrate the on-ground evidence and reflect the evolving response of the state governments to the COVID-19 pandemic





The COVID-19 Readiness and Response assessment framework



# Pillar 1: Robustness of the essentials chain

Maximum normalized score 10

Assesses factors, such as the ease of access to essential services (utilities, financial services) and essential items (grocery, fruits and vegetables, and dairy)

MSC's tele-survey weightage of 30% is given to two sub-pillars: a) Ease of access to essential items and b) Ease of access to financial services

**Public engagement and communication**  
Covers channels and outreach efforts to inform, educate, gather feedback, and resolve complaints related to essential items, utilities, and financial services

**Ease of access to financial services**  
Covers the operational timings of bank branches and any other physical and digital initiatives to improve the accessibility to financial services

04

03

01

## Ease of access to utilities

Covers the supply situation and ease of access to electricity and water utilities. It also looks at the financial exemptions and support provided by states on electricity and water bills

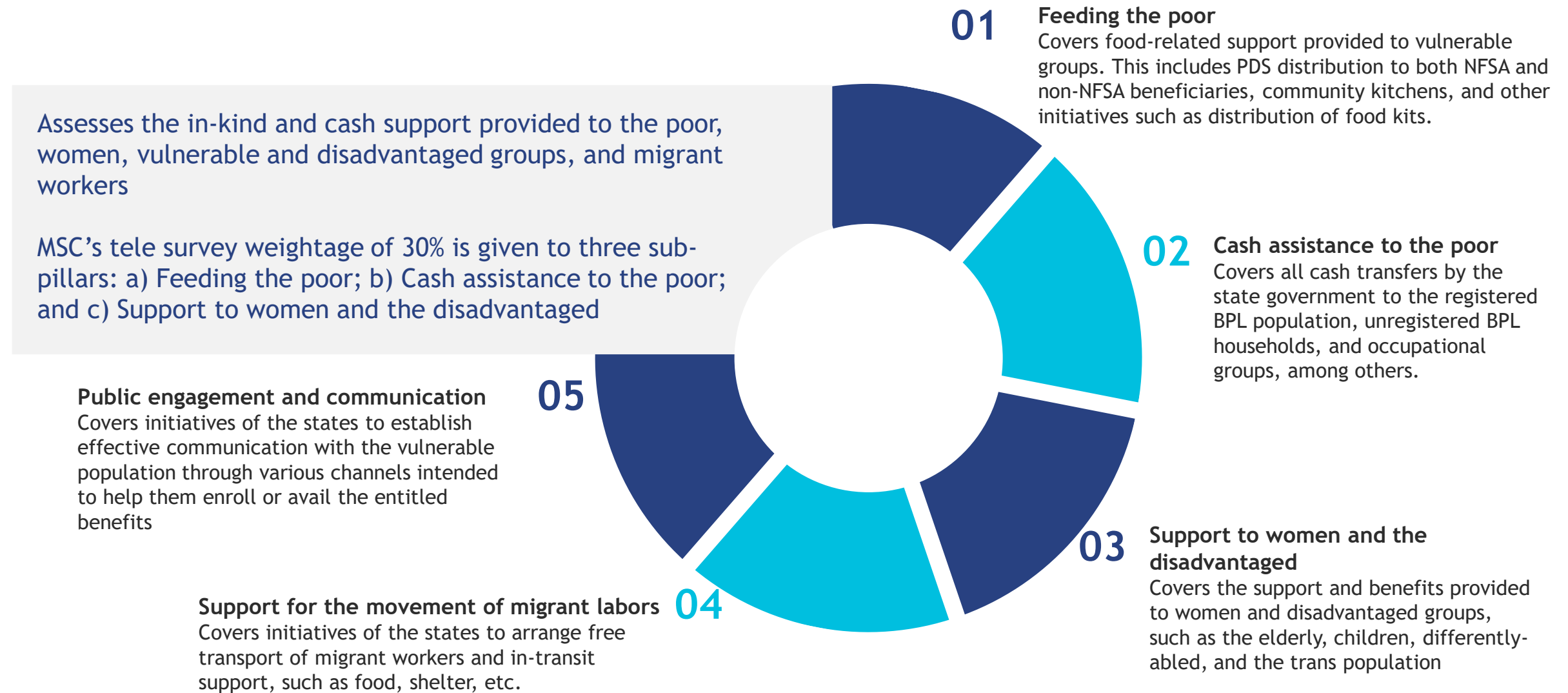
02

## Ease of access to essential items

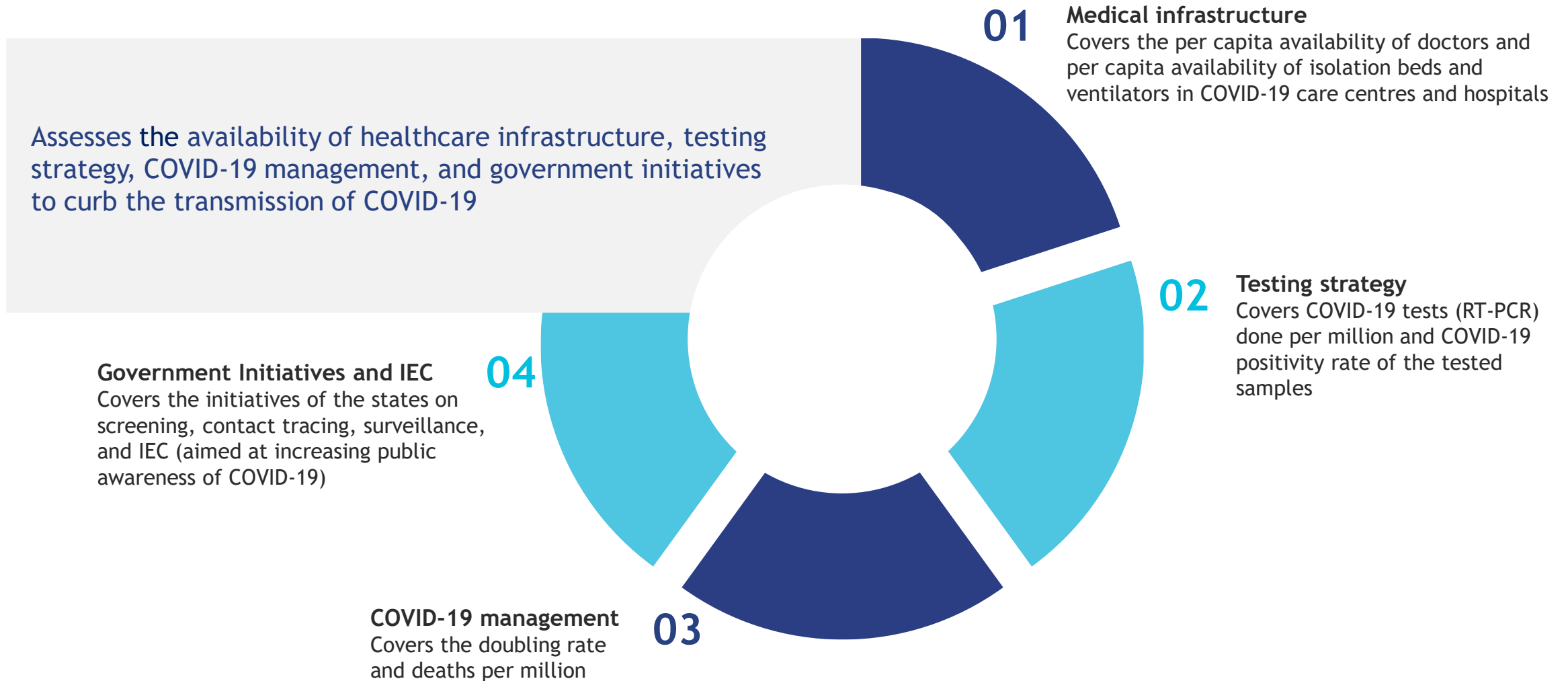
Covers access to grocery, fruits and vegetables, dairy, and other essentials across the state

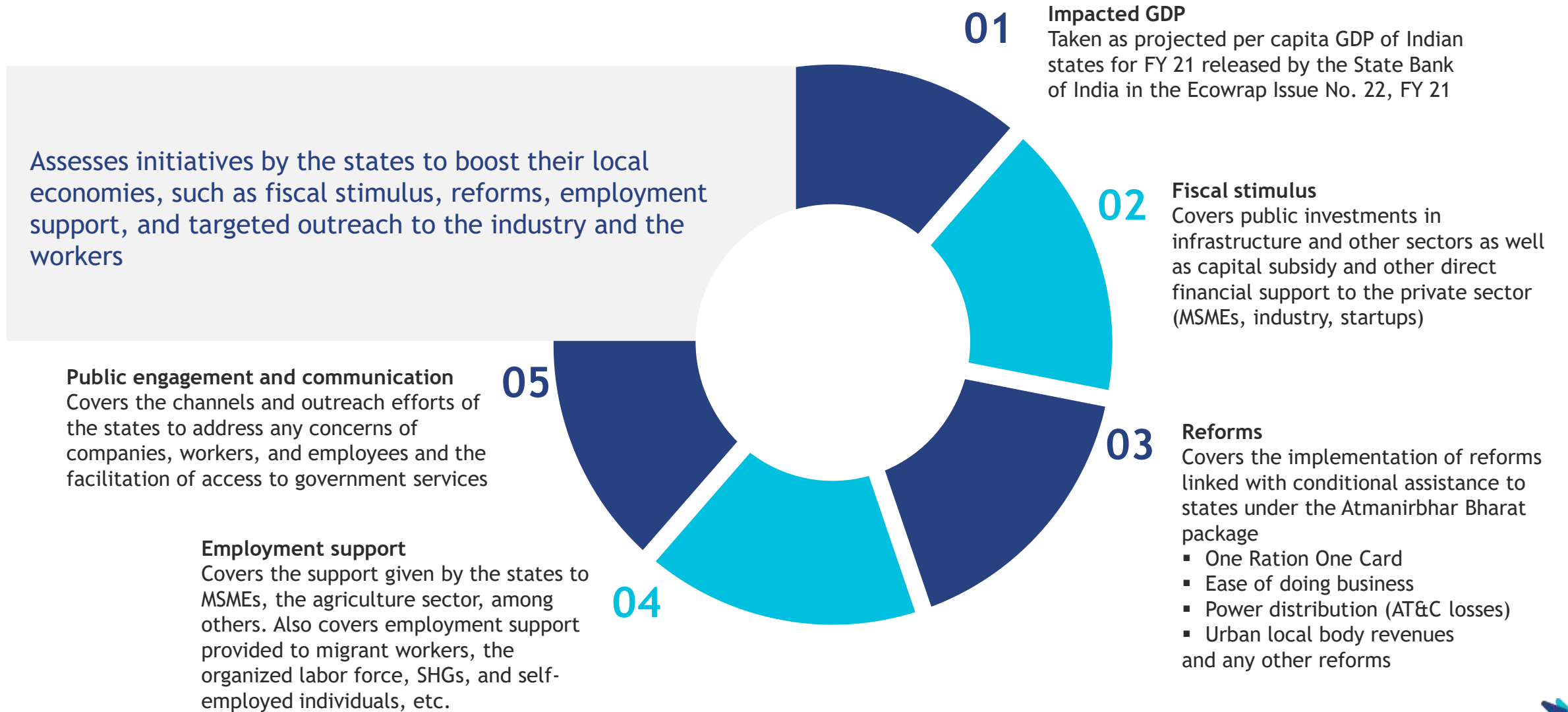
## Pillar 2: Assistance to the poor and vulnerable

Maximum  
normalized  
score **30**









# MSC is recognized as the world's local expert in economic, social, and financial inclusion



International financial, social & economic inclusion consulting firm with **20+** years of experience



**180+** staff in **11** offices around the world



Projects in **~65** developing countries

## Our impact so far

**550+**  
clients

**>850**  
publications

Assisted development of digital G2P services used by **875 million+** people

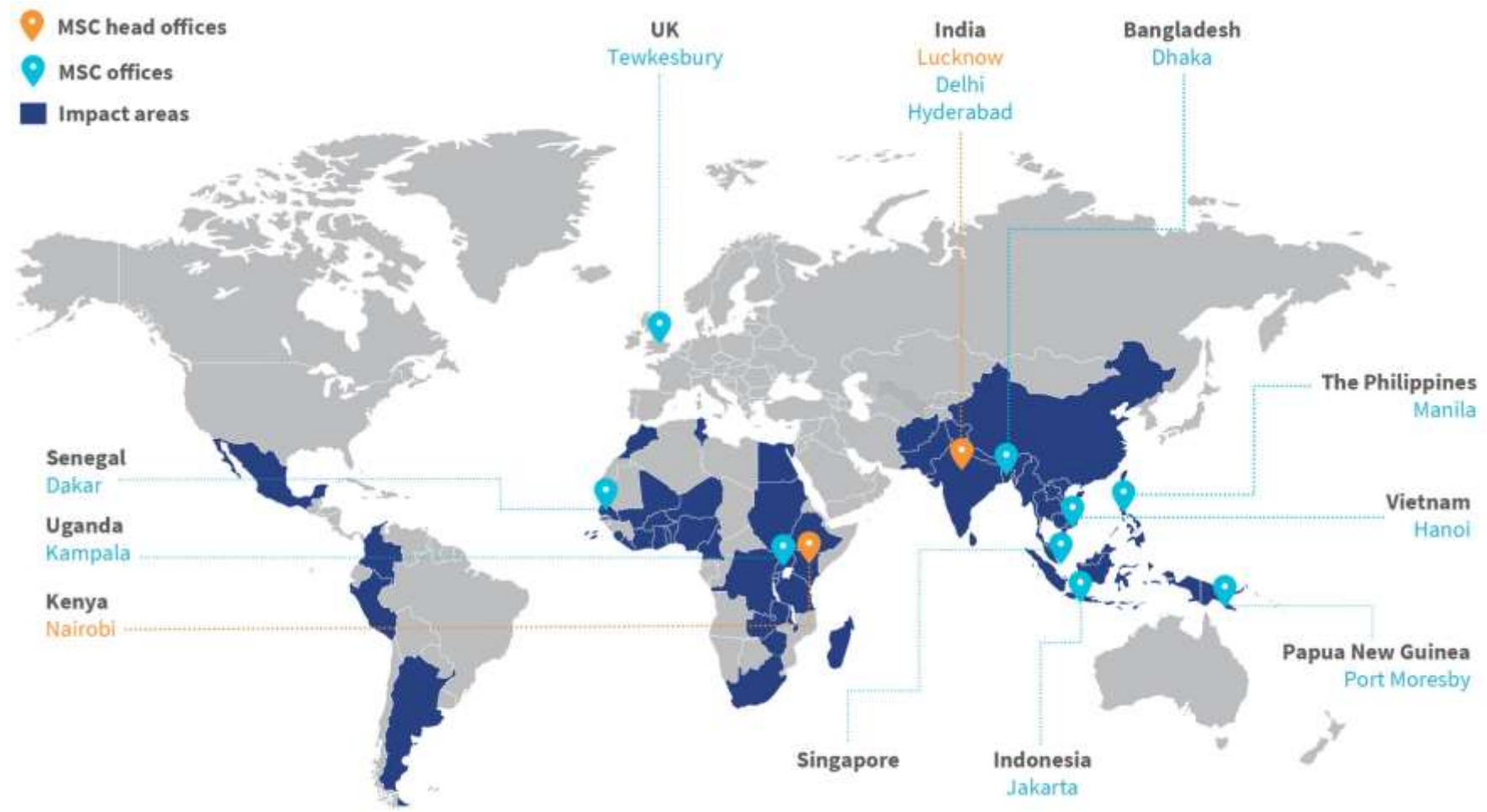
Implemented **>850 DFS projects**

Developed **275+ FI products** and channels now used by **55 million+** people

Trained **9,000+** leading FI specialists globally

## Some of our partners and clients





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