



SOLIDARITY FUND HEALTH RESPONSE REPORT PPE FOR THE PUBLIC HEALTH SYSTEM

JULY 2020

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OVERVIEW AND SOLIDARITY FUND'S HEALTHCARE MANDATE

The Solidarity Fund has a clear mandate to support the national health response, contribute to humanitarian relief efforts and mobilise South Africans to drive a united response to the COVID-19.

The goals of the Fund are to:



Detect and prevent

To understand the magnitude of the pandemic and support measures to flatten the curve by lowering infection rates.



Care

To assist with the management of those people in hospital or medical care.



Support

To support those people whose lives are disrupted by COVID-19.

A key objective of the Fund's healthcare mandate is the 'Care' effort to support national efforts to augment the safety and efficacy of our medical response by ensuring a supply of personal protective equipment (PPE).

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WORKING MODEL

The Solidarity Fund's health response is executed in collaboration with the National Department of Health (NDoH) and Business for South Africa (B4SA), with its established capability to procure PPE, including the validation of local suppliers and accessing of products from international markets.

The Fund works closely with the NDoH to determine critical needs for the national health system. The NDoH provides estimates of demand for medical equipment and PPE need per healthcare worker based on epidemiological models that project the COVID-19 infection rate, and the subsequent burden on healthcare facilities in line with World Health Organisation (WHO) guidelines.

The Fund utilises the B4SA platform to expedite procurement of critically required PPE at the necessary scale, speed and at the lowest cost and optimal terms and conditions.

The Fund's medical equipment and PPE delivery efforts were guided by the following principles:



Alignment with national strategy

The Fund is committed to the principle of a single national health effort that ensures optimal use of resources. To this end, the Fund has been working closely with NDoH to ensure that procurement is done in line with demand statements provided by government and community care centres.



Impact additionality

The Fund directs its resources where it can have the greatest leverage and the maximum possible impact, and where it is clear that the impact would not have happened had the Fund not intervened (i.e. the impact is genuinely “additional” to what would have otherwise happened).



Speed

The Fund's guiding principle is to fill critical medical equipment and PPE gaps at a speed that would not have been possible given conventional institutional processes.



Agility

The Fund adjusts quickly to changes in the needs of the health system, depending on the rapidly evolving severity and stage of the pandemic.



Resource efficiency

The vast majority of the Fund's disbursements are directed towards the purchasing of equipment, with no administration costs incurred by the procurement platform and a limited allocation to distribution costs. The cost of distribution, which was provided at cost recovery levels (i.e. no profit margin), has amounted to ~8% of the total disbursement.



Price competitiveness

The Fund procures from suppliers which are able to provide the necessary equipment at the lowest price available at the time, whilst meeting volume and quality standards and timing requirements, in order to secure the maximum amount of equipment with the allocated funds.



Local manufacturing and BBBEE

During the emergency phase of procurement, while the overwhelming priority was to bring sufficient equipment into the country to protect and save the lives of health care workers, the Fund worked with B4SA to prioritise price, quality and bulk availability, in order to meet the urgent need. During this phase, given the country's limited internal manufacturing and supply capability to meet the vast quantities of equipment needed, the bulk of procurement was, of necessity, from offshore manufacturers. Following this emergency phase, the Fund's focus on supporting local manufacturing and black-empowered businesses has increased, in order to contribute towards capacity building within the local economy. To this end, in the second phase of procurement through the B4SA procurement platform, in excess of 90% of procurement was from local manufacturers and black-owned suppliers, with some orders still being processed.



Transparency

The Fund has sought to ensure transparency at every point in the supply chain. Detailed pricing benchmarks and supplier margin information has been obtained and utilised as part of this effort.

When the Solidarity Fund was formed in late March, South Africa faced a severe shortage of PPE which was critical for ensuring that frontline healthcare workers were protected. Experience in other countries showed that a shortage of PPE meant unprotected healthcare and frontline workers paid a heavy price in terms of illness and death. As South Africa entered the lockdown period, there was a shortage of PPE in the country because of supply chain constraints. The Fund put in place a rapid response to secure the necessary stock.

- This short-term, rapid relief intervention was to ensure adequate medical equipment and PPE in South Africa at the outset of the pandemic, through the months of May, June and July.
- The demand was compared to existing stock on hand across public facilities to identify the shortfall. B4SA then proposed procurement orders to meet this shortfall, prioritizing items where the shortfall was greatest. Medical equipment was purchased in line with the demand estimates provided by the NDoH, thereby augmenting the NDoH's own supplies.
- The Fund's first healthcare disbursement, approved on 7 April 2020, took the form of an R815 million funding commitment through two grants to the NDoH to provide emergency medical equipment and PPE to support the national health system. R670 million of this was for urgent medical equipment and PPE for front-line healthcare workers in public sector hospitals and clinics, and R145 million for PPE for Community Health Workers.
- This period was marked by intense global competition for equipment and PPE, including from countries with significant resources, that were experiencing the peaks of their COVID-19 outbreaks. This resulted in highly volatile prices in excess of "pre-COVID" rates. Despite the challenging environment, the Fund was able to secure the necessary life-saving medical equipment and PPE guided by the key imperative of price, quality of product and speed of delivery.
- This immediate response provided a buffer for the national health system and contributed towards ensuring that soon after its formation, the Fund had facilitated the acquisition of a substantial proportion of the surgical masks and N95 masks required to meet the demand for healthcare workers in the months of May, June and July.
- This initial emergency phase of procurement was not without challenges. Limited local manufacturing capacity meant that much of the stock was procured internationally. Adding to the complexity was that before the lockdown, 92% of the medical equipment in South Africa, including PPE, was imported and only 8% was locally produced. However, a shift from this trend has since been achieved with participation of black-owned businesses and the activation of local manufacturing strongly coming to the fore.

- In addition, the Fund has supported the local production of ventilators, increased testing capacity for the National Health Laboratory Service, and the procurement of additional PPE for community healthcare workers in partnership with the DG Murray Trust. These are detailed in separate reports.
- To date, the Solidarity Fund has ordered 37.7 million units of PPE to the value of R660,2 million for the benefit of the healthcare system, including the procurement of 200 ventilators for R22.3 million. About 16.3 million units of PPE have been delivered to public hospitals and public healthcare facilities, with the balance to be distributed in line with the health system's requirements.
- Medical equipment has been purchased in line with the demand estimates provided by the NDoH, thereby augmenting the NDoH's own supplies. The table below details the quantities purchased to date and average price per product.

Quantity ordered and pricing per product

BENEFICIARY	PRODUCT	NUMBER OF UNITS ORDERED TO DATE	AVERAGE COST PAID TO DATE INCL VAT PLUS PROVISION FOR LOCAL DISTRIBUTION COSTS		
			LANDED COST PER UNIT	PROVISION FOR LOCAL DISTRIBUTION COSTS	TOTAL COMMITMENT
NDoH	200ml sanitiser	200 000	23.58	0.71	4 856 450
	400ml sanitiser	100 000	35.08	1.05	3 612 725
	495ml sanitiser	200 000	40.30	0.70	8 291 844
	Goggles	690 000	40.86	1.84	9 460 295
	N95 Face Mask	3 045 750	39.47	1.10	117 048 838
	Surgical gloves	898 100	3.50	0.10	3 233 950
	Surgical gown	400 000	152.12	3.30	61 834 452
	Surgical mask (HCW)	21 000 000	11.43	3.32	258 832 732
	Surgical masks (Patients)	11 480 500	14.44	0.41	170 748 956
	Ventilator	200	108 118.03	3 243.54	22 272 313
TOTAL		38 014 550			660 192 555

Note: Landed cost shown in the table above is an average.

Future Med Co order

- Shortly before the conclusion of this report, B4SA notified the Solidarity Fund that the consignment of 2 million N95 masks bought through medical equipment supplier Future Med Co for R94 million, failed to meet the South African Bureau of Standards' quality assurance test. These tests are a critical part of the Fund's quality assurance processes.
- We are awaiting the result of a second SABS test.
- The masks have not been released and will remain in safekeeping until the Fund has satisfied itself that they meet the required quality and safety standards. This is to ensure the protection of frontline health workers.
- B4SA contracted with Future Med Co, an established and licensed supplier of medical equipment by SAHPRA and a member of SAMED, a medical technology industry association.
- The Solidarity Fund will pursue all available remedies to protect donors' funds, and to ensure the safety of the nation's healthcare workers.

Over 31.4 million units of PPE have been received to date with circa 16.3 million units dispatched. The table below provides a summary of the quantities delivered and distributed by product.

Quantities ordered, delivered and distributed per product

ORDERS PLACED			ORDERS RECEIVED			ORDERS TO BE RECEIVED
BENEFICIARY	PRODUCT	NUMBER OF UNITS	QUANTITY RECEIVED	QUANTITY DISPATCHED	STOCK BEING PROCESSED	QUANTITY
NDoH	N95 Face Mask	3 045 750	2 288 950	2 345	2 286 605	756 800
	Protective eyewear	690 000	0	0	0	690 000
	Sanitizer	179 000	66 854	30 140	36 715	112 146
	Surgical gloves	898 100	898 600	819 600	7 900	0
	Surgical Gown	400 000	100 000	0	1 00 000	300 000
	Surgical Mask (HCW)	21 000 000	16 990 000	6 324 500	10 665 500	4 010 000
	Surgical Mask (Patient)	11 480 500	11 128 350	9 146 850	1 987 500	352 150
	Ventilator	200	0	0	0	200
TOTAL		37 693 550	31 472 754	15 155 320	15 155 320	6 221 296

1. Sanitizers have been purchased and distributed in various volumes. For ease of reporting, values are shown in litres.

Medical equipment and PPE has been delivered across all nine provinces in the country.

Share of equipment delivered to date by province

PROVINCE	SURGICAL MASKS FOR PATIENTS	SURGICAL MASKS FOR HCW	SURGICAL GLOVES	SANITIZER	N95 FACE MASK	SHARE OF DISTRIBUTED EQUIPMENT
Eastern Cape	1 890 250	800 000	626 700	6 350		20%
Free State	434 650	220 000	3 500	3 917		4%
Gauteng	2 339 200	1 410 100	83 800	3 339	2310	23%
KwaZulu-Natal	1 372 050	1 489 900		7848		17%
Limpopo	371 050	350 000	1 500	2 304		4%
Mpumalanga	342 150	350 000	50 000	1 920		4%
North West	324 850	350 000		1 805		4%
Northern Cape	106 050	150 000	500	1 114		2%
Western Cape	2 095 300	1 208 500	145 100	1 543	35	21%

In cases where the equipment is being imported, the equipment is either transported by sea or air freight.

In the early stages of the pandemic, orders were brought in by air freight given the urgent need for the equipment in the country. More recently, the Fund has been able to take a longer term view and has shifted to more cost effective local supply (and sea freight, where applicable).

To date:

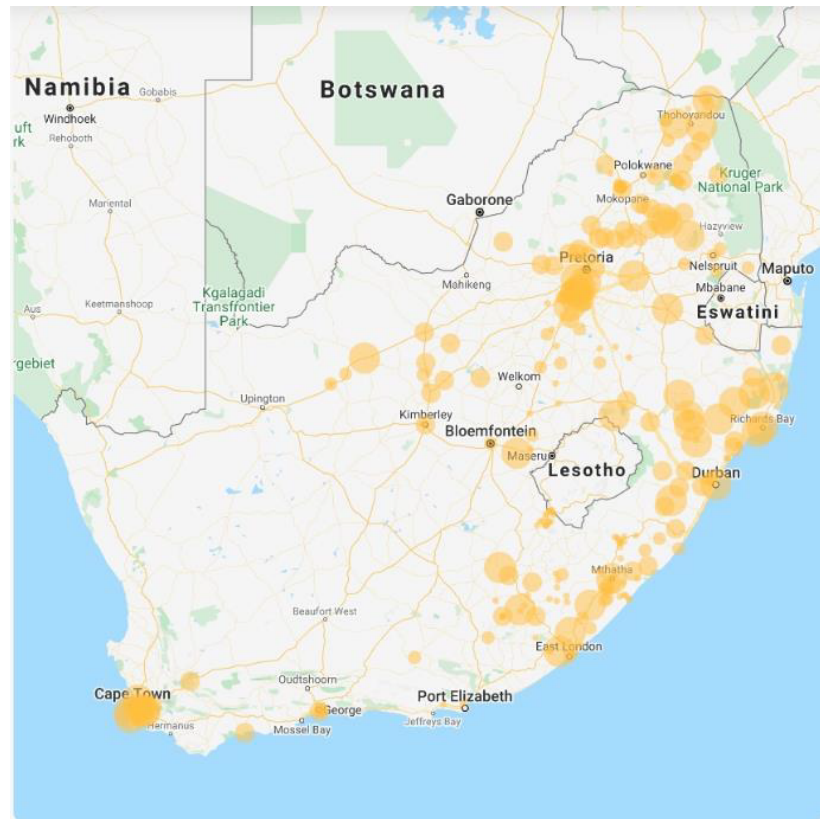
- **12.1 million** units have been brought in by air, with total air freight costs of R 48.1 million.
- **1.5 million** units have been procured locally, therefore not requiring additional air or sea freight costs
- **6.2 million** units have not yet been received
- For the remainder of the ordered quantities, the arrangement is such that delivery is arranged by the supplier
- Due to the urgency of the situation, no equipment has been brought in by sea to date

Imperial Health Sciences (IHS) is the current logistics provider to B4SA who is the procurement service provider for the Fund. Imperial provides end-to-end logistics infrastructure and services required to transport the goods from suppliers, both off-shore and local, to the end user (public hospital, clinic or municipal depot), and to provide intermediary storage if necessary. IHS is paid for its logistics services at cost recovery prices, with no profit margin.

Following completion of the initial urgent distribution, B4SA has issued a formal tender for a lead logistics provider to support future orders. This tender is currently underway, with some 40 organisations having expressed an interest in participating.

PPE Distribution Map

- 60 - 8 600
- 8 900 - 32 100
- 40 000 - 167 000
- 167 232 - 2000 000



04 PROCUREMENT PROCESS

The Fund has established a Technical Review Panel (TRP) under the Health Workstream. This panel is made up of healthcare experts from research institutions, government bodies and the health sector. The role of the TRP is to assess the merits of each incoming proposal. Specifically, the TRP evaluates whether each proposal addresses an urgent need aligned to the deployment priorities of the fund, proposes an effective and cost-efficient solution and complements existing national efforts. Proposals that are approved by the TRP are recommended to the Fund's Executive Disbursement Committee for consideration.

A rigorous process is followed for each order of medical equipment and PPE by the Fund. This process is shown below and a detailed description for each step in the process is provided thereafter.

Process flow for equipment orders



Soon after the emergence of COVID-19, B4SA developed a system to collect supplier information for companies selling medical equipment and PPE. This system started as a central email, and has subsequently evolved into a streamlined online portal where suppliers register product and pricing details, as well as their business information. This portal serves as the central database from which suppliers are sourced.

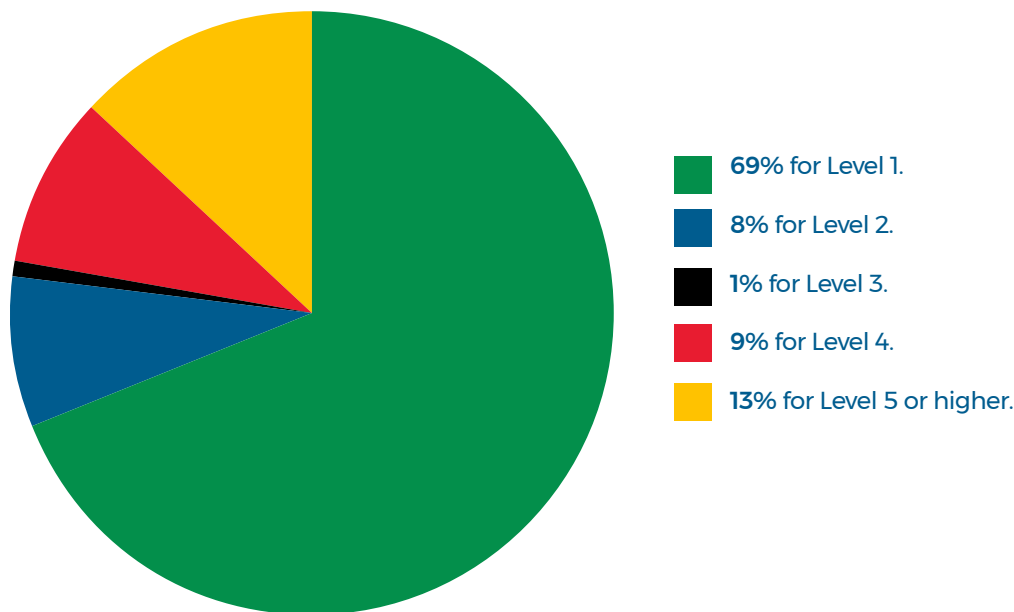
Once suppliers register on the portal, and it has been confirmed that all requested information has been provided, they are vetted through Know-Your-Customer checks, including proof of company registration, industry affiliations and tax status. Successfully vetted suppliers are conditionally approved and requested to submit specified documentation for relevant products via the portal.

All outcomes of the vetting process are recorded on B4SA's master supplier database portal.

The portal has proven to be a successful mechanism for enabling a large number of suppliers to register online.

As at 8 July 2020:

- 5,101 suppliers had registered on the portal
- 1,280 suppliers had been approved on the portal
- The breakdown of approved suppliers by BBBEE status is as follows:



Each procurement decision is made based on an evaluation of all suppliers approved on the portal.

Equipment has been purchased across a range of suppliers, with a mix of locally and internationally produced products. The table below lists all suppliers, including the amount spent to date.

Suppliers contracted to date:

BENEFICIARY	NAME OF SUPPLIER	AMOUNT SPENT WITH SUPPLIER TO DATE (R MILLIONS INC VAT)	BBBEE STATUS	EQUIPMENT MANUFACTURED LOCALLY (Y/N)
NDoH	Akacia Medical	55.2	Level 2	N
	AMKA	16.3	Level 3	Y
	Bliss Pharmaceuticals	45.1	Level 1	N
	Ford	7.3	Level 7	Y
	Future Med Co	166.2	Level 4	N
	Graceheaven Industries (Pty) Ltd	2.2	Level 4	N
	Greenline	20.7	Level 1	Y
	Lakama Group	38.0	Level 2	N
	Lasec Pty Ltd	17.7	Level 4	N
	LDK	19.7	Level 4	N
	Medical Plant Africa	38.1	Level 4	N
	Nather Products	98.3	Level 2	N
	Priontex	3.1	Level 4	N
	SSEM Mthembu	21.6	Level 3	N
	Synergy	11.0	Non-SA company	N
	Terray Pty Ltd	34.0	Level 4	N

NDoH demand estimation

The NDoH provides estimates of demand for medical equipment and PPE on a monthly basis. This is based on epidemiological models that project the COVID-19 infection rate, and the subsequent burden on healthcare facilities in line with World Health Organisation (WHO) guidelines on the medical equipment and PPE needs per healthcare worker. The models are updated continually.

The demand is compared to existing stock on hand across public facilities to identify the shortfall. B4SA then proposes procurement orders to meet this shortfall, prioritizing items where the shortfall is greatest.

Product vetting and validation

Once a supplier has been approved on the B4SA portal, and demand for their product(s) has been established, those products undergo a rigorous validation process. The SABS, the NRCS and SAHPRA are responsible for oversight and implementation.

An independent technical team reviews the documents submitted by the supplier against predefined criteria, which are aligned to current regulatory standards and are approved by SABS, NRCS, NDoH and SAHPRA.

The following technical checks are performed:

- confirming that the supplier has provided the manufacturers' export licence to export medical grade PPE issued by the country of origin;
- confirming the veracity of the medical device licence issued by SAHPRA (i.e. the establishment licence for the manufacture, distribution or wholesaling of medical devices), and ensuring that the licence allows for the relevant product to be imported or manufactured;
- in the absence of a relevant SAHPRA licence, referring the supplier to SAHPRA for approval of the relevant product (unless the product does not require such approval);
- reviewing the ISO13485 certification of the manufacturing site, if applicable, including confirming the authenticity of the certificate with the issuing body and checking that the certification covers the relevant product and its specification;
- reviewing the test report for the product, including ensuring that the specifications in the report meet the requisite WHO standards or the NDoH PPE specifications;
- where applicable, reviewing product certification, accreditation and conformity to standards, including checking validity with the assessment body and compliance with the relevant standard (e.g. EN, SANAS or ISO); and
- reviewing the product label to ensure, amongst others, that it does not include claims beyond its registered specification.

The technical vetting process is undertaken on B4SA's behalf by a team of independent SABS inspectors. In addition, SABS or NRCS inspectors conduct an inspection of the imported PPE, either at the airport on its arrival in the country or at the warehouse of the logistics provider, to ensure compliance with applicable standards.

All outcomes of the vetting process are recorded on B4SA's master supplier database portal.

Price benchmarking

Mechanisms to ensure efficiency and transparency with respect to pricing have been critical, both with regard to the procurement of equipment and associated freight costs. While prices of many items surged as global demand exceeded supply, the Fund set out to ensure that suppliers do not profiteer from the urgent scramble for equipment. Prices were particularly high in March and April as many countries experienced very high infection rates, and supply was constrained by export controls. Since pre-COVID

benchmark pricing was no longer valid, the Fund developed alternative mechanisms to ensure that prices achieved are competitive during the pandemic. These measures included:

- Comparing supplier prices across the B4SA portal, with preference for the lowest prices at the required quality and availability.
- Comparing prices with other purchasers of equipment during the crisis, including other funders.
- Comparing prices with those quoted on international markets.
- Requiring agents to disclose margin information (as from mid-April).

These measures have enabled the Fund to ensure that equipment prices, as well as related freight costs, are reasonable given the current environment, enabling funds to be used as effectively as possible.

Fund Committee approval

B4SA sends order proposals to the Solidarity Fund Fiduciary Committee for consideration.

The Fiduciary Committee ensures that the agreed processes and governance have been followed, and uses the following criteria to evaluate the proposals:



Urgent need

The degree of urgency is established based on demand estimates from the NDoH. Only equipment for which there is clearly a current shortage is approved for purchasing.



Quality

Only products that meet the required national standards are considered.



Price competitiveness

The Fund always seeks to purchase equipment at the lowest possible price to optimise resources and direct spend towards critical equipment.



BBBEE level & local manufacturers

Once the aforementioned criteria have been met, the Fund favours local manufacturers and black-empowered suppliers.

Purchase Order requisition

Once a proposal is approved by the Fund Fiduciary Committee, a Purchase Order is issued through an online procurement system that ensures appropriate controls and audit trails.

Transport and logistics

In cases where the equipment is being imported, the equipment is either transported by sea or air freight.

Allocation and distribution

Once the equipment arrives at the logistics provider, it is processed in accordance with instructions from the NDoH and allocated to specific healthcare facilities across the country. In conjunction with the public sector PPE procurement process, a small amount of PPE has been purchased for the private sector. While public sector destined equipment is donated to the NDoH by the Fund, all equipment taken up by the private sector is sold on a cost recovery basis, inclusive of logistics costs.

The NDoH provides the logistics provider with delivery point instructions for all equipment. The NDoH allocation is based on public health facilities' existing stock levels and the forecast COVID-19 disease burden. The logistics provider then delivers that PPE to the nominated clinic, community health centre, hospital, district office or depot. A delivery note is signed by the NDoH representative taking receipt of the equipment to confirm that it has arrived. Depots then further distribute PPE to clinics, primary health facilities or community health centres, enabling healthcare workers to protect themselves in their daily work during the COVID-19 pandemic.

GOVERNANCE

Monitoring and evaluation

The Fund is actively managing the monitoring and evaluation of medical equipment and PPE procurement. B4SA and the logistics provider track each equipment order and confirm arrival in the logistics provider's warehouse. When the equipment is distributed to public healthcare facilities, a delivery note is signed by the recipient confirming receipt of the goods. The Fund requires each beneficiary to keep records of the equipment received and its usage, where possible; the Fund can audit this at any time. In order to provide external assurance, the Fund intends to contract with an independent party to contact a sample of beneficiaries to (a) confirm that the equipment was indeed received, and (b) gather qualitative feedback about the impact of the medical equipment.

Ensuring independence and fairness in the process

In order to enhance the independence of the validation process and to avoid conflicts of interest, each participant in the vetting process (i.e. both those who undertake the know-your-customer vetting and those who carry out the technical vetting) are required to confirm, in writing, that

- (i) the participant has no interest in the relevant medical device industry; and
- (ii) the participant will recuse himself or herself if he or she, or any family member or business associate, has any direct or indirect financial interest in, or a personal or business relationship with, the relevant supplier or a director or shareholder of the supplier.

The participants are also required to undertake, in writing, not to disclose any information that they obtain through the validation process and not to use such information for any purpose other than the validation process.

Supporting local suppliers, SMEs and black-owned businesses

In an effort to ensure that as many small and medium enterprises (SMEs) meet the qualification criteria, B4SA, on request, provides assistance to SMEs in explaining the technical criteria and how the would-be suppliers might fulfil those criteria.

In order to encourage the supply of PPE by black-empowered and local suppliers, applications by these companies to become registered and approved suppliers on the portal are prioritised, i.e. every effort is made to expedite these applications. Registration as an approved supplier on the portal does not guarantee any award of contracts/bid, but it does mean that they will be considered for participation in the bids.

Supplier recourse

If an aspirant supplier fails the vetting process, they are informed of the outcome and the reasons thereof. Any aggrieved supplier who believes they have been unjustifiably excluded may lodge a grievance with a panel constituted by B4SA and its co-sponsors.

05

KEY CHALLENGES

Through the process of medical equipment and PPE procurement over the past two months, the Fund has experienced a number of challenges in procuring necessary equipment:

- **Fierce international competition for equipment** at the start of South Africa's COVID-19 outbreak placed the Fund under pressure to take quick action to secure equipment as many countries, including the USA, the UK and many European countries, were seeing rapid spread of the disease. This competition resulted in surging prices and greater urgency to make equipment purchasing decisions.
- **Defective equipment and scams** have been prolific. The Fund has had to take extra care to procure from reputable suppliers and to establish comprehensive checks to ensure money was not lost due to fraud or the procurement of defective PPE.
- **Coordination across many stakeholders** in a complex and rapidly-evolving environment has been a consistent challenge for the Fund.
- **Robust pricing benchmarks** along the supply chain have been difficult to obtain due to unprecedented volatility in global prices, which are a consequence of the environment described above. The Fund has made all reasonable efforts to source relevant pricing benchmarks, but given the urgency in securing this equipment and lack of timely and relevant information, some decisions had to be made early in the process without the robust benchmarks sought by the Fund.
- **The Fund's intention to support local manufacturers** initially proved challenging due to a lack of supply at the volumes and pricing required. After the initial emergency phase, the Fund has been successful in increasing spend with local manufacturers.

The Fund undertook to support the rapid procurement of vast volumes of medical equipment and PPE to support the public health system in South Africa during the early phase of the pandemic.

This immediate response met its objectives of providing a buffer for the national health system and contributed towards ensuring that soon after its formation, the Fund facilitated the acquisition of 80% of the surgical masks and 100% of the N95 masks required to meet the weekly demand for healthcare workers at least until the end of July.

Valuable lessons were learnt that should inform future public-private emergency interventions:

- **Consistent processes**, open and clear to all, are critical, especially when selecting suppliers. The Business for South Africa (B4SA) portal assisted in providing a single mechanism for any supplier to register their products for approval. The Fund could then compare pricing across approved suppliers to select the lowest price products, subject to meeting quality, quantity and availability requirements.
- **A clear framework for approval** must be aligned upfront, specifying how order proposals will be evaluated, and how the elements of that evaluation are prioritised.
- Current and future health procurement solutions should **focus on supporting local economies and supply chains**, as far as is competitive.