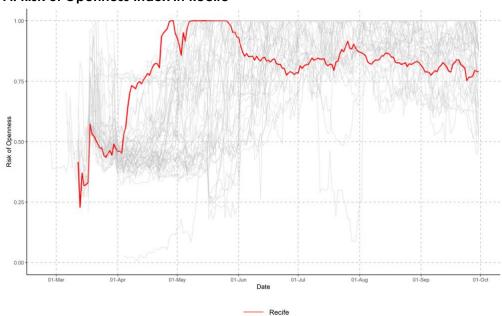




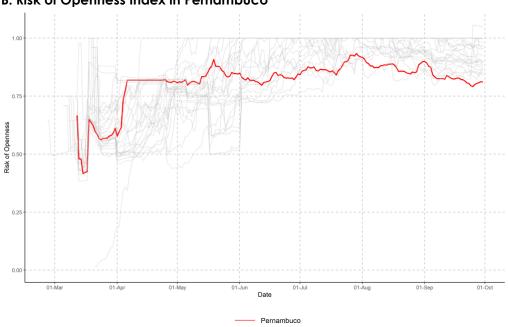
Region	Recife, Pernambuco
Period	June to October 2020
Author	Bárbara Simão, Rodrigo Furst de Freitas Accetta, Maria Luciano, and Beatriz Kira

Figure PE.1 – Risk of Openness Index (RoOI)

#### A. Risk of Openness Index in Recife



#### B. Risk of Openness Index in Pernambuco







#### State and city government responses

Figure 1 shows how the Risk of Openness (RoOI) went up over time and remained very high in Recife and Pernambuco.

From 31 May, Recife began to discontinue strict containment measures previously adopted. Both the governments of the State of Pernambuco and the municipal government of the capital presented, starting on 1 June, plans for coexistence with Covid-19 and the gradual return of face-to-face activities. The plans were structured in phases: if indicators showed a reduction in the disease's speed of infection, the city would advance to a less restrictive level of social distance. Recife's plan has five phases: red (most critical, in which only essential activities are open), orange (in which it begins to occur the gradual reopening of non-essential services), yellow (in which services and shops can be opened with public and time restrictions), green (in which sportif events are allowed, with public and time restrictions) and blue (in which all activities can return, in a controlled manner).

The capital implemented measures according to the phased plan. On 20 June, Recife entered the orange phase. The city hall allowed the reopening of parks, squares, riverbanks, and the shore of the beach only for the practice of individual sports. On 22 June, shopping centers were allowed to reopen, with restrictions on food courts, restaurants, cafeterias, or any other shared spaces. On the same day, the gradual reopening of churches and religious temples was also allowed, with specific rules for social distance and the number of people. Ceremonies would be restricted to 30% of the temple capacity, reaching a maximum of 50 people in small places and of 300 people in temples with accommodation capacity for more than 1000 participants. On 17 July, the reopening of beachfront kiosks was allowed, as well as the possibility of sea bathing. In August, the city of Recife went into the yellow phase. Starting on 31 August, the practice of outdoor sports activities is allowed in groups of up to 10 people.

As for schools, the government of Pernambuco determined that the return to classes could occur gradually from 8 September, in some state regions authorized to do so. Although Recife was on the list, there was no sign that the city government adhered to the reopening of educational establishments at that time, and municipal schools remained closed. At the end of September, the state government announced that starting on 6 October, high school classroom activities would return throughout the state, in public or private schools. Presential classes would be optional and remote classes would continue to exist.

In April, the use of masks began to be recommended to all citizens of Pernambuco. In a decree published on 24 April, the city of Recife demanded that employees and public service providers wore a mask. The guidance followed the order from the government of Pernambuco, published the previous day, which established the rule for the entire state. On 18 June, a State Law altered the recommendation: the use of masks was then mandatory to all citizens, in all public and private places outside the home. Establishments that failed to comply with these legal requirements and allowed the entrance of individuals without masks were subject to warning and fines of up to one hundred thousand reais.





At the end of April, a contact tracing application developed by the State Prosecutor's Office and the State Health Secretariat started to operate in the city of Recife, covering the entire territory of Pernambuco. Called Dycovid, the application traces contacts anonymously through the mobile device, mapping the evolution of the disease and its flow of contamination. The app is still working today, and it has been used as a way to monitor the transmission of the disease and verify the impact of easing measures. From the data available on the Google Play Store, the app has had over 100,000 downloads to date.





Figure PE.2 – Accumulated number of deaths and deaths per capita for Pernambuco and the eight other states surveyed

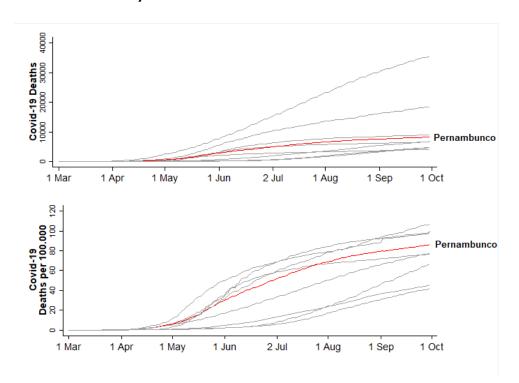
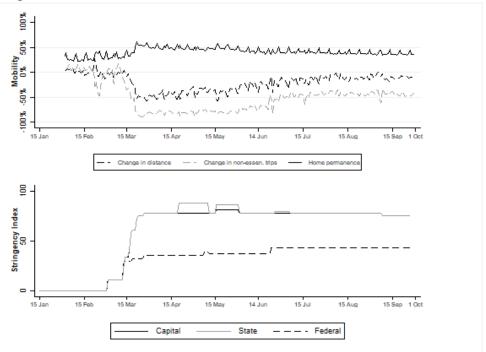


Figure PE.3 – Mobility indicators for Pernambuco and the OxCGRT stringency index for different levels of government







#### **Recife Survey Results**

Recife has 1.6 million inhabitants, and 12% of the population is above 60 years of age. Its HDI is 0.772, meaning that it is the 17th most developed state capital (among 27 cities).

Approximately 17% of people in Recife did not leave home during a two-week period between 22 April and 13 May, compared to 12% during a two-week period between 13 July and 18 September. Those who left did so on average on 5.2 days me during a two-week period between 22 April and 13 May, compared to 8.2 days during a two-week period between 13 July and 18 September. In the first round, the majority interviewees (71%) left home for essential activities, such as going to the supermarket, the pharmacy or to the bank. Twenty-seven percent left their residence to work (compared to 62% who went out to work in February). In the second round, the majority interviewees (68%) left home for essential activities, such as going to the supermarket, the pharmacy or to the bank. Forty-three percent left their residence to work (compared to 62% who went out to work in February). In both rounds, those who ventured outside during the fortnight prior to interview on average estimated that 72% of people on the street were wearing masks. Eighteen percent of people reported experiencing at least one Covid-19 symptom in the first round, compared to 28% in the second. Seven percent of first-round respondents from Recife had been tested, compared to 14% of those in the second round. Only 1% said that they had sought a test without success in the first round, compared to 1.5% in the second.

In the first round, reductions in public transport services stopped 18% of people from performing intended activities. Twenty-three percent of those surveyed had used public transport in the prior two weeks; 54% used these services in February. In the second round, reductions in public transport services stopped 18% of people from performing intended activities. Thirty-seven percent of those surveyed had used public transport in the prior two weeks; 48% used these services in February.

On average, respondents' level of knowledge about the symptoms of Covid-19 scored 78 and 69 out of 100 in the first and second round, respectively, similar to the average level across the eight cities in the study. Average levels of knowledge of the meaning and practices of self-isolation scored 44 and 43 out of 100 in the first and second round, respectively (see the results section of the main paper for an explanation of these scores).

The main sources of information about Covid-19 for the population of Recife are TV news shows (67% and 64% in the first and second round, respectively), and newspapers and newspaper websites (12% and 11% in the first and second round, respectively). In the first round, public information campaigns reached 77% of people in the city, and the majority of these people (90%) report having seen them on TV, 31% of them have seen a campaign in a newspaper, and smaller percentages said they had come across them on blogs (18%), via Facebook or Twitter (23%), and via WhatsApp (19%). In the second round, public information campaigns reached 75% of people in the city, and the majority of these people (91%) report having seen them on TV, 15% of them have seen a campaign in a newspaper, and smaller percentages said they had come across them on Facebook or Twitter (12%), via blogs (16%), and via WhatsApp (11%). Among first-round interviewees in Recife who had seen a public information campaign, 64% said they had seen one from the state government, 44% had seen one from the federal government, and 36% from the municipal





government. In the second round, among people in Recife who had seen a public information campaign, 58% said they had seen one from the state government, 38% had seen one from the federal government, and 44% from the municipal government.

In Recife, 89% of the interviewed in the first round were either worried (9%) or very worried (81%) about the possibility that the regional health system has insufficient medical equipment, hospital beds, or doctors to cope with the outbreak. Only 21% of people reported believing that the public health system in their region is either well prepared (10%) or very well prepared (11%) to deal with the outbreak.

In the first round, more than half (52%) of people in Recife have seen their income reduce since February, compared to 41% of those in the second round. Just over a third of those in the first round (34%) said that their income had been cut in half, or worse. This number went down to 27% in the second round. In the first round, seven percent of the population reported that they no longer had any income, compared to 6% in the second round.

The vast majority of people in Recife (84% and 82% in the first and second round, respectively) perceived Covid-19 to be much more serious than a common flu. In the first round, less than half (46%) believed that the public measures adopted to fight the spread of the disease were adequate, 39% say they were less stringent than necessary, and 15% believed they are too stringent. In the second round, 40% believed they have been adequate, 52% say they were less stringent than necessary, and 8% believed they were too stringent. On average, people in Recife estimated that it would take 4.1 and 8.3 months in the first and second round, respectively, for all government response measures to be removed, and 28% of first-round respondents in the city expected all such policies would be removed in one go.



Figure PE.4 – Social distancing, knowledge and testing in Recife

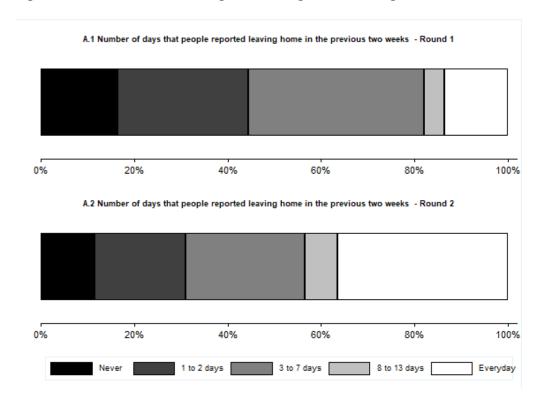
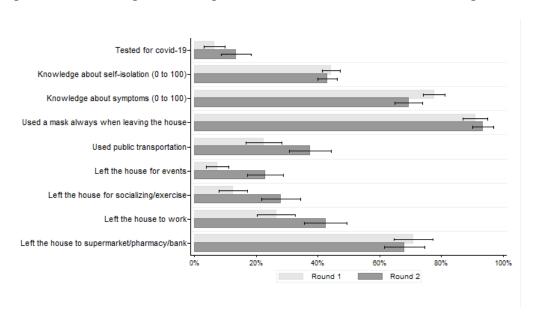


Figure PE.5 – Testing, knowledge, mask use, and reasons for leaving home



Data available at: <a href="https://github.com/OxCGRT/Brazil-covid-policy">https://github.com/OxCGRT/Brazil-covid-policy</a>