

1. COVID-19 emergency response

Three months after the identification of a new coronavirus in Wuhan, China, the first case of the disease now known as COVID-19 was identified in Portugal. From the 2nd March (initial case) to the 30th July, there were **50.868 confirmed cases with 1.725 deaths and the virus present in all regions of the country.**

The World Health Organization has sent a clear message to all countries in mid-March: test, test, test. The more tests are conducted, the easier it becomes to track the spread of the virus and reduce transmission. Many countries followed the advice, identifying a greater number of cases at an earlier stage, isolating infected individuals, and limiting the spread of the disease to others. The testing ability of the National Health Service (NHS) was initially considered sub-optimal with a small capacity to test suspected cases, delaying the diagnostic for several days and maintaining cases undiagnosed.

In an unprecedented mobilization of the Portuguese Red Cross (PRC) services, the Emergency Response Unit created the *Operação Hígia (Operation Hygieia)* aiming at ensuring a) increased testing capacity for patients with symptoms, b) early detection of patients at risk of developing severe symptoms and c) implement investigation protocols to better understand the disease and the recovery pattern.

On the 1st of April one Drive-Thru Triage Point was inaugurated in Lisbon. Additionally, five mobile units were created in association with the PRC branches of cities in the center and north of the country where the needs for testing were higher. At the same time, the PRC was requested to support COVID triage units in hospitals through the installation of tents outside the emergency departments.



Image 1 - 4: Drive-Thru Triage Post



Image 4 - 6: COVID-19 Testing Mobile Units

According to Statista website: *As of June 8th 2020, Portugal had performed the fifth most COVID-19 tests per one million population among the countries most severely impacted by the pandemic. Portugal is the tenth country with more coronavirus tests carried out in Europe as of July 23rd, 2020. It has conducted around 1.316.425 COVID-19 tests and has a population of approximately 10.2 million inhabitants. So, for every one million inhabitants, 129.061 tests were conducted. Of the total tests conducted, 19.224 were done through the Operação Hígia in close contact with the Portuguese authorities to answer to the main testing needs (diagnostic to symptomatic patients, screening of high-risk services such as police forces, civil protection, elderly homes, child care services, amongst others).*

Other PRC departments such as pre-hospital and social services were also requested to adapt to the crisis to maintain the services for the people in need. **Trainings on COVID-19 transportation guidelines for suspected COVID-19 illness, dead body management and environmental disinfection were made**, and dedicated teams were created in branches selected in the whole country. Furthermore, the **PRC was asked to care/support COVID-19 patients in their domiciles or nursing homes.**

In resume, since the beginning of March the PRC has more than **3,167 volunteers** in COVID-19 response managing the following activities:

- **16,760 COVID-19 tests were done** for the purposes of diagnostic and screening through six field teams located in the north and center of the country;
- **16 Public health facilities supported with medical field units.** Dedicated COVID-19 triage units were established in health facilities using tents and providing logistical support to maintain these structures that allow additional separated space for the initial assessment of suspected patients;
- **21 Quarantine zones and regular food and non-food items distribution.** Social support through regular home visits to the elderly population and assistance to evacuate nursing homes with high number of COVID-19 patients creating quarantine zones. The PRC has also increased its regular activities in the distribution of food and non-food items
- **597 Transports of COVID-19 patients.** The ambulances linked to the pre-hospital care service have been regularly requested to transport suspected and confirmed COVID-19 patients.
- **42 (Setubal) 22 (Faro) 17 (Coimbra) dead bodies were safely transported.** The PRC is one of the main entities able to do dead-body management nation-wide, having adapted the safety

procedures to the specificity of the COVID-19, training the current units as has well as having increased by 6 the number of units spread through the country.

- **58 local psychological teams** for supporting community.

2. Coca-Cola Foundation Financial Support

On the 17th April, the ***Operação Hígia*** received the amount of **276.602,79 EUR** donated by ***Coca-Cola Foundation*** to support the activities developed in response to COVID-19.

The objective of this donation was to reinforce the testing capacity through a triage drive-thru post located in PRC Hospital in Lisbon. Nonetheless, in the period of the project the main focus area of COVID-19 infected people was in the Northern Region, it stands for increase efficacy of contention phase of SARS-CoV-2 pandemic in Lisbon. The triage permitted to reinforce test capabilities in the Capital.

Furthermore, the SMART Triage was setup with innovation procedures by laboratory point-of-care analysis. An investigation protocol was made through analysis of risk assessment test (leukogram an C Reactive Protein) that contributed for the medical decision of triage.

Nonetheless, the nature of the emergency and its dynamics required the PRC to innovate and adapt its response. Understanding that a stand-alone triage post is not enough and does not respond do the needs of testing in remote or cluster areas, the PRC initiated alternative testing strategies through the development of mobile units. These mobile units can be supported by a vehicle adapted for the function allowing a triage post that can be deployed into different areas, taking the testing capacity to where it is needed and continuing the purpose of the project.

Therefore, the donation of the Coca-Cola Foundation reinforces the capacity of response in the following pillars:

- Equip **SMART Triage Center** with an **emergency unit**
 - Provided rapid and medical assistance for those people identified with hospitalization criteria during triage process
 - Support and observation and rest room while waiting for COVID-19 test results
- Support **SMART Triage Center** with **operational equipment**
 - Logistical and PPE (Personal Protective Equipment) for operation personnel.
- **Mass testing capabilities**
 - People identified with clinical symptoms of COVID-19 are allowed to do COVID-19 test and in case of positive result are reported to public health national service
- Creation a **fast-track for tests to civil protection agents** (firefighters, police, national guards, military) allowing a quicker return to their functions.
 - As the National Health Services are not able to provide tests to personnel who was in close contact with COVID-19 cases, these personnel had to be quarantined for 14 days before returning to work.

The total direct beneficiaries of the project were 6.927 people.



Images 7 - 13: SMART Triage Post

In details, the table below clarifies the expenses associated to this investment:

Item	Amount	Unit Price (EUR)	Total Price (EUR)
<i>Logistics Equipment</i>			25 245
Tents	3	7 280	21 840
Clinical furniture			3 405
<i>Kit of Personal Protective Equipment (PPE)</i>			13 006
PPE			13 006
<i>Medical Equipment</i>			47 054
Ventilator	2	12 190	24 380
Multiparameter monitors	2	1 749	3 498
Defibrillator	1	9 540	9 540
Infusion pumps & Automated syringes	3	2 120	6 360
Trauma kit (pediatric and adult)	4		252
Stretchers	6	275	550
Vacuum and Charger	3		547
Crash Cart	1	1 523	1 523
Surgical kit	1	250	250
Serum heater	1	154	154
<i>Communications</i>			8 401
VHF Radios	20	420	8 401
<i>Media Costs</i>			1 333
<i>COVID-19 Tests</i>	2 419		104 506
<i>Consultancy and Fee</i>			19 362
Total			218 907

The overall project financial target is 79%. The reason for the difference in the real cost was because a) of the effectiveness of the confinement rules and the subsequent lower prevalence of COVID-19 in the capital in the period of SMART Triage and b) the support of national health insurance in the lab costs of some (not total) tests.

3. PRC COVID-19 Future Response Plan

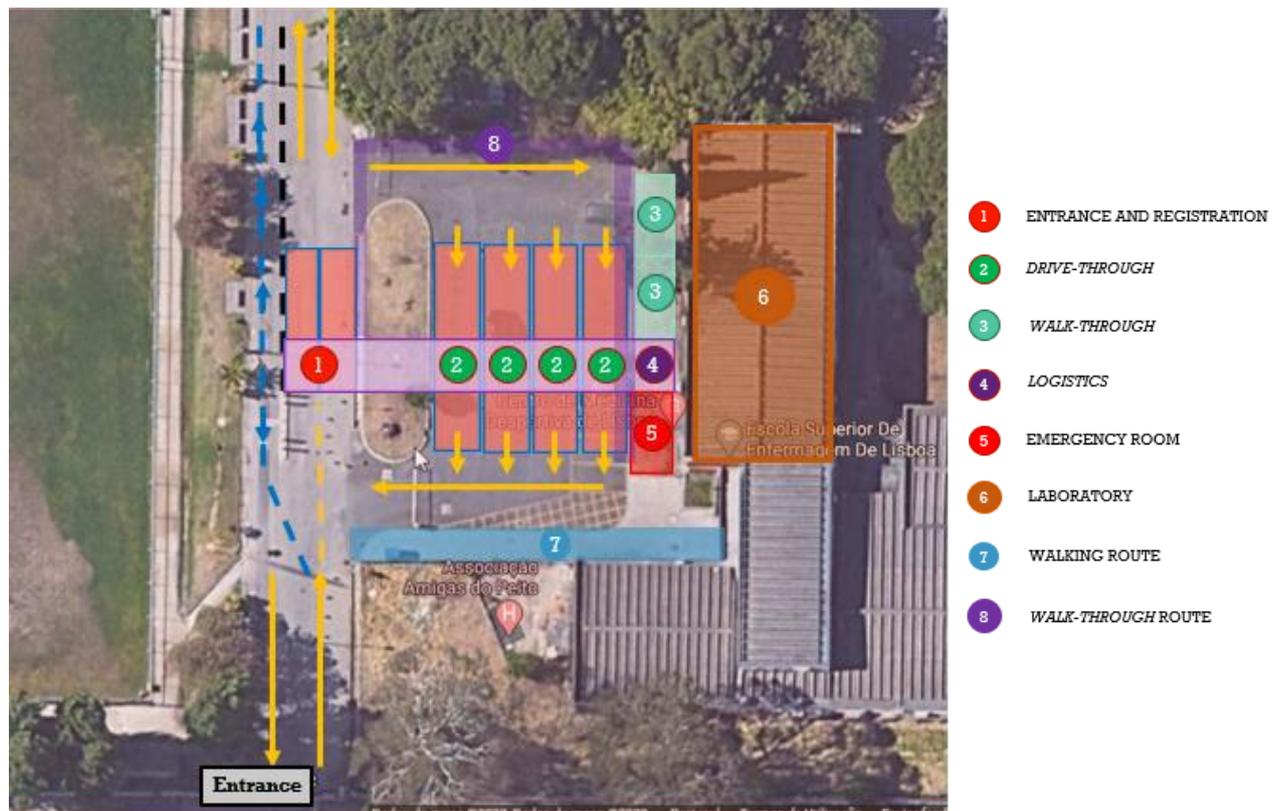
Following the last 15th of July, 2020 *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE OF THE REGIONS Short-term EU health preparedness for COVID-19 outbreaks*, about the need of European member states to ensure capacity and resources in matters of II.1.1 . *Testing, contact tracing and public health surveillance*, Portuguese Red Cross (PRC) is preparing a national ability of response.

Enhanced testing facility for Winter Season

In **cooperation** with the **Portuguese Government** and in partnership with the *Molecular Medicine Institute João Lobo Antunes (IMM)* and the *Francisco Manuel dos Santos Society*, the Portuguese Red Cross is **preparing an Enhanced testing facility for COVID-19 collection of biological samples and laboratory analysis**, in the **center of Lisbon** (*Lisbon University Stadium – Sports Medicine Facility*).

Lisbon Metropolitan Area represents 25% of Portuguese population with a large percentage of them commuting daily on public transports. These routines had been pointed as a major factor for the outbreak of positive cases in the last two months in this area, making Lisbon the current center of this pandemic in Portugal. We believe that in a second wave of the disease it is imperative that we have set up a structure that can release massive tests and control disease outbreaks in this area.

This project has been recently approved by all stakeholders and we are now planning the setup of the operation, with the presented layout:



Images 14: Testing facility layout

The **presented layout** with **drive** and **walk-thru** testing format has the estimated maximum capacity of taking and processing **1080 test samples per day** (4 lines of drive-through with 600 tests per day and 4 posts of walk-through with 480 tests), working in two daily shifts, six days a week.

This lot in Lisbon is composed by one building and a parking lot. IMM will take the building to establish the laboratory and PRC is going to set up a temporary facility with tents and office containers to use the parking lot as a triage and testing post. In this project, the PRC will also be responsible for setting up a

contact center and guarantee the flow related to individuals' in this facility, such as registration, triage, the clinic procedure of taking the biological sample and medical support.

With the **Coca-Cola Foundation** grant, we were able to purchase tents, technical and medical equipment that allow us now to set up part of this structure. Though, we have still **some investment** to 6 months of operation during winter season:

Expected start	September																															
Timeframe	6 months (September - February)																															
Mode of operation	In cooperation with IMM and Government, the setup of a testing facility for COVID-19 disease for collection of biological samples and laboratory analysis: <ul style="list-style-type: none"> ▪ Drive-Thru Testing Post ▪ Walk-Thru Testing Post 																															
Base	Lisbon University Stadium																															
Time schedule	Four weeks preparation to initiate operation in early September. The project is expected to last six months but may be extended if the SARS-CoV2 pandemic remains active.																															
Personnel involved	Approximately 28 people (2 daily shifts) will be working daily in this facility, plus 8 people in contact center and middle management.																															
Cost estimation (All costs mentioned consider the current prices as set by the different providers)	<p>To the daily basis of the mentioned activities, we estimate the following monthly costs:</p> <ul style="list-style-type: none"> • Drive-Through and Walk-Through Testing Post: <table border="1"> <thead> <tr> <th></th> <th>500 Daily Tests (USD)</th> <th>1 000 Daily Tests (USD)</th> </tr> </thead> <tbody> <tr> <td>Human Resources</td> <td>45.832</td> <td>74.117</td> </tr> <tr> <td>PPE</td> <td>21.141</td> <td>25.369</td> </tr> <tr> <td>Disposable Supplies</td> <td>24.482</td> <td>48.964</td> </tr> <tr> <td>Food, Hygiene, Laundry and Medical Residues</td> <td>3.647</td> <td>6.117</td> </tr> <tr> <td>Logistics</td> <td>1.647</td> <td>2.705</td> </tr> </tbody> </table> <p>*Each PPE Unit cost consists of: 1 waterproof overall, 1 face mask (FFP2), 1 pair of disposable gloves, 1 eye protection and 1 pair of boot covers.</p> <ul style="list-style-type: none"> • Call Center and Backoffice: <table border="1"> <thead> <tr> <th></th> <th>500 Daily Tests (USD)</th> <th>1 000 Daily Tests (USD)</th> </tr> </thead> <tbody> <tr> <td>Human Resources</td> <td>4.117</td> <td>5.294</td> </tr> <tr> <td>Consultant [Medical Responsible]</td> <td>3.882</td> <td>3.882</td> </tr> <tr> <td>Logistical expenses</td> <td>600</td> <td>628</td> </tr> </tbody> </table> <p>Total Cost of the Plan (for six months)</p> <ul style="list-style-type: none"> • <u>500 daily tests</u>: approximately 632.000 USD • <u>1 000 daily tests</u>: approximately 755.000 USD <p><i>The standard logistics and apparels of the project are optimized for a mass testing capability of more than 500 test daily (minimum).</i></p>			500 Daily Tests (USD)	1 000 Daily Tests (USD)	Human Resources	45.832	74.117	PPE	21.141	25.369	Disposable Supplies	24.482	48.964	Food, Hygiene, Laundry and Medical Residues	3.647	6.117	Logistics	1.647	2.705		500 Daily Tests (USD)	1 000 Daily Tests (USD)	Human Resources	4.117	5.294	Consultant [Medical Responsible]	3.882	3.882	Logistical expenses	600	628
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INNOVATION

The partnership between PRC (clinical partner) and IMM (laboratory partner) in the same facilities and procedures aim to reduce the unitary test cost to close of half of the current.

The goal is to increase testing capabilities reducing costs and time.

4. Expected outputs and outcomes

The SARS-CoV-2 pandemic has not ended.

The need of adapted response from an emergency phase to a “chronic” (?) phase has to be prepared. The likelihood of a resurgence of a second wave enhanced by the winter conditions force PRC to continue and update the initial project.

Our propose is keep alive SMART Triage by Coca-Cola in the winter testing post continuing testing the community and key personal from Civil Protection and Security Forces.

With the implementation of the project the PRC aims to continuing:

- Building a mass capacity of testing COVID-19 in Lisbon;
- Promoting regular testing of suspected cases;
- Performing risk assessment for COVID patients (early detection of a severe disease) and ensure close monitoring of high-risk patients;
- Reducing the load of patients being admitted at the emergency departments.

5. Results and Final Comments

Envisaging the maintenance of the availability to respond quickly to any need raised by the pandemics of COVID-19, the PRC is building its capacity in operations and logistics. The items purchased are useful for the current crisis but allow future use for any circumstance that may arise.

All the tents acquired as well as the equipment will have the Coca-Cola logo well visible for which the donation will be easily recognized for many years after COVID.

With the conviction that your support has improved significantly the response to the current crisis and pave the way for a strengthened response in the future, we expect that this document shares clearly the use of the donation from Coca-Cola Foundation.

We thank you for supporting this project and we remain available should you have any further questions.


Gonçalo Orfão

National Emergency Coordinator
Portuguese Red Cross

30 July 2020

