

COVID-19 and Blood Services in Guyana

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GUYANA



- Located in northern South America. Bordered by Venezuela, Brazil, and Suriname.
- 215,000 Square Km. Population 780,000 with ten administrative Regions.
- Centralized health system. One specialist hospital in Georgetown. Ten regional hospitals with limited capacities. Weak PHC level.
- Low HRH. Inequity HRH coastal/interior distribution. 75% Doctors work in Georgetown.
- 2/3 of all deliveries done at Georgetown Public Hospital and all ICU centralized at this hospital.
- One Blood Bank with 6 collection sites in Guyana

The epidemic in Guyana. Response. Impact.

1. Index case imported from USA on the March 7th.
2. Epidemic expanded to all the 10 Administrative Regions.
3. Government enacted public health measures:
 - Strict social distancing (suspension of social, education, religious activities)
 - Behavior change (mandatory use of masks, cough etiquette)
 - Travel ban (closure of Points of Entry).
4. To date there have been 5800 positive cases, with 190 deaths.
5. Health facilities limited to nonemergency surgeries, reduced MCH/NCD consultations. Overall between March to September sharp reduction in outpatient/inpatient services.

COVID-19 and blood collection

- Collection sites recruit and collect. Send blood to central level.
- Donors can donate up to 1 blood unit at a time (450-500 ml) .
- Supply relies on voluntary donations (98-100%).
- Around 78% are repetitive donors (at least twice a year)
- 54%of donors are male and the majority of donors are 25-45 years .
- 80% blood supply are from Region 4 ,the Largest regions mostly affected by COVID-19.
- Posed a challenge for stable/sufficient supply due to measures to prevent spread of epidemic and the fear of contagium by donors.

National Blood Transfusion Service (NBTS)

Goal:

Efficient/timely preparation of safe blood products.

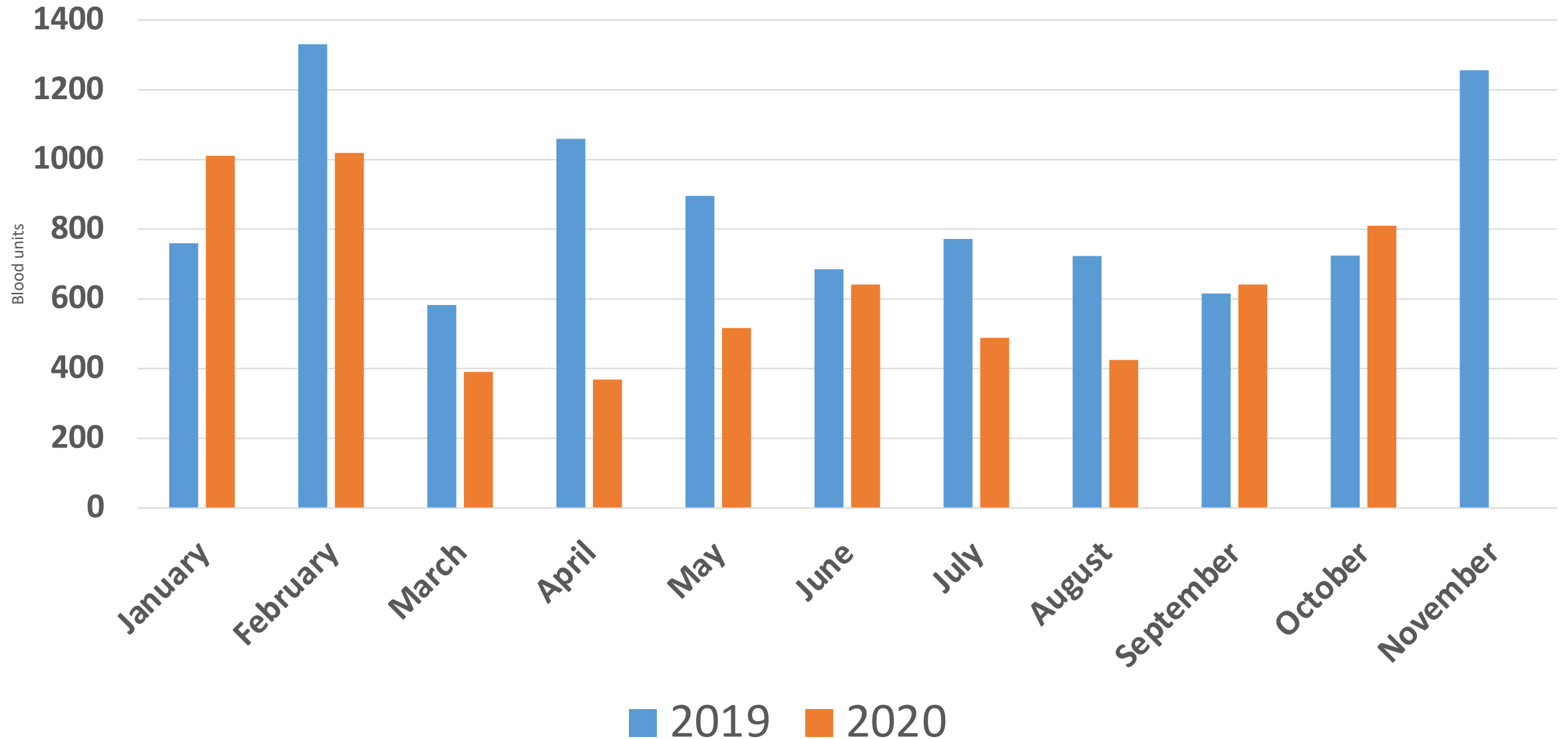
Functions:

1. Population sensitization, education, donor **recruitment**, selection, retention, and organization of a donor registry.
2. Blood **collection**, processing components, screening to prevent Transfusion Transmitted Infection(TTI).
3. **Storage** and release (**Quality**) Protects donors, patients, and blood bank staff from adverse effects of exposure to human blood.

Impact Recruitment, Education and Promotion

- Goal is to provide a 100% Voluntary donation
- Before epidemic- Tele recruitment, billboards, posters, radio/TV appeals and social media. Sensitization government/non-government, health fairs.
- COVID-19. Focus Tele recruitment, radio/TV, social media, “community sensitization” (villages house to house)
- 10 community sensitization in 2019. In 2020, done 67.
- Improvement of sensitization at the community level (Health Centers).
- In 2019 NBTS spent US \$65 on Radio/TV compare to US \$1600 in 2020.

Monthly Blood Collection 2019-2020. Guyana



Monthly Blood Units 2019-2020. Guyana

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Total
2019	760	1331	582	1060	896	685	772	723	616	725	1256	10004
2020	1010	1019	391	369	517	641	488	425	641	810		7961

- In 2019 collected 4803 units by internal blood collection
- 5201 external blood collection (via “blood drive”)
- In 2020 collected 4003 units by internal blood collection
- But only 2300 external blood collection.
- This was result of tele recruitment. Donors feeling secure donating “in house” rather than on a blood drive.
- Emphasis also placed in blood collection out of region 4.
- 350 external blood collection 2019. In 2020 we had 165.

Impact on Blood Collection

- Sharp reduction in collection between March to August and a recovery starting in September.
- Average reduction of 35% between April to Aug.
- We estimate we will collect 850 units in December.
- Estimated 20-25% reduction in total in 2020.

Impact on screening & donor selection

- Screen all units for HIV I/II. HTLV I/II, Chagas, Hepatitis B and C, Syphilis, Malaria and filaria.
- Before, testing was done Monday to Friday. Currently screening is 7 days a week to guarantee maximum number of safe units always.
- Body temperature checks (before entering/donating.)
- Staff wear PPE's & social distancing along with staff rotation

- Potential Asymptomatic donors. Donors with close contact COVID-19 positive defer 1 month after the last of contact.
- Symptomatic cases with PCR positive defer 3 months after full recovery.
- Donors with suspected symptoms 2 weeks after donation, they should notify the blood bank.

Screening and Donor Selection

- All donors so far are healthy, without symptoms, nor with contact history.
- To date there are no reports of post-donation illness among donors.
- No staff suspected of COVID-19 symptoms while at NBTS.

Covid-19 and processing of blood

- Currently packed cells, fresh Frozen, single donor cryoprecipitate(AHF) and pool, platelets pool and single donor platelets (Apheresis).
- All units from regions are send to NBTS within 3 days. Since COVID-19, it is 24 hours to maximize utilization of all blood components.
- The NBTS increase platelets apheresis to satisfy demand of platelets. 44 platelets Apheresis in 2019 and 60 in 2020.

The impact of COVID-19 on blood distribution

- Distribution 16 health facilities (public/private).
80% of blood of supply to the main hospital (GPHC).
- In hinterland regions distribution requires water or air transportation. It was not affected in these regions.
- MOU Boat Association and NBTS and local airline services.

The impact of Covid-19 on Blood transfusion

- Postponing elective surgical procedure and restrictive transfusion strategies
- At the main referral hospital in 2019 from January to August they were a total of 4700 units were requested and 72% of those were satisfied.
- Similar time, in 2020 they were a total of 4100 request and 59% of those were satisfied

Blood transfusion

- No hospital reported stock out.
- No report that a patient died from an acute blood shortage

Caribbean Blood Authority

- Collection 2014 vs 2019.
9,859 bloods units in 2014 vs 10,008 in 2019
- Voluntary unpaid donation 2014 vs 2019
100% in 2014 vs 98% in 2019
- Efficiency of blood banks. Number of units collected and processed per year / bank. 2014 vs 2019
100% of units were processed in 2014 and 2019
- Number of patients transfused per year and ideally types of components. 2014 vs 2019

Thank you