Covid-19 Supply Chain System Assessment
Comprehensive analysis

26 February 2021
The Yellow House

WE ADVISE, CONVENE, PUBLISH AND CAUSE REFLECTION FOR POSITIVE IMPACT
About the consultants

**The Yellow House** (TYH) LLC led the assessment.

TYH is a small advisory and advocacy firm that provides advice, convenes, and causes reflection on a range of topics for positive impact on humanity. Their focus includes Access to Health Products via healthy markets & supply chains; Innovations & Innovative Financing; and Diversity & Inclusion framed as anti-racism, anti-misogyny and anti-exploitive.

The lead consultants of the assessment were Jorgen Kofoed, Meredith Shirey, and Shanelle Hall

[https://www.theyellowhouse.dk/](https://www.theyellowhouse.dk/)

TYH partnered with **MM Global Health** (MMGH) Consulting GmbH for key aspects of the assessment.

MMGH is an advisory firm supporting public and non-profit clients to translate scientific evidence, data and knowledge into strategies and actions directly impacting people’s health. Their focus and expertise are centred on vaccine-preventable and neglected diseases.

[https://www.mmglobalhealth.org/](https://www.mmglobalhealth.org/)
CSCS Assessment Report

- Summary Assessment, Written Report
- Executive Summary, 2-page Written Report
- Comprehensive Assessment, Slide deck
- Executive Summary, Slide deck
- Lessons Learned Summary, Slide deck
- Country Profiles, Slide deck

Context
- Summary Data
- Overall CSCS
- Stakeholder perspectives
- Leadership
- Demand
- Funding
- Allocation
- Procurement
- Snapshots of Buyers
- Lead-times
- Pricing
- Key products
- Delivery
- Countries
- UN & NGO front line humanitarian workers - Duty of Care
- Task Force, and Control Tower
- Tools: Partners Platform, Supply Portal, Essential Supplies Forecasting Tool
- Data
- Purchasing Consortium: IPC, Clinical Care, Diagnostics
- Summary Recommendations & Next steps
- Summary of Lesson Learned
Assessment of the Covid-19 Supply Chain System (CSCS)

- Commissioned by WHO as advised by the CSCS Task Force in October to answer key questions
- Steered by the Joint Steering Group comprised of CSCS Task Force members and chaired by the Danish Refugee Council
- WHO is the Secretariat and is a part of the Advisory Group
- WHO supported that the assessment be as ‘independent’ as possible

Did the CSCS establish and implement a global strategy to help with access to critical and life-saving Covid-19 supplies?

Did it:
- Bring together the collective capabilities of public and private actors to meet these needs?
- Was equitable access to critical Covid-19 supplies achieved? Did this vary between diagnostics, oxygen, and PPE; and if so, in what way?
- Ensure the transport of vital Covid-19 cargo?
- What were key learnings along the way?
- What contributed to success? What could have been done differently?

What next:
- Which aspects of the CSCS, if any, could be useful to continue or adapt to ensure equitable access of critical Covid-19 tools for the next wave of the pandemic response?
- What learnings of the CSCS could be useful for other emergency responses?
Methodology & Timeline

1. **Desk review**
   - Chronology, timelines, etc. being developed based on desk review and interviews
   - Request with CSCS partners to share lessons learned, client satisfaction surveys, etc.
   - Interviews with key informants

2. **Survey**
   - 397 invited
   - Aim >100
   - Actual 113 responses
   - 75% UN
   - 50% global level

3. **Interviews**
   - 48 invited
   - Aim >30
   - Actual 29

4. **Quantitative data review**
   - Supply Portal
   - Control Tower
   - Delivery info from TGF, UNICEF, WFP, WHO
   - Buyer info from CHAI, GDF, IMC, IOM, PAHO, TGF, UNDOS, UNFPA, UNHCR, UNICEF, UNOPS, WHO
   - Publicly available data

5. **Analysis & assimilation**
   - Iterative review with the JSG and TF
   - Informed by discussions with the Secretariat and stakeholders

---

**Timeline**

- **October**
  - 5
  - 12
  - 19
  - 26

- **November**
  - 12
  - 9
  - 16
  - 23
  - 30

- **December**
  - 7
  - 14
  - 21
  - 28
  - 5

- **January**
  - 12
  - 19
  - 2
  - 9
  - 16

- **February**
  - 23

**Events**

- **Multiple changes in data received, 4-6 week delay**

---

**Legend**

- Desk review
- Survey
- Interviews
- Quantitative
- Assimilation
Methodology - from information gathering & assimilation to assessment & lessons learned

- Assimilate input from 4 streams (Desk review, Survey, Interviews, Quantitative)
- Conduct analysis & identified common themes based on triangulated information
- Verified analysis with stakeholders
- Develop lessons learned
- Pressure test lessons learned with stakeholders
- Finalise

There was a wide range of views within and between stakeholder groups – no 'single truth' including via different data channels. Multiple data channels became core to the analysis.

The CSCS Plan, approved by the Task Force, was used as main bench-marking document.
**Data Sources**

**CSCS Dashboard**
- Procurement by buyers by product group
- No monthly data
- No pricing, supplier info

**Supply Portal**
- Requests, procured, WAC by month, by product item/group – *WHO only*
- No delivery info

**Ad hoc**
- Info taken form meeting minutes
- Data publicly available

**Buyers**
- Procurement volumes
- Supplier base
- Pricing
- Deliveries
- Shipments

**WFP**
- Delivery volumes by month (not value) for all

- 5 main data channels
- Data sets were fractured and had different definitions of data points
- Information on funding sources - not a part of data sets
- Assessment queries identified issues – many iterations of data sets Dec-Jan
- Some buyers used their own definition of 'essential' PPE products
- Difficult to get an overall picture
Full report contains lessons learned on most aspects of the CSCS

“What worked well, Better if”

- Overall CSCS
- Leadership
- Task Force, Consortia, Control Tower
- Demand
- Allocation
- Procurement
- Delivery
- Data
- Communication
- Review by product area: Clinical Care, Diagnostics, IPC
- Tools: Partners Platform, Supply Portal, Essential Supplies Forecasting Tool

Analysis

- Technical and QA
- Deep dive of key products (ventilators, oxygen concentrators, respirators, PPE sets, PCR tests)
- Market Typologies
- Stakeholder perspectives
- Country & Regional body views
- UN & NGO front line humanitarian staff – Duty of Care
- Funding
Context
Context

A novel virus

• The CSCS was created during an unprecedented time. The world was facing a novel pathogen, the scope and spread of which was unknown in the beginning of 2020.

• WHO declared a Public Health Emergency of International Concern on 30 January and a Global Pandemic on 11 March.

• By end March, nearly a quarter of the world’s population was under quarantine, travel was restricted, schools closed, and markets for basic supplies and key medical supplies had contracted quickly.

• By early April, more than one million cases were confirmed with over 60,000 deaths, increasing to 83 million cases and 1.8 million deaths by the end of the year.

UN Action

• The UN took early actions. By end January, WHO convened the Pandemic Supply Chain Network to alert of market constraints for Personal Protective Equipment (PPE).

• In early February WHO reached out to UN agencies and NGOs to begin discussions on coordination.

• In mid-February the WHO Director General reached out to select Heads of State and Industry CEOs calling out for help with expanding PPE manufacturing.

• A rapid response of PPE and test kits to countries, notably by WHO and UNICEF was underway.

• The UN Crisis Management Team (CMT) convened by mid-February, from which the concept and structure of the CSCS matured.
The CSCS started in March and more fully launched at the end of April

- The CSCS brought together UN agencies, donors, vendors and NGOs to improve access to critical, life-saving Covid-19 supplies via coordinated and efficient pandemic supply chains

- Two main objectives:
  - Source and allocate essential Covid-19 products for IPC (PPE), clinical support (Biomedical products) and testing (Diagnostics),
  - Deliver these products via a virtual and physical supply chain leveraging humanitarian air service transport.

- Three core strategies: Consolidated Demand and Allocation, Coordinated Purchasing and Streamlined Delivery.

- The CSCS set-up:
  - An interagency Task Force that provided strategy and oversight
  - Three Purchasing Consortium (PPE, BioMedical, Diagnostics)
  - A Control Tower that provided the operational backbone, the systems and tools, and Coordinated Delivery.
Timeline: Rapid response to CSCS set-up

Early action, eg.
- WHO shipped nearly 500,000 sets of PPE (0.85m units) and diagnostics to 77 countries by end February
- UNICEF shipped 3.8m units to PPE to 8 countries by end February

CMT = Crisis Management Team
CSCS = COVID-19 Supply Chain System
EMS = Emergency Service Marketplace
PSCN = Pandemic Supply Chain Network
SCTF = Supply Chain Task Force
Summary Data
Headline statistics of the CSCS supply chain, 2020

$1.091 billion Covid-19 supplies for 184 countries

46% PPE, 41% Diagnostics, 13% Biomedical (of value)

1.023 million units of PPE were supplied to 169 countries

71 million diagnostics tests/kits were supplied to 161 countries

58,246 oxygen concentrators to 127 countries (mostly to LIC, LMIC)

3,462 ventilators to 84 countries (approximately half were UMIC)

64% was delivered by air. Of which approx. 60% were managed by the WFP hub and spoke system.

13 main buyers, with 69% of Covid-19 supplies procured for countries by WHO (including PAHO) and UNICEF. UNDOS and IOM procured supplies for UN and peacekeeping staff.

Of the 184 countries, 29 were low-income and received 26% of the supplies, 51 were lower-middle and received 37% of the supplies, 57 were upper-middle and received 31% of the supplies, and 47 were high-income countries and received 6% of the supplies.
$1.091 billion of Covid-19 supplies procured for countries
Plus $308 million procured for inventory

Data as of 31 December 2020
93% of stock is UNICEF’s (mainly PPE gloves and masks)

PPE
- $495m (45%) procured for 169 countries
- Of which 81% is delivered
- 19% potentially still pending

Diagnostics
- $450m (41%) procured for 161 countries
- Of which 72% is delivered
- 28% potentially still pending

Biomedical
- $146m (13%) procured for 149 countries
- Of which 70% is delivered
- 30% potentially still pending
1 billion units procured for countries via the CSCS

- **PPE:**
  - 1,023 million units procured for countries
  - Of which 81% (825 million) are delivered
  - 19% pending

- **Diagnostic:**
  - 71 million units procured for countries
  - Of which 62% (44 million) are delivered
  - 38% pending

- **Biomedical:**
  - 1.7 million units procured for countries
  - Of which 84% (1.45 million) are delivered
  - 16% pending

Data as of 31 December 2020
Supply Channels - Since the start of the SARS-CoV-2 pandemic, from which sources did you access your COVID-19 supplies?

<table>
<thead>
<tr>
<th>Source</th>
<th>PPE</th>
<th>Biomedical</th>
<th>Diagnostics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilateral</td>
<td>9%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>CSCS</td>
<td>50%</td>
<td>53%</td>
<td>55%</td>
</tr>
<tr>
<td>Market</td>
<td>31%</td>
<td>29%</td>
<td>22%</td>
</tr>
<tr>
<td>Other aggregators</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Other aggregators</td>
<td></td>
<td></td>
<td>13%</td>
</tr>
</tbody>
</table>
Procurement values supplied, regionally

Data as of 31 December 2020

<table>
<thead>
<tr>
<th>Region</th>
<th>Quantity</th>
<th>%GT Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRO</td>
<td>423,763,307</td>
<td>38.61%</td>
</tr>
<tr>
<td>AMRO</td>
<td>141,302,833</td>
<td>12.87%</td>
</tr>
<tr>
<td>EMRO</td>
<td>290,121,608</td>
<td>26.43%</td>
</tr>
<tr>
<td>EURO</td>
<td>104,189,680</td>
<td>9.49%</td>
</tr>
<tr>
<td>SEARO</td>
<td>86,977,518</td>
<td>7.92%</td>
</tr>
<tr>
<td>WPRO</td>
<td>51,325,740</td>
<td>4.60%</td>
</tr>
</tbody>
</table>
Procurement quantities, regionally

Data as of 31 December 2020
Regional proportion of total quantities and values received

Data as of 31 December 2020
Procurement total by buyer, excluding stock

Data as of 31 December 2020
• WHO* includes PAHO $135m
• Includes non-essential PPE
• The Global Fund (TGF) procured approx. $70m PPE via UNICEF and $13M PPE & Dx via UNDP
** Buyers by regions **

Data as of 31 December 2020

TGF procured approx. $70m PPE via UNICEF and $13M PPE & Dx via UNDP

<table>
<thead>
<tr>
<th>Supplying agency</th>
<th>Quantity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNICEF</td>
<td>442,166,391</td>
<td>$311,639,980</td>
</tr>
<tr>
<td>WHO</td>
<td>351,135,795</td>
<td>$310,781,513</td>
</tr>
<tr>
<td>PAHO</td>
<td>16,664,610</td>
<td>$135,269,411</td>
</tr>
<tr>
<td>UNDP</td>
<td>63,672,879</td>
<td>$91,232,027</td>
</tr>
<tr>
<td>Global Fund</td>
<td>5,459,773</td>
<td>$59,986,516</td>
</tr>
<tr>
<td>UNOPS</td>
<td>27,067,471</td>
<td>$56,950,075</td>
</tr>
<tr>
<td>UNHCR</td>
<td>65,960,678</td>
<td>$48,537,320</td>
</tr>
<tr>
<td>IOM</td>
<td>18,797,412</td>
<td>$27,727,205</td>
</tr>
<tr>
<td>UNFPA</td>
<td>97,535,016</td>
<td>$26,329,992</td>
</tr>
<tr>
<td>UNDOOS</td>
<td>10,003,222</td>
<td>$5,503,747</td>
</tr>
<tr>
<td>IMC</td>
<td>5,821,140</td>
<td>$4,084,382</td>
</tr>
<tr>
<td>CHAI</td>
<td>848,000</td>
<td>$2,876,544</td>
</tr>
<tr>
<td>GDF</td>
<td>145,280</td>
<td>$2,876,544</td>
</tr>
</tbody>
</table>

** Total **

1,095,274,446 | $1,090,921,934
Estimated number of deliveries to countries by month

- Deliveries every month
- Rapid scale-up
- Slower in April-May
- Then steady growth

Notes:
- Data through November
- WFP, UNICEF, WHO and GF data: Approx 90%
- No. of WFP, Global Fund, and WHO dispatches is determined based on a count of a combination of destination country and dispatch date
- The Global Fund funded PPE would primarily appear as UNICEF and WFP deliveries
- Data does not include passenger movements

Total shipments/dispatches: 4,542
54% by WFP
Overall the location and throughout of hub and spoke system made sense – in particular the new hubs created based on Covid-19 supply routes in Liege and Guangzhou.

Consolidating large volumes for efficient and timely delivery. Weak aspect was ability to pull out high priority cargo from a consolidation.
Early action by WHO & UNICEF – deliveries of PPE and Diagnostics

<table>
<thead>
<tr>
<th>JANUARY</th>
<th>FEBRUARY</th>
<th>MARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO:</td>
<td>UNICEF:</td>
<td>WHO:</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>China</td>
<td>Afghanistan</td>
</tr>
<tr>
<td>Albania</td>
<td>DRC</td>
<td>Albania</td>
</tr>
<tr>
<td>Algeria</td>
<td>DPRK</td>
<td>Angola</td>
</tr>
<tr>
<td>Angola</td>
<td>Fiji</td>
<td>Armenia</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Nepal</td>
<td>Bangladesh</td>
</tr>
<tr>
<td>Belarus</td>
<td>Papua New Guinea</td>
<td>Belarus</td>
</tr>
<tr>
<td>Bhutan</td>
<td>Central African</td>
<td>Benin</td>
</tr>
<tr>
<td>Bosnia &amp; Herzegovina</td>
<td>Republic</td>
<td>Bolivia</td>
</tr>
<tr>
<td>Brunei Darussalam</td>
<td>China</td>
<td>Bosnia and Herzegovina</td>
</tr>
<tr>
<td>Burundi</td>
<td>DR C</td>
<td>Botswana</td>
</tr>
<tr>
<td>Cabo Verde</td>
<td>Fiji</td>
<td>Brunei Darussalam</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Indonesia</td>
<td>Cameroon</td>
</tr>
<tr>
<td>Cameroon</td>
<td>Iran</td>
<td>Cape Verde</td>
</tr>
<tr>
<td>CAR</td>
<td>Kenya</td>
<td>Cameroon</td>
</tr>
<tr>
<td>Congo, Rep.</td>
<td>Kiribati</td>
<td>Chad</td>
</tr>
<tr>
<td>Cote d'Ivoire</td>
<td>Kosovo</td>
<td>CAR</td>
</tr>
<tr>
<td>Djibouti</td>
<td>Kyrgyzstan</td>
<td>Central African</td>
</tr>
<tr>
<td>DRC</td>
<td>Lao PDR</td>
<td>Central African</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>Liberia</td>
<td>Central African</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Lithuania</td>
<td>Central African</td>
</tr>
<tr>
<td>Fiji</td>
<td>Madagascar</td>
<td>Central African</td>
</tr>
<tr>
<td>Gambia</td>
<td>Malaysia</td>
<td>Central African</td>
</tr>
<tr>
<td>Georgia</td>
<td>Mali</td>
<td>Central African</td>
</tr>
<tr>
<td>Ghana</td>
<td>Mauritania</td>
<td>Central African</td>
</tr>
<tr>
<td>Guinea</td>
<td>Mauritius</td>
<td>Central African</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Moldova</td>
<td>Central African</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Mongolia</td>
<td>Central African</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Montenegro</td>
<td>Central African</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Myanmar</td>
<td>Central African</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Mozambique</td>
<td>Central African</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Myanmar</td>
<td>Mozambique</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Myanmar</td>
<td>Mozambique</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Myanmar</td>
<td>Mozambique</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Myanmar</td>
<td>Mozambique</td>
</tr>
</tbody>
</table>

**WHO:***
- Afghanistan
- Albania
- Algeria
- Angola
- Armenia
- Bangladesh
- Belarus
- Bhutan
- Bosnia & Herzegovina
- Brunei Darussalam
- Burundi
- Cabo Verde
- Cambodia
- Cameroon
- CAR
- Congo, Rep.
- Cote d'Ivoire
- Djibouti
- DRC
- Equatorial Guinea
- Ethiopia
- Fiji
- Gambia
- Georgia
- Ghana

**UNICEF:**
- China
- DR C
- DPRK
- Fiji
- Nepal
- Pakistan
- Papua New Guinea
- Philippines
- Russian Federation
- Rwanda
- Sao Tome And
- Prince
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Solomon Islands
- South Africa
- Sudan
- Tanzania
- Timor-Leste
- Togo
- Tonga
- Tuvalu
- Turkey
- Turkmenistan
- Uganda
- Ukraine
- Vanuatu
- Vietnam
- Zambia
- Zimbabwe

**March:***
- Georgia
- Ghana
- Georgia
- China
- Papua New Guinea
- Philippines
- Russian Federation
- Rwanda
- Sao Tome And
- Prince
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Solomon Islands
- Somalia
- South Africa
- Sri Lanka
- Syria
- Tajikistan
- Tanzania
- Thailand
- Timor-Leste
- Togo
- Turkey
- Turkmenistan
- Uganda
- Ukraine
- Uzbekistan
- Vietnam
- Yemen, Rep.
- Zimbabwe
Early action by WHO & UNICEF
84 countries received Dx & PPE in Feb, 104 countries in March

In addition, UN DOS supplied BioMed, Diagnostics & PPE to Peacekeeping missions in Feb & Mar

Number of countries supplied with Diagnostics & PPE

<table>
<thead>
<tr>
<th>Month</th>
<th>UNICEF</th>
<th>WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Feb</td>
<td>85</td>
<td>85</td>
</tr>
<tr>
<td>Mar</td>
<td>77</td>
<td>77</td>
</tr>
</tbody>
</table>

Units of PPE & Diagnostics, millions

<table>
<thead>
<tr>
<th>Month</th>
<th>UNICEF</th>
<th>WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>3.91</td>
<td>1.44</td>
</tr>
<tr>
<td>Feb</td>
<td>0.48</td>
<td>0.85</td>
</tr>
<tr>
<td>Mar</td>
<td>1</td>
<td>4.12</td>
</tr>
</tbody>
</table>

USD value of PPE and Diagnostics, millions

<table>
<thead>
<tr>
<th>Month</th>
<th>UNICEF</th>
<th>WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>Feb</td>
<td>0.48</td>
<td>0.48</td>
</tr>
<tr>
<td>Mar</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
184 countries reached with supplies - by buyer and product

Number of countries procured for by CSCS buyer:

- WHO: 174
- UNICEF: 138
- UNDP: 114
- UNFPA: 101
- UNHCR: 82
- The Global Fund (TGF): 72 (plus more countries were procured for via UNDP & UNICEF on TGF behalf)
- GDF: 23
- PAHO: 22
- UNOPS: 20
- IMC: 17
- CHAI: 16

Number of countries by product group:

- PPE: 169
- Diagnostics: 161
- Biomedical: 149

Data as of 31 December 2020
Countries with largest procurement value

Data as of 31 December 2020
Nigeria supply summary – example country snapshot

Data as of 31 December 2020
WHO* includes PAHO
PPE procurement summary

Data as of 31 December 2020
WHO* includes PAHO
TGF procured approx. $70m PPE via UNICEF and $6m via UNDP

*CSCS Procurement overview of Covid-19 PPE supplies as of 31 December (excluding stock)

Top 10 (by value) products procured for countries

*classified as non-essential supply
Diagnostics procurement summary

Data as of 31 December 2020
WHO* includes PAHO
TGF procured approx. $6m Dx via UNDP and GF procured $5.6M via UNICEF
Biomedical procurement summary

Data as of 31 December 2020
WHO* includes PAHO

CSCS Procurement overview of Covid-19 BIO supplies as of 31 December (excluding stock)

Top 10 (by value) products procured for countries

20 countries receiving largest value of supplies
Roles & number of partners in different aspects of the CSCS

Task Force
Co-chair: WHO & WFP
Members: 20 organizations

Diagnostic Consortia
Chair: WHO
Participants: 18 organisations

PPE Consortia
Chair: WHO for 6 weeks, then led by UNICEF but as a Procurement Reference Group
Participants: 15 organisations

BioMed Consortia
Chair: WHO
Members: 14 organisations

Control Tower
WHO
WFP

The CSCS brought together a range of partners including, (but not limited to):

Africa CDC
Alima
CG Dev
CHAI
DFID
FIND
The Gates Foundation
GDF
The Global Fund
IAEA
IFRC
ICRC
IMC
IOM
MSF
PATH
UNDP
UNFPA
UNHCR
UNICEF
UNOPS
UNRWA
UNICEF
Unicef
WFP
WHO
The World Bank
Resourcing the CSCS and critical supplies

- **Financing Plan** May: $100 million
- **Updated Plan** June (GHRP2): $170 million
- **Actual, 31 December**: $150 million

- **Bridging facility**: $240 million
- **Critical Supplies**: $185 million*
- **Common Services**: $tbc million
- **$1.091 billion**

*Excludes $100M Passenger & Medevac
**Excludes $308 M supplies in stock
Overall CSCS Lessons Learned
Summary Assessment

- The CSCS established and implemented a global strategy to help with access to critical and life-saving Covid-19 supplies. It harnessed the collective capabilities of the UN and Global Health Partners to procure and deliver large volumes of supplies.
- The CSCS created inclusive and information exchange forums in the midst of at times competition between organisations/buyers. It acquired large volumes of PPE, biomedical supplies and diagnostics and maintained open corridors that delivered these essential, life-saving supplies to 184 countries in need.
- Prior to the assessment, few people if any, had an overview of the work of the CSCS (across its large breadth and depth). There were divergent stake-holders views on most aspects of the CSCS. A lack of data and an underestimation of the effort to keep people informed and coordinated contributed to the lack of shared understanding.
- It fell short in some important areas of implementation:
  - Coordinated end-to-end (E2E) value & supply chain strategy and communication
  - Allocation of scarce supply
  - Data requirements, sharing, and use of
  - Lead-times
  - Visibility of supply situation to countries
- There was a limited operational link to the pandemic response (and at times, resistance to WHO leadership) which left space for other priorities to be the determinant for key decisions.
- The culture and atmosphere during peak constrained periods was negative at times – seemingly due to a lack of agreement on strategy and roles, and organisational interest.
- It is difficult to assess if “equitable access” was achieved, due to data gaps and no clear definition of “equitable.”
- Throughout the assessment it was clear that the majority of respondents believe that something like the CSCS was needed and should be continued in the future. Including around demand and allocation, procurement and delivery. More alignment and coordination with the WB.
- There are key lessons learned that could be incorporated to improve efficiency and impact of a future mechanism.
Overall - What worked well

**EARLY SIGNALS TO MARKETS**

- Within 2 weeks of PHEIC being called (30 Jan) WHO warned of shortages publicly & the DG sent letters to manufacturer CEO and countries
- Within 4 weeks of PHEIC (and 1 week prior to Pandemic being called), WHO projected a need of 1.3 billion PPE units over coming 9 months for LIC/LMIC – which proved to be >80% accurate

**SUITE OF PLANNING TOOLS**

- On-line information on the CSCS with contact points, reference documents, links to systems & tools, videos, etc.
- Partner Platform, Supply Portal, Essential Supplies Forecast Tool – first versions out in March
- Most comprehensive on-line tools to facilitate coordination at country level, quality forecasts, and data sharing to enable a coordinated, effective supply chain
- But Supply Portal was the most complex and not used in full or built out – so was a point of frustration

**RAPID DEPLOYMENT OF SUPPLIES & FUNDING**

- By end February, WHO had pushed a first surge of PPE and test supplies to 47 countries on a no regrets basis. UNICEF had shipped PPE and tests to 8 countries.
- By early March, a bridge fund had been created with the Gates Foundation for rapid deployment of supplies
- By 11 March, the Solidarity Fund was launched and used to deploy urgent supplies
- By end March, >300 shipments to >110 countries.
- Fast movement by health humanitarian actors
- Preparations (post Ebola and influenza pandemic) enabled a rapid response by WHO & UNICEF

**DELIVERY**

- Cargo & passenger corridors remained opened throughout 2020, including during months with highest travel bans April-May
- Multi-line cargo – WFP but also UNICEF, GF & WHO
- Game changer for NGOs

**EARLY COORDINATION & STRATEGY**

- Within 2 weeks of Pandemic being declared (11 March) the CMT approved the creation of a Supply Chain Task Force to be established
- Clear concept and strategy that focused on the right topics (demand/allocation, market/acquisition, delivery) and structure (Task Force, Control Tower, Country Portal)
- Consolidated delivery channel available for all in February (later named Solidarity Flights) – used by the UN, Jack Ma Foundation, NGOs and others.

**USE OF HEALTH PROCUREMENT ASSETS OF THE UN & GLOBAL HEALTH PARTNERS**

- Multi-line approach to procurement expanded access to the market overall
Overall - Better if

<table>
<thead>
<tr>
<th>STAY PANDEMIC-RESPONSE LED</th>
<th>PLAYBOOK ON ROLES &amp; ASYSTEM TO COORDINATE</th>
<th>REGIONAL &amp; LOCALISATION</th>
<th>DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stay Pandemic-response led to provide authority &amp; expertise (a “final voice,” if needed) on:</td>
<td>Consult Countries/Regional bodies, Global Health Partners (GF, Gavi, CHAI, UNITAID, BMGF, FIND, etc.), WB/IFIs, UN agencies, NGOs on design.</td>
<td>Empower and engage local and regional procurement mechanisms – as a central part of a future mechanism.</td>
<td>Define data needs for visibility of a supply chain operation and market situations.</td>
</tr>
<tr>
<td>• Negotiation and ensuring access terms link to procurement</td>
<td>Define data needs, Communication strategy, Roles</td>
<td>Consider regional and local markets, and specifications</td>
<td>Define data needs beyond the CSCS – for multidirectional information and data flow.</td>
</tr>
<tr>
<td>• Specifications, use-case &amp; suitability of supplies</td>
<td>Establish a suite of tools – focus on visibility, coordination, planning &amp; end-to-end execution (not an ERP system).</td>
<td>Be more transparent with countries and regions on market situation and allocation decision-making</td>
<td>Establish data sharing compacts and pre-build a system for data sharing given system interoperability challenges.</td>
</tr>
<tr>
<td>• Demand forecast – top-down &amp; bottom-up</td>
<td>Build during “peace-time”</td>
<td></td>
<td>Use data to drive performance, manage risks, course correct, support decision making.</td>
</tr>
<tr>
<td>• Demand generation</td>
<td>Include a plan for Duty of Care – UN and NGO front line humanitarian staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Allocation of scarce supplies</td>
<td>Use current momentum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Product innovation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXECUTION LEADERSHIP</th>
<th>FINANCING</th>
<th>COORDINATION OF MULTI-LANE APPROACH</th>
<th>MARKET –TAILORED STRATEGIES TO ACCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A small ExCom of principals to provide strategic leadership and focus</td>
<td>Coordinate with the World Bank and other IFIs.</td>
<td>To maximise impact and minimise complexity to countries &amp; markets</td>
<td>The approach to access critical supplies should be tailored to markets.</td>
</tr>
<tr>
<td>Establish a fire-wall between coordination &amp; implementation.</td>
<td>Establish funding, so volume guarantees can be made with mfrs of novel products to ensure quantities.</td>
<td>Procurement &amp; Delivery</td>
<td>Commodity (PPE), Pathogen-specific (Tests, Vx), Equipment (O2,Vents)</td>
</tr>
</tbody>
</table>
| Use data to understand needs, monitor performance, communicate. | Consider expanding “bridge financing” like mechanisms (fast capital) for buyers to access while funding materializes (slower capital). | Technical specs, QA, procurement and delivery to countries, and market-facing engagement on demand & access negotiations. | Including:
| Maintain an overarching, end-to-end view of markets & supply chain – including demand (needs, funding) and supply (availability, price, allocation) and strategies. | Establish a pooled fund(s) for products in limited supply so a minimum allocation can be based on need not funding availability (e.g., automated PCR tests, antivirals, vaccines – novel and pathogen specific products) | |
| More senior-level engagement across partners (not just WHO) to keep strategic and agile. The right people in the right place – draw on expertise | | | • Preparation (strategic stocking)
| | | | • Procurement strategy
| | | | • Roles (see subsequent slides) |
Overall - CSCS Strategy

Observation of what happened

- In the interviews, respondents had relatively little to say about the CSCS strategy and focused instead on implementation and operational issues.
- Of the remarks made on the CSCS strategy, most agreed that it was appropriate and endorsed the strategic priorities. Multiple respondents noted that the challenges lay in implementation of the strategy.
- While the CSCS provided a forum for collaboration and alignment around allocation principles, it was seen as slow to deliver. This was in part because it built new structures and platforms instead of using existing coordination mechanisms.
- Challenges on clarity on roles, communication, and data sharing.
- Too much delegated to Consortia – without follow-up
- The pieces of the CSCS (consortium, delivery, control tower, TF) were not brought together and worked in isolation. Leading to a fragmented approach and power struggles
- Building a supply portal in real-time in a pandemic – not feasible
- Shortcomings were attributed to inter-agency competition, misaligned incentives, leadership
- Lack of understanding on WHO regular health emergency operations
- In spite of its limitations in speed and efficiency, many respondents agreed that the CSCS improved access by countries. 186 countries were served

What worked well...

- Good strategy – wide agreement that it was the right thing to do
- Multi-lane approach, access the strengths of the partners in buying and delivering
- Developed quickly

Could be better if...

- Consult with key partners and countries/regions in the design
- Communication – not many people new the specifics of the strategy
- Clear designation of roles
- Allocation responsibility with led by pandemic response, with expert advice
- E2E oversight to ensure alignment among the different pieces
- Agreement on data sharing & use of data to monitor performance
- Build out a “supply portal” in advance, or use existing mechanisms instead of creating something new during a pandemic
Key messages by stakeholder group – difficult to distil given wide range of views within and between stakeholder groups

<table>
<thead>
<tr>
<th>COUNTRY &amp; REGIONS</th>
<th>UN AGENCIES</th>
<th>NGOS</th>
<th>VENDORS</th>
<th>FOUNDATIONS, EXPERTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall the CSCS helped with access</td>
<td>The right concept, execution could have been better including more consultation with those experienced in humanitarian response - health</td>
<td>CSCS was key to continuing their humanitarian programmes - transport of passengers and supplies</td>
<td>Strong support for coordination on market facing work (procurement, demand, etc) – want it to continue</td>
<td>Good strategy, worked well in the beginning. Challenges in execution thereafter. But then better at the end. A ‘U’ shaped performance curve</td>
</tr>
<tr>
<td>Rapid response was helpful</td>
<td>Country level planning and requisitioning, including via the Supply Portal was a challenge</td>
<td>Challenge in accessing procurement, contracts, and the Supply Portal</td>
<td>Critique that access agreements for tests resulted in longer lead-times</td>
<td>Comparison made with ACT-A which has more senior leadership (if pillars = consortiums)</td>
</tr>
<tr>
<td>Long lead-times after initial rapid response was a frustration. As well as communication - what supplies, when &amp; from whom</td>
<td>Heavy meeting schedule and time to build during early phase of a pandemic</td>
<td>Gap in allocations to humanitarian needs (and staff).</td>
<td>WHO allocation model &amp; strategy helped them. But implementation was a black box</td>
<td>Decentralise and localise</td>
</tr>
<tr>
<td>Want visibility on global demand-supply situation, basis for allocation, and allocation decisions</td>
<td>Preparation measures helped with rapid response</td>
<td>Felt like they were more of an observer than influencer. Not included from onset.</td>
<td>Need for clearer tech specs (PPE) and use-case (Tests) and buyers to align</td>
<td>Decide to truly coordinate</td>
</tr>
<tr>
<td>Strong voice for:</td>
<td>Concern about basis for allocation (buyer-driven rather than epi-driven)</td>
<td></td>
<td>Frustrated that hub-and-spoke model not used for tests (multiple FF picking up with diff standards, priority)</td>
<td>Financing: need fast capital to bridge until slow money is available</td>
</tr>
<tr>
<td>More regionalisation of approach – design &amp; procurement</td>
<td>Country level UN more positive</td>
<td></td>
<td>Competition between buyers was a challenge</td>
<td>Need strong leadership from WHO. UN agencies could have leaned-in more</td>
</tr>
<tr>
<td>More use of local and regional suppliers</td>
<td>UN Staff &amp; Peacekeeping left out.</td>
<td></td>
<td>Overall – plan for UN coordination was good but execution not as planned</td>
<td>More visibility on needs, and what was being supplied, by whom.</td>
</tr>
<tr>
<td>Involvement in design (same for ACT-A)</td>
<td>Non-humanitarian actors were given lead roles</td>
<td></td>
<td>Biomed demand didn’t materialise in full</td>
<td>Access terms (pricing, etc.) – should be available to others (WB, etc.)</td>
</tr>
</tbody>
</table>
**Coordination**

- Decision-making
- Information sharing/communication
- Collaboration

- Frequent meetings but mostly information sharing and no end-to-end oversight & coordination of the whole CSCS operation
- Pockets of good coordination. But overall, limited coordination between buyers and between deliverers
- Decisions, strategies, and coordination needed to be pandemic-response led
- Limited use of data to monitor performance and support decision-making

**Strategy**

- Implementation & agility
- Impact
- Efficiency

- Overall content of the strategy was strong and impact was high
- However, strategy not developed in consultation with regions, countries and partners (UN & NGO, Foundations) and therefore understanding was low which contributed to challenges in implementation
- Communication and monitoring progress was weak and therefore strategy was not fully realized.
- There was an underestimation of the effort needed to keep people informed and coordinated
- Late development of a plan B for data (when Supply Portal didn’t materialise) was a problem
- Pandemic response was not in leadership role for difficult decisions

**Demand**

- Forecast & Accuracy
- Segmentation
- Visibility
- Use

- Demand forecast in Feb-Mar for PPE was key to sending market signals. High accuracy.
- Updated PPE forecast in joint tender had low accuracy due to overestimated volumes, which were reduced by the time awards were made
- Dx: No forecast developed for Diagnostic
- Biomed: Early forecast for O2 concentrators and ventilators had low accuracy - too high largely due to country absorptive capacity

**Procurement**

- Quality
- Speed
- Quantities
- Price

- Rapid response was very strong but long lead-times thereafter
- Large volumes procured - accessing the strength of the UN
- No evidence of an analysis of the different markets to set and adapt acquisition strategies.
- Did not leverage regional or country procurement capacity (except PAHO)
- QA/QC problems for PPE during scaleup of production
- Limited monitoring of lead-times and pricing over time
- Access terms – pricing, not shared with all stakeholders

**Allocation**

- Equitable
- Timely
- Appropriate

- Allocation moved from WHO (Control Tower) to Consortia. No consistent link to pandemic response
- No allocation made for PPE (buyers made their own allocations inside their organization)
- Allocation for Biomed was de-facto a result of country absorptive capacity and funding
- Allocation for Dx was problematic: based on collapse of market, first-come-first-serve, organizational/buyer interest, etc. AMR lost months of access

**Delivery**

- Timely
- Cost

- Large volumes delivered by accessing the strength of the UN (multi-line approach, but majority by WFP)
- WFP hub-and spoke system was effective
- Pooled costs was helpful
- Transport corridors (cargo and passenger) remained open the full year, WFP was a game-changer for NGOs
- Weak pipeline planning with buyers. No coordination between deliverers
- Inconsistent pre-delivery advice and challenge to pull out an urgent cargo from consolidated cargo

**Learning board**
<table>
<thead>
<tr>
<th>Coordination</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision-making, Information sharing/communication, Collaboration</td>
<td>Maintain pandemic response in leadership role with firewall between coordination and implementation</td>
</tr>
<tr>
<td>· Decisions, strategies, and coordination needed to be pandemic-response led</td>
<td>· At onset of mechanism launch, start with ‘Playbook,’ make rapid consultations with regions, countries and partners (UN &amp; NGO, Foundations) on strategy</td>
</tr>
<tr>
<td>· Establish a data and information exchange strategy</td>
<td>· Use data-driven analysis to monitor performance and support decision-making</td>
</tr>
<tr>
<td>· Use data-driven analysis to monitor performance and support decision-making</td>
<td>· Set-up should be based on market analysis and informed by market typology characteristics</td>
</tr>
<tr>
<td>· Engage countries and regions, public health partners, and WB</td>
<td>· Align on products – use-case, specifications, etc.</td>
</tr>
<tr>
<td>· Establish an active communication approach – within the mechanism and externally (strategy, market situation, progress, etc.)</td>
<td>· Maintain pandemic response in leadership role with firewall between coordination and implementation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demand</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast &amp; Accuracy, Segmentation, Visibility, Use</td>
<td>· Allocations should be led by pandemic response with expert advice, have a view across pandemic products being allocated, etc.</td>
</tr>
<tr>
<td>Quantity &amp; Accuracy, Speed, Quality, Pool</td>
<td>· Criteria – combination of current and modelled epi, vulnerability, other supply channels, country capacity</td>
</tr>
<tr>
<td>· Quantify demand and demand segments, be clear with assumptions on demand, designate unfunded demand</td>
<td>· Consult regions, countries, experts on allocation criteria and definition of equity. Make timely allocations and provide the basis.</td>
</tr>
<tr>
<td>· Provide regular updates to demand</td>
<td>· Take strategic actions to prevent allocations being done, de-facto, by manufacturers</td>
</tr>
<tr>
<td>· Country level coordination around demand based on national plan – and channels of providing supply (government direct to market, aggregators, bilateral, etc.)</td>
<td>· Decide on allocation channel for humanitarian staff</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Procurement</th>
<th>Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality, Speed, Quantities, Price</td>
<td>· Coordinate delivery channels</td>
</tr>
<tr>
<td>· Acquisition strategy based on market typology. Use rapid, innovative tactics and avoid traditional, long procurement</td>
<td>· Use pipeline plans from buyers for planning set-up (hub &amp; spoke) and deliveries</td>
</tr>
<tr>
<td>· Regionalize, localize procurement as much as possible</td>
<td>· Provide pre-delivery advice, and real-time status of delivery. Be able to pull a specific delivery out from consolidation.</td>
</tr>
<tr>
<td>· Coordinate buyers</td>
<td>· Pool costs</td>
</tr>
<tr>
<td>· Extend Access terms to others</td>
<td>· Find solutions for special cargo types (temperature sensitive, regional, etc.)</td>
</tr>
<tr>
<td>· Establish shared QA – especially for commodity markets with rapid production increase</td>
<td>· Data &amp; Information: from volume and dispatches, to also items, values, deliveries, etc.</td>
</tr>
<tr>
<td>· Monitor price and lead-times</td>
<td>· Provide delivery mechanism with information for pipeline planning</td>
</tr>
</tbody>
</table>
Leadership
Leadership - What worked well

- Rapid deployment of supplies to countries
- Early signals to market
- Early coordination & strategy

Leadership – Better if

- Engage regional bodies, countries & NGO in design
- More communication inward & outward
- Stay pandemic response led
- Create exec team for strategy, decision-making
- Focus on execution
Leadership - What worked well

EARLY SIGNALS TO MARKETS

Within 1 week of PHEIC being called (30 Jan)
- WHO warned of shortages of PPE, tests & O2 and engaged industry - at the Executive level
- WHO convened the Global Supply Chain Network to discuss coordination and PPE supplies

Within 4 weeks of PHEIC (and week prior to Pandemic being called),
- WHO projected a need of 1.3 billion PPE units over coming 9 months for LMIC

RAPID DEPLOYMENT OF SUPPLIES TO COUNTRIES

Within 4 weeks of PHEIC (and 1 week prior to Pandemic being called), WHO had pushed a first surge of PPE and test supplies to 100+ countries on a no regrets basis.

UNICEF had also shipped PPE and tests to 8 countries.

By early March:
- A bridge fund had been created with the Gates Foundation for rapid deployment
- The Solidarity Fund was launched on 11 March

By end March:
- 121 served with supplies by WHO
- 19 countries by UNICEF

EARLY COORDINATION & STRATEGY

Within 2 weeks of Pandemic being declared (11 March) the CMT approved the creation of a Supply Chain Task Force to be established

Clear concept and strategy that focused on the right topics (demand/allocation, market/acquisition, delivery) and structure (Task Force, Control Tower, Country Portal)

Consolidated delivery channel available for all in February (later named Solidarity flights) – used by the UN, Jack Ma Foundation, NGOs, and others.
Key Enablers of leadership

EARLY SIGNALS TO MARKETS

The Pandemic Supply Chain Working group (WEF, WHO, WFP++) — provided a standing touch point with markets — at the executive level

Fully engaged DG & WHO leadership

Programmatic top-down calculation of PPE and initial testing needs

RAPID DEPLOYMENT OF SUPPLIES TO COUNTRIES

WHO and UNICEF standing supply arrangements and inventory of PPE — based on Ebola and H1N1 learnings.

Humanitarian experience — WHO, UNICEF, WFP support >20 countries with health emergency support on an ongoing basis

A recognition that something had to happen given global situation

Existing relations enabled non-UN partners to bring their expertise / assets to the table

EARLY COORDINATION & STRATEGY

WHO expertise and legitimacy in health emergencies

Strategy put in place early, based on experience

WFP transport was built on the Logistics Cluster approach which enabled quick movements.

WFP brought relations with NGOs via Log Cluster.
## Key Disablers of leadership

### Engage Regional Bodies, Countries & NGOs in Design

- Existing frameworks
  - Global level is market-facing and regional and country is delivery-focused
  - North-south/Development assistance model
- Speed— the (artificial) tension between being consultative and moving quickly
- Global ‘mediation’ of needs between regions/countries
- Many NGOs to engage—and many actors overall so beyond initial touchpoint was complex (beyond MSF & IFRC)

### Communication

- Frequent changes in meeting participation by members
- No strategy on communication within the layers of the CSCS and with partners and countries

### Stay Pandemic Response Led

- Limited resourcing—only so many available experts
- Organisational interest/perspectives/functions as a stronger factor on key access issues

### Leadership in Execution

- Building & rolling out a new system (portal, etc.) in the middle of a pandemic.
- Limited resources - available senior-leaders
- Data needs weren’t defined—information was given but it didn’t necessarily support collaboration
- Maintain interest and engagement with key stakeholders

---

The reality of a global pandemic—no where to get resources, everyone was affected, the rapid pace of events, transmission rate, and learnings of the virus & disease—all occurring at a log scale pace

---

PAGE: 47
Leadership – Better if

**ENGAGE REGIONAL BODIES, COUNTRIES & NGOs IN DESIGN**

- For ownership, participation, localisation and quality of execution
- Be more transparent with countries and regions on supply situation and allocation decision-making
- A clearer link of supply to national pandemic response strategy/plans (by 1 March 46% of countries had a Response Plan, at 30 June, 83%)
- Consider regional and local markets and specifications
- Include NGO so they can access what is being put in place to serve special humanitarian contexts – build on their coordination forum

**COMMUNICATION**

- More communication and reference to overall strategy and set-up in order to limit confusion and perception of COI – especially around doing & convening
- Ensure information flow within the layers of the CSCS (TF, Consortium, Control tower - horizontal and vertical)
- Ensure information flow with externals – countries, markets and publicly available information (e.g., on markets, allocations)
- Open channel to address concerns, conflicts, help with buy-in (CSCS leadership to have bilateral dialogue with key partners & regions)
- Task Force or Consortium members - communicate internally with their own orgs on strategy, decisions & updates

**STAY PANDEMIC RESPONSE LED**

- Pandemic response led provides authority & expertise (a ‘final voice,’ if needed) on:
  - Use-case for supplies
  - Specifications & suitability of supplies
  - Demand - top down & bottom-up
  - Allocation of scarce supplies
  - Funding needs
- Increase in QA & technical capacity at WHO is a key enabler
- Reduce organisational interest/perspectives/functions as a stronger factor on key access issues
- Special consideration for NGO & UN staff needs
- Chair the Task Force

**LEADERSHIP IN EXECUTION**

- More senior-level engagement (e.g., consortiums. Firewall approach to leadership – avoid double-hatting)
- A playbook (rules, data, system) in place in advance & adapted based on specifics of the pandemic
- TF should have an overarching end-to-end view of the CSCS, including demand (needs, funding) and supply (availability, price, allocation) and strategies.
  - Create a smaller ExCom to help manage
- Link to the regions to ensure Country coordination/leadership on demand via the RC
- Focus on strategy, monitoring & coordination.
- Put aside organisational interest for a collective fight against the virus
Demand
Demand

The plan

Understand the supplies required to halt the spread of COVID-19:
Establish a clear global demand for PPE, diagnostics & testing, clinical support supplies, therapeutics and vaccines, including guidance on prioritization to fulfill this demand to approach the market with a unified approach.
Via bottom-up assessment of needs through COVID-19 country tool and top-down modelling – combined to provide a robust forecast

Demand:
Countries, partner agencies and WHO offices can log order requests.
The product catalogue will initially focus on a narrow list of essential supplies and will be gradually expanded.
Countries can order both products that are in stock and that are yet to be procured, as well as apply for funding.
Independent of the requests, the WHO will make high-level demand estimations to triangulate supply/demand imbalances.

Observation of what happened

- Strong early signals for all products based on global modelling (except Vx and therapeutics)
- Early signals to industry on PPE
  - 3 March: WHO call to industry to increase PPE production by 40%. Per month estimates: 89M masks, 76 m gloves, 1.6m goggles
  - Demand signal 9 months: 1.5 billion PPE units
  - Actual procurement: >900 million PPE units (excluding units in stock)
  - By beginning March, WHO had shipped nearly 500,000 sets (0.85 M units) of PPE to 47 countries. UNICEF had shipped 3.8 M units of PPE to 8 countries.
  - 8 March, WHO shipped lab supplies to 120 countries. WHO had shipped PPE to 57 countries & underway to a further 28 countries.
  - 27 March, WHO DG “The chronic global shortage of personal protective equipment is now one of the most urgent threats to our collective ability to save lives”
  - 6 April 2020 WHO issued recommendations for the rational use of PPE & Joint industry consultation led by UNICEF
- Early signals on Ventilators & Oxygen
  - Direct outreach to companies
  - Messaging to countries and donors on high needs
  - Actual demand was much lower due to absorptive capacity by countries, lead-times and funding
- Early signals on Diagnostics: signals on initial testing needs but no comprehensive forecast developed
- The Essential Supplies Forecast Tool helped countries develop supply plan – initial version resulted in overestimation – the 3rd version more accurate
  - 2nd phase demand projections were country-based but a mix of funded and unfunded. No communication with industry.
  - No visibility on coordinated supply plans at country level. Some consolidation at global level - but mostly post-fact reporting on what was sent, not what needed to be procured.
  - No updates on demand based on changing epidemiology and use-case recommendations of product
  - Limited visibility on unfunded demand
  - No visibility on demand being met through other sources of supply
Resourcing the CSCS and critical supplies

- **Financing Plan May**: $100 million
- **$800 - 900 million** (per Task Force mtg)
- **$240 million**

- **Updated Plan June (GHRP2)**: $170 million
- **$tbc million**
- **$185 million***

- **Actual, 31 December**: $150 million
- **$1.091 billion**
- **$102 million**

*Excludes $100M Passenger & Medevac
**Excludes $308 M supplies in stock
Demand - What worked well

EARLY SIGNALS TO MARKETS DURING RAPID RESPONSE PHASE

A COMPREHENSIVE TOOL FOR COUNTRY – LEVEL DEMAND PLANNING (ESFT)

Demand - Better if

PROVIDE REGULAR UPDATES ON DEMAND TO MARKETS & COUNTRIES

TEMPER FIGURES WITH UPDATED EPI, USE-CASE, & VISIBLE ON UNFUNDED NEEDS

REGIONAL AND COUNTRY INPUTS ON SUPPLIES BEING PROVIDED VIA DIFFERENT CHANNELS

MORE VISIBILITY ON DEMAND COORDINATION AT COUNTRY LEVEL

BEYOND CSCS: DISCUSS DEMAND WITH WB & OTHER MAJOR BUYERS. HAVE AN ESTIMATE OF GLOBAL DEMAND
Allocation
Allocation of scarce supplies

The plan

Allocation:
Based on agreed principles (in development), essential supplies will be allocated to requests daily, against the uploaded demand from countries.
The allocation strategy will be reviewed weekly, with input from WHO on current epidemiology and risk factors, including sudden changes.
Also considered are changing logistics realities, such as ad-hoc access opportunities for hard to reach

Allocation mechanism:
Agencies will need to be registered at country level through the office of the RC/HC, for access to the partner platform to upload their demand for critical items.
It is assumed that quantities being uploaded have financial commitments behind them.
The office of the RC/HC will have visibility of demand and will convene agencies to agree on priority of individual requests.
Once agreed the administrator will confirm the demand priority, will reject the request or will hold the request until further notice.
The requests will be allocated to purchasing agencies centrally, staying as much within the principle that the agency requesting will be the same agency procuring.
If an agency wishes to access quantities held by another agency, they will be directed to that agency. This can happen if one agency holds stocks, has a large general purchase order at hand or is able to supply the full quantity at speed.

Observation of what happened

- WHO pushed a first surge of PPE and test to 100+ countries in Feb/March on a no regrets basis – a minimum quantity basis
- The Task Force moved the Allocations to the Consortium (from the Control Tower); WHO did not take allocation decisions as it was delegated to consortium.
- Different allocation principles between consortium
- PPE:
  - Organizations created their own allocation model if needed.
  - As soon as buyers could place orders, allocations were not made – even though it seems it would have been useful to consider earlier deliveries.
  - No record of the decision not to make allocations, nor of the Consortium using allocation principles after they were finalized.
- Dx: The consortium that made allocation decisions
  - PCR allocations helped mfs internally in their allocations. But not always well communicated.
  - Missing the link to rational testing plans/strategies or IPC targets
  - Vulnerabilities seemed to drive allocation more than epidemiology.
  - Ultimately funding, first-in-queue and organizational / procurement agency interest were the main determinants of allocations
  - Pre-existing orders were maintained when consortium allocation principles were created.
  - Lead-time for allocation decision considered to be long. Also, countries were informed but with no explanation given on their allocation, or information on what was allocated to other countries and the overall basis for allocation
  - Debate on whether scarce supplies of Dx should be allocated to UN staff (Peacekeeping & IOM) in countries over a country need – since qys were provided pre-consortium, and needs for countries, it was not supported
- Biomed:
  - Available funding and country absorptive capacity were the determining factors, rather than an allocation
  - Allocation approach – the criteria and allocation itself were not developed with regions and countries
  - No visibility on the in-country allocation process – including via the RC/HC. Or demand linked to epidemiology
  - NGOs not included at country level or global level
  - Impression from the field is that organisations still bought what they wanted if they could get access
  - No clear link between distribution of supplies to distribution of confirmed cases or sources of supplies via other channels
  - Ultimately, no allocations were made other than Diagnostics.
Allocation principles developed by each Consortium

<table>
<thead>
<tr>
<th>Date of issuance</th>
<th>21 April</th>
<th>5 May</th>
<th>4 June</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principles</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Country eligibility – LIC &amp; MIC except China &amp; India</td>
<td>1. Implied vulnerability</td>
<td>1. Include all countries unable to adequately protect healthcare and essential workers.</td>
<td></td>
</tr>
<tr>
<td>2. Vulnerability criteria: vulnerability factor vs need (ESFT)</td>
<td>2. Supply needs via the ESFT</td>
<td>2. Allocate based on validated needs assessment (ESFT)</td>
<td></td>
</tr>
<tr>
<td>3. Countries with access also outside of the consortium</td>
<td>3. Current supplies &amp; absorptive capacity</td>
<td>3. Adjust allocation to support vulnerable countries and populations</td>
<td></td>
</tr>
<tr>
<td>4. Maximum volumes (In case supply is limited, a country should receive no more than 10% of the total available volume)</td>
<td>4. Sustainable use of equipment</td>
<td>4. Adjust to account for previous allocations</td>
<td></td>
</tr>
<tr>
<td>5. Minimum volumes: for operational and logistic purposes.</td>
<td></td>
<td>5. Consider logistics &amp; supply chain considerations</td>
<td></td>
</tr>
<tr>
<td>6. Distribution of tests in limited supply to countries with existing technology already as a priority</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Final volumes per countries adjusted for the pack size of each technology.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Diagnostics principles update in September:
- A change in country eligibility (SIC added)
- Vulnerability criteria changed to UHC index as best proxy
- Epi context was added
- Countries delayed in access Phase 1 volumes

**Reflections**
- Vulnerability considered by all
- All accounted for need – estimated by ESTF & validated
- All accounted for supplies accessed via other channels
- Diagnostics needed to manage preferences for some products
- Biomed considered installation & maintenance
- PPE & Diagnostic considered supply chain

*Limited use of allocation principles, except Dx Allocation principles not reviewed by TF*
Diagnostics Procured Quantities vs Confirmed Cases

DIA proportion of procurement and cases by region (excl. Canada, EU, UK, and US)

- CSCS Partner procurement as of 31 December 2020
- Caseload data as of 31 December 2020 (source: covid19.who.int/)

53% is of AMRO is 10m manual PCR tests for Brazil.

NOTE: There is not enough information to assess if this is the right distribution of quantities.

Additional information needed:
- Other channels of supply
- Vulnerability
- Country Capacity (absorptive)
- Modelled cases
PPE Procured Quantities vs Confirmed Cases

PPE proportion of procurement and cases by region (excl. Canada, EU, UK, and US)

- %GT Global cases
- %GT Quantity

- AMRO: 35% (12% of cases, 27% of quantity)
- SEARO: 27% (7% of cases, 19% of quantity)
- EURO: 19% (10% of cases, 11% of quantity)
- EMRO: 27% (11% of cases, 19% of quantity)
- AFRO: 39% (4% of cases, 27% of quantity)
- WPRO: 5% (2% of cases, 12% of quantity)

NOTE: There is not enough information to assess if this is the right distribution of quantities.

Additional information needed:
- Other channels of supply
- Vulnerability
- Country Capacity (absorptive)
- Modelled cases

- CSCS Partner procurement as of 31 December 2020
- Caseload data as of 31 December 2020 (source: covid19.who.int/)

NOTE: There is not enough information to assess if this is the right distribution of quantities.
Observation of what happened - Distribution of supplies vs distribution of cases

Concerns raised on allocations across most regions.

For example:

- AMRO countries access to PCR tests, including as country direct orders were cancelled by Cepheid
- Small island HIC did not feel they received sufficient priority
- PIC treated as one country not multiple
- Allocation to African countries was considered to be too low and decision-making took long

- The allocation principles prioritised vulnerability and in reality funding, first-come-first-serve, and organisational/procurement channel became overriding factors.
- Allocation was one of the most challenging aspects given how significant the global shortage was.
- Countries indicated they were attempting to access 50% of their supplies via the CSCS. Assumption is that countries had better direct-to-market access for PPE and Biomed supplies compared to Diagnostics, notably PCR tests.
- Overall, there is not information to assess whether the distribution of supplies vs confirmed cases is meaningful.
- But it shows that data can trigger analysis and help with understanding equitable distribution
Allocation of scarce supplies

What worked well

- Push of supplies in the beginning when needs are not known, on a no regrets basis was positive – using a quota approach
- The joint development of allocation principles

Could be better if

- Allocation should be based on a combination of epidemic (current epi & modelled future situation), vulnerability, other sources of supply, country capacity, national strategies. Include regions and countries in criteria and possibly in decision making.
- Be clear on whether trying to achieve equity or equality – or combination.
- Allocation should be independent of funding or procurement channel.
- Should not be based on first-in-queue.
- Need working capital, or a bridge fund, so funding does not be the determinant of access
- Consider including NGO programmatic needs as a part of same prioritization even though it may not be in a national plan.
- Review UN & NGO front line humanitarian staff needs and duty of care.
- Take timely, transparent decisions and communicate the set of decisions to countries, partners and manufacturers.
- Provide countries and partners with information on the market situation – so the allocation can be understood in context.
- WHO Pandemic response should lead the allocation with advice from experts, to be aligned with pandemic response, so that there is an understanding of allocation of all key Covid-19 supplies, & to have context of volumes of supply countries receive via other channels.
**What worked well**

Allocation principles were jointly developed by each consortium.

**Better if**

Allocations should be led by pandemic response based on expert advice, criteria based on EPI (current and modelled), vulnerability, country capacity, other supply channels. Be timely, transparent & give the basis for allocation decisions.

Establishe a pooled fund(s) for products in limited supply so a minimum allocation can be based on need not funding availability (e.g., automated PCR tests, antivirals, vaccines – novel and pathogen specific products).

Country & regional perspectives on allocation criteria should be included.

Take action to minimize MERS de facto deciding who gets what, when.

Include an allocations for humanitarian (e.g., UN & NGO) staff as part of overall strategy.
Procurement
Identify and map safe sources of life-saving COVID-19 supplies:

Use all available public and private sourcing mechanisms to get access to a meaningful allocation of existing global suppliers and trigger new suppliers to help address the current shortage.

Task Force members will coordinate negotiations and procurement with key suppliers.

For IPC/PPE, the majority of available supply in the near term will likely come from China. For other categories suppliers are based across the globe.

The sourcing market approach will be managed through three separate buying consortia, convened by WHO, and with support from UNICEF.

Supply:

CSCS will encompass three supply channels: (1) partner agency procurement (e.g., UNICEF, The Global Fund), incl. sourcing, validation, procurement, and QA (2) sourcing intermediaries managed by WHO, (3) WHO sourcing and procuring products in the market.

These three channels will mobilize the resources to provide essential health products.

Observation of what happened:

- Overall – significant volumes procured. Vast majority of procurement was done by those that normally procure items for health programmes
- Jan-March supplies were sourced by a range of sourcing mechanisms by each buyer
- Expertise supported initial sourcing, pre-procurement & financing: BMGF provided bridge financing to allow for no-regrets push orders (WHO, UNICEF), CHAI did broad negotiations for PCR & RDT, BCG supported PPE in China (hubs & Meheco)
- Other negotiations done by buyers in their consortium or on their own.
- Acquisition strategies were not reviewed by the Task Force
- Procurement channels occurred as designed: 1) partners, 2) intermediaries, 3) WHO
- One supplier – one buyer strategy for PCR tests – may have helped maintain production of HIV & Malaria tests—but otherwise was perceived to have been too restrictive and not realized in practice
- Speed/humanitarian experience not seen as overriding factor for choice of buyers
- Partners (UN & NGOs), WB & countries couldn’t access ‘shared’ terms – they could only buy via a UN agency
- Traditional procurement had a hard time keeping up with changes in rapidly changing and concentrated - mass production market of PPE supply & demand.
- China intermediary was value-add in terms on the ground presence, network with local industry, negotiation of prices - in real-time, outsourcing of work of managing multiple suppliers
- NGOs, others went direct to market for PPE, ventilators, etc. and used the name of the UN (WFP transport) as a way of getting around country export restrictions (formal & informal)
- Impression by some is that WHO doesn’t regularly do procurement - but they procure $1b/yr
- Impact of WHO technical specs on market was significant
- When market was constrained, and they didn’t receive an allocation, some buyers (e.g., some UN organisations for UN staff) resorted to buying non WHO approved products
- Quality issues of PPE during March-May
- Existing supplier-to-country relationships were cut off in some cases – notably Dx PCR and AMRO
- Buyers were generally cooperative but collaboration was not optimal
- Local procurement not included as a major factor
- Where private sector was located in country was not factored in (e.g., Abbot in Nigeria)
- Information and data sharing was a challenge to coordination. No pipeline of procurement provided to WFP for delivery planning.
- Challenges on prepayment, traders, quality, fraud
- Limited monitoring of lead-times and price
Procurement total by buyer, excluding stock

Data as of 31 December 2020
- WHO* includes PAHO $135m
- Includes non-essential PPE
- TGF procured approx. $70m PPE via UNICEF and $13M PPE & Dx via UNDP
Data as of 31 December 2020

- TGF procured approx. $70m PPE via UNICEF and $13M PPE & Dx via UNDP
Procurement - What worked well

- CATALYTIC NEGOTIATION WITH SUPPLIERS IN INDUSTRIES THAT HAVE A HEAVY HAND
- INITIAL RAPID RESPONSE FUNDING & BRIDGE FINANCING
- USE OF HEALTH PROCUREMENT ASSETS OF THE GLOBAL PUBLIC HEALTH PARTNERS & THE UN THE MULTI-LANE APPROACH

OVERALL, CSCS ACCESSED SOME OF THE LOWEST PRICES ON THE MARKET. NO SIGNS OF PRICE GAUGING. PCR AND RDT PRICES ARE HIGH BUT SHOULD DECREASE AFTER DEVELOPMENT COSTS ARE RECOVERED

BIOMED - COORDINATED PROCUREMENT ENGAGEMENT WITH INDUSTRY AND COUNTRIES
Procurement – Better if

COORDINATE THE MULTI-LANE APPROACH (WHO BUYS WHAT WHEN)

REGIONALISE & LOCALISE WHO BUYS AND SOURCES OF SUPPLY

USE EMERGENCY & INNOVATIVE PROCUREMENT TACTICS RATHER THAN LONGER, TRADITIONAL APPROACHES

PROVIDE VOLUME GUARANTEES FOR NEW PRODUCTS TO SECURE QUANTITIES

CONSIDER EXPANDED USE OF WORKING CAPITAL – BRIDGE FUNDING FOR COUNTRY AND OTHER BUYERS

LINK DEALS TO PROCUREMENT – MONITOR COMMITTED VOLUMES, LEAD-TIMES & PRICING. RENEGOTIATE AS NEEDED.

MARKET TYPOLOGY STRATEGIES: ESTABLISH A LEAD, COORDINATING BUYER – IN CASE OF A SUPPLIERS MARKET (DX) & COORDINATE QA – IN CASE OF COMMODITY SCALE-UP MARKET (PPE)

EXTEND ACCESS TERMS (TO NGOS, WB, ETC.)
Lead-times – speed of delivery of supplies
Aside from the initial rapid response, lead-times were longer than requested.

Q. Did you receive Covid-19 supplies requested via the CSCS as agreed?

Overall, global markets opened up more quickly for PPE

Specification, suitability check and lead-time for mfg impacted lead-times

Dx – novel products, Market still under constraint
# Lead-time analysis of 2020 procurement and delivery to countries

Lead-times were consistently shorter in February-April when UN and vendor stocks were consumed and when the UN & partners accessed markets early.

Not shown, but lead-time differences between UN buyers were significant at times.

The data confirms that lead-times were long (2-3 months) after rapid response phase in Feb-April.

**Notes:**
- Lead time is calculated as days between PO creation and actual delivery
- Data is not available for all buying agencies
- Deliveries through WFP shifting from air towards sea deliveries during Q4 2020 which increase lead time: in September sea deliveries were 10% of volume whereas by December this increased to 68%

## Average lead-times for countries

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respirators, 3-ply Masks, Gowns</td>
<td>5-6 weeks on average and steady since June.</td>
</tr>
<tr>
<td></td>
<td>&lt; 2 weeks lead-time 1Q when shipping from inventory</td>
</tr>
<tr>
<td>Gloves (examination)</td>
<td>7-8 weeks on average. Large swings in lead-time continued throughout the year.</td>
</tr>
<tr>
<td>Automated PCR tests</td>
<td>8-9 weeks on average, with the shortest lead-times in May of 4 weeks</td>
</tr>
<tr>
<td>Manual PCR tests</td>
<td>11-12 weeks on average, with the shortest lead-times in May of 3-4 weeks</td>
</tr>
<tr>
<td>RDT tests</td>
<td>4 weeks on average, deliveries started in September</td>
</tr>
<tr>
<td>Oxygen Concentrators</td>
<td>5-7 weeks, including when product lead-time started to decrease in October and deliveries were primarily moved to sea.</td>
</tr>
<tr>
<td></td>
<td>2 weeks lead-time in April-May (transported via air)</td>
</tr>
<tr>
<td>Ventilators</td>
<td>11-12 weeks with lead-times continuing to increase.</td>
</tr>
<tr>
<td></td>
<td>6-8 weeks lead-time in May-June (transported via air)</td>
</tr>
</tbody>
</table>
Speed is critical component of pandemic response

How fast did the CSCS perform?

- Response time / lead-time? Unable to assess lead-times
- What was delivered when? No data on deliveries except what is in the Supply Portal (30% of procurement), but even then, data quality is an issue. Data used for report was provided in Dec/Jan.
- Data quality issue and lack of data sharing / data definition

Overall timeliness and lead-times was a source of complaint – perhaps the topic receiving the most criticism.

Difficult to assess if this was the same, better or worse than what was happening for HIC and other buyers.

Think it was similar – and perhaps proportionate to the caseload distribution across the world. EU and US had more, faster access to tests.

EARLY ‘NO REGRETS’ ACTION

A ‘Push” file was used by WHO which enabled fast procurement, allocation to countries, and delivery.

Existing stocks were consumed.

Emergency processes were used.

Delivery was monitored – largely via excel file.

Much smaller deliveries. Upfront funding

Lead-time was days/weeks.

ONGOING CSCS OPERATIONS

Scale-up of production didn’t keep pace with scale-up of demand.

A few weeks/months of nationalization of supply.

Competition with the whole world for Dx and PPE.

Regular processes used, including procurement and country/client MOUs.

Lead-time was months.
Pricing
**Analysis of prices secured by CSCS buyers and joint negotiations**

Largest price differences between buyers was for PPE.
Most PPE prices increased through 2Q & 3Q, then decreased to ‘normal’ levels during 4Q.

Steady prices of Manual PCR, Oxygen concentrators, Ventilators
Premiums for Automated PCR test and RDT.
Overall, CSCS accessed some of the lowest prices on the market. No signs of major price gauging.

PCR and RDT prices are high, but should decrease after development costs are recovered (e.g., by 2Q 2021)

<table>
<thead>
<tr>
<th>Product</th>
<th>Weighted Average Pricing (WAP) over time</th>
<th>Product Family WAP comparison between buyers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respirator</td>
<td>Prices increased 30-50% from May to September, then decreased to May level</td>
<td>Price difference between CSCS buyers – up to 50%</td>
</tr>
<tr>
<td>Gloves (examination)</td>
<td>Prices were steady through the year level</td>
<td>Price difference between CSCS buyers – up to 130%</td>
</tr>
<tr>
<td>Gowns</td>
<td>Prices increased in May, June, July and then significantly dropped for rest of 2020</td>
<td>Price difference between CSCS buyers – up to 180%</td>
</tr>
<tr>
<td>Automated PCR tests</td>
<td>Prices were steady throughout the year. Up to double the price of similar TB tests.</td>
<td>No price difference between CSCS buyers</td>
</tr>
<tr>
<td>Manual PCR tests</td>
<td>Prices decreased slightly over the year (&lt; 5%)</td>
<td>Price difference between CSCS buyers – up to 20%</td>
</tr>
<tr>
<td>RDT tests</td>
<td>Prices were steady from launch in September. Two to five times higher other RDTs</td>
<td>No price difference between CSCS buyers</td>
</tr>
<tr>
<td>Oxygen Concentrators</td>
<td>Prices were steady throughout the year</td>
<td>Nominal price difference between CSCS buyers – primarily different product specs</td>
</tr>
<tr>
<td>Ventilators</td>
<td>Prices were steady throughout the year</td>
<td>Nominal price difference between CSCS buyers – primarily different product specs</td>
</tr>
</tbody>
</table>
**Price evolution for PPE items**

**Respirator**
- Supply Portal wac: $1.80 in Aug/Sept
- UNICEF catalogue wap $2.26 in Sept, $1 in Nov
- UNFPA wap $2.62 in Sept, $1.37 in Nov
- Consumer online purchase in DK: $2.31 and UK: $2.40 (Dec 2020)

**Gloves**
- Surgical glove prices increased over the autumn and dropping in December
- Examination glove prices stable over the period
- UNFPA surgical glove Sept $0.45
- UNFPA examination glove, Aug & Nov $0.10

**Notes:**
- Some discussion on prices of PPE in consortium (and confidential discussions as part of joint tender); not discussed in SCTF (as per minutes)
- Market prices fluctuated for PPE from April-November, except for examination gloves
- No indication of much price advantage for volumes
Price evolution for PPE items – per supply portal w.a.c.

Surgical Gown pricing decreased as markets opened up and production increased

Masks and Shields:

- Over the summer, countries started to use Masks and Shields beyond medical settings and for general public use
- Did the change in 'use case' of masks and shields significantly impact demand and therefore prices remained high?
- Or were the prices of these products set during a period of constraint and not able to be re-negotiated
<table>
<thead>
<tr>
<th>Product family</th>
<th>IMC</th>
<th>UNDP</th>
<th>UNHCR</th>
<th>UNICEF</th>
<th>UNOPS</th>
<th>WHO*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faceshield</td>
<td>$1.45</td>
<td>$1.20</td>
<td>$1.39</td>
<td>$1.14</td>
<td>$1.00</td>
<td>$1.50</td>
<td><strong>$1.38</strong></td>
</tr>
<tr>
<td>Goggle</td>
<td>$1.83</td>
<td>$1.90</td>
<td>$2.96</td>
<td>$13.00</td>
<td>$1.89</td>
<td>$3.68</td>
<td><strong>$3.68</strong></td>
</tr>
<tr>
<td>Gown</td>
<td>$2.45</td>
<td>$5.08</td>
<td>$3.16</td>
<td>$3.72</td>
<td>$6.00</td>
<td>$2.14</td>
<td><strong>$3.17</strong></td>
</tr>
<tr>
<td>Mask 3 plies</td>
<td>$0.37</td>
<td>$0.44</td>
<td>$0.31</td>
<td>$0.33</td>
<td>$0.30</td>
<td>$0.30</td>
<td><strong>$0.32</strong></td>
</tr>
<tr>
<td>Respirator</td>
<td>$1.48</td>
<td>$2.25</td>
<td>$1.67</td>
<td>$2.20</td>
<td>$1.50</td>
<td>$1.57</td>
<td><strong>$1.80</strong></td>
</tr>
</tbody>
</table>
Diagnostics pricing

- Sample collection kit price decrease in September


**Diagnostic pricing**

- **Stable prices**
- **Comparison of Covid-19 PCR test vs. TB PCR test from Stop TB**
  - Cepheid: $10 vs $19.80 (98% increase)
  - Thermo Fisher: $9.30 vs $12.00 (29% increase)
# Diagnostics Product Family Weighted Average Price across Buyers

<table>
<thead>
<tr>
<th>Product family</th>
<th>CHAI</th>
<th>GDF</th>
<th>Global Fund</th>
<th>IOM</th>
<th>UNDP</th>
<th>UNHCR</th>
<th>UNICEF</th>
<th>UNOPS</th>
<th>WHO*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraction kit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample collection kit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test (Antigen RDT)</td>
<td>$4.82</td>
<td>$4.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$4.87</td>
</tr>
<tr>
<td>Test (Automated PCR)</td>
<td>$19.80</td>
<td>$19.27</td>
<td>$19.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$18.76</td>
</tr>
<tr>
<td>Test (Manual PCR)</td>
<td></td>
<td></td>
<td></td>
<td>$10.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$9.00</td>
</tr>
</tbody>
</table>
Biomedical equipment pricing

- No real change in pricing for ventilator and Portable O2 Concentrator
- Pulse Oximeter price increased in September however is decreasing in November
• BiPAP doubled in pricing in September
• Infrared Thermometers price remained stable over the period
Biomedical Product Family Weighted Average Price across Buyers

<table>
<thead>
<tr>
<th>Product family</th>
<th>IMC</th>
<th>UNDP</th>
<th>UNHCR</th>
<th>UNICEF</th>
<th>UNOPS</th>
<th>WHO*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor</td>
<td>$3,289.95</td>
<td>$1,458.22</td>
<td>$5,732.89</td>
<td>$2,352.67</td>
<td></td>
<td></td>
<td>$2,636.09</td>
</tr>
<tr>
<td>Oxygen conc.</td>
<td>$433.45</td>
<td>$508.99</td>
<td>$815.60</td>
<td>$883.00</td>
<td>$259.06</td>
<td></td>
<td>$453.61</td>
</tr>
<tr>
<td>Pulse oximeter</td>
<td>$41.84</td>
<td></td>
<td>$950.00</td>
<td>$256.59</td>
<td></td>
<td></td>
<td>$183.79</td>
</tr>
<tr>
<td>Thermo infrared</td>
<td>$40.00</td>
<td>$29.09</td>
<td>$30.24</td>
<td>$31.84</td>
<td>$40.00</td>
<td>$37.39</td>
<td>$31.46</td>
</tr>
<tr>
<td>Ventilator</td>
<td>$19,344.47</td>
<td>$7,517.40</td>
<td>$28,384.00</td>
<td>$27,751.06</td>
<td></td>
<td></td>
<td>$22,402.02</td>
</tr>
</tbody>
</table>

- Major price differences in O2 concentrator due to different product types
- Major price differences in Ventilators, primarily due to different product types
Snapshots of each of the 13 main CSCS buyers
CHAI procurement summary

CHAI CSCS Procurement overview of Covid-19 supplies as of 31 December (excluding stock)

Top 5 Bio products by quantity
- Quantity: $4,084,382
- Value: 16
- Count of Country

Top 5 DIA products by quantity
- 1M
- 0.70M

Top 5 PPE products by quantity
- 0.07M

Total procurement by category
- DIA

Total procurement by category and status
- Delivered/shipped
- Planned

20 highest procuring value countries
- Algeria
- Zambia
- India
- Rwanda
- Uganda
- Kenya
- Slovenia
- Mozambique
- Malaysia
- Ethiopia
- South Africa
- Zimbabwe
- Ghana
- São Tomé
- Tanzania
- Cameroon

$4M (100%)
$3.7M
$0.4M
$0.36M
$0.24M
$0.22M
$0.12M
$0.08M
$0.03M
$0.02M
Global Drug Facility procurement summary

GDF CSCS Procurement overview of Covid-19 supplies as of 31 December (excluding stock)

Totals
145,280
Quantity
$2,876,544
Value
23
Count of Country

Top 5 BIO products by quantity

Top 5 DIA products by quantity
149K
65K
100K
50K
0K
Test (Automated PCR)

Top 5 PPE products by quantity

Total procurement by category
DIA

Total procurement by category and status
Delivered/shipped
Planned

20 highest procuring value countries

Ethiopia
Mexico
India
 requested
Pakistan
Ghana
North Africa
South Africa
Cordial
Tanzania
Zambia
Equatorial
Sierra Leone
Peru

PAGE 84
The Global Fund procurement summary

In addition, the Global Fund funded more than $83M:
- Approx $70M in PPE procured via UNICEF and $7M via UNDP
- Approx $6M of Diagnostics procured via UNDP
- Biomedical supplies procured via UNDP (via decentralized country requests)
IMC Procurement Summary

IMC CSCS Procurement overview of Covid-19 supplies as of 31 December (excluding stock)

- **Totals**
  - Quantity: 5,821,140
  - Value: $5,503,747
  - Count of Country: 17

**Top 5 BIO products by quantity**
- Thermo infrared: 912

**Top 5 DIA products by quantity**
- Mask 3 plies: 2.25M
- Respirator: 1.72M
- Glove exam: 0.77M
- Gown: 0.76M
- Apron protec: 0.19M

**Total procurement by category**
- PPE
- BIO

**Total procurement by category and status**
- Delivered/shiped

**20 highest procuring value countries**
- United States
- Central African Republic
- South Sudan
- Sudan
- Iraq
- Afghanistan
- Yemen
- Afghanistan
- Croatia
- Somalia
- Cameroon
- Mexico
- Zambia
- Ethiopia
- Republic of Korea
- Syrian Arab Republic
- Nigeria
- Zimbabwe

Page 86
IOM procurement summary

Different format compared to other agencies as the data was shared with different parameters by IOM.
PAHO procurement summary

PAHO CSCS Procurement overview of Covid-19 supplies as of 31 December (excluding stock)

Totals
- Quantity: 16,664,610
- Value: $135,269,411
- Count of Country: 22

Top 5 BIO products by quantity
- Test (Manual PCR): 10M
- Test (Antigen RDT): 6M
- Test (Automated PCR): 5M

Top 5 DIA products by quantity
- Delivered/shipped: 129M
- Planned: 135M

Top 5 PPE products by quantity

Total procurement by category
- DIA: $135M (100%)

Total procurement by category and status
- Delivered/shipped: $129M
- Planned: $135M

20 highest procuring value countries
**UN DOS procurement summary**

**UNDOS CSCS Procurement overview of Covid-19 supplies as of 31 December (excluding stock)**

<table>
<thead>
<tr>
<th>Totals</th>
<th>Top 5 BIO products by quantity</th>
<th>Top 5 DIA products by quantity</th>
<th>Top 5 PPE products by quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Blank)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$10,003,222</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count of Country</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Different format compared to other agencies as the data was shared with different parameters by UN DOS.
UNFPA procurement summary

UNFPA CSCS Procurement overview of Covid-19 supplies as of 31 December (excluding stock)

Totals
- 97,535,016
- 101

Top 5 BIO products by quantity
- $26,329,992

Top 5 DIA products by quantity

Top 5 PPE products by quantity

Total procurement by category
- PPE

Total procurement by category and status
- Delivered/shipped

20 highest procuring value countries

Different format compared to other agencies as the data was shared with different parameters by UNFPA
UNICEF procurement summary

UNICEF CSCS Procurement overview of Covid-19 supplies as of 31 December (excluding stock)

Top 5 BIO products by quantity:
- Nasal oxygen cannula: 10.80M
- Venturi mask: 12.00M
- Ther... (infrared): 12.00M
- Oxygen conc.: 12.00M
- Flow splitter: 0.00M

Top 5 DIA products by quantity:
- Test (Manual PCR): 1.60M
- Test (Antigen RDT): 3.50M
- Sample collection kit: 3.90M
- Test (Automatic PCR): 2.00M
- Extract... kit: 1.10M

Top 5 PPE products by quantity:
- Glove other*: 199M
- Mask 3 plys: 151M
- Glove exam: 100M
- Respirator: 141M
- Apron protec...: 39M

Total procurement by category:
- PPE: $100M (22%)
- DIA: $189M (46%)
- BIO: $160M (32%)

Total procurement by category and status:
- Delivered/shipped: $25M
- Planned: $20M

20 highest procuring value countries:
- Pakistan: $160M
- Ethiopia: $134M
- Bangladesh: $92M
- United Arab Emirates: $79M
- Yemen: $69M
- Rep. Korea: $69M
- Nigeria: $55M
- Brazil: $49M
- India: $49M
- Afghanistan: $49M
- Indonesia: $49M
- Malawi: $49M
- Jordan: $49M
- Sudan: $49M
- Cameroon: $49M
- Somalia: $49M
- Comoros: $49M
Procurement per category and buyer, excluding stock

- **Data as of 31 December 2020**

- **Approx. $70M in PPE procured via UNICEF and $7M via UNDP**
  - In addition, the Global Fund funded more than $83M:
    - **Approx. $6M of Diagnostics procured via UNDP**
    - **Biomedical supplies procured via UNDP (via decentralized country requests)**
Essential Covid-19 products
The CSCS essential product catalogue

Latest update: 21 January 2021
Were the right products procured?

- There was widespread agreement that the three product groups – PPE, Diagnostics and Biomedical – were the right ones in focus for this phase of the pandemic response.
- Overall, the products procured and supplied as a part of the CSCS were reported to be of good quality. Including donated products.
- Buyers experienced various quality problems with PPE during the rapid scale-up production and new suppliers (procured products different from samples, multiple types of products in same box, etc.). But procurement through CSCS provided confidence in quality of products for end-users.
- There were some differences in PPE specification (between WHO & UNICEF) on what is deemed essential to Covid-19 (e.g., coveralls, gloves-other, boot covers), composition of sets, and use-case.
- Different products and sets contributed to confusion in some countries as well as less accurate quantification of need & potential waste of resources.
- Several mentioned the need for more resources for the development of technical specification, quality assessment of products being manufactured, and assessment of novel products. In particular given the limited supply, there were views that novel diagnostic products should have been assessed more rapidly.
- The Clinical Care Consortium was comprehensive in terms of suitable specifications, quality assurance, accompanying consumables for Biomed products.
- Links: One of the weaknesses in a multi-lane approach to accessing supplies is a wide range of products being supplied to a single country – need to invest in and adhere to standards.
- The regions and countries noted that it would have been a good opportunity to localise/regionalise PPE production.

*Note: Therapeutics and Vaccines are in the CSCS Plan but were never actually included (ACT A launched 1 month after CSCS)*
What were the differences?

DIFFERENCES IN SPECIFICATION

PPE: Gloves
Material: Ebola vs. pandemic influenza

DIFFERENCES IN ‘ESSENTIAL’

PPE:
• 10 same PPE products across buyers
• 5 products not incl. by WHO: Cap, coverall, boots, boot covers, reusable aprons (~$30m)
• 1 product incl. by WHO but not by UNICEF - biohazard bags

Supply portal only included ‘essential’ PPE only. Unsure on ESFT.

‘Essential’ PPE defined in the PPE Consortium TOR, but differences not discussed in Consortium or TF

DIFFERENCES IN USE CASE

PCR: prioritise systems with weak lab capacity or systems with installed PCR equipment
Ventilators: several comments that they were procured but not able to be used in some countries due to supplementary supplies (intubation, etc.) and trained staff
RDTs: contract tracing vs. surveillance
UN staff safe deployment

REVIEW OF NEW PRODUCTS

Local supplier base of PPE
Diagnostics – as novel diagnostic products became available, the review seemed slow.
But some UN buyers (for staff) that didn’t receive a PCR allocation felt they were left with no other option but to procure no approved product
### Examples of different product specifications and different descriptions used for the same products

<table>
<thead>
<tr>
<th>Product Family</th>
<th>UVC</th>
<th>UNDP</th>
<th>UNHCR</th>
<th>UNOPS</th>
<th>WHO*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposable Lab coat, medium</td>
<td>$6.96</td>
<td>$4.96</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>$5.20</td>
<td>$2.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOWN - LARGE</td>
<td>$4.29</td>
<td>$4.29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOWN - MEDIUM</td>
<td>$4.57</td>
<td>$4.57</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOWN - SMALL</td>
<td>$4.45</td>
<td>$4.45</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOWN - X-LARGE</td>
<td>$4.66</td>
<td>$4.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gown (Largest)</td>
<td>$34.60</td>
<td>$34.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gown (Medium)</td>
<td>$10.91</td>
<td>$10.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOWN DESIGNS</td>
<td>$9.02</td>
<td>$9.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOWN ISOLATION</td>
<td>$4.96</td>
<td>$4.96</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gown L</td>
<td>$11.80</td>
<td>$11.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gown M</td>
<td>$11.80</td>
<td>$11.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gown S</td>
<td>$9.19</td>
<td>$9.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gown Yeda L</td>
<td>$4.66</td>
<td>$4.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gown Yeda M</td>
<td>$4.96</td>
<td>$4.96</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gown Yeda S</td>
<td>$4.96</td>
<td>$4.96</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BIO**

<table>
<thead>
<tr>
<th>Product Family</th>
<th>UNDP</th>
<th>UNHCR</th>
<th>UNOPS</th>
<th>WHO*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ventilator</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator ADONNED VCD</td>
<td>$23,558.80</td>
<td>$23,558.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator Pruneus Rosaty 50000</td>
<td>$26,644.74</td>
<td>$26,644.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator, intensive care, for adult and pediatric, with breathing circuits and patient interface</td>
<td>$28,611.79</td>
<td>$28,611.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator, intensive care, for adult and pediatric, with breathing circuits and patient interface</td>
<td>$26,644.74</td>
<td>$26,644.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator, intensive care, for adult and pediatric, with breathing circuits and patient interface</td>
<td>$23,558.80</td>
<td>$23,558.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator, intensive care, for adult and pediatric, with breathing circuits and patient interface</td>
<td>$26,655.22</td>
<td>$26,655.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator, intensive care, for adult and pediatric, with breathing circuits and patient interface (TYPE 1)</td>
<td>$26,644.74</td>
<td>$26,644.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator, intensive care, for adult and pediatric, with breathing circuits and patient interface (TYPE 1)</td>
<td>$38,199.40</td>
<td>$38,199.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator, intensive care, for adult and pediatric, with breathing circuits and patient interface (TYPE 1)</td>
<td>$50,080.75</td>
<td>$50,080.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator, Sono Air (type 02), with acc.</td>
<td>$47,965.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator, Sono U (type 01), with acc.</td>
<td></td>
<td>$50,080.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient ventilator, Sono Air A (type 02), with acc.</td>
<td></td>
<td></td>
<td>$47,965.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VENTILATOR</strong></td>
<td>$18,682.10</td>
<td>$7,517.40</td>
<td>$28,384.00</td>
<td></td>
<td>$21,127.76</td>
</tr>
<tr>
<td>Ventilator A30</td>
<td>$15,000.72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilator Controller head 5105</td>
<td>$17,143.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilator Controller head 5105</td>
<td>$28,333.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilator Trolley 5105</td>
<td>$28,384.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilator Trolley 5105</td>
<td>$28,384.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilator, for critical/ICU</td>
<td>$13,181.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examples of different specifications and descriptions used by CSCS buyers.

- A challenge for countries, and for manufacturers
Procurement of Biomedical equipment seemed suitable

58,246 oxygen concentrators to 127 countries - mainly to LIC and LMIC
3,462 ventilators to 84 countries – about half to UMIC
Procurement of Tests for Countries vs. Testing Protocols

Unable to provide a comparison of test supplied and national testing plans. But in the future, data could trigger such analysis.

Notes:
- Data as of 31 December 2020
- 10 million manual PCR tests for Brazil not included
- Hubs (U.S, Panama) and Switzerland (WHO HQ) removed
The need for alignment on use case for PPE

$59 M of *non-essential PPE procured in 2020

Two of 10 largest products procured were non-essential. Need to understand if products are needed for the pandemic response or not.

Note: $4m of Coveralls procured not in chart.

Data as of 31 December 2020
Essential vs. non-essential products

Of the total $1.091 billion of supplied products, $59 million were ‘non-essential’

Non-essential is defined as a product not in the Covid-19 essential supplies catalogue, but in one of the 3 product groups (PPE, Biomed, Diagnostics).

UNICEF provided $55 million ($36m Coveralls and $19m Gloves other) non-essential Covid-19 supplies to 117 countries. 18% of UNICEF total procurement.

UNFPA provided $4m of non-essential supplies (Coveralls) to 56 countries. 15% of UNFPA procurement.

In addition, WHO, UNICEF and IMC procured a total of $7 million. This amount covered a range of products and were not included in the data analysis, including because some of it was classified as non-essential due to coding.

In total, non-essential supplies were 5-6% of total CSCS procurement.
New product needs (innovations) and market response

**PPE**
- Updated material specs
- PPE sets defined - based on SARS-CoV-2 use-case

**Biomed**
- Private-public collaboration for innovative biomed equipment

**Diagnostics**
- Novel products for SARS-CoV-2
- Manufacturers developed new products
- WHO issued TPP for priority diagnostics
- FIND maintained diagnostics pipeline and innovation mapping and updated the Consortium [https://www.finddx.org/covid-19/pipeline/](https://www.finddx.org/covid-19/pipeline/)
Products - What worked well

Agreement on main product groups & establishment of a catalogue

Who guidance on product specification

Who guidance on use-case of products

Markets responded to the needs for novel, improved products

Products – Better if

Alignment of specs, scope & use-case. Harmonise to who standard products

Clear & shared QA/QC between buyers and for public use (build on PIC/S)

Use emergency to accelerate innovation for more suitable products if needed

Resources for timely review of novel products

Monitor & understand requests for (& procurement of) non essential products
Delivery
Streamlined Delivery

The Plan

- Establish global logistics distribution system: A hub-and-spoke distribution chain will be operated and optimized for each category. Assets of Task Force members as well as their NGO, public and private sector partners will be brought in to complement. Including:
  - Control Tower for full access to supply and delivery of essential health items in support of the COVID-19 response, and transparent system for tracking pipeline management of partner humanitarian cargo movements;
  - Four strategic international consolidation hubs (sourcing hub in Shanghai with large volume capacity given majority of IPC/PPE supply likely from China and additional international consolidation hubs in Dubai, Atlanta, and Liege) as well as six (+/- as required) regional staging areas located along primary corridors serving priority countries identified by WHO and the Global Humanitarian Response Plan;1
  - Strategic, prioritized cargo airlifts will ensure movement of cargo between international and regional hubs and onward to countries (if required) – these services are a crucial contribution of the Task Force given current disruptions to commercial operators, skyrocketing prices, and competing demand [Note: where available, the air assets of Task Force members and the public sector will be leveraged and where required, shipping services will ensure delivery for slow moving cargo];
  - A similar hub-and-spoke model will be stood up for passenger air services where commercial airlines are disrupted, to ensure that frontline health and humanitarian responders are operational in priority countries; and
  - Provision of tailored supply chains for each category (IPC/PPE largely large volume from China to rest of world, testing small volume/high value from 5-10 suppliers worldwide, clinical support supplies highly variable).

Observation of what happened

- Hub and spoke delivery mechanism used for majority of supplies
- Agencies supplemented with their own transport – mostly for Diagnostics
- No coordination between delivery mechanisms
- CSCS Delivery (WFP) was called a ‘game changer’ by NGOs
- Buyers did not provide pipeline information (in volumes) to help plan delivery set-up
- UN DoS assets offered but not taken up (not a fit - no visibility of pipeline hampered ability to assess)
- Optimized approach put in place
  - PPE – set-packing deliveries
  - Exports from China
- Hubs were set up
  - Reduced the number of shipments and costs
  - Potentially could have done more so had the main buyers coordinated deliveries to countries
  - At times consolidation caused a delay to a country – especially of smaller deliveries to smaller countries. Need visibility on which deliveries need to bypass consolidation if delay isn’t acceptable
- Passenger air services set-up and used to keep humanitarian programmes going
- Pooled costs enabled funds to be used for supplies
- Information on what deliveries would be arriving not consistently available to countries.
- Information and data was a challenge. Delivery data did not have value of supplies, units, etc.
- A tailored supply chain for temperature-controlled shipments was not seen as being in place
  - Communication gaps
  - Buyers used their regular air transport service
  - A point of frustration
Estimated number of deliveries to countries by month

Notes:
- Data through November
- WFP, UNICEF, WHO and GF data: Approx 90%
- No. of WFP, Global Fund, and WHO dispatches is determined based on a count of a combination of destination country and dispatch date
- The Global Fund funded PPE would primarily appear as UNICEF and WFP deliveries
- Data does not include passenger movements

- Deliveries every month
- Rapid scale-up
- Slower in April-May
- Then steady growth

Total shipments/dispatches: 4,542
54% by WFP
WFP was used by ~60% of respondents for more than half of their deliveries – highest use was for delivering PPE.

**Q7.6 - How often did you use different delivery mechanisms?**

<table>
<thead>
<tr>
<th>Q7.6.1 - Personal Protective Equipment (PPE)</th>
<th>65% of respondents used WFP delivery for at least half of their PPE deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>16% Always</td>
<td>19% Most of the time</td>
</tr>
<tr>
<td>23% About half the time</td>
<td>29% Sometimes</td>
</tr>
<tr>
<td>13% Never</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q7.6.2 - Biomedical Supplies</th>
<th>57% of respondents used WFP delivery for at least half of their Biomed deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>24% Always</td>
<td>19% Most of the time</td>
</tr>
<tr>
<td>24% Sometimes</td>
<td>19% Never</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q7.6.3 - Diagnostic Tests</th>
<th>60% of respondents used WFP delivery for at least half of their Diagnostic deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% Always</td>
<td>16% Most of the time</td>
</tr>
<tr>
<td>16% About half the time</td>
<td>25% Sometimes</td>
</tr>
<tr>
<td>19% Never</td>
<td></td>
</tr>
</tbody>
</table>

Examples of other delivery means:
- Own freight forwarders
- CIK/pro bono
- Gov’t charter flights
- EU
Volume dispatched by WFP – by freight type

64% of volume was sent by air
34% by ocean
2% by land
Volume of WFP deliveries by organization type

Users of the WFP common service:
- The UN was the largest user of the CSCS common services - 87% of volumes
- NGOs including Red Cross – 11%
- Donors – 2%

What was dispatched:
- PPE - 74% of volumes
- Relief items - 9%
- Biomed equip - 5%
- Diagnostics - 1%
Deliveries to countries by region, WFP dispatches only

Who Region: AFRO, EMRO, EURO, PAHO, SEARO, WPRO

Total volume (M3) dispatched in 2020

- EMRO: 37% of volume dispatched
- AFRO: 27%
- EURO: 16%
- AMRO: 11%
- SEARO: 5%
- WPRO: 3%

Total volume: 135,440
WFP Hub & Spoke Set-up for Streamlined Delivery

Data as of 31 December 2020

Overall the location and throughout of hub and spoke system made sense – in particular the new hubs created based on Covid-19 supply routes in Liege and Guangzhou.

Consolidating large volumes for efficient and timely delivery. Weak aspect was ability to pull out high priority cargo from a consolidation.

China (Guangzhou): 42% to EMRO, 21% to AFRO and 18% to EURO
Belgium (Liege): 50% to AFRO, 24% to EMRO and 11% to AMRO
Dubai: 56% to EMRO, 35% to AFRO and 4% to EURO
Origin of dispatches and their destination region - WFP dispatches only

Comparison with Regions % of total dispatches:
- EMRO: 37%
- AFRO: 27%
- EURO: 16%
- AMRO: 11%
- SEARO: 5%
- WPRO: 3%

China: 42% to EMRO, 21% to AFRO and 18% to EURO
Belgium (Liege): 50% to AFRO, 24% to EMRO and 13% to EURO
Dubai: 56% to EMRO, 3-5% to AFRO and 4% to EURO
About half of survey respondents were satisfied with the support in delivering supplies. Many had practical ideas on how to further improve.

Q7.7 - Given the transportation constraints linked to the SARS-CoV-2 pandemic, how satisfied are you with the CSCS support in delivering supply?

- 12% Extremely satisfied
- 36% Somewhat satisfied
- 20% Neither satisfied nor dissatisfied
- 18% Somewhat dissatisfied
- 14% Extremely dissatisfied
Pick 3 things that persuaded you to use the WFP Free-To-User Cargo Services

While the free nature of the services was the biggest incentive to use the WFP Cargo Services, efficiency and reach were also key drivers.

How did the Free-To-User Cargo Services support your organization’s response?

Fund saving and access to hard-to-reach and lockdown destinations were key in supporting partners’ response.
Recommendations
Please, give one suggestion to improve the free-to-user cargo services

Most recommendations concerned the direct communication with partners and the information received through the Emergency Service Marketplace

Communication to partners needs to be improved, possibly a result of the fact that smaller users did not have dedicated account managers.

Recommendations regarding the ESM mostly tapped on the need to provide real-time status on cargo and on improving the way documents can be downloaded and uploaded.

Operational issues mentioned were clearer SOPs, more consolidation, no restrictions on pick-up locations and no minimum wait.
Q4.16 - In your opinion, which aspects of the CSCS could be useful to continue or adapt to ensure access to COVID-19 supplies for the response to the next wave of the SARS-CoV-2 pandemic? (select all that apply; in case you believe no aspects should be continued or adapted please leave all boxes unmarked)

The majority of survey respondents thought “streamlined delivery” should continue for the next wave of the pandemic, with improvements...
Streamlined Delivery - what worked well

### SPEED & MULTI-LANE APPROACH

The use of existing delivery channels — no set-up time of a new system enabled rapid response from February — up time of a new system.

~60 countries were provided test kits and PPE in February

~130 by end March

Overall — professional and courteous response from WFP by users

### ACCESS — OPEN CORRIDORS THROUGHOUT 2020 — CARGO & PASSENGER

At no time could a delivery not be made due to closed transport — no prioritisation was needed.

This may have not been the case if more supplies were available or funded. But it appears that there was capacity for even an additional 50% of volumes to be delivered.

Continued access was considered to be the game-changer of the CSCS by NGOs

### HUBS

Hubs, notably in Liege and Guangzhou, were established and provided continued access and consolidation throughout 2020

Given the importance of PPE deliveries in the first wave and the global dependency on China as a source for majority of PPE — the Hub enabled in-country staging.

The China hub also enabled WFP/UN to pick up goods procured by NGOs — without export restrictions.

Overall, the WFP hub and spoke set-up enable large consolidated volumes to be moved.

### POOLED COSTS

Users of the WFP common service did not need to pay — this helped with speed and allowed agencies to use their funds for supplies rather than transport.

The pooled resources allowed WFP to put in place a hub-spoke systems and negotiate access with commercial carriers.

Noting that the aim to keep costs low by consolidating shipments — may have delayed some urgent deliveries.
Streamlined Delivery – better if

Better coordination of demand & procurement between buyers to enable pipeline planning for delivery.

Who is buying What for Whcih countries for When – needs coordinated – especially PPE and Dx)

Plus, an overall view across consortium groups (PPE, Dx, BioMed).

Closer look at consolidated shipments to small countries

COORDINATED PIPELINE

COORDINATION BETWEEN AGENCIES ORGANISING DELIVERIES

The multi-lane approach to delivery was important but it would have been better if there was joint planning of deliveries between agencies.

Improved reporting to lead deliverer/Control Tower - approx. 1/2 of deliveries were done by buyers with no/limited reporting to the Control Tower.

Visibility by CSCS of what was being sent where. Visibility for Countries on what as being sent by whom.

It also meant other UN assets (DoS) could not be used even though they were made available

A Log Cluster approach to coordination

SIMPLER AND CLEARER PROCESSES

Clearer and simpler SOP for E2E delivery including pre-advice of arrivals

More consistent pre-notification to countries of deliveries

A tailored supply chain for temperature-controlled shipments – that is clear to all.

Need ability to pull out a key shipment from consolidation.

The tension between consolidation and speed needs regular discussion during an operation

VISIBILITY OF SHIPMENT STATUS

Transparency of delivery status for countries

A consolidated view of what is being delivered - regardless of who organizes a delivery.

Define data needs and agree on timely sharing of information. Deliverers - provide qty & value info of shipments. Buyers - provide volume info of POs.

Link to the data sharing Portal (refer to section on Supply Portal assessment)
Streamlined Delivery - What worked well

CONSOLIDATED VOLUMES WERE KEY TO SMALLER ORGANISATIONS → SPEED & MULTI-LAINE APPROACH → ACCESS – OPEN CORRIDORS THROUGHOUT 2020 – CARGO & PASSENGER → CHINA HUB (AS WELL AS BELGIUM, DUBAI, ETC.) → POOLED COSTS

Streamlined Delivery – Better if

PIERC | VISIBILITY & COORDINATION → COORDINATION BETWEEN AGENCIES ORGANISING DELIVERIES → MORE SIMPLE & CLEAR PROCESSES → VISIBILITY OF SHIPMENT STATUS
In-country logistics & distribution

The Plan

Delivery and distribution:

Activate humanitarian and development actors (Task Force members as well as NGOs and civil society partners) who are the frontline responders across the globe with a vast network of assets, expertise, and partnerships.

This is critical in containing the destabilizing impact that the pandemic will have on fragile communities, further enhancing the work already done on humanitarian continuity under the SCICC.

Observation of what happened

No observation of activity
Countries
184 countries reached with supplies - by buyer and product

Number of countries procured for by CSCS buyer:

- WHO: 174
- UNICEF: 138
- UNDP: 114
- UNFPA: 101
- UNHCR: 82
- The Global Fund: 72
- GDF: 23
- PAHO: 22
- UNOPS: 20
- IMC: 17
- CHAI: 16

Number of countries by product group

- PPE: 169
- Diagnostics: 161
- Biomedical: 149

Data as of 31 December 2020
Country snapshots

A one-slide summary of procurement for each of the 184 countries is included in the assessment report as a separate slide deck. The following are examples.
Nigeria CSCS Procurement overview for Covid-19 supplies as of 31 December

Total procurement: 20,680,281
Quantity: $42,336,662

Top five products procured by value per category:
- Ventilator: $3,070K
- Oxygen concentrator: $693K
- Thermo infrared: $587K
- Monitor: $2,378K
- Nasal oxygen cannula: $2,330K

Value by buyer and category:
- BIO: UNDP, UNICEF, Global Fund, WHO, CHAI, UNHCR, UNFPA, IMC
- DIA: UNDP, UNICEF, Global Fund, WHO, CHAI, UNHCR, UNFPA, IMC
- PPE: UNDP, UNICEF, Global Fund, WHO, CHAI, UNHCR, UNFPA, IMC

*Categorized as non-essential supply
Ethiopia CSCS Procurement overview for Covid-19 supplies as of 31 December

Total procurement
- Quantity: 28,676,214
- Value: $30,495,032

Value by buyer and category
- BIO: $19,717K
- DIA: $4,093K
- PPE: $13,809K

Top five products procured by value per category
- BIO
  - Oxygen concentrator: $1,389K
  - Ventilator: $1,141K
  - Monitor: $320K
  - Thermo infrared: $125K
  - Flow splitter: $85K

- DIA
  - Test (Automated PCR): $5,152K
  - Test (Manual PCR): $3,805K
  - Sample collection kit: $1,099K
  - Test (Antigen RDT): $944K
  - Extraction kit: $217K

- PPE
  - Gown: $7,274K
  - Respirator: $4,908K
  - Mask 3 plies: $4,501K
  - Coverall*: $930K
  - Goggle: $798K

*Categorized as non-essential supply
Panama CSCS Procurement overview for Covid-19 supplies as of 31 December

Total procurement: 2,572,158
Quantity: 11,298,322
Value: $11,298,322

Total procurement by category:
- Quantity
- Value

Top five products procured by value per category:
- Ventilator: $39K
- Oxygen conc.: $30K
- Thermo infrared: $3K

Value by buyer and category:
- BIO
- DIA
- PPE

Panama

- $11,194K for WHO*
- $10,929K
- $87K for UNDP
- $12K for UNFPA
- $5K for UNHCR
- $3K for UNOPS

- $10,029K for Test (Antigen RDT)
- $90K for Respirator
- $73K for Mask 3 plies
- $58K for Faceshield
- $14K for Gown
- $4K for Goggle
Philippines CSCS Procurement overview for Covid-19 supplies as of 31 December

**Total procurement**: $5,976,254
- **Value**: $7,640,592

<table>
<thead>
<tr>
<th>Category</th>
<th>Quantity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIO</strong></td>
<td>26K</td>
<td>$4,635K</td>
</tr>
<tr>
<td><strong>DIA</strong></td>
<td>149K</td>
<td>$1,998K</td>
</tr>
<tr>
<td><strong>PPE</strong></td>
<td>801K</td>
<td>$2,286K</td>
</tr>
</tbody>
</table>

**Top five products procured by value per category**
- **Ventilator**: $2,286K
- **Oxygen conc.**: $1,998K
- **Monitor**: $1,295K
- **Pulse oximeter**: $109K
- **Nasal oxygen cannula**: $65K

**Value by buyer and category**

- **WHO***: $5,750K
- **UNICEF**: $3,032K
- **UNDP**: $2,515K
- **UNFPA**: $1,150K
- **UNHCR**: $197K

**Sample collection kit**: $150K
**Test (Manual PCR)**: $33K

**PPE**
- **Mask 3 plies**: $317K
- **Respirator**: $879K
- **Coverall***: $879K
- **Gown**: $575K
- **Faceshield**: $420K

* categorized as non-essential supply
Feedback from countries and regional bodies

- **Design:** Include countries & regions in the design of a global mechanism
- **Implementation:** A future mechanism should be more localised, regionalised
  - Build on leadership role of being taken by regional bodies
  - Use local, regional procurement and increase production capacity from local, regional manufacturers
- **Global Market situation:** Keep country and regional bodies better informed of the global market situation and strategic decisions around what products, allocations, where to source
- **Challenges:**
  - Receiving PPE from multiple buyers with different specifications was a challenge – all the more so when it differed from national specifications.
  - Long lead-times and sometimes no visibility on when goods will arrive

Observation

- The CSCS was designed to increase country access of Covid-19 supplies via the UN – by pooling key supply chain assets (specifying, procuring, delivering) and eliminating inter-UN competition in the market.
- It wasn’t conceived for government to procure entirely via CSCS or for governments to be consortium buyers (using their own resources or ODA).
- One diagnostics manufacturer required some countries to procure via the CSCS.
- The WB who created its own Bank facilitated procurement mechanism.
- In-country logistics was in the Plan but no observation. Some mentioned challenges with PPE warehousing and distribution in-country.
Lessons learned to consider

**INCLUDE COUNTRIES & REGIONS**

In the design & implementation of a mechanism.

As part of CSCS governance – mix of regional (national) representation & experts.

**CONSIDER DIFFERENT OPTIONS**

Develop an access strategy, based on market typology and situation, as well as an aim to localize.

Global supply constraints will likely need a global mechanism. But it could be a coordination of multiple regional bodies.

The debate at global level seems to be more around distribution of work between development agencies (UN, NGO) but it should be UN/NGO vs. national/regional.

Consider support to ICL

**EXPAND MARKETS**

As a part of access strategy, take into account countries’ supplier base and procurement channels to better enable local and regional approaches.

For preparations and response.

Use the large increase in expenditure to increase local markets. Notably PPE.
NGO and CSO partners
Special note on NGO & CSO engagement

NGOs and CSOs have a wide range of expertise and roles in pandemics – including,
- Market access strategies
- Public advocacy
- Technical expertise
- In-country service-delivery
- Last-mile delivery

Summary feedback

- CSCS was a game changer for continuing their humanitarian programmes in terms of transportation of passengers and supplies
- Several NGOs felt like they were more of an observer than influencer. In any case, the forum provided a good means of information and networking to help with their operation.
- Access terms were not accessible to NGOs. They would have needed to procure via UN buyers but that was slower and more expensive. Challenge in accessing the Supply Portal.
- They provided advocacy on equitable allocation, pricing & access terms, and gaps in allocations to humanitarian needs (and staff).
- In the future, include NGOs in design and strategy of a set-up.
- In terms of representation on working groups - have them organise/decide representation
UN & NGO front line humanitarian staff – Duty of Care
Duty of care to UN and NGO front line humanitarian staff

Observation of what happened

- UN Model of Care issued by UN Medical Doctors, 10 April included key supplies
  - Paracetamol, thermometer, pulse oximeter, medical masks, lab services, clinical care
- UN DOS advised of supplies needed for peacekeepers
- Support to the Medevac Task Force (led by UNDOS) supported by WFP
- Key topics of tension:
  - Allocation of tests
  - Supply portal not set up for UN or NGO staff
- Perception of limited bandwidth to manage these specific needs in the context of large programmatic needs
- WFP common services enabled movement of UN & NGO staff and staff supplies
UN DOS and IOM – main procurers for UN staff and Peacekeeping missions

Early and steady deployment of supplies for staff. Mostly PPE but also diagnostics
Ideas to ensure supplies for Duty of Care

Process & Preparation

• Requisitioning needs: Establish a parallel but coordinated approach
• Preparations: UN MD consider strategic inventory
• Procurement: Decide up front whether to Buy direct & coordinate or Buy through one of the main UN buyers (include in ‘Playbook’ planning)

In a supply constrained situation:

• Rationalise UN & NGO staff needs based on WHO recommended use-case
• Review whether national plans include NGO and UN staff and prepare as if this may not materialize (in full or in part)
• Given duty of care obligation, an early allocation could be made based on the WHO recommended use-case
• Sequencing the timing of supply, if needed
Task Force and Control Tower
The CSCS Task Force

The plan

Co-chaired: WHO & WFP

Composed of Senior representatives from each participating agency: WHO, WFP, UNICEF, UNOPS, UNDP, UNFPA, UNHCR, DOS

Focus:
- Establishing and implementing a global strategy to ensure access to critical and life-saving supplies as identified by WHO;
- Bringing together the collective capabilities of public and private actors to meet these needs;
- Ensuring the flow of vital supplies and essential cargo.

Observation of what happened

• Launched in April
• WHO and WFP co-chaired, with WFP chairing the majority of the time
• Seniority of representation varied across agencies and decreased over time. Representation varied meeting-to-meeting.
• Membership expanded to NGOs in May and others (GF, BMGF, etc.)
• Met ~ twice monthly. Minutes shared & readily available.
Focus:
- Established high level strategy/concept
- Roles – Consortia, Country level Supply Coordinator, etc.
- Updates on funding, procurement amounts, and major shifts in markets
- Review of strategic issues delegated to Consortia – demand forecasts, acquisition strategy, allocation criteria, demand vs. supply, etc.
- Regular > standard reporting on demand and supply
- Follow-up on issues raised or concerns, resulting in misunderstandings

Became a large information-sharing mechanism rather than decision-making, strategic forum.

Some misunderstandings and information gaps of Task Force member – strategy concept was established but not well known.

Many stakeholders also commented on the need for improved communication and information sharing, including by the Control Tower and WHO.

What worked well

- Inclusive
- Good place for information-sharing
- Networking, keeping current with situation
- Place for some issue to be resolved

Could be better if

- More regular links to pandemic strategy
- Maintain an E2E oversight of the CSCS. More strategic less operational
- Review of Consortium strategies, focus, issue (QA, diff specs) and allocation
- A smaller ExCom to support decision-making and a larger, inclusive group to vet ideas, share information, hear concerns, etc.
- Review key data points to monitor progress and strategy - on weekly basis whether meetings held or not
- Don’t let the small issues fester – as they turn into disproportionate misunderstandings
- Senior level touch-points with agencies to get ideas, buy-in, and for mutual support
- Briefings to new members
The Task Force - What worked well

- **Inclusive of all CSCs participating organisations and more**
- **Good information sharing and networking**
- **Place for issues to be raised**

The Task Force - Better if

- **Maintain regular links to the pandemic response strategy**
- **Maintain an E2E oversight of the CSCs operation and strategic issues**
- **Provide clear and regular communication within the CSCs and externals**
- **Create a smaller EXCOM to support decision-making so the larger, inclusive group can vet ideas, share information, hear concerns, etc.**
- **Have senior level touchpoints with key agencies to get ideas, buy-in, and for mutual support**
The Control Tower

The plan

- The Control Tower is the central interface where country demand, partner procurement mechanisms, and logistics/distribution come together.
- The Control Tower manages execution of allocation against the principles and strategy provided by the Task Force / Consortia. This includes reviewing requests, mapping available supplies, allocating available supplies to requests, and identifying a supplying agency to fulfill allocation.
- The Control Tower is composed of staff from WHO, WFP and UNICEF and other key partners.
- The Control Tower will make sure that the committed requests trigger the delivery and a hub-and-spoke distribution chain that will be operated and optimized for each category. This system includes:
  - Strategic international consolidation hubs as well as regional staging areas located along primary corridors serving priority countries identified by WHO and the Global Humanitarian Response Plan
  - Strategic airlifts, for prioritized cargo to ensure movement of goods between international and regional hubs and onward to countries (if required). Where required, shipping services will ensure delivery for slow moving cargo, and road and rail services will be used where appropriate
  - Assets of Task Force members as well as their public and private sector partners may be brought in to complement services.

Observation of what happened

- Country demand, allocation, and partner procurement, were moved to consortia
- Leaving Control Tower with limited visibility
- WFP deployed large number (15-30) of staff to WHO and led the delivery operation from Geneva. Others deployed 1-3 for information sharing but no coordination of the operation
- The control tower focus was on getting tools (ESFT, Supply Portal) in place, supporting Task Force meetings, fire-fighting.
- WFP set up the ESM to coordinate WFP-managed deliveries
- It designed dashboards and consolidated partners data.
- Created TORs of each part of the CSCS, mailing list, created public forum for posting of information, etc.
- Established Supply Coordinators as country focal point. Designated in countries by the RO/HC, from diff. UN organizations.
- Operationally it tended to focus on transactions and partners requesting support through WHO
- It focused on WFP deliveries more so than other deliveries managed by buyers

What worked well...

- Proximity of delivery operation leadership to central coordination
- Delivery (refer to Lessons Learned on Delivery)
- ESFT, Partner Platform, ESM (refer to lessons learned on Tools)
- Public posting of key CSCS information

Could be better if

- A focus on communication — internal and external
- Use of data to help monitor progress, support decision-making
- Support multi-lane approach (all buyers, all deliverers) and coordinate
- Consider main practitioners being co-located for initial months (operations not liaison)
- Tee-up agenda items for Task Force – act more as a Secretariat to a Board
- Allocation not delegated to purchasing consortia – led by pandemic response
Roles & Responsibility - Control Tower

WHO – CSCS information, systems, data consolidation, TF agenda setting, etc.

WFP – delivery planning/execution (from WFP managed shipments), systems and data (Emergency Services Marketplace)

Some key secondments from partners to support workload
Control Tower – information online, publicly available

COVID-19 Supply Chain System

What is the COVID-19 Supply Chain System?
The global COVID-19 outbreak led to an acute shortage of essential supplies. At the request of the United Nations Secretary-General and WHO Director-General and in support of the UN Crisis Management Team, a Supply Chain Task Force was convened to oversee the establishment of the COVID-19 Supply Chain System.

How to request supplies?
In order to request supplies, a country needs to register at least one Supply Coordinator and at least one Country Partner/Requestor. Please see below additional information on the registration and request processes.

What supplies can be requested?
The Supply Portal community facilitates access to approximately 50 critical items, including personal protective equipment (PPE), medical equipment, and diagnostic supplies. See below for links to the full catalogue and further information on product scarcity.

When will I be able to receive my supplies?
Due to supply availability and logistical factors, firm timelines are not available until a request is converted into a confirmed order. A general market overview, including estimated delivery timelines, is published frequently. Once you have placed your request, you will receive weekly email notifications on the status of your request.
Each component of the CSCS had a document defining scope, objective process, and/or roles.

The Control Tower - What worked well

- Close proximity to pandemic response leadership, including delivery operation
- Delivery (refer to lessons learned on delivery)
- Suite of tools – ESFT, Partner platform, ESM, supply portal concept
- Publicly available information on CSCS

The Control Tower - Better if

- A focus on communication – internal & external
- TEE-up analysis & agenda items for task force
- Support multi-lane approach (all buyers, all deliverers)
- Use data to help monitor progress & support decision-making
- Keep allocation led by pandemic response
Planning and Coordination Tools
Partner Platform, Supply Portal, Emergency Service Marketplace (ESM), Essential Supplies Forecasting Tool (ESFT)
The Partner Platform, Supply Portal and the ESFT were a part of a comprehensive on-line tools to support country pandemic preparedness & response.
Partner Platform

**Purpose** - Enable real-time tracking to support the planning, implementation & resourcing of country preparedness and response activities

Countries & Implementing Partners:
- **Transparency** – provide visibility into global scale of pledged and submitted contributions and actions implemented by peer countries
- **Collaboration** – support coordination between governments, UN agencies, implementing and partners, at national and sub-national levels
- **Efficiency** – support planning, prioritization and monitoring of response efforts by pillar and enables real-time reporting

Donors:
- **Transparency** – enable promotion of global contributions amongst Platform users and tracking status of committed contributions
- **Collaboration** – enable direct connection with recipient countries, including real-time visibility into actions taken and resource needs
- **Efficiency** – provide visibility into priority needs by country, region and pillar to support resource allocation

**Launched on 16 March by the Director General, WHO**

**As of November, used by 125+ countries and 50+ donors**
Supply Portal

Plan

The portal was to facilitate national authorities and all implementing partners supporting COVID-19 National Action Plans to request critical supplies

Designed for countries with Preparedness Capacities assessed to be between 1-4.

Every approved stakeholder who has an active role in the COVID-19 preparedness and response action plan can sign up for the COVID-19 Supply Portal. This includes Government agencies, UN agencies, and NGOs.

National authorities together with Resident/Humanitarian Coordinators, WHO, Health Clusters, and responding partners are to align on supply needs for the next three months under their National Action Plan. Requestors must be identified and designated to submit their request against an agreed portion of required supplies.

A catalogue of items that can be requested through the COVID-19 Supply Portal is available online.

Funding and/or the financial partner is required for requests made through the COVID-19 Supply Portal.

Requests are validated by each country’s Supply Coordinator. This role is filled by either the Resident Coordinator / Humanitarian Coordinator or alternative as appointed.

To be released in stages to reflect increased functionality.

Observation

- The right concept – the Supply Portal e-system was not an ERP system (with financial controls, authorizations, tendering capacity, etc.) – but a tool for planning, coordination and visibility
- Data needs not well defined or designed-in (nonetheless, the more comprehensive data source of the CSCS)
- The pain point was primarily that the system was build-out (“build-test-update-test”) during rapid response phase risked slowing-down buying and therefore was primarily used for WHO directed orders. All other buyers used their existing system and reported on procurement. No reporting on delivery unless handed by WFP; no time-dimension, etc.
- NGOs not able to access Supply Portal until 3Q, due to MOU signing. Then did not use due to set-up.
- Country coordination of demand is unclear (e.g., was leadership from RC/HC office in terms of a consolidated national preparation and response plan – and subsequent funding plan and supply request)
- Unclear link of Supply Coordinator to coordination of demand – to the RC/HC office.
- Unfunded needs not visible
- Countries did not have visibility on their order status - they put their order in and then they may not receive an update until a delivery notification
- ‘Long’ lead times for key process steps
- No link to Partner Platform or ESFT
- The point of departure from coordination seems to be as early as requisitioning
- There is limited inter-agency coordination on health supply chains for regular and humanitarian programmes – no starting point to build from
Supply Portal - Design

Requests developed per the National Preparation & Response Plan

✓ Request validated by the RC/HC - Supply Coordinator

✓ Allocations made by the Control Tower, if needed

The relevant buyer procures the requested / allocated supplies

Countries receive information on status

Supplies delivered to country

Buyers provide status of key milestones

Buyers inform delivery channel of readiness date

WFP

WFP consolidates shipments as relevant

Freight Forwarder
Supply Portal - Actual

The Consortia took the allocation decisions not the Control Tower

The challenges of building a system during the phase of urgent need necessitated work-arounds.

The differences between design & actual was a frustration to countries and partners.

In the end, all buyers received request via their channel except WHO – who received requests via the portal.

The challenges of building a system during the phase of urgent need necessitated work-arounds.

The differences between design & actual was a frustration to countries and partners.

It also meant no single data source. A (major) weekly exercise in data collection post-facto (via excel). Only limited data aspects shared/consolidated

Time for key process steps was noted as too long: e.g., validation of request, allocation decision, procurement, data update
Supply Portal - Lessons learned

Analysis

- Supporting supply chains for 130+ countries – requires a system and discipline. But also links to buyer’s ERP systems.
- If supplies are a major part of a pandemic & epidemic preparedness and response, coordination and visibility of market access and supply chains is needed.
- If support to an epidemic is for a limited number of countries (e.g., <15), product specifications are clear, or supply meets or exceeds demand, then coordinated Supply Plans (as an outcome of Country Coordinated Response Plans) and clear data & reporting requirements could be sufficient. So, no Supply Portal e-system but a Data Sharing agreement.
- But for a large epidemic, or a pandemic, a supply portal concept is needed.

Recommendation

- Maintain the concept of a supply portal in terms of information flow (not an ERP system).
- Agreement on real-time (same day) data sharing so status is transparent by all
- Design now, so momentum and lessons learned are not lost. Include countries, regions and partners in design
  - Review & update process steps, add means to include unfunded needs, establish target processing times (and then monitor when used), price monitoring and other lessons learned around data definition
- It could be a build-back better tool coming out of the pandemic that is used to provide coordinated support health programmes. It could also be a tool that helps regionalization/local supply chains and procurement.
- Consider a country-facing platform including by connecting to partner platforms and engaging national governments and regional institutions
Supply Portal - What worked well

- Concept was good – a platform is needed
- Provided a comprehensive supply chain data set

Supply Portal – Better if

- Design an easy to use platform that provides visibility on supply chain and markets with input from stakeholders (partners, countries, NGOs)
- Build in advance
- Provide user support – for roll-out & continuous use
- Link to other tools – partner platform, ESFT, ESM
- Give visibility to all partners (donors, regions, etc.)
Emergency Service Marketplace (ESM) – WFP transport of Covid-19 supplies and passengers

WFP established an online platform for partners to request deliveries and status, as well as passenger flights.

The site contained user-guides, FAQ, tracking, etc.
Covid-19 Essential Supplies Forecasting Tool (ESFT)

Purpose:

- Help governments, partners, and other stakeholders to estimate potential requirements for essential supplies to respond to the current pandemic.
- Focused on essential supplies: personal protective equipment, diagnostic equipment, biomedical equipment for case management, essential drugs for supportive care, and consumable medical supplies.
- ESFT is intended to be complimentary to the Health Workforce tools (Adaptt and the Workforce Estimator). Both tools use the same base clinical attack rate ranges and classify health workforce using ILO ISCO codes, but their outputs are intentionally different due to their primary focus.
- Best suited for estimating essential supply needs over a short period (12 weeks or fewer) but can be used for longer.

This calculator is a supply forecasting tool. This tool is meant to help governments, partners, and other stakeholders estimate potential requirements for essential supplies to respond to the current pandemic. Essential supplies include hygiene and IPC commodities, personal protective equipment, diagnostic and biomedical equipment for case management, drugs for supportive care, and consumable medical supplies. It is designed to proactively support decision-making and enable the rapid procurement of essential supplies.

Supply estimates are based on scenario needs. The calculator helps guide users through the process of making assumptions about the estimated number of cases over time, and it adjusts estimates based on the projected number of deaths (for example, availability of health care workers and patient beds). Users can manually input staff and infrastructure assumptions on the ‘Inputs’ tab or select reference values from existing datasets.

Outputs are constrained based on available parameters for health system infrastructure. This calculator includes realistic assumptions for the projected number of cases (for example, availability of health care workers and patient beds). Users can manually input staff and infrastructure assumptions on the ‘Inputs’ tab or select reference values from existing datasets.

This tool is not meant to be an epidemiological model. Current user numbers are used primarily for forecasting tool essential supply needs. In the absence of an established epidemiological model that can provide case forecasts, the tool has simple exponential growth. The calculator tool is available for public use. The model used in this tool is simple and basic. The capacity of the tool is to provide a first estimate of the potential need for essential supplies.
The ESFT launch and subsequent improvements

Launch

31 March
Based on exponential epi curve

Version 2

1 May
S-I-R & manual options added for epi curve
All products updated based on updated WHO guidance

Version 3

27 Aug
11 major updates: including products, move to weekly frequency, new UNDP population data
Tool went live on WHO website

Version 4

Jan 2021
Planned update for epi curve (+Imperial college)
+ RDTs and new therapeutics
User support to the roll-out of the ESFT

- Tool includes user guidance
- A disclaimer note to be signed before the tool can be used to help ensure instructions and assumptions have been read
- Each version was supported with FAQ
- Webinar training held at Global level, with Regional offices and 2 countries

<table>
<thead>
<tr>
<th>Mar</th>
<th>April</th>
<th>May</th>
<th>June</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO HQ Committee</td>
<td>EURO</td>
<td>SEARO</td>
<td>PAHO</td>
</tr>
<tr>
<td>EMRO</td>
<td>WPRO</td>
<td>WPRO</td>
<td>NGO</td>
</tr>
<tr>
<td>UNECA</td>
<td>AFRO</td>
<td>AFRO</td>
<td>Uzbekistan</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>WFP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Health Cluster</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Macedonia</td>
</tr>
</tbody>
</table>
ESTF- Lessons learned

**The Plan**

ESTF was designed for use:
- By countries to develop supply needs of their national response.
- By Buyers to provide short- & medium-term forecasts to industry - even though it was designed as a short-term quantification.
- The first version was used to develop the early signal for BioMed products. The assumption of an exponential epi curve in all countries result in a forecast that was orders of magnitude too high.
- By WFP to estimate the volumes needed to be transported.

It is not designed to estimate additional needs for NGO programmes or the needs for UN or NGO staff.

**Observation**

- The ESFT was rapidly developed, rapidly improved and a part of other pandemic response planning tools for countries.
- The ESFT is one of the most comprehensive supply forecasting tools available.
- Good roll-out and training.
- It continued to be used for meta, medium-term planning, but perhaps not suited for such.

**Recommendation:**

- Assess the accuracy and utility at country level - and make adjustments.
- Consider link to funding and buying option; and link to Partner Platform & Supply Portal.
- Maintain as a key tool for epidemic and pandemic planning – including that could be adapted to other disease outbreaks of scale.
Coordination & Planning Tools - What worked well

EACH TOOL
COMPREHENSIVE –
CLEAR CONCEPT
FIRST TIME AND E2E
SET OF TOOLS WERE
MADE PUBLICLY
AVAILABLE

Coordination & Planning Tools – Better if

BUILD IN
ADVANCE –
BASED ON INPUT
FROM
COUNTRIES,
REGIONS &
PARTNERS
ESTABLISH
LINKAGES
BETWEEN
TOOLS
CONSIDER A
COUNTRY-
FACING
PLATFORM THAT
BUILDS ON WHAT
EXISTS
MORE
TRANSPARENT –
RATHER THAN
CLOSED TO
CERTAIN USERS
USE DATA TO
MONITOR
PERFORMANCE
AND INFORM
STRATEGY AND
DECISION-MAKING
Data
Data Sources

CSCS Dashboard
- Procurement by buyers by product group
- No monthly data
- No pricing, supplier info

Supply Portal
- Requests, procured, WAC by month, by product item/group – WHO only
- No delivery info

Ad hoc
- Info taken from meeting minutes
- Data publicly available

Buyers
- Procurement volumes
- Supplier base
- Pricing
- Deliveries
- Shipments

WFP
- Delivery volumes by month (not value) for all

- 5 main data channels
- Data sets were fractured and had different definitions of data points
- Information on funding sources - not a part of data sets
- Assessment queries identified issues – many iterations of data sets Dec-Jan
- UNICEF has a largest list of items they consider ‘essential’ (mostly PPE)
- Difficult to get an overall picture
Data

The plan

Data needs were primarily defined via the Supply Portal, Partner Platform and ESFT.

Observation of what happened

- An attempt to maintain information via the Supply Portal – but it took too much time to develop and buyers wanted to use their own systems.
- Interoperability of ERP systems and data interface is complex.
- Most buyers reported their information post-facto, but with changing data definitions and scope.
- Data was an add-on responsibility to staff, who needed to adapt the earlier tool built.
- A data sharing portal was set up and available in 3Q, then refined throughout 4Q.
- The dashboard originally created gave a high level. A closer look at the detailed data points revealed data inaccuracies, inconsistencies and gaps.
- Partners did not have visibility of who was doing what, what was being sent to countries, etc. A lot was being done but no one had an overview of the CSCS parts (purchasing consortiums, delivery, requests) and a total overall picture.
- Different material descriptions by buyers for the same product resulted in challenges in aggregation. This is needed for accurate monitoring and reporting, negotiation with suppliers, etc.
- Overall, there wasn’t a clear plan on data needs and information flow within and outside (countries, markets, funders) the CSCS, including on the following supply chain topics:
  - Demand, including unfunded needs
  - Allocation
  - Procurement
  - Delivery
  - Status of requisitions
  - Quality of supplies
  - Market situation
  - Supplies
  - Values and Costs
  - Funders
  - Timeliness of delivery
  - Lead Times
  - Pricing
  - Quantities in stock.
Example impact of lack of data strategy - delivery

In order to manage and provide visibility on deliveries managed by WFP and keeping partners updated via the ESM:

- WFP worked with 26 different datasets/tables - "inputs of data" with
- 126 data transformations were required to link, integrate data from the different sources

Resulting in major inefficiencies and challenges.

In addition, there was no data on total deliveries including those managed by WFP as well as buyers (WHO, UNICEF, GF, etc.).
Data - What worked well

GOOD RECORD OF RAPID RESPONSE – VIA EXCEL

DEVELOPMENT OF DATA SHARING PORTAL, END 2020

Data – Better if

DEFINE DATA NEEDS – FOR USE WITHIN & OUTSIDE CSCS. RESOURCE THE FUNCTION

DEVELOP A PLATFORM TO ENABLE REAL-TIME DATA SHARING. (REFER TO SUPPLY PORTAL LESSONS LEARNED)

USE DATA TO MONITOR PERFORMANCE & INFORM STRATEGY, DECISION-MAKING

USE DATA TO PROVIDE VISIBILITY OF SUPPLY CHAIN STATUS, QA OF PRODUCTS & GLOBAL MARKET SITUATIONS
Purchasing Consortia
The Plan for the Consortia

The consortia are tasked to:

• Agree technical interventions, specifications and map out country delivery plans
• Calculate demand forecast
• Convene industry & negotiate price and volume agreements
• Distribute procurement/purchasing tasks
• Coordinate financial commitments to industry
• Working with the SCICC to ensure production schedules are integrated into the distribution system and deliveries prioritized
# Observation of what happened

* Caveat needed

<table>
<thead>
<tr>
<th>Plan</th>
<th>Diagnostics</th>
<th>Biomed</th>
<th>PPE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree technical interventions, specifications and map out country delivery plans</td>
<td>✓ *</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Calculate demand forecast</td>
<td>X</td>
<td>✓ *</td>
<td>✓</td>
</tr>
<tr>
<td>Convene/engage industry &amp; negotiate price and volume agreements</td>
<td>✓</td>
<td>✓ *</td>
<td>✓ *</td>
</tr>
<tr>
<td>Distribute procurement/purchasing tasks</td>
<td>✓</td>
<td>✓</td>
<td>✓ *</td>
</tr>
<tr>
<td>Coordinate financial commitments to industry</td>
<td>✓</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ensure production schedules are integrated into the distribution system and deliveries prioritized</td>
<td>✓ *</td>
<td>✓ *</td>
<td>X</td>
</tr>
<tr>
<td>Allocation - added to Consortia scope in July</td>
<td>✓ *</td>
<td>✓ *</td>
<td>X *</td>
</tr>
</tbody>
</table>
There were differences in the focus of the 3 Consortiums and how they organised and varying views on which approach was most effective.

Summary of interview feedback

The value of the Consortiums differed by product group, and several singled out the diagnostics consortium as particularly helpful. In contrast, the PPE consortium was less impactful and by June was seen as no longer needed. In addition to improving access, many stakeholders thought that the consortium helped to improve coordination and information sharing. A small number noted that CSCS helped to stabilize markets by reducing competitive buying and implementing LTAs and helped purchasers to ensure the quality of products procured.

Summary of survey feedback

Positive view on PPE Consortia increasing access. More negative view on Biomed Consortia helping reduce prices. Positive on all Consortia ability to leverage partners’ expertise. Strong positive view on quality standards on all Consortia responders’ groups. PPE overall more positive, Biomed overall more negative.
Given the global market constraints linked to the SARS-CoV-2 pandemic, how satisfied are you with the contribution of the CSCS to accessing critical COVID-19 supplies?

**All respondents**
- **PPE**: 62% satisfied / 29% dissatisfied
- **Biomedical**: 48% satisfied / 31% dissatisfied
- **Diagnostics**: 45% satisfied / 47% dissatisfied

**Country level respondents**
- **PPE**: 65% Satisfied / 28% Dissatisfied
- **Biomedical**: 52% Satisfied / 36% Dissatisfied
- **Diagnostics**: 50% Satisfied / 42% Dissatisfied
Did you receive the amount of supplies requested?

**Country level respondents**

**PPE**
84% Partially/To a great extent/Fully
17% Minimally/Not at all

**Biomedical**
83% Partially/To a great extent/Fully
18% Minimally/Not at all

**Diagnostics**
69% Partially/To a great extent/Fully
31% Minimally/Not at all
Did you receive the COVID-19 supplies requested via the CSCS as per the agreed timing? (only country respondents)

Country level respondents

PPE
46% Most/About half of the time
54% Sometimes/Never

Biomedical
35% Most/About half of the time
64% Sometimes/Never

Diagnostics
35% Most/About half of the time
65% Sometimes/Never
Purchasing Consortium
PPE
PPE Roles & Responsibilities

**Chairs:** WHO - Purchasing Consortium (Apr-June)

- The PRG was created around the same time of the Consortium. The momentum of the PRG became the convening platform and the consortium never fully materialized.
- The full scope of work of the consortium did not materialise

**Chair:** UNICEF - Procurement Reference Group (April – Dec)

**Buyers:** IOM*, PAHO*, UN DOS*, UNDP, UNFPA*, UNHCR*, UNICEF*, UNOPS*, WHO (*established LTAs as part of the joint procurement)

**Buyers less/not active in purchasing consortium:** IMC

**Other participants/buyers (not reporting to the CSCS):** IFRC, IAEA, MSF, UNRWA

**Funders:** BMGF (bridge funding) - beginning
Overview of PPE PRG participation by CSCS organisations
## PPE Purchasing Consortium - Observation vs. Plan

<table>
<thead>
<tr>
<th>Overall</th>
<th>PPE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree technical interventions, specifications and map out country delivery plans</td>
<td>X</td>
</tr>
<tr>
<td>Calculate demand forecast</td>
<td>✓</td>
</tr>
<tr>
<td>Convene/engage industry &amp; negotiate price and volume agreements</td>
<td>✓*</td>
</tr>
<tr>
<td>Distribute procurement/purchasing tasks</td>
<td>✓*</td>
</tr>
<tr>
<td>Coordinate financial commitments to industry</td>
<td>X</td>
</tr>
<tr>
<td>Ensure production schedules are integrated into the distribution system and deliveries prioritized</td>
<td>X</td>
</tr>
<tr>
<td>Allocation - added to Consortium scope in July</td>
<td>X*</td>
</tr>
</tbody>
</table>

* Caveat needed
Surge & direct / emergency procurement

By 3 March, WHO shipped nearly 500,000 sets of PPE (0.85M units) to 47 countries

By end February, UNICEF shipped 3.8 million units to PPE to 8 countries

26 April, China implements additional quality control requirements for export

By 25 June, 4 LTAs

By 20 Aug, 8 LTAs

By end Oct, 15 LTAs

Demand decrease, additional supply via WHO, UNICEF & direct procurement initiatives

Limited supply gaps for most PPE products

By 9 Dec, 100 POs by 6 agencies, 7.85m USD to 31 countries + UNICEF WH replenishment

PPE Purchasing ‘Consortium’ / Procurement Reference Group timeline

Actual procurement at year end: 1,023 million units procured for 169 countries (79% shipped/delivered) (excluding stock)

(Please refer to the timeline diagram for detailed information on the procurement process.)
PPE Procurement strategy—a ‘multi-lane’ approach

Buyers direct to market

- WHO: Direct procurement with a Chinese consolidator/distributor (MEHECO) who negotiated prices with Chinese manufacturers, assured quality, coordinated sets and in-country consolidation. At a fee of 1.6%.

- UNICEF: Direct procurement, to manufacturers of each PPE item. Used suppliers with existing LTAs, suppliers used during ebola outbreak & reached out to new suppliers.

- Global Fund: procurement via UNICEF

- NGOs and other UN buyers: Direct procurement with manufacturers or wholesalers

Joint tender

- UNICEF-led on behalf of 13 organisations (UN + NGOs) (IAEA, IFRC, IOM, MSF, PAHO, UNDP, UNFPA, UNHCR, UNICEF, UNOPS, UNPD, UNRWA and WHO)

  - 2-phased approach to meet immediate needs and establish longer term supply security
    - 1) secure supply for 2020 (April - December)
    - 2) secure supply for 2021, building on lessons learned, established agreements, updated demand forecast and market status

- Process and results:
  - Managed 586 offers through 4 windows, of which 55 were accepted / evaluated by 6 agencies
  - Subset of PRG conducted negotiations with industry under the joint procurement, LTAs (led by different agencies), from June (4 LTAs) to December (15 LTAs)
  - PRG exit strategy: at least 2 LTAs for key products so partners can procure directly when needed, extending into 2021
  - 6 agencies procured using the joint LTAs
  - PO tracking dashboard established by IOM and used by the PRG, rolled out in July
PPE procurement summary

Data as of 31 December 2020
WHO* includes PAHO
TGF procured approx. $70m PPE via UNICEF and $6m via UNDP

*classified as non-essential supply
PPE – Ten largest products procured

Data as of 31 December 2020

WHO* includes PAHO

*classified as non-essential
**Geography of PPE - high dependency on China**

- PPE had mostly been off-shored to low-cost production in China.
- Production in Europe and U.S. was all but nationalized.
- Even European and US manufacturers sourced from China.

Examples of global trade networks for PPE (2018) surgical masks & respirators:

- WHO – procured from a consolidator in China (MEHECO) who subcontracted with China mfrs.
- UNICEF procured directly from multiple manufacturers in China.
- The Joint tender established LTAs with 15 vendors from 7 countries, but still high reliance on China, including as European mfrs source product from China.
- New manufacturer in India and potentially Sri Lanka.

Joint Tender: Geographical distribution of awarded LTAs by product group. Note: European source from China.
PPE demand & actuals

3 March: WHO call to industry to increase PPE production by 40%.
  • Per month estimates: 89 m masks, 76 m gloves, 1.6m goggles
  • Demand signal (10 months): 1.7 billion PPE units

April: Joint tender demand (Apr – Dec)
  • On behalf of 13 participating organisations, expected to procurement via the joint procurement tender
  • Demand signal (9 months): >4.4 billion PPE units

August: Updated joint tender demand forecast (Aug – Dec)
  • On behalf of 7 agencies
  • Demand reduced to 557 million PPE units

Actuals (all procurement channels, reported through CSCS)
  • 1.023 million PPE units (excluding stock)
  • Does not include additional items not part of WHO essential PPE list, eg coveralls, caps, boot covers
N95 Mask pricing increase
- Supply Portal wac: $1.80 in Aug/Sept
- UNICEF catalogue wap $2.26 $2.23 in Sept, $1 in Nov
- UNFPA wap $2.62 in Sept, $1.37 in Nov
- Consumer online purchase in DK: $2.31 and UK: $2.40 (Dec 2020)

Gloves:
- Surgical glove prices increased over the autumn and dropping in December
- Examination glove prices stable over the period
- UNFPA surgical glove Sept $0.45
- UNFPA examination glove, Aug & Nov $0.10

- Some discussion on prices of PPE in consortium (and confidential discussions as part of joint tender); not discussed in SCTF (as per minutes)
- Market prices fluctuated for PPE from April-November, except for examination gloves
- No indication of much price advantage for volumes
Price evolution for PPE items – per supply portal w.a.c.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Weighted Average Price (WAP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Gown</td>
<td>$0.30, $0.46, $0.59, $0.84</td>
</tr>
<tr>
<td>Surgical Mask</td>
<td>$0.00, $0.06, $0.10, $0.16</td>
</tr>
<tr>
<td>Face Shield</td>
<td>$0.29, $0.74, $0.50, $0.01</td>
</tr>
</tbody>
</table>

**Surgical Gown** pricing decreased as markets opened up and production increased.

**Masks and Shields:**
- Over the summer, countries started to use Masks and Shields beyond medical settings and for general public use.
- Did the change in 'use case' of masks and shields significantly impact demand and therefore prices remained high?
- Or were the prices of these products set during a period of constraint and not able to be re-negotiated?
**N95 Mask pricing increase**
- Supply Portal wac: $1.80 in Aug/Sept
- UNICEF catalogue wap $2.26 $2.23 in Sept, $1 in Nov
- UNFPA wap $2.62 in Sept, $1.37 in Nov
- Consumer online purchase in DK: $2.31 and UK: $2.40 (Dec 2020)

**Gloves:**
- Surgical glove prices increased over the autumn and dropping in December
- Examination glove prices stable over the period
- UNFPA surgical glove Sept $0.45
- UNFPA examination glove, Aug & Nov $0.10

- Some discussion on prices of PPE in consortium (and confidential discussions as a part of joint tender); not in Task Force minutes
- Market prices fluctuated for PPE from April-November, except for examination gloves
- No indication of much price advantage for volumes
Nigeria CSCS Procurement overview for Covid-19 supplies as of 31 December

Data as of 31 December 2020

WHO* includes PAHO

*categorized as non-essential supply
There were some differences in technical specifications between buyers

• There were some differences in specification (between WHO & UNICEF) on composition of PPE sets, and use-case (?). Which contribute to some confusion in some countries as well as less accurate quantification of need (& potential waste of resources).

• Several people interviewed mentioned the need for more resources for the development of technical specification, quality assessment of products being manufactured, and assessment of novel products.

• The regions and countries noted that it would have been a good opportunity to localise/regionalise PPE production.

Differences in specification

- PPE: Gloves
- Material: Ebola vs. pandemic influenza

Differences in Covid-19 PPE sets

- 10 PPE products are the same across buyers
- 5 products not included/specified by WHO: Cap, coverall, boots, boot covers, reusable aprons (~$30m)
- 1 product included/specified by WHO but not by UNICEF - biohazard bags

One of the weaknesses in a multi-lane approach to accessing supplies is a wide range of products being supplied to a country – need to agree on standards
The need for alignment on use case for PPE

$59 M of *non-essential PPE procured in 2020

Two of 10 largest products procured were non-essential. Need to understand if products are needed for the pandemic response or not.

Note: $4m of Coveralls procured not in chart.

Data as of 31 December 2020
Consortia—PPE

WHAT WORKED WELL

• Early and accurate demand signal from WHO on aggregated programmatic need
• Early messaging to Industry on supply constraints (WHO in Jan (PSCN) and Feb (DG letters to Industry CEOs), UNICEF in April (pre-tender meeting))
• Multi-lane procurement approach delivered early and rapid access to PPE via direct / emergency procurement and framework for access in 2021 by multiple UN agencies and NGOs via the joint tender
• ”No regrets” approach by WHO & UNICEF to secure volumes upfront
• Collaboration (on joint procurement)

BETTER IF

• Clear roles and scope of a purchasing consortium
• Intentional, coordinated strategy on procurement approaches based on market typology / dynamics (instead of disconnected procurement action)
• Consider consolidator/distributor approach due to cost-benefit (workload vs. fast action) in a dynamic market
• Regular updated aggregated demand estimates to industry (in additional to via procurement channels)
• Monitor pricing and keep pricing terms as dynamic as possible in a rapidly changing market so it does not cost more to use global procurement mechanisms.
• Better support to Quality Assurance issues of manufacturing base scaling – e.g., sharing of QA inspections
• Alignment on PPE specifications / use case, including agreement on set vs. individual products to avoid waste, ease at country level, and alignment of pandemic response strategy
• Take an end-to-end approach – technical spec alignment, coordinated demand, lead-time, prices, allocation, in-country receipt & distribution. Align on what is being sent by multiple buyers to a country.
• Moving forward – should try to consume partner inventory before placing additional orders
PPE Consortia - What worked well

EARLY AND ACCURATE DEMAND SIGNAL FROM WHO ON AGGREGATED PROGRAMMATIC NEED

EARLY MESSAGING ON SUPPLY CONSTRAINTS

"NO REGRETS" APPROACH BY WHO & UNICEF PROVIDED EARLY DELIVERIES

MULTI-LANE PROCUREMENT APPROACH

CHINA HUBS TO ORGANISE DELIVERY SETS
PPE Consortia—Better if

1. Establish a consortium so the full scope of work can be taken on:
   - Tech, use-case, demand planning, etc.

2. Intentional & coordinated strategy on procurement based on market situation.

3. Consider expanding procurement via consolidator for PPE to reduce management of large no. of vendors & items.

4. Coordinate demand fulfillment to reduce PPE types & vendors to any one country.

5. Alignment on PPE specs & sets, and use case.

6. Establish forum to share QAQC of products between buyers.

7. Monitor lead-times & pricing—incuding to inform adapted strategy.
Purchasing Consortium
Biomedical
Co-chairs: WHO
Buyers: WHO, UNICEF, UNHCR, UNOPS
Buyers less/not active in purchasing consortium: UNDP
Other participants: Alima, BMGF, CG DEV, CHAI, DFID, Global Fund, PATH, UNITAID, World Bank, WFP
Technical guidance: WHO
Negotiator: WHO for early volumes
Allocation group: consortium members
## Biomedical Purchasing Consortium - Observation vs. Plan

<table>
<thead>
<tr>
<th>Plan</th>
<th>Biomed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree technical interventions, specifications and map out country delivery plans</td>
<td>✓ Intentionally established 3-legged stool Technical guidance /Country capacity /Procurement</td>
</tr>
<tr>
<td>Calculate demand forecast</td>
<td>✓* Forecast created in March, used in bilateral discussions with manufacturers to understand capacity (especially for O2 and ventilation equipment) But demand volatility from countries, difficulty validating demand because requestors did not always understand which products to buy, and challenge validating the bundles (spare parts, accessories, and consumables) and customization of key parts (e.g. flow connectors).</td>
</tr>
<tr>
<td>Convene/engage industry &amp; negotiate price and volume agreements</td>
<td>✓* Early bilateral discussions with industry to understand capacity, volume guarantees not used</td>
</tr>
<tr>
<td>Distribute procurement/purchasing tasks</td>
<td>✓ Procurement strategy: “one voice” with coordinated procurement, actively used/discussed allocation principles and shared information Actively discussed and monitored procurement in the consortium Inconsistent coordination around ventilator procurement (eg, not all procurers participated in the consortium, other than providing data)</td>
</tr>
<tr>
<td>Coordinate financial commitments to industry</td>
<td>X</td>
</tr>
<tr>
<td>Ensure production schedules are integrated into the distribution system and deliveries prioritized</td>
<td>✓* Actively monitored, but overcommitments / expectations to industry and countries that could not be met Actual demand lower than anticipated /communicated, due to funding constraints and absorptive capacity in countries Long lead times for technical medical equipment due to customization and general time needed to scale up Delivery delays due to trade off between speed and consolidation</td>
</tr>
<tr>
<td>Allocation - added to Consortium scope in July</td>
<td>✓* Actively discussed allocation planning in consortium</td>
</tr>
</tbody>
</table>
Biomed/Clinical Care Consortium timeline of key events & activities

Jan

Supply gap (O2 concentrators) / technical bottlenecks expected
March, first demand forecast to industry

Apr

16 Apr, first consortium meeting
24 Apr, strategy “one voice” and defined roles / buyers
5 May, Allocation principles finalized

Apr

By 29 May, 4,000 O2 concentrators procured (WHO), 10,000 (UNICEF), 750 (UNHCR), 456 ventilators donated (Jack Ma)

By 8 May, 3,600 O2 concentrators procured (WHO) for 40 countries

By 21 Jul, 3,600 ventilators procured
By 5 June, 150 O2 concentrators procured (UNOPS), 9,720 pulse oximeters

Jun, updated technical guidance
BM consortia, weekly meetings

Jul

By 29 Sept, WHO procured 12,000 / UNICEF procured >15,000 O2 concentrators for 90 countries

Procurement of concentrators & PSA plants increasing

Aug

Public-private collaboration for innovative Bio Med equipment (from May/june – today)
Focus on Validation of products (March – today)

Sep

Focus on need vs. demand vs. funding (from May – today)
QA, Technical support and country capacity (March – today)

Oct

Markets opening but demand lower than expected
Markets stable but long leadtimes
Markets stable & leadtimes lead time decreasing (for some products)

By 29 Sept, WHO procured 12,000 / UNICEF procured >15,000 O2 concentrators for 90 countries

By 21 Jul, 3,600 ventilators procured
By 5 June, 150 O2 concentrators procured (UNOPS), 9,720 pulse oximeters

By 29 May, 4,000 O2 concentrators procured (WHO), 10,000 (UNICEF) 750 (UNHCR), 456 ventilators donated (Jack Ma)

By 8 May, 3,600 O2 concentrators procured (WHO) for 40 countries

By 5 June, updated technical guidance
BM consortia, weekly meetings

By 29 Sept, WHO procured 12,000 / UNICEF procured >15,000 O2 concentrators for 90 countries

Year end:
>1.7m units procured for 150 countries, including:
58,246 O2 concentrators
3,462 ventilators

Focus on Validation of products (March – today)
QA, Technical support and country capacity (March – today)
Focus on need vs. demand vs. funding (from May – today)
Biomedical procurement summary

Data as of 31 December 2020
WHO* includes PAHO
Example of monitoring procurement & allocation status  
(Status as of 17 July)

### Operational Summary – $50+ million procured or pending procurement through portal and partners

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Demand* (k units)</th>
<th>Units Procured (k units)</th>
<th>Allocated (k units)</th>
<th>Distribution (k units)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WHO</td>
<td>UNICEF</td>
<td>UNHCR</td>
<td>UNOPS</td>
</tr>
<tr>
<td>O2 Concentrators</td>
<td>52.6</td>
<td>14.0</td>
<td>16.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Patient Monitors – ICU</td>
<td>2.89</td>
<td>.17</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Patient Monitors – Basic</td>
<td>4.14</td>
<td>2.8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pulse Oximeters</td>
<td>24.8</td>
<td>9.7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ventilators</td>
<td>3.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Insights**
- Majority of supply markets are currently able to meet demand. However, monitors (ICU) are experiencing delays in distribution to WFP warehouses due to supplier constraints.
- Approximately $20 million in ventilators will be procured week of 20 July
- Additional ~$25 million to be procured including CPAPs and accessories
- Balance (Units procured less Allocated) are pending for financial clearance/approval

**Challenges**
- Efforts are continuing to reconcile demand across the various agencies. Demand continues to provide many challenges – Country requests are being changed after input into Supply Portal
- Greater clarity on estimated delivery and arrival times is required
- Continue work with suppliers to mitigate delays

*Includes requests from UNICEF, Partners, and Supply Portal that require validation and verification.
Example of monitoring procurement & allocation status
(Status as of 29 September)

### WHO Procurement update

<table>
<thead>
<tr>
<th>O2 Concentrators 8L</th>
<th>Pulse Oximeter, portable handled</th>
<th>PM Basic</th>
<th>PM Intermediate</th>
<th>PM ICU</th>
<th>Infrared Thermometer</th>
<th>Pulse Oximeter, finger tip</th>
<th>O2 Concentrators 10L</th>
<th>Ventilators</th>
<th>HFNC</th>
<th>BIPAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bundles</td>
<td><strong>Bundles price</strong></td>
<td><strong>5885</strong></td>
<td><strong>5775</strong></td>
<td><strong>51300</strong></td>
<td><strong>51808</strong></td>
<td><strong>5407</strong></td>
<td><strong>539</strong></td>
<td><strong>540</strong></td>
<td><strong>5370</strong></td>
<td><strong>29558</strong></td>
</tr>
<tr>
<td>Quantities</td>
<td></td>
<td><strong>14000</strong></td>
<td><strong>9720</strong></td>
<td><strong>570</strong></td>
<td><strong>2759</strong></td>
<td><strong>1660</strong></td>
<td><strong>15040</strong></td>
<td><strong>109</strong></td>
<td><strong>829</strong></td>
<td><strong>53</strong></td>
</tr>
<tr>
<td>Total cost Allocated</td>
<td><strong>Total cost Allocated</strong></td>
<td><strong>$11,413,033</strong></td>
<td><strong>$3,037,155</strong></td>
<td><strong>$3,017,155</strong></td>
<td><strong>$4,597,844</strong></td>
<td><strong>$5,614,584</strong></td>
<td><strong>$5,586,560</strong></td>
<td><strong>$84,160</strong></td>
<td><strong>$62,078,86</strong></td>
<td><strong>$24,503,582</strong></td>
</tr>
<tr>
<td>Stock Balance</td>
<td></td>
<td><strong>Total stock balance</strong></td>
<td><strong>754</strong></td>
<td><strong>1,920</strong></td>
<td><strong>0</strong></td>
<td><strong>205</strong></td>
<td><strong>386</strong></td>
<td><strong>6,950</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Global orders

- Partial Delay: Bundles being created
- Supplier delay
- Being received
- Ready to ship
- Under procurement

### Oxygen Concentrator Project Overview

- Total number of products: 15,85K
- Total number of products delivered: 650
- Total number of products in stock at UNICEF: 902
- Total number of products in stock at WHO: 14,35K
- Total number of products in stock at the country: 15,847

Note: The heat map shows the number of orders by countries (the darker the colour the more orders).
Procurement of Ventilators for Countries

Data as of 31 December 2020
WHO* includes PAHO
Procurement of Oxygen Concentrators for Countries

Data as of 31 December 2020
WHO* includes PAHO
Consortia—Biomedical/Clinical Care

WHAT WORKED WELL

Consortium considered multiple access factors (technical, country capacity, procurement)
Procurement tactics suited the product(s) and market situation
Strategic approach:
  • Coordination and data
  • Focus on O2 first
Ventilators not inappropriately pushed to countries with inadequate capacity, even though the public narrative focused on these

COULD BE BETTER IF

Proactive communication
  • to industry related to demand
  • to countries related to product availability and lead times
Needs-based assessments linked to funded demand
Preparedness for stockpile for spare parts, accessories and key equipment
Access to alternative funding mechanisms
(Using current momentum and visibility) build up O2 technical expertise, and anchor at regional and country levels to enhance long-term O2 supply
Consortium Considered
Multiple access factors - technical, country capacity, procurement

Procurement tactics suited the product(s) and market situation

Strategic approach:
- Coordination & data
- Focus on O2 first
- Ventilators

Biomed Consortia - What worked well

Conduct needs-based assessments - funded & unfunded

Provide guidance on products and landscape global & regional supplier base

Build up O2 technical expertise at regional and country levels to enhance long-term O2 supply

Increase access to medical oxygen on an ongoing basis

Biomed Consortia - Better if
Purchasing Consortium
Diagnostics
Dx Purchasing Consortium - Roles & Responsibilities

Chair: WHO

Buyers: WHO, The Global Fund (TGF), UNICEF, CHAI, PAHO (from 21 April), GDF (from 21 April), MSF (from 21 April), UNDP (from 19 May), UNDOS (from 26 May)

Buyers less/not active in purchasing consortium: IOM, UNHCR, UNOPS

Buyers not reporting via the CSCS: MSF

Technical experts: FIND (pipeline mapping), WHO & convened experts (specifications, use-case)

Negotiators: CHAI, for Phase 1 access terms (price & volume)

Special funders: BMGF (bridge financing), TGF (reprogrammed funding), Unitaid

Allocation group: consortium members

Other participants: Africa CDC, WB (for some of the early meetings), WFP
## Diagnostics Purchasing Consortium - Observation vs. Plan

<table>
<thead>
<tr>
<th>Plan</th>
<th>Dx</th>
<th></th>
</tr>
</thead>
</table>
| **Agree technical interventions, specifications and map out country delivery plans** | ✓✓*  | Strong technical focus (technical approval, EUL)  
Assessment of new products (WHO PQ support via EUL), tracking new product pipeline (FIND)  
Different views on priority use-case.  
No observation of tracking of country delivery plans and no World Bank alignment/coordination. |
| Calculate demand forecast                                            | X    | Demand forecast more driven by product availability, followed by allocation. Future high level forecast developed by ACTA  
Demand > supply for all products; in beginning. Product specific demand continues to be > supply |
| Convene/engage industry & negotiate price and volume agreements      | ✓    | Negotiation with industry to make supplies available for LMICs (started prior to the consortium), CHAI negotiated volumes, and subsequently prices for CSCS (non-HICs), but some issues with geographical restrictions (Abbott, Roche for sub-Saharan Africa).  
Prices were comparable to UNICEF prices.  
Volume agreements did not materialise. Quantities agreed by mfs to be provided over 4 months were actually provided over 89 months. |
| Distribute procurement/purchasing tasks                              | ✓    | 1 buyer – 1 supplier strategy for automated tests decided early on, but not realized in practice due to orders placed prior to the strategy. Some AMRO countries had direct orders cancelled by a manufacturer. Complaints on delayed access and challenges in using new procurement process from AMRO/WPRO. Other procurement agencies still placing orders above the allocations/availability reduced availability for other countries even if they received an allocation.  
Lack of alignment/coordination between the CSCS & WB, also challenged the strategy and allocation.  
WHO primary procurer of manual PCR tests and swabs, GF and UNICEF primary procurers of automated PCR to simplify supply chains.  
Automated PCR strategy adjusted in September from 1 buyer – 1 supplier to coordinated procurement. Manual PCR strategy made the shift in July when market opened up. |
| Coordinate financial commitments to industry                         | ✓    | Phase 1: CHAI negotiations with BMGF bridge funding. But volume guarantees not provided (and volumes did not materialise as negotiated)  
Phase 2: 120 mAg RDTs commitment to industry (CHAI, BMGF, TGF-SS0M), but generally not linked to procurement |
| Ensure production schedules are integrated into the distribution system and deliveries prioritized | ✓✓*  | Geographical restrictions / business decisions by suppliers impacted allocations. Starting to open up, but still hinders equitable allocations |
| Allocation - added to Consortia scope in July                        | ✓✓*  | Allocation principles: agreement on principles, but debate on actual allocation prioritisation (country vulnerability vs. epidemiology vs. county request/application timing vs. funding). Also, no visibility on other sources of supply.  
Lack of visibility, long time for allocation decisions to be made and communicated to countries |

*Caveat needed*
Diagnostics Consortium timeline of key events & activities

Pre-consortia (Jan-Apr): WHO, UNICEF, TGF procured >3.3M diagnostics products (incl >2.7 m tests). WHO procured 99% (85% of tests).

2 Feb: first shipment by WHO of RT-PCR kits to Regional and Country offices (156 labs)

3 Mar: first consortium meeting

By 1 Sept:
Tests: 15 m delivered (11 manual + 3.5 m automated) + 500k in transit + 2 m in preparation (includes 10 m tests for Brazil)
Sample kits: 2.2 m delivered, 4 m ready to ship or in transit

By 18 Aug:
Tests: 14.6 m delivered + 4 m in transit to 93 countries
Sample kits: 2.94 m delivered

29 Sept: Ag-RDTs added to supply catalogue

3 Apr: first WHO PO as part of the consortium

18 Aug: Procurement strategy for Ag-RDTs

31 Mar: CHAI conducting negotiations, BMGF financial guarantee
Need a unified approach, key products automated platforms already in place in LMICS WHO to lead allocation process

2 Mar, first consortium meeting

By 21 July:
Tests: 2.5 m delivered + 1 m ready to 40+ countries + 2.1 m tests to 54 countries by UNICEF
Sample kits: 1.7 m delivered + 1 m ready to 63 countries

21 Apr, Dx allocation principles finalized

18 Aug: Working to adjust geographical restrictions to improve access/price for L/MICs

9 Jun: main issue shortages of automated tests (Abbott, Cepheid, Roche)
Looking ahead: new products, eg antigen and antibody-based tests

22 Apr: first partner PO as part of the consortium

1 Sept: Working to adjust geographical restrictions to improve access/price for L/MICs

1 Feb: first shipment by WHO of RT-PCR kits to Regional and Country offices (156 labs)

22 Apr: first partner PO as part of the consortium

By 21 July:
Tests: 15 m delivered (11 manual + 3.5 m automated) + 500k in transit + 2 m in preparation (includes 10 m tests for Brazil)
Sample kits: 2.2 m delivered, 4 m ready to ship or in transit

By 18 Aug:
Tests: 14.6 m delivered + 4 m in transit to 93 countries
Sample kits: 2.94 m delivered

29 Sept: Ag-RDTs added to supply catalogue

3 Apr: first WHO PO as part of the consortium

18 Aug: Procurement strategy for Ag-RDTs

31 Mar: CHAI conducting negotiations, BMGF financial guarantee
Need a unified approach, key products automated platforms already in place in LMICS WHO to lead allocation process

2 Feb: first shipment by WHO of RT-PCR kits to Regional and Country offices (156 labs)

3 Mar: first consortium meeting

By 1 Sept:
Tests: 15 m delivered (11 manual + 3.5 m automated) + 500k in transit + 2 m in preparation (includes 10 m tests for Brazil)
Sample kits: 2.2 m delivered, 4 m ready to ship or in transit

By 18 Aug:
Tests: 14.6 m delivered + 4 m in transit to 93 countries
Sample kits: 2.94 m delivered

29 Sept: Ag-RDTs added to supply catalogue
Diagnostics procurement summary

Data as of 31 December 2020
WHO* includes PAHO
TGF procured approx. $6m Dx via UNDP and GF procured $5.6M via UNICEF
Deep Dive
Diagnostics Procurement Strategy
Procurement of Tests for Countries vs. Testing Protocols

Unable to provide a comparison of test supplied and national testing plans. But in the future, data could trigger such analysis.

Notes:
- Data as of 31 December 2020
- 10 million manual PCR tests for Brazil not included
- Hubs (U.S., Panama) and Switzerland (WHO HQ) removed
Procurement Strategy: Phase 1

Phase 1 Plan:

CHAI negotiated volumes, then pricing

1 buyer – 1 supplier strategy established early, due to 1) "lock committed volumes," 2) minimise competition from buyers, 3) ensure companies maintain capacity to produce HIV and TB tests

- TGF = Cepheid, Abbott
- UNICEF = Roche, ThermoFisher
- WHO = manual tests (including BGI, ThermoFisher), sample collection kits

Quantities available

- Cepheid: 1,551 M tests
- Abbott: 1,72M tests
- Roche: 801K tests
- ThermoFisher: 3,01M tests
- Manual: >10M tests

Observation of what happened:
Procurement Strategy: Phase 1

Phase 1 Plan:

CHAI negotiated volumes, then pricing
1 buyer – 1 supplier strategy established early, due to 1) “lock committed volumes,” 2) minimise competition from buyers, 3) ensure companies maintain capacity to produce HIV and TB tests
- TGF = Cepheid, Abbott
- UNICEF = Roche, ThermoFisher
- WHO = manual tests (including BGI, ThermoFisher), sample collection kits

Quantities available
- Cepheid: 1,551M tests
- Abbott: 1,72M tests
- Roche: 801K tests
- ThermoFisher: 3,01M tests
- Manual: >10M tests

Observation of what happened:

UNICEF early action (pre-consortium) with Cepheid, Abbott, Roche, ThermoFisher (reported 21 April), “consortium” contracts in place with Roche and ThermoFisher by 28 April, approx. 1M tests ordered for 33 countries by 26 May

WHO started orders with BGI (2M manual tests / month) from 28 April, with ThermoFisher (2M tests) by 19 May

TGF signed agreements with Cepheid, Abbott by 12 May, started placing orders, approx. 0.5 M tests for 22 countries 2H May (reported 26 May)

Other procurers: MSF (3,600 tests from Cepheid), UNDP (Cepheid, Abbott, ThermoFisher) (reported 9 June), GDF (procurement + donation from Cepheid), Africa CDC (21 July)
- Some confusion about what was considered “consortium” procurement and what was not

TGF reprogrammed non-Covid grants to be used for urgent Covid needs.

Key leadership engaged to maximise outcome and access (TGF).
CHAI negotiated volumes, then pricing

1 buyer – 1 supplier strategy established early, to 1) lock committed volumes, 2) minimise competition from buyers, 3) ensure companies maintain capacity to produce HIV and TB tests

• TGF = Cepheid, Abbott
• UNICEF = Roche, ThermoFisher
• WHO = manual tests (including BGI, ThermoFisher), sample collection kits

Quantities available
• Cepheid: 1,551 M tests
• Abbott: 1,72 M tests
• Roche: 801 K tests
• ThermoFisher: 3,01 M tests
• Manual: >10 M tests

Some regions / countries moved to end of allocation queue, eg in AMR (and similar issues for some small island states in WPR)

• PAHO (and UNDP) raised issue of access for specific countries, including small caribbean islands, starting from 21 April,
  • Agreement to include some small high income island states (7 July)
  • Only 4 countries received tests out of 22-23 with allocations (14 July)
  • TGF confirmed delivery for 12 countries in AMR (21,000 tests) (11 Aug)
  • issues of access and pricing raised in Sept (commercial prices USD 35-40 per test) (21 Sept)

• Cepheid: canceled large quantities of tests to PAHO (26 May) but then countries not able to get tests through consortium, providing 7,200 tests outside of the consortium (7 July), higher pricing than consortium access prices (22 July, 8 Sept)

• Early challenges with procurement channels because instructions to countries on channel were not consistently timely or clear
**Procurement Strategy: Phase 1**

### Phase 1 Plan:

CHAI negotiated volumes, then pricing

1 buyer – 1 supplier strategy established early, due to 1) “lock committed volumes,” 2) minimise competition from buyers, 3) ensure companies maintain capacity to produce HIV and TB tests

- **TGF** = Cepheid, Abbott
- **UNICEF** = Roche, ThermoFisher
- **WHO** = manual tests (including BGI, ThermoFisher), sample collection kits

Quantities available to the consortium

- Cepheid: 1,551 M tests
- Abbott: 1,72M tests
- Roche: 801K tests
- ThermoFisher: 3,01M tests
- Manual: > 10M tests

### Observation of what happened:

Cepheid, Roche & Abbott reduced quantities available to the consortium, due to competition from HIC markets, as well as manufacturer decisions, eg:

- **Abbott**: 1,52M tests (less 200,000 tests)
- **Cepheid**: actual 437,6K tests (less 1,113,400 tests)
  - Reduced pre-consortium orders from UNICEF and 5 large countries (140,000 tests per month to Brazil, India, Indonesia, Philippines, S. Africa)
  - Out of Cepheid’s LMIC output, about 40% went to the Consortium, 30% went to the five big countries, and another 30% went to Consortium members – volumes that have been transacted by GDF, PAHO, Unicef, UNDP outside of the Allocation model (11 Aug)
- **Roche**: 274,56K tests (less 526,440 tests)
  - Reduced direct orders from CTV and S. Africa

Geographical restrictions on consortium procurement/distribution: Roche & Abbott for sub-Saharan Africa only

Multiple procurement channels caused frustration/confusion with manufacturers (since they had been informed of the 1 buyer – 1 supplier strategy)
Adjusting the procurement strategy

Phase 1 Plan:

CHAI negotiated volumes, then pricing

1 buyer – 1 supplier strategy established early, due to 1) “lock committed volumes,” 2) minimise competition from buyers, 3) ensure companies maintain capacity to produce HIV and TB tests

- TGF = Cepheid, Abbott
- UNICEF = Roche, ThermoFisher
- WHO = manual tests (including BGI, ThermoFisher), sample collection kits

Quantities available to the consortium

- Cepheid: 1,551 M tests
- Abbott: 1,72M tests
- Roche: 801K tests (after reduction)
- ThermoFisher: 3,01M tests
- Manual: > 10M tests

Phase 2 Plan:

Discussions started end June to revise the procurement strategy and allocation methodology

Markets less constrained but demand > than supply for some products

New products becoming available (e.g., Ag RDTs)

Some opening of geographical restrictions

Moved to a more flexible, coordinated procurement mechanism for tests with a limited supply, respecting global allocations.

More focus on data consolidation/sharing

Quantities available to the consortium (automated tests):

- Cepheid: 2,4M tests (no restrictions)
- Abbott: 2 – 3,2M tests (for 36 countries)
- Roche: 320 - 400K tests (for 9 countries)
- Hologic: 700K – 1M tests (for 12 countries)
Procurement Snapshot, Automated PCR tests

Phase 1

Phase 2

Data as of 31 December 2020
Procurement Snapshot - Cepheid

CSCS Procurement overview of Covid-19 DIA supplies as of 31 December (excluding stock)

Cepheid

Top 10 (by value) products procured for countries

20 countries receiving largest value of supplies
Procurement from Cepheid

1,550K  $31M

*Including PAHO

Automated PCR tests - Cepheid
Supplying agency: GDF, Global Fund, UNDP, UNICEF, WHO*

Data as of 31 December 2020
Procurement from Abbott

2,019K  2019K
2,019K  Quantity

$38M  38M
$38M  Value

*Including PAHO

Automated PCR tests - Abbott

Supplying agency: Global Fund  UNDP  UNICEF  WHO

Data as of 31 December 2020
Procurement from Roche

Data as of 31 December 2020

732K Quantity
$11M Value

*Including PAHO

Automated PCR tests - Roche
Supplying agency: UNDP, UNICEF, WHO*

Phase 1
Phase 2

PO created Month
Diagnostics Consortium

WHAT WORKED WELL

• Consortium became operational quickly and rapid scale up of supplies to countries
• Early, rapid deployment by WHO (manual tests and assays, approx. 2.3m tests) and early action by UNICEF (approx. 375,000 tests) and TGF (approx. 30,000 tests) during Feb-Apr, followed by other Dx buyers (from May)
• Early catalytic action to negotiate quantities and pricing for PCRs and Ag-RDTs
• Strong technical focus throughout
• 1-buyer strategy may be appropriate in a “suppliers’ market” with limited supply
• Senior leadership of key partners engaged
• Supply of HIV & TB diagnostics tests not interrupted due to caretaking of GF and partners

BETTER IF

• Tight coordination (perhaps by a procurement lead) to carry the authority to work with the manufacturers on quantities available and allocations
• Deal-making should be better connected to the subsequent procurement
• Buyer(s) needs to facilitate access by countries, eg:
  • Emergency response capacity (speed)
  • Organizational process and flexibility
  • Logistics capacity /set up
  • Existing geographical focus/experience
• Alignment on use case definition and allocation operationalization. If disagreement, there needs to be an escalation mechanism for resolution.
• Allocations should be led by pandemic response (WHO/WHE) with expert advice. Should be independent of buyers and funders
• Resourcing technical functions to ensure accelerated assessment/qualification of novel products
Diagnostic Consortia - What worked well

- CONSORTIUM BECAME OPERATIONAL QUICKLY
- EARLY, RAPID DEPLOYMENT BY WHO (MANUAL TESTS, ASSAYS) & UNICEF & TGF (PCR TESTS)
- EARLY CATALYTIC ACTION TO NEGOTIATE QUANTITIES AND PRICING FOR PCRS AND AG-RDTS
- ENGAGEMENT OF SENIOR LEADERS & EXECUTIVES AT KEY MOMENTS
- STRONG TECHNICAL FOCUS THROUGHOUT
- CARE-TAKING OF HIV & TB DIAGNOSTICS SUPPLY BY TGF & PARTNERS
Diagnostic Consortia—Better if

Market

- Carry greater authority with MFRs by tighter coordination & collaboration of buyers
- Connect deal-making and procurement
- Alignment and coordination with the World Bank

End to end value-chain (not only supply chain)

- Use of humanitarian approaches by buyers so countries’ access is not restricted
- Establish demand forecast to inform markets & help with allocation
- Resource technical functions to accelerate assessment of new products
- Allocations & guidance should be led by pandemic response—with advice by experts
Current supply-demand situation of essential Covid-19 products
As of 31 December, 20-30% of all items procured via the CSCS in 2020 have not yet been delivered.

PPE: 21%

Dx: 28%

Biomed: 31%

Long lead-times and insufficient supply for key diagnostics.

In addition, the buyers data portal indicates (in red, as of 20 December) products with potential access challenges or action pending, needing follow-up by the Control Tower and discussion between buyers.
Market situation and continued need for coordination & collaboration

Taking into account:

• A continued highly constrained market situation for Diagnostics (PCR and RDTs)
• A somewhat constrained market situation for Biomedical supplies and the need to continue the build-out of medical oxygen supply (for Covid-19 and regular health programmes)
• The large inventories of PPE

We recommend the Task Force and CMT consider continuing with an adapted form of CSCS that:

• Supports countries until the above market situations are improved (e.g., late Q2 2021)
• Negotiate price reductions for PCR and RDT for effect from 2Q
• Uses data to provide regulator updates to the TF for monitoring and decision-making
• Provide market updates that are made publicly available for countries, regions and partners
• Support the roll-out of Covid-19 vaccines and therapeutics, as needed
• Use momentum to put in place a ‘Playbook’ and other lessons learned in advance of when needed next, bringing in countries and regions in its design
Summary recommendations
From interviews and surveys, the vast majority think the CSCS concept was right – and a CSCS-type of mechanism is needed for the next phase of the pandemic and for future health emergencies.

Q4.16 - In your opinion, which aspects of the CSCS could be useful to continue or adapt to ensure access to COVID-19 supplies for the response to the next wave of the SARS-CoV-2 pandemic? (select all that apply; in case you believe no aspects should be continued or adapted please leave all boxes unmarked)

- The approach and mechanism needs to be developed based on learnings from the CSCS. With countries and with the WB.
- Improvements need to be made in how the CSCS works as a coordinated team.
- And how it supports countries and regional bodies – via their leadership. Consider more radical approach that shifts procurement and production to the regions.
Summary Assessment

- The CSCS established and implemented a global strategy to help with access to critical and life-saving Covid-19 supplies. It harnessed the collective capabilities of the UN and Global Health Partners to procure and deliver large volumes of supplies.
- The CSCS created inclusive and information exchange forums in the midst of at times competition between organisations/buyers. It acquired large volumes of PPE, biomedical supplies and diagnostics and maintained open corridors that delivered these essential, life-saving supplies to 184 countries in need.
- Prior to the assessment, few people if any, had an overview of the work of the CSCS (across its large breadth and depth). There were divergent stake-holders views on most aspects of the CSCS. A lack of data and an underestimation of the effort to keep people informed and coordinated contributed to the lack of shared understanding.
- It fell short in some important areas of implementation:
  - Coordinated end-to-end (E2E) value & supply chain strategy and communication
  - Allocation of scarce supply
  - Data - requirements, sharing, and use of
  - Lead-times
  - Visibility of supply situation to countries
- There was a limited operational link to the pandemic response (and at times, resistance to WHO leadership) which left space for other priorities to be the determinant for key decisions.
- The culture and atmosphere during peak constrained periods was negative at times – seemingly due to a lack of agreement on strategy and roles, and organisational interest.
- It is difficult to assess if “equitable access” was achieved, due to data gaps and no clear definition of “equitable.”
- Throughout the assessment it was clear that the majority of respondents believe that something like the CSCS was needed and should be continued in the future. Including around demand and allocation, procurement and delivery. More alignment and coordination with the WB.
- There are key lessons learned that could be incorporated to improve efficiency and impact of a future mechanism.
<table>
<thead>
<tr>
<th>Coordination</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision-making</td>
<td>Implementation &amp; agility</td>
</tr>
<tr>
<td>Information sharing/communication</td>
<td>Impact</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Efficiency</td>
</tr>
<tr>
<td>• Decisions, strategies, and coordination needed to be pandemic-response led</td>
<td>• Maintain pandemic response in leadership role with firewall between coordination and implementation</td>
</tr>
<tr>
<td>• Establish a data and information exchange strategy</td>
<td>• At onset of mechanism launch, start with ‘Playbook,’ make rapid consultations with regions, countries and partners (UN &amp; NGO, Foundations) on strategy</td>
</tr>
<tr>
<td>• Use data-driven analysis to monitor performance and support decision-making</td>
<td>• Use data-driven analysis to monitor performance and support decision-making</td>
</tr>
<tr>
<td>• Engage countries and regions, public health partners, and WB</td>
<td>• Set-up should be based on market analysis and informed by market typology characteristics</td>
</tr>
<tr>
<td>• Establish an active communication approach—within the mechanism and externally (strategy, market situation, progress, etc.)</td>
<td>• Align on products – use-case, specifications, etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demand</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast &amp; Accuracy</td>
<td>Equitable</td>
</tr>
<tr>
<td>Segmentation</td>
<td>Timely</td>
</tr>
<tr>
<td>Visibility</td>
<td>Appropriate</td>
</tr>
<tr>
<td>Use</td>
<td>• Quantify demand and demand segments, be clear with assumptions on demand, designate unfunded demand</td>
</tr>
<tr>
<td></td>
<td>• Provide regular updates to demand</td>
</tr>
<tr>
<td></td>
<td>• Country level coordination around demand based on national plan – and channels of providing supply (government direct to market, aggregators, bilateral, etc.)</td>
</tr>
<tr>
<td></td>
<td>• Coordinate demand with WB and other major financiers and aggregators.</td>
</tr>
<tr>
<td></td>
<td>• Decide on allocation channel for humanitarian staff</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Procurement</th>
<th>Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>Timely</td>
</tr>
<tr>
<td>Speed</td>
<td>Cost</td>
</tr>
<tr>
<td>Quantities</td>
<td>• Acquisition strategy based on market typology. Use rapid, innovative tactics and avoid traditional, long procurement</td>
</tr>
<tr>
<td>Price</td>
<td>• Regionalize, localize procurement as much as possible</td>
</tr>
<tr>
<td>• Coordinate buyers</td>
<td>• Coordinate delivery channels</td>
</tr>
<tr>
<td>• Extend Access terms to others</td>
<td>• Use pipeline plans from buyers for planning set-up (hub &amp; spoke) and deliveries</td>
</tr>
<tr>
<td>• Establish shared QA – especially for commodity markets with rapid production increase</td>
<td>• Provide pre-delivery advice, and real-time status of delivery. Be able to pull a specific delivery out from consolidation.</td>
</tr>
<tr>
<td>• Monitor price and lead-times</td>
<td>• Pool costs</td>
</tr>
<tr>
<td>• Provide delivery mechanism with information for pipeline planning</td>
<td>• Find solutions for special cargo types (temperature sensitive, regional, etc.)</td>
</tr>
<tr>
<td></td>
<td>• Data &amp; Information: from volume and dispatches, to also items, values, deliveries, etc.</td>
</tr>
</tbody>
</table>
The CSCS operation - three main phases

**Rapid Response**
- Fast action taken by those with standing capacity & experience in health, humanitarian response
- Bold, unified statements to markets
- Streamlined operations
- Funding

**Build & Deliver**
- Markets were the most constrained when the CSCS systems & approaches were being built
- Countries still being supplied but with smaller amounts.
- Countries went to market directly. WB BFP mechanism underway
- Gaps in funding became clear.
- Debate on allocation, specs, etc.
- The most complex phase
- ACT-A launch in May

**Get on with it**
- Markets opened up – large deliveries from China well underway
- Allocation delegated to consortiums & Dx strategy updated
- Coordination and demand planning slowed down
- Highest volumes procured & shipped
- Focus on operation not strategic overview
- ACT-A – some confusion with Dx and PPE overlap

---

Feb - April
- Fast action taken by those with standing capacity & experience in health, humanitarian response
- Bold, unified statements to markets
- Streamlined operations
- Funding

April - June
- Markets were the most constrained when the CSCS systems & approaches were being built
- Countries still being supplied but with smaller amounts.
- Countries went to market directly. WB BFP mechanism underway
- Gaps in funding became clear.
- Debate on allocation, specs, etc.
- The most complex phase
- ACT-A launch in May

July - December
- Markets opened up – large deliveries from China well underway
- Allocation delegated to consortiums & Dx strategy updated
- Coordination and demand planning slowed down
- Highest volumes procured & shipped
- Focus on operation not strategic overview
- ACT-A – some confusion with Dx and PPE overlap
If a playbook (with roles, systems, SOPs, data needs, data sharing compact) is in place, a CSCS mechanism could be faster and access supplies earlier (reduce lead-times) and with more efficiency (less time deciding who does what) during the most complex phase. It could also better enable country & regional & NGO engagement, leadership.

Then, time & information during next phase would enable and E2E understanding of performance and a focus on strategic issues and coordination.

**Build**
- No regrets surge of supplies based on quota (e.g., population)
- Fast action by those with standing capacity & experience in health, humanitarian response
- Bold, unified statements to markets
- Fast capital / bridge funding - place orders for second phase
- Publish snapshots of global markets for key products
- Convene regions, partners on Roll-out of playbook

**Rapid Response**
- Weeks 1-8

**Maximise Access**
- Week 6 onwards
- Roll out playbook
- Update market situations
- Refine technical and QA specifications
- Allocation
- Coordinate with major buyers – WB, large countries
Access strategies

Market-facing activities were grouped by pandemic response strategy: IPC, Clinical Care, Testing.

There were different strategies and activities between consortium. But not clearly based on market situation assessments.

Grouping by pandemic response strategy is important in terms of use-case, specifications, guidelines, demand and needs assessment.

In addition, access strategies and tactics should be more clearly based on market situation and typology.

Each consortium performed differently compared to the agreed scope of work

<table>
<thead>
<tr>
<th>Plan</th>
<th>Diagnostics</th>
<th>Biomed</th>
<th>PPE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreed technical improvements, specifications and map-out country delivery plans</td>
<td>✓*</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Calculate demand forecast</td>
<td>X</td>
<td>✓*</td>
<td>✓</td>
</tr>
<tr>
<td>Convene engagement &amp; negotiate price and volume agreements</td>
<td>✓</td>
<td>✓*</td>
<td>✓*</td>
</tr>
<tr>
<td>Distribute precontracted purchasing links</td>
<td>✓</td>
<td>✓</td>
<td>✓*</td>
</tr>
<tr>
<td>Coordinate financial contributions to industry</td>
<td>✓</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ensure production schedule are integrated into the distribution systems and delivered prioritized</td>
<td>✓*</td>
<td>✓*</td>
<td>X</td>
</tr>
<tr>
<td>Allocation - added to Convene scope</td>
<td>✓*</td>
<td>✓*</td>
<td>X*</td>
</tr>
</tbody>
</table>

* Caveat: varied
Preparation and response strategies - based on market archetypes / typologies

Commodity market

Technical Equipment

Differentiated products

**PPE market**: Some inventory in the market, many suppliers, low barriers to market entry, off-shoring to low-cost mfg, rapid scale-up, price elasticity, inconsistent quality, product interchangeable

**Recommendations**
- Strategic inventories at local, regional, global or vendor level
- Use a consolidator to increase efficiency (due to workload with high no. of suppliers, products and countries)
- Shared quality assessment of suppliers
- Alignment on use-case, composition of sets and technical specs
- Regionalise: inventory and procurement (and production)
- Coordinate the buy – primarily for countries
- Use innovation to accelerate improved products and suitability

**Biomed market**: No inventory in the market, few suppliers, high barriers to market entry, customizaton, complex products (500-2500 parts), price inelasticity

**Recommendations**
- Very difficult to scale-up production at a rapid pace and difficult for countries to absorb new products
- Build out medical oxygen during peace-time (given likeliness of other respiratory disease and the lack of access to medical oxygen in LIC and LIMC)
- This will also increase local and regional technical expertise and increase production capacity
- Consider regional/global stockpiles of some products (at mfs)

**Diagnostic market**: Could be novel / pathogen specific, few suppliers/oligopolies, high barriers to market entry, regulated products, market has a public health focus, plug & play manufacturing, a “supplier market” as they set price and decide where products go, limited product interchangeability

**Recommendations**
- Set clear technical specs and testing protocol
- Strengthen buyer influence: Leadership from pandemic leadership, volume guarantees, establish a lead buyer or at least shared strategy and organization of buyers
- Group of experts to advice Pandemic Response on allocations
In order to achieve equitable access to essential pandemic supplies, the mechanism should be adapted to different phases, working with countries, the UN, global health partners, NGOs, WB/IFIs, and markets.

**BUILD THE PLAYBOOK**

To move quickly and efficiently – draw on a “playbook” (including roles, responsibilities, data needs, etc.) and preparedness measures (e.g., strategic inventory) to adapt based on the pathogen and scope of the outbreak.

Develop with countries, regions, global health partners, WB, IFIs. Incorporate lessons learned.

*Build on Ebola & Covid-19 lessons learned*

**RAPID RESPONSE**

Be prepared to provide a rapid response cushion for 2-3 months via a combination of regional, country and global actions

Adapt the Playbook.

*Build on Ebola & Covid-19 lessons learned*

**MAXIMISE ACCESS**

Provide leadership for a global response that empowers regions, countries and partners by setting goals, coordinating, and providing visibility.

Continue with main architecture: Pandemic Lead, Purchasing Consortiums, Streamlined Delivery. With new regional, country lens and market typology based

Keep pandemic led: Allocations of scarce quantities, specifications, use-case, and negotiations with markets at key moments

**Country needs**

Build on the partner platform and other existing platforms

**Coordinated Supply Chains, including ICL**

Build on the concept of the supply portal and PICS

**Visibility on global markets**

Build on global market dialogues started for HPV, etc.
Develop ‘Playbook’ with countries, regions, partners and private sector

<table>
<thead>
<tr>
<th>OBJECTIVES &amp; CONTEXT</th>
<th>RAPID RESPONSE (2-3 MONTHS)</th>
<th>MAXIMISE ACCESS (3-9 MONTHS ++)</th>
<th>ROLES</th>
<th>DATA &amp; INFO SHARING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set the objectives of the preparations around the phases of a response: Rapid Response Phase &amp; Maximize Access Phase and by main areas of work: Market-facing work &amp; Supply chains</td>
<td>Establish a plan for 2-3 months of essential supplies via a combination of inventory and rapid procurement. Establish strategic inventory – via a combination of local, regional, global vendors, held by key partners. Estimate demand quantity for first cushion. Consider inventory for Duty of Care. Establish rapid procurement arrangements with key vendors (a combination of regional and global mfrs) – that define key access terms for country, UN, NGO, Foundation access. Buyers to be indicated but confirmed at pandemic onset. Refer to market access strategy. Agree on rapid delivery mechanism – WFP &amp; buyers.</td>
<td>Develop strategies to maximize access to key products (defined in essential package), reflecting market typology. Identify actions needing to be taken in advance Develop operating principles (e.g., Access terms are linked to procurement, shared QA/QC, etc.)</td>
<td>Based on strategies, define the architecture with key roles around Demand, Products, Purchasing, Allocation, Delivery, Data &amp; Platforms, Coordination, Communication, Oversight &amp; Strategy. Assign roles to organizations. Rapid response should be agreed upfront but roles for Maximize Access phase can be reviewed and confirmed (during the RR phase of a pandemic). Consider establishing senior experts to be on stand-by to fill key roles.</td>
<td>Define data needs for visibility of a supply chain operation and market situations. For operational &amp; strategic needs. Define data needs beyond the CSCS – for multi-directional information and data flow. Create standard material descriptions and coding. Establish data sharing compacts. Build a data sharing platform given system interoperability challenges. Develop dashboards and standard report Consider partnering with data-sharing experts to develop a new approach. Establish a platform for information sharing on preparations and markets, that can be further activated at onset. Build on existing forums developed for Covid-19.</td>
</tr>
</tbody>
</table>
Key activities during Rapid Response and Maximise Access phases

**RAPID RESPONSE**

- Be prepared to provide a rapid response cushion for 2-3 months via a combination of regional, country and global actions
  - ✓ Build on existing system of humanitarian and regional actors
  - ✓ Establish strategic inventory (e.g., PPE countries: 1 month each at country, regional and global levels for priority disease)
  - ✓ Maintain open dialogue with key industries during peace-time
  - ✓ Fast pace risk capital
  - ✓ Build out of medical oxygen at country level
  - ✓ Review Playbook, confirm roles, etc.
  - ✓ Consider early volume guarantees of novel product to secure quantities

**MAXIMIZE ACCESS**

- Provide leadership for a global response that empowers regions, countries and partners by setting goals and providing visibility. Continue with main CSCS architecture. Keep Pandemic Led.
  - Requires data sharing compacts
  - Leveraging expertise and assets of partners, regions and countries
  - Strategic insight and action
  - Allocation
  - The freedom of a tight strategy
  - Financing: volume guarantees, bridge, pooled funds

**Country needs**
- Transparency, collaboration, and efficiency for countries, UN agencies, implementing partners, and donors in their pandemic response.
  - Supply needs
  - Allocation
  - Funding
  - Partner roles

**Coordinated Supply Chains**
- Visibility and coordination of various supply chain actors from requisition to delivery
  - Data interfaces with supply chain actors (so not a parallel ERP system) — a data compact
  - Visibility will help align product sources, shipment planning
  - Supplement with shared inspections
  - Consider In-country Logistics

**Pandemic global markets**
- Transparency on global market situations for essential supplies & transport
  - On-line & available for all buyers, countries, regions
  - Recommended actions
  - Track demand, major deals, global estimated supply, pricing issues, regional or market specific issues (e.g., raw materials)
  - Update on a regular basis with frequency coinciding with phase of response
  - Can inform allocations

*Regionalise (AMSP, PAHO, etc) and localise*

*Build on the partner platform*

*Build on the concept of the supply portal and PIC/S*

*Build on global market dialogues*
Summary of Lessons Learned
Summary Assessment

- The CSCS established and implemented a global strategy to help with access to critical and life-saving Covid-19 supplies. It harnessed the collective capabilities of the UN and Global Health Partners to procure and deliver large volumes of supplies.

- The CSCS created inclusive and information exchange forums in the midst of at times competition between organisations/buyers. It acquired large volumes of PPE, biomedical supplies and diagnostics and maintained open corridors that delivered these essential, life-saving supplies to 184 countries in need.

- Prior to the assessment, few people if any, had an overview of the work of the CSCS (across its large breadth and depth). There were divergent stake-holders views on most aspects of the CSCS. A lack of data and an underestimation of the effort to keep people informed and coordinated contributed to the lack of shared understanding.

- It fell short in some important areas of implementation:
  - Coordinated end-to-end (E2E) value & supply chain strategy and communication
  - Allocation of scarce supply
  - Data - requirements, sharing, and use of
  - Lead-times
  - Visibility of supply situation to countries

- There was a limited operational link to the pandemic response (and at times, resistance to WHO leadership) which left space for other priorities to be the determinant for key decisions.

- The culture and atmosphere during peak constrained periods was negative at times – seemingly due to a lack of agreement on strategy and roles, and organisational interest.

- It is difficult to assess if “equitable access” was achieved, due to data gaps and no clear definition of “equitable.”

- Throughout the assessment it was clear that the majority of respondents believe that something like the CSCS was needed and should be continued in the future. Including around demand and allocation, procurement and delivery. More alignment and coordination with the WB is important.

- There are key lessons learned that could be incorporated to improve efficiency and impact of a future mechanism.
Overall - What worked well

EARLY SIGNALS TO MARKETS

- Within 2 weeks of PHEIC being called (30 Jan) WHO warned of shortages publicly & the DG sent letters to manufacturer CEO and countries
- Within 4 weeks of PHEIC (and 1 week prior to Pandemic being called), WHO projected a need of 1.3 billion PPE units over coming 9 months for LIC/LMIC – which proved to be >80% accurate

SUITE OF PLANNING TOOLS

- On-line information on the CSCS with contact points, reference documents, links to systems & tools, videos, etc.
- Partner Platform, Supply Portal, Essential Supplies Forecast Tool – first versions out in March
- Most comprehensive on-line tools to facilitate coordination at country level, quality forecasts, and data sharing to enable a coordinated, effective supply chain
- But Supply Portal was the most complex and not used in full or built out – so was a point of frustration

RAPID DEPLOYMENT OF SUPPLIES & FUNDING

- By end February, WHO had pushed a first surge of PPE and test supplies to 47 countries on a no regrets basis. UNICEF had shipped PPE and tests to 8 countries.
- By early March, a bridge fund had been created with the Gates Foundation for rapid deployment of supplies
- By 11 March, the Solidarity Fund was launched and used to deploy urgent supplies
- By end March, >300 shipments to >110 countries.
- Fast movement by health humanitarian actors
- Preparations (post Ebola and influenza pandemic) enabled a rapid response by WHO & UNICEF

DELIVERY

- Cargo & passenger corridors remained opened throughout 2020, including during months with highest travel bans April-May
- Multiline cargo – WFP but also UNICEF, GF & WHO
- Game changer for NGOs

EARLY COORDINATION & STRATEGY

- Within 2 weeks of Pandemic being declared (11 March) the CMT approved the creation of a Supply Chain Task Force to be established
- Clear concept and strategy that focused on the right topics (demand/allocation, market/acquisition, delivery) and structure (Task Force, Control Tower, Country Portal)
- Consolidated delivery channel available for all in February (later named Solidarity Flights) – used by the UN, Jack Ma Foundation, NGOs and others.

USE OF HEALTH PROCUREMENT ASSETS OF THE UN & GLOBAL HEALTH PARTNERS

- Multiline approach to procurement expanded access to the market overall
Overall - Better if

STAY PANDEMIC-RESPONSE LED

Stay Pandemic-response led to provide authority & expertise (a ‘final voice,’ if needed) on:
- Negotiation and ensuring access terms link to procurement
- Specifications, use-case & suitability of supplies
- Demand forecast - top down & bottom-up
- Demand generation
- Allocation of scarce supplies
- Product innovation

EXECUTION LEADERSHIP

A small ExCom of principals to provide strategic leadership and focus

Establish a fire-wall between coordination & implementation.

Use data to understand needs, monitor performance, communicate.

Maintain an overarching, end-to-end view of markets & supply chain— including demand (needs, funding) and supply (availability, price, allocation) and strategies.

More senior-level engagement across partners (not just WHO) to keep strategic and agile. The right people in the right place – draw on expertise

PLAYBOOK ON ROLES & ASYSTEM TO COORDINATE

Consult Countries/Regional bodies, Global Health Partners (GF, Gavi, CHAI, UNITAID, BMGF, FIND, etc.), WB/IFIs, UN agencies, NGOs on design.

Define data needs, Communication strategy, Roles

Establish a suite of tools - focus on visibility, coordination, planning & end-to-end execution (not an ERP system).

Build during ‘peace-time’

Include a plan for Duty of Care – UN and NGO front line humanitarian staff

Use current momentum

FINANCING

Coordinate with the World Bank and other IFIs.

Establish funding so volume guarantees can be made with mfrs of novel products to ensure quantities.

Consider expanding ‘bridge financing’ like mechanisms (fast capital) for buyers to access while funding materializes (slower capital).

Establish a pooled fund(s) for products in limited supply so a minimum allocation can be based on need not funding availability (e.g., automated PCR tests, antivirals, vaccines – novel and pathogen specific products)

COORDINATION OF MULTI-LANE APPROACH

To maximise impact and minimise complexity to countries & markets

Procurement & Delivery

Technical specs, QA, procurement and delivery to countries, and market-facing engagement on demand & access negotiations

DATA

Define data needs for visibility of a supply chain operation and market situations.

Define data needs beyond the CSCS – for multidirectional information and data flow.

Establish data sharing compacts and pre-build a system for data sharing given system interoperability challenges.

Use data to drive performance, manage risks, course correct, support decision making.

REGIONAL & LOCALISATION

Empower and engage local and regional procurement mechanisms - as a central part of a future mechanism

Consider regional and local markets, and specifications

Be more transparent with countries and regions on market situation and allocation decision-making

MARKET - TAILORED STRATEGIES TO ACCESS

The approach to access critical supplies should be tailored to markets.

Commodity (PPE), Pathogen specific (Tests, Vx), Equipment (O2/Vents)

Including:
- Preparation (strategic stockpiling)
- Procurement strategy
- Roles (see subsequent slides)
### Coordination

- Decision-making
- Information sharing/communication
- Collaboration

- Frequent meetings but mostly information sharing and no end-to-end oversight & coordination of the whole CSCS operation
- Pockets of good coordination. But overall, limited coordination between buyers and between deliverers
- Decisions, strategies, and coordination needed to be pandemic-response led
- Limited use of data to monitor performance and support decision-making
- Lack of alignment/ coordination with WB

### Strategy

- Implementation & agility
- Impact
- Efficiency

- Overall content of the strategy was strong and impact was high
- However, strategy not developed in consultation with regions, countries and partners (UN & NGO, Foundations)
- and therefore understanding was low which contributed to challenges in implementation
- Communication and monitoring progress was weak and therefore strategy was not fully realized.
- There was an underestimation of the effort needed to keep people informed and coordinated
- Late development of a plan B for data (when Supply Portal didn’t materialise) was a problem
- Pandemic response was not in leadership role for difficult decisions

### Demand

- Forecast & Accuracy
- Segmentation
- Visibility
- Use

- PPE:
  - Demand forecast in Feb-Mar for PPE was key to sending market signals. High accuracy.
  - Updated PPE forecast in joint tender had low accuracy due to overestimated volumes, which were reduced by the time awards were made
- Dx: No forecast developed for Diagnostic
- Biomed: Early forecast for O2 concentrators and ventilators had low accuracy - too high largely due to country absorptive capacity

### Procurement

- Quality
- Speed
- Quantities
- Price

- Rapid response was very strong but long lead-times thereafter
- Large volumes procured - accessing the strength of the UN & public health partners
- No evidence of an analysis of the different markets to set and adapt acquisition strategies.
- Did not leverage regional or country procurement capacity (except PAHO)
- QA/QC problems for PPE during scaleup of production
- Limited monitoring of lead-times and pricing over time
- Access terms - pricing, not shared with all stakeholders

### Allocation

- Equitable
- Timely
- Appropriate

- Allocation moved from WHO (Control Tower) to Consortia. No consistent link to pandemic response
- No allocation made for PPE (buyers made their own allocations inside their organization)
- Allocation for Biomed was de-facto a result of country absorptive capacity and funding
- Allocation for Dx was problematic: based on collapse of market, first-come-first-serve, organizational/buyer interest, etc. AMR lost months of access

### Delivery

- Timely
- Cost

- Large volumes delivered by accessing the strength of the UN (multi-lane approach, but majority by WFP)
- WFP hub-and spoke system was effective
- Pooled costs was helpful
- Transport corridors (cargo and passenger) remained open the full year, WFP was a game-changer for NGOs
- Weak pipeline planning with buyers. No coordination between deliverers
| **Coordination** | • Decisions, strategies, and coordination needed to be pandemic-response led  
• Establish a data and information exchange strategy  
• Use data-driven analysis to monitor performance and support decision-making  
• Engage countries and regions, public health partners, and WB  
• Establish an active communication approach—within the mechanism and externally (strategy, market situation, progress, etc.) |
|---|---|
| **Strategy** | • Maintain pandemic response in leadership role with firewall between coordination and implementation  
• At onset of mechanism launch, start with ‘Playbook,’ make rapid consultations with regions, countries and partners (UN & NGO, Foundations) on strategy  
• Use data-driven analysis to monitor performance and support decision-making  
• Set-up should be based on market analysis and informed by market typology characteristics  
• Align on products – use-case, specifications, etc. |
| **Demand** | • Quantify demand and demand segments, be clear with assumptions on demand, designate unfunded demand  
• Provide regular updates to demand  
• Country level coordination around demand based on national plan – and channels of providing supply (government direct to market, aggregators, bilateral, etc.)  
• Coordinate demand with WB and other major financiers and aggregators. |
| **Allocation** | • Allocations should be led by pandemic response with expert advice, have a view across pandemic products being allocated, etc.  
• Criteria – combination of current and modelled epi, vulnerability, other supply channels, country capacity  
• Consult regions, countries, experts on allocation criteria and definition of equity. Make timely allocations and provide the basis.  
• Take strategic actions to prevent allocations being done, de-facto, by manufacturers  
• Decide on allocation channel for humanitarian staff |
| **Procurement** | • Acquisition strategy based on market typology. Use rapid, innovative tactics and avoid traditional, long procurement  
• Regionalize, localize procurement as much as possible  
• Coordinate buyers  
• Extend Access terms to others  
• Establish shared QA – especially for commodity markets with rapid production increase  
• Monitor price and lead-times  
• Provide delivery mechanism with information for pipeline planning |
| **Delivery** | • Coordinate delivery channels  
• Use pipeline plans from buyers for planning set-up (hub & spoke) and deliveries  
• Provide pre-delivery advice, and real-time status of delivery. Be able to pull a specific delivery out from consolidation.  
• Pool costs  
• Find solutions for special cargo types (temperature sensitive, regional, etc.)  
• Data & Information: from volume and dispatches, to also items, values, deliveries, etc. |
Leadership - What worked well

RAPID DEPLOYMENT OF SUPPLIES TO COUNTRIES
EARLY SIGNALS TO MARKET
EARLY COORDINATION & STRATEGY

Leadership – Better if

ENGAGE REGIONAL BODIES, COUNTRIES & NGO IN DESIGN
MORE COMMUNICATION INWARD & OUTWARD
STAY PANDEMIC RESPONSE LED
CREATE EXEC TEAM FOR STRATEGY, DECISION-MAKING
FOCUS ON EXECUTION
Demand - What worked well

Early signals to markets during rapid response phase

A comprehensive tool for country – level demand planning (ESFT)

Demand - Better if

Provide regular updates on demand to markets & countries

Temper figures with updated EPI, use-case, & visibly on unfunded needs

Regional and country inputs on supplies being provided via different channels

More visibility on demand coordination at country level

Beyond CSCs: discuss demand with WB & other major buyers. Have an estimate of global demand
**What worked well**

Allocation principles were jointly developed by each consortium.

**Better if**

Allocations should be led by pandemic response based on expert advice, criteria based on EPI (current and modelled), vulnerability, country capacity, other supply channels.

Country & regional perspectives on allocation criteria should be included.

Take action to minimize MERS de-facto deciding who gets what, when.

Establish a pooled fund(s) for products in limited supply so a minimum allocation can be based on need not funding availability (e.g., automated PCR tests, antivirals, vaccines – novel and pathogen specific products).

Include an allocations for humanitarian (e.g., UN & NGO) staff as part of overall strategy.

Allocation
**Procurement - What worked well**

**CATALYTIC NEGOTIATION WITH SUPPLIERS IN INDUSTRIES THAT HAVE A HEAVY HAND**

**INITIAL RAPID RESPONSE FUNDING & BRIDGE FINANCING**

**USE OF HEALTH PROCUREMENT ASSETS OF THE GLOBAL PUBLIC HEALTH PARTNERS & THE UN THE MULTI-LANE APPROACH**

---

**OVERALL, CSCS ACCESSED SOME OF THE LOWEST PRICES ON THE MARKET. NO SIGNS OF PRICE GAUGING. PCR AND RDT PRICES ARE HIGH BUT SHOULD DECREASE AFTER DEVELOPMENT COSTS ARE RECOVERED.**

**BIOMED - COORDINATED PROCUREMENT ENGAGEMENT WITH INDUSTRY AND COUNTRIES**
Procurement – Better if

- Coordinate the multi-lane approach (who buys what when)
- Regionalise & localise who buys and sources of supply
- Use emergency & innovative procurement tactics rather than longer, traditional approaches
- Consider expanded use of working capital – bridge funding for country and other buyers
- Link deals to procurement – monitor committed volumes, lead-times & pricing, renegotiate as needed.
- Extend access terms (to NGOs, WB, etc.)
- Market typography strategies: establish a lead, coordinating buyer – in case of a suppliers market (DX) & coordinate QA – in case of commodity scale-up market (PPE)
- Provide volume guarantees for new products to secure quantities
- Regionalise & localise who buys and sources of supply
Products - What worked well

- Agreement on main product groups & establishment of a catalogue
- WHO guidance on product specification
- WHO guidance on use-case of products
- Markets responded to the needs for novel, improved products

Products – Better if

- Alignment of specs, scope & use-case. Harmonise to WHO standard products
- Clear & shared QA/QC between buyers and for public use (build on PIC/S)
- Use emergency to accelerate innovation for more suitable products if needed
- Resources for timely review of novel products
- Monitor & understand requests for (procurement of) non essential products
Streamlined Delivery - What worked well

CONSOLIDATED VOLUMES WERE KEY TO SMALLER ORGANISATIONS
SPEED & MULTI-LAINE APPROACH
ACCESS – OPEN CORRIDORS THROUGHOUT 2020 – CARGO & PASSENGER
CHINA HUB (AS WELL AS BELGIUM, DUBAI, ETC.)
POOLED COSTS

Streamlined Delivery – Better if

PIPELINE VISIBILITY & COORDINATION
COORDINATION BETWEEN AGENCIES ORGANISING DELIVERIES
MORE SIMPLE & CLEAR PROCESSES
VISIBILITY OF SHIPMENT STATUS
The Task Force - What worked well

- Inclusive of all CSCs participating organisations and more
- Good information sharing and networking
- Place for issues to be raised

The Task Force - Better if

- Maintain regular links to the pandemic response strategy
- Maintain an E2E oversight of the CSCs operation and strategic issues
- Provide clear and regular communication within the CSCs and externals
- Create a smaller EXCOM to support decision-making so the larger, inclusive group can vet ideas, share information, hear concerns, etc.
- Have senior level touchpoints with key agencies to get ideas, buy-in, and for mutual support
The Control Tower - What worked well

- Close proximity to pandemic response leadership, including delivery operation
- Delivery (refer to lessons learned on delivery)
- Suite of tools – ESFT, partner platform, ESM, supply portal concept
- Publicly available information on CSCs

The Control Tower - Better if

- A focus on communication – internal & external
- TEE-up analysis & agenda items for task force
- Support multi-lane approach (all buyers, all deliverers)
- Use data to help monitor progress & support decision-making
- Keep allocation led by pandemic response
Supply Portal - What worked well

CONCEPT WAS GOOD – A PLATFORM IS NEEDED

PROVIDED A COMPREHENSIVE SUPPLY CHAIN DATA SET

Supply Portal – Better if

DESIGN AN EASY TO USE PLATFORM THAT PROVIDES VISIBILITY ON SUPPLY CHAIN AND MARKETS WITH INPUT FROM STAKEHOLDERS (PARTNERS, COUNTRIES, NGOs)

BUILD IN ADVANCE

PROVIDE USER SUPPORT – FOR ROLL-OUT & CONTINUOUS USE

LINK TO OTHER TOOLS – PARTNER PLATFORM, ESFT, ESM

GIVE VISIBILITY TO ALL PARTNERS (DONORS, REGIONS, ETC.)

NOT A SYSTEM THAT REPLACES ORG ERP SYSTEMS
Coordination & Planning Tools - What worked well

Each tool comprehensive – clear concept

First time and E2E set of tools were made publicly available

Coordination & Planning Tools – Better if

Build in advance – based on input from countries, regions & partners

Establish linkages between tools

Consider a country-facing platform that builds on what exists

More transparent – rather than closed to certain users

Use data to monitor performance and inform strategy and decision-making
Data - What worked well

GOOD RECORD OF RAPID RESPONSE – VIA EXCEL

DEVELOPMENT OF DATA SHARING PORTAL, END 2020

Data – Better if

DEFINE DATA NEEDS – FOR USE WITHIN & OUTSIDE CSCS.

RESOURCE THE FUNCTION

DEVELOP A PLATFORM TO ENABLE REAL-TIME DATA SHARING.

(REFER TO SUPPLY PORTAL LESSONS LEARNED)

USE DATA TO MONITOR PERFORMANCE & INFORM STRATEGY,

DECISION-MAKING

USE DATA TO PROVIDE VISIBILITY OF SUPPLY CHAIN STATUS, QA OF PRODUCTS & GLOBAL MARKET SITUATIONS
PPE Consortia - What worked well

EARLY AND ACCURATE DEMAND SIGNAL FROM WHO ON AGGREGATED PROGRAMMATIC NEED

EARLY MESSAGING ON SUPPLY CONSTRAINTS

"NO REGRETS" APPROACH BY WHO & UNICEF PROVIDED EARLY DELIVERIES

MULTI-LANE PROCUREMENT APPROACH

CHINA HUBS TO ORGANISE DELIVERY SETS
PPE Consortia—Better if

- Establish a consortium so full scope of work can be taken on: tech, use-case, demand planning, etc.
- Intentional & coordinated strategy on procurement based on market situation
- Consider expanding procurement via consolidator for PPE to reduce management of large no. of vendors & items

- Coordinate demand fulfillment to reduce PPE types & vendors to any one country
- Alignment on PPE specs & sets, and use case
- Establish forum to share QA/QC of products between buyers
- Monitor lead-times & pricing – including to inform adapted strategy
Biomed Consortia - What worked well

CONSORTIUM CONSIDERED
MULTIPLE ACCESS FACTORS - TECHNICAL, COUNTRY CAPACITY, PROCUREMENT

PROCUREMENT TACTICS SUITED THE PRODUCT(S) AND MARKET SITUATION

STRATEGIC APPROACH:
• COORDINATION & DATA
• FOCUS ON O2 FIRST
• VENTILATORS

Biomed Consortia – Better if

CONDUCT NEEDS-BASED ASSESSMENTS – FUNDED & UNFUNDED

PROVIDE GUIDANCE ON PRODUCTS AND LANDSCAPE GLOBAL & REGIONAL SUPPLIER BASE

BUILD UP O2 TECHNICAL EXPERTISE AT REGIONAL AND COUNTRY LEVELS TO ENHANCE LONG-TERM O2 SUPPLY

INCREASE ACCESS TO MEDICAL OXYGEN ON AN ONGOING BASIS
Diagnostic Consortia - What worked well

- **Consortium** became operational quickly
- **Early, rapid deployment** by WHO (manual tests, assays) & UNICEF & TGF (PCR tests)
- **Early catalytic action** to negotiate quantities and pricing for PCRs and AG-RDTS
- **Engagement** of senior leaders & executives at key moments
- **Strong technical focus** throughout
- **Care-taking** of HIV & TB diagnostics supply by TGF & partners
Diagnostic Consortia—Better if

End to end value-chain (not only supply chain)

- CARRY GREATER AUTHORITY WITH MFRS BY TIGHTER COORDINATION & COLLABORATION OF BUYERS
- CONNECT DEAL-MAKING AND PROCUREMENT
- ALIGNMENT AND COORDINATION WITH THE WORLD BANK

- USE OF HUMANITARIAN APPROACHES BY BUYERS SO COUNTRIES’ ACCESS IS NOT RESTRICTED
- ESTABLISH DEMAND FORECAST TO INFORM MARKETS & HELP WITH ALLOCATION
- RESOURCE TECHNICAL FUNCTIONS TO ACCELERATE ASSESSMENT OF NEW PRODUCTS
- ALLOCATIONS & GUIDANCE SHOULD BE LED BY PANDEMIC RESPONSE—WITH ADVICE BY EXPERTS

Market
Diagnostic Consortia - What worked well

- Consortium became operational quickly
- Early, rapid deployment by WHO (manual tests, assays) & UNICEF & TGF (PCR tests)
- Early catalytic action to negotiate quantities and pricing for PCRs and AG-RDTS
- Engagement of senior leaders & executives at key moments
- Strong technical focus throughout
- Care-taking of HIV & TB diagnostics supply by TGF & partners
Diagnostic Consortia—Better if

Market

- Carry greater authority with MFRs by tightening coordination & collaboration of buyers
- Connect deal-making and procurement
- Alignment and coordination with the World Bank

End to end value-chain (not only supply chain)

- Use of humanitarian approaches by buyers so countries' access is not restricted
- Establish demand forecast to inform markets & help with allocation
- Resource technical functions to accelerate assessment of new products
- Allocations & guidance should be led by pandemic response—with advice by experts
In order to achieve equitable access to essential pandemic supplies, the mechanism should be adapted to different phases, working with countries, the UN, global health partners, WB/IFIs, and markets.

**BUILD THE PLAYBOOK**

To move quickly and efficiently – draw on a “playbook” (including roles, responsibilities, data needs, etc.) and preparedness measures (e.g., strategic inventory) to adapt based on the pathogen and scope of the outbreak.

Develop with countries, regions, global health partners, WB, IFIs. Incorporate lessons learned.

**RAPID RESPONSE**

Be prepared to provide a rapid response cushion for 2-3 months via a combination of regional, country and global actions.

Adapt the Playbook.

*Build on Ebola & Covid-19 lessons learned*

**MAXIMISE ACCESS**

Provide leadership for a global response that empowers regions, countries and partners by setting goals, coordinating, and providing visibility.

Continue with main architecture: Pandemic Lead, Purchasing Consortiums, Streamlined Delivery. With new regional, country lens and market typology based

Keep pandemic led: Allocations of scarce quantities, specifications, use-case, and negotiations with markets at key moments

**Country needs**

- Build on the partner platform and other existing platforms

**Coordinated Supply Chains, including ICL**

- Build on the concept of the supply portal and PICS

**Visibility on global markets**

- Build on global market dialogues started for HPV, etc.
Develop 'Playbook' with countries, regions, partners and private sector

**OBJECTIVES & CONTEXT**

- Set the objectives of the preparations around the phases of a response: Rapid Response Phase & Maximize Access Phase and by main areas of work: Market-facing work & Supply chains
- List priority diseases, projected to be at higher risk of evolving pandemic
- Establish packages of essential supplies & draft use-case, specs, QA/QC requirements. Standard descriptions.

**RAPID RESPONSE (2-3 MONTHS)**

- Establish a plan for 2-3 months of essential supplies via a combination of inventory and rapid procurement.
- Establish strategic inventory — via a combination of local, regional, global vendors, held by key partners. Estimate demand quantity for first cushion. Consider inventory for Duty of Care.
- Establish rapid procurement arrangements with key vendors (a combination of regional and global mfrs) — that define key access terms for country, UN, NGO, Foundation access. Buyers to be indicated but confirmed at pandemic onset. Refer to market access strategy.
- Agree on rapid delivery mechanism — WFP & buyers.

**MAXIMISE ACCESS (3-9 MONTHS ++)**

- Develop strategies to maximize access to key products (defined in essential package), reflecting market typology.
- Identify actions needing to be taken in advance
- Develop operating principles (e.g., Access terms are linked to procurement, shared QA/QC, etc.)

**FINANCE**

- Design engagement options with the WB and other IFIs to ensure alignment & coordination.
- Scope a mechanism for a volume guarantees for novel products.
- Scope potential ‘bridge financing’ - like mechanisms for all buyers to access.
- Scope a pooled funding mechanism with key financing partners.

**ROLES**

- Based on strategies, define the architecture with key roles around Demand, Products, Purchasing, Allocation, Delivery, Data & Platforms, Coordination, Communication, Oversight & Strategy.
- Assign roles to organizations. Rapid response should be agreed upfront but roles for Maximize Access phase can be reviewed and confirmed (during the RR phase of a pandemic).
- Consider establishing senior experts to be on stand-by to fill key roles.

**DATA & INFO SHARING**

- Define data needs for visibility of a supply chain operation and market situations. For operational & strategic needs.
- Define data needs beyond the CSCS – for multi-directional information and data flow.
- Create standard material descriptions and coding.
- Establish data sharing compacts. Build a data sharing platform given system interoperability challenges.
- Develop dashboards and standard report
- Consider partnering with data-sharing experts to develop a new approach.
- Establish a platform for information sharing on preparations and markets, that can be further activated at onset. Build on existing forums developed for Covid-19.
Key activities during Rapid Response and Maximise Access phases

RAPID RESPONSE

Be prepared to provide a rapid response cushion for 2-3 months via a combination of regional, country and global actions

✓ Build on existing system of humanitarian and regional actors
✓ Establish strategic inventory (E.g., PPE countries: 1 month each at country, regional and global levels for priority disease)
✓ Maintain open dialogue with key industries during peace-time
✓ Fast pace risk capital
✓ Build out of medical oxygen at country level
✓ Review Playbook, confirm roles, etc.
✓ Consider early volume guarantees of novel product to secure quantities

MAXIMIZE ACCESS

Provide leadership for a global response that empowers regions, countries and partners by setting goals and providing visibility. Continue with main CSCS architecture. Keep Pandemic Led.

• Requires data sharing compacts
• Leveraging expertise and assets of partners, regions and countries
• Strategic insight and action
• Allocation
• The freedom of a tight strategy
• Financing: volume guarantees, bridge, pooled funds

Country needs
- Transparency, collaboration, and efficiency for countries, UN agencies, implementing partners, and donors in their pandemic response.
  - Supply needs
  - Allocation
  - Funding
  - Partner roles

Coordinated Supply Chains
- Visibility and coordination of various supply chain actors from requisition to delivery
  - Data interfaces with supply chain actors (so not a parallel ERP system) – a data compact
  - Visibility will help align product sources, shipment planning
  - Supplement with shared inspections
  - Consider In-country Logistics

Build on the partner platform

Pandemic global markets
- Transparency on global market situations for essential supplies & transport
  - On-line & available for all buyers, countries, regions
  - Recommended actions
  - Track demand, major deals, global estimated supply, pricing issues, regional or market specific issues (e.g., raw materials)
  - Update on a regular basis with frequency coinciding with phase of response
  - Can inform allocations

Build on the partner platform

Regionalise (AMSP, PAHO, etc) and localise

Build on the concept of the supply portal and PIC/S

Build on global market dialogues
Thank you.