

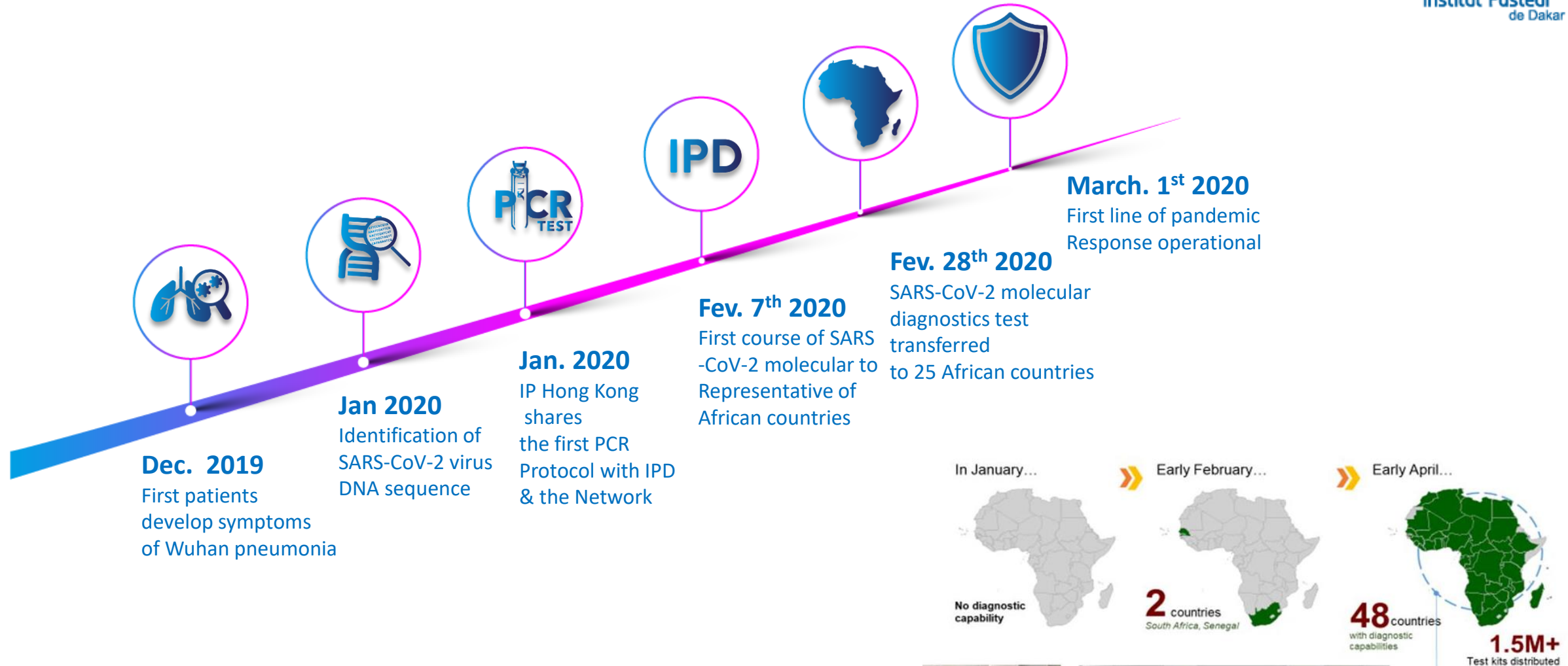


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de Dakar

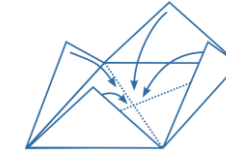
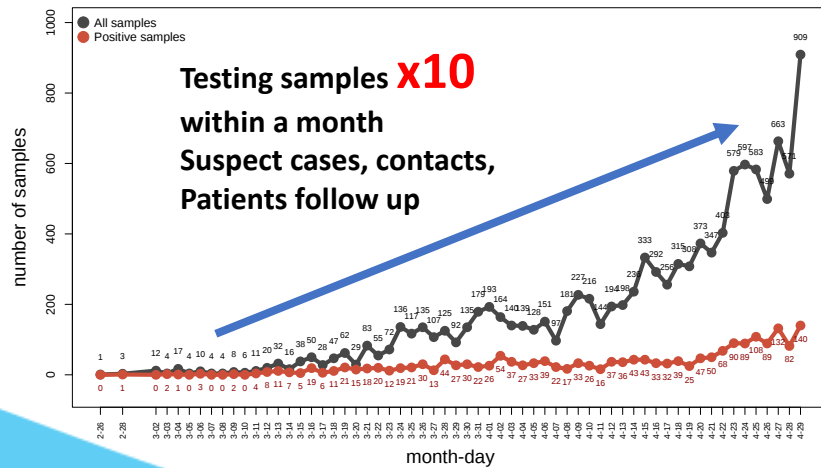
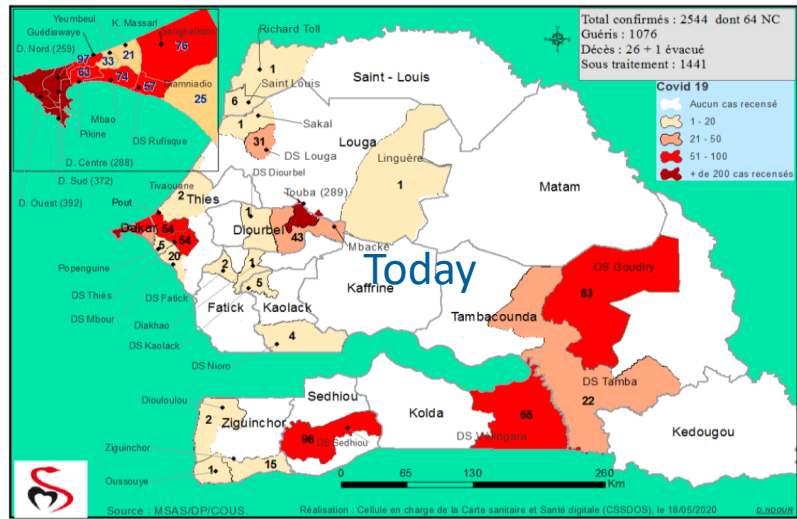
Diagnostics Approaches to COVID-19: Lessons learned & the path forward

Dr Amadou A SALL
WHO Pathogen X meeting
29-30 august 2022

How it started?



Scale up testing



Innovation



Digitalization



Manufacturing RDT



Decentralization



Digital Platform

TELECHARGER

NOUVEAU PATIENT (1) : DATE DE TEST :
 NON PATIENT (2) : AGE :
 NON PATIENT (3) : RESULTAT :
 REGION : CONTROLE :
 DISTRICT : NO LABO :

Rechercher la table

NOUVEAU PATIENT	NO LABO	DISTRICT	AGE	DATE DE TEST	CONSEIL	CT	PRELIEVATION	RESULTAT	CONTROLE	REGION
1	1	1	1	2020-05-13	1	1	1	1	1	1
2	2	2	2	2020-05-13	2	2	2	2	2	2
3	3	3	3	2020-05-13	3	3	3	3	3	3
4	4	4	4	2020-05-13	4	4	4	4	4	4
5	5	5	5	2020-05-13	5	5	5	5	5	5
6	6	6	6	2020-05-13	6	6	6	6	6	6
7	7	7	7	2020-05-13	7	7	7	7	7	7
8	8	8	8	2020-05-13	8	8	8	8	8	8
9	9	9	9	2020-05-13	9	9	9	9	9	9
10	10	10	10	2020-05-13	10	10	10	10	10	10

Appuyez sur la table

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Chief Medical Officer

Result template

Institut Pasteur de Dakar

Centre Référence pour la grippe et autres virus respiratoires
 Pôle de Virologie
 Tel : 33 89 92 25
 Tel : 89 92 05 6 225
 Fax : 33 89 92 10

RECHERCHE VIRUS RESPIRATOIRES

Demandeur : Ministère de la Santé et de l'Action Sociale du Sénégal
 Prénom et Nom :
 District Sanitaire :
 Age : 42 ans
 Numéro d'identifiant : COVID19_IPD_29766
 Date de réception : 2020-05-13
 Etat de l'échantillon : Bon Etat
 Examens effectués : 2020-05-13
 Méthodes de diagnostic : qRT-PCR
 Cible : Recherche du génome viral spécifique au COVID-19
 Resultat de diagnostic : qRT-PCR : NEGATIF

Conclusion : DIAGNOSTIC DU NOUVEAU CORONAVIRUS (COVID 19) : NEGATIF

Dr. Ndiaye
 Directeur du Centre de Référence pour la Grippe et les Virus Respiratoires

QR Code

Laboratoire International Agréé par l'OMS pour le diagnostic du COVID-19



TELECHARGER

NO ID : NO EPID :
 NON PATIENT (1) : DATE DE TEST :
 NON PATIENT (2) : AGE :
 NON PATIENT (3) : RESULTAT :
 CONTROLE : DISTRICT :

Rechercher la table

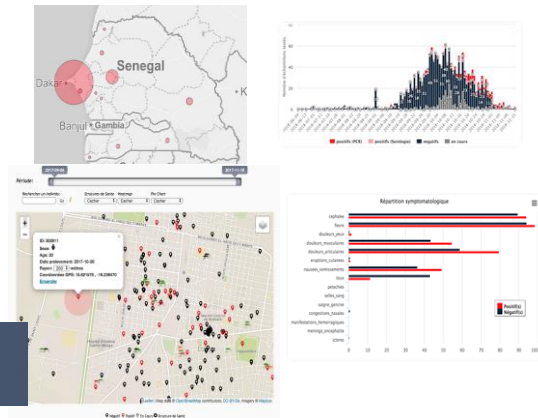
NOUVEAU PATIENT	NO LABO	DISTRICT	AGE	DATE DE TEST	CONSEIL	CT	PRELIEVATION	RESULTAT	VALIDATION	CONTROLE
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2	2	2	2	2020-05-09	2	2	2	2	2	2
3	3	3	3	2020-05-09	3	3	3	3	3	3
4	4	4	4	2020-05-09	4	4	4	4	4	4
5	5	5	5	2020-05-09	5	5	5	5	5	5
6	6	6	6	2020-05-09	6	6	6	6	6	6
7	7	7	7	2020-05-09	7	7	7	7	7	7
8	8	8	8	2020-05-09	8	8	8	8	8	8
9	9	9	9	2020-05-09	9	9	9	9	9	9
10	10	10	10	2020-05-09	10	10	10	10	10	10

Appuyez sur la table

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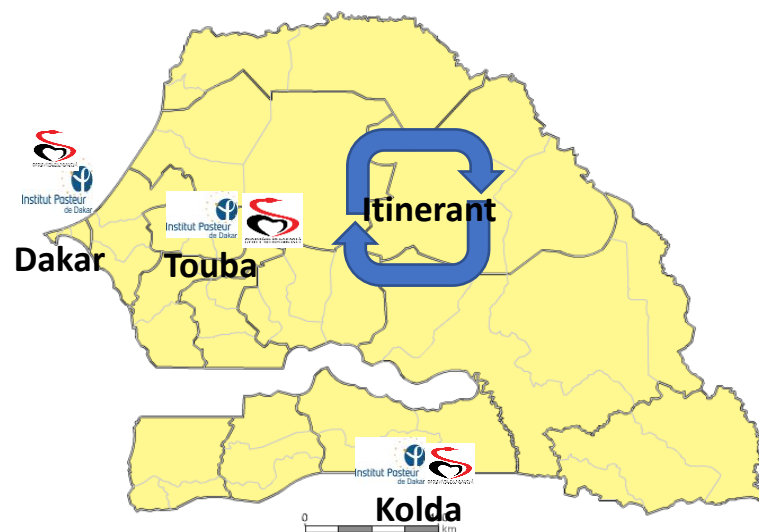
Laboratory Module

Outbreak Dashboard





Decentralization & surge capacity



- Central laboratory at the capital
- Peripheral laboratories
- Itinerant mobile laboratory as surge capacity
- Training & transfer to local Laboratories



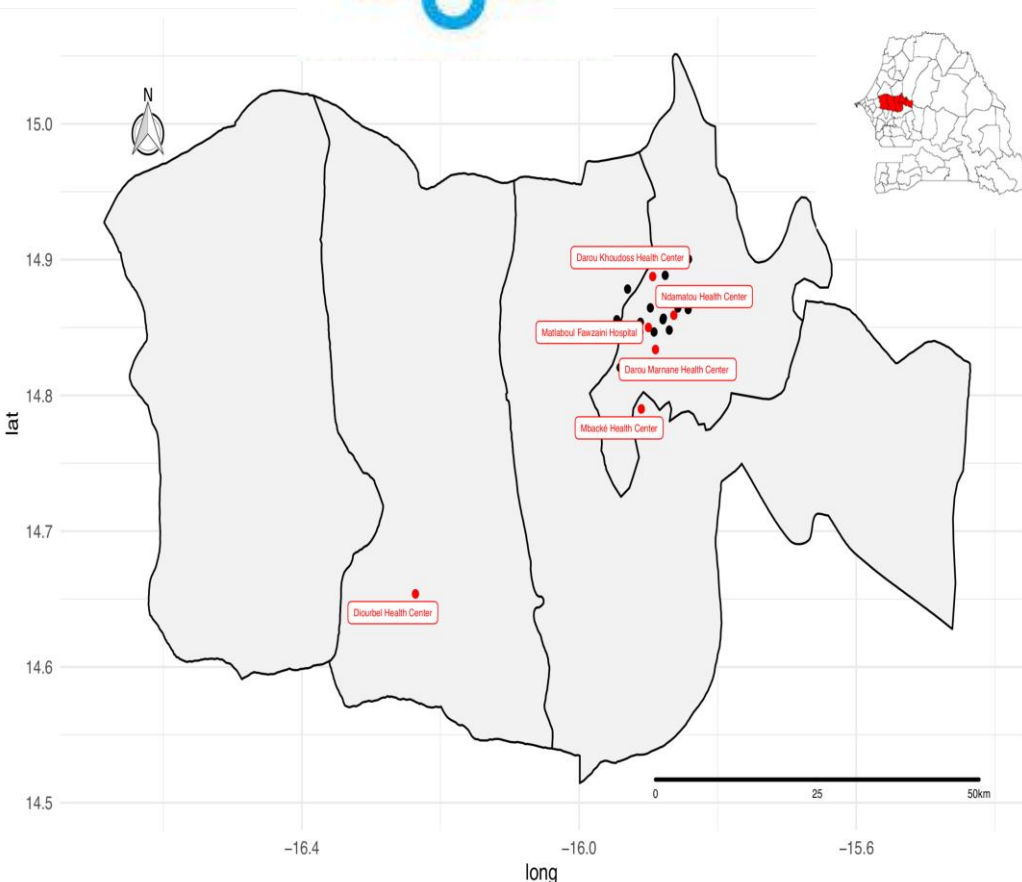
Mobility

Testing

Connectivity



Decentralization & surge capacity



Mass Gathering : The Grand Magal of Touba is the largest Muslim religious pilgrimage in West Africa (millions of people from all the world)

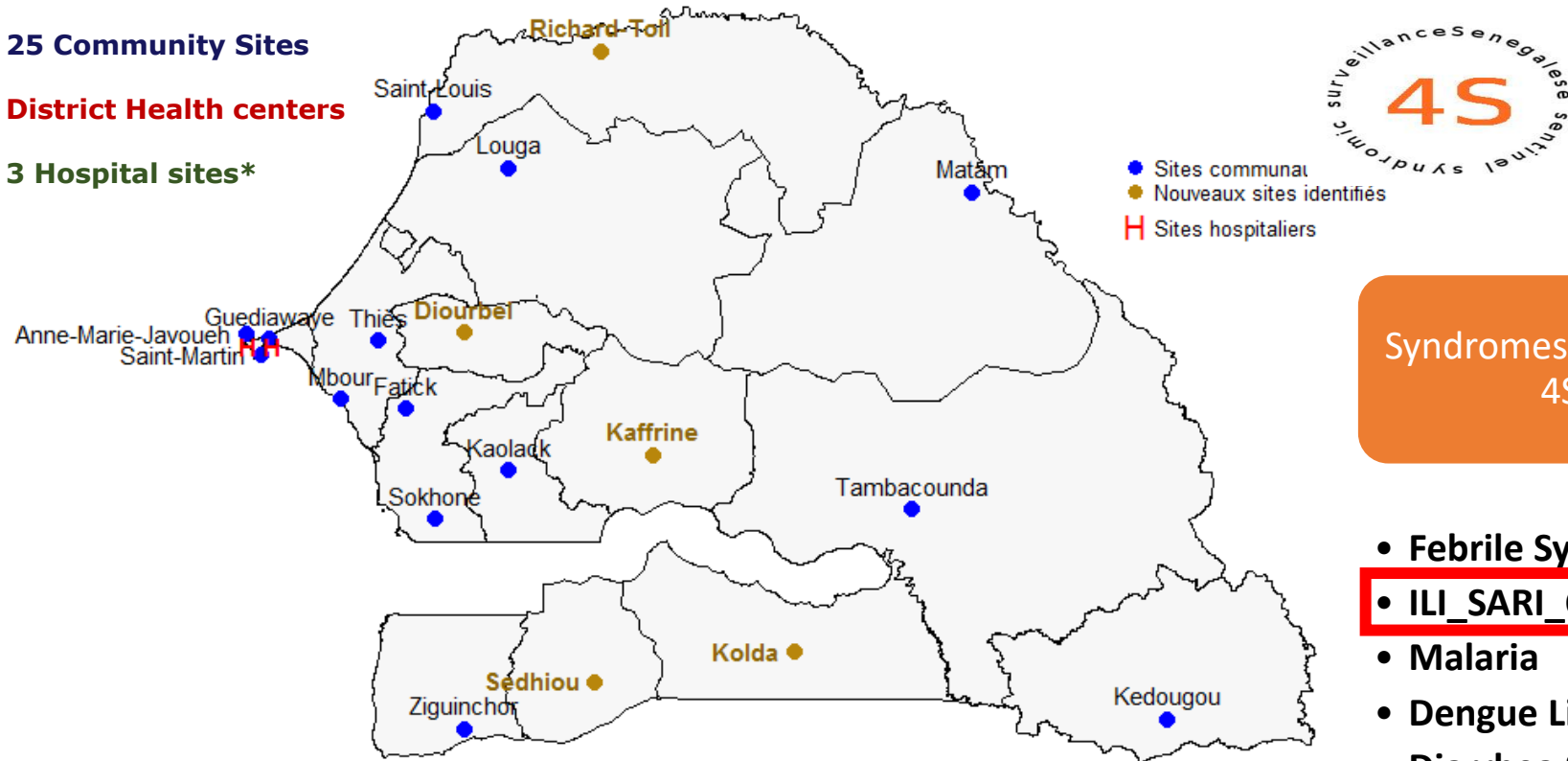


SAYTU: The first COVID-19 test produced in Senegal



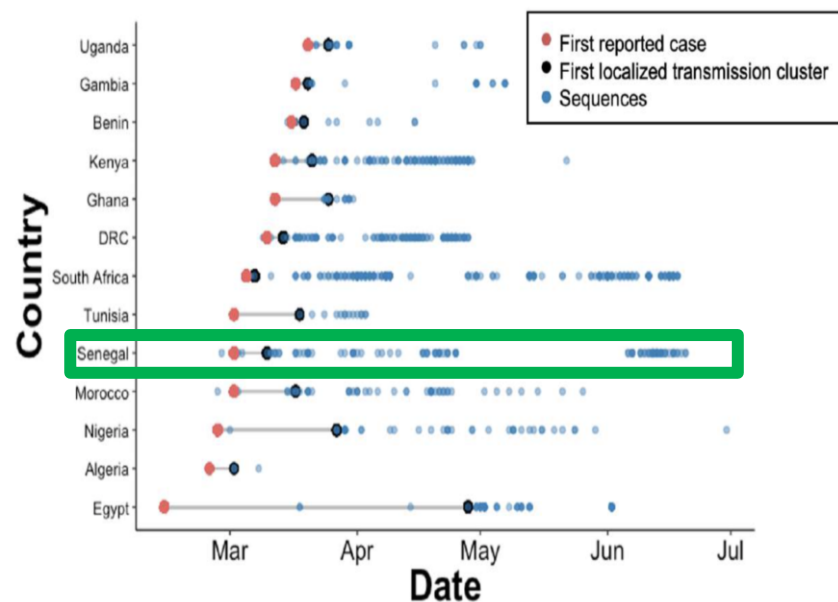
Syndromic Sentinel Surveillance in Senegal (4S network)

- 25 Community Sites
- District Health centers
- 3 Hospital sites*

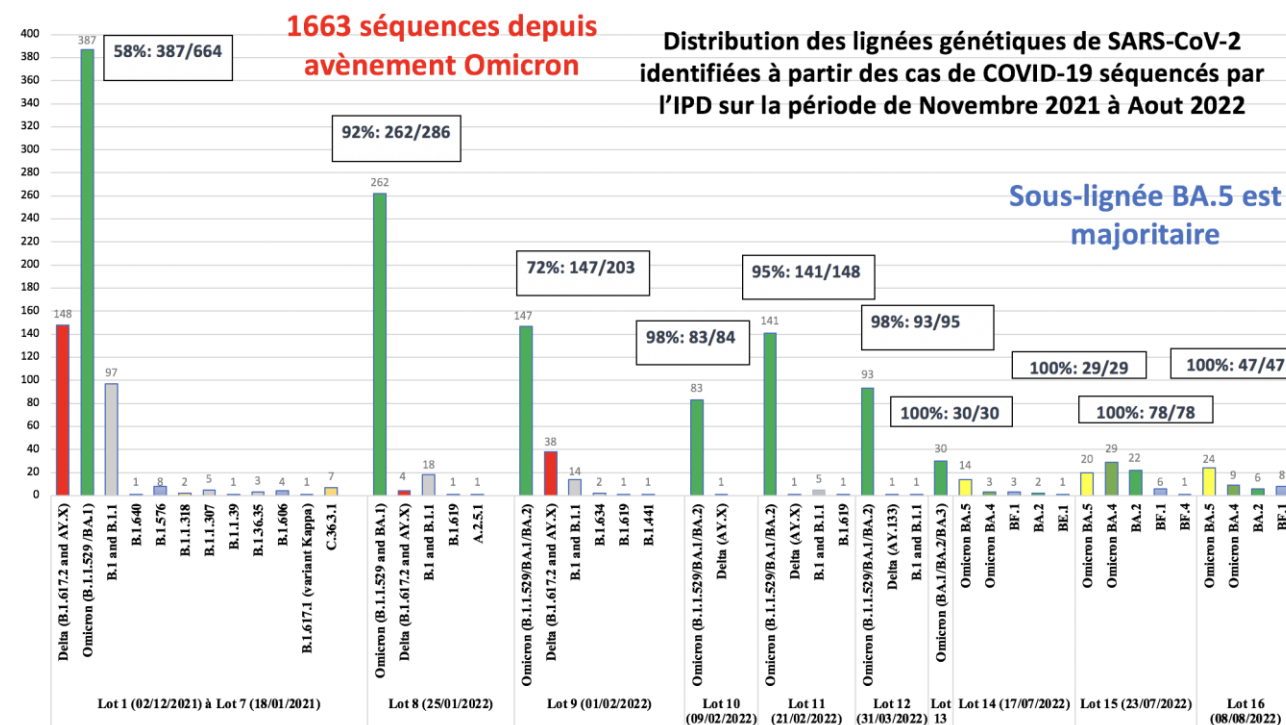


SARI sites*: Infectious diseases clinics, Pediatrics, ICU...

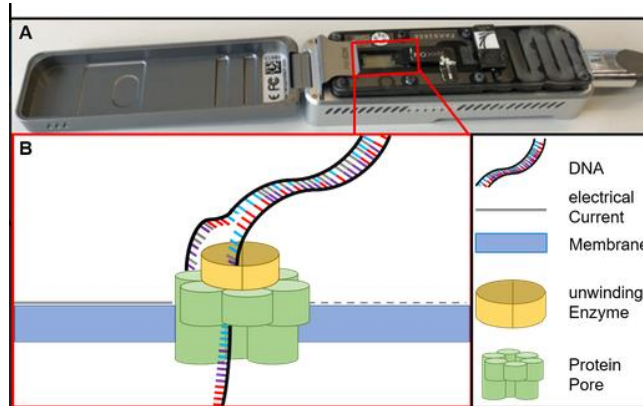
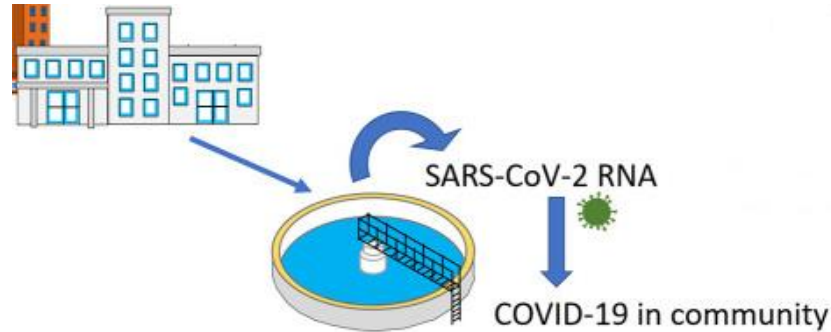
Genomics Surveillance



Tegally H and colleagues, University
of KwaZulu Natal

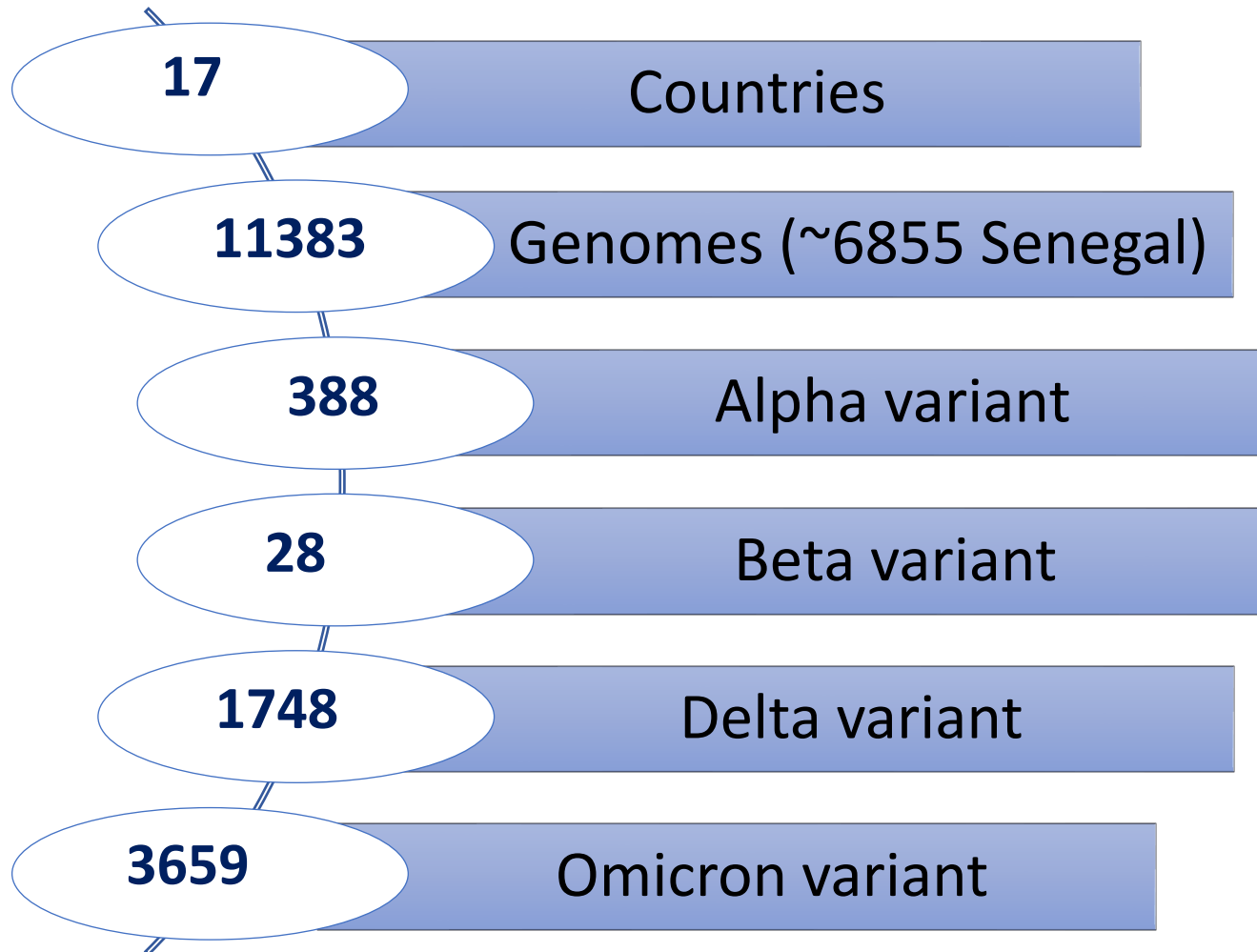


Environmental surveillance of SARS-COV-2 from Sewage



Assess the dynamic of virus circulation in the community
Monitor the emergence or introduction of new variants to Senegal for early control measures

Regional genomic surveillance



As of 20 August 2022

More than 10.000 genome sequences generated

Regional genomic surveillance



Transmissibility



Vaccines



Risk of reinfection

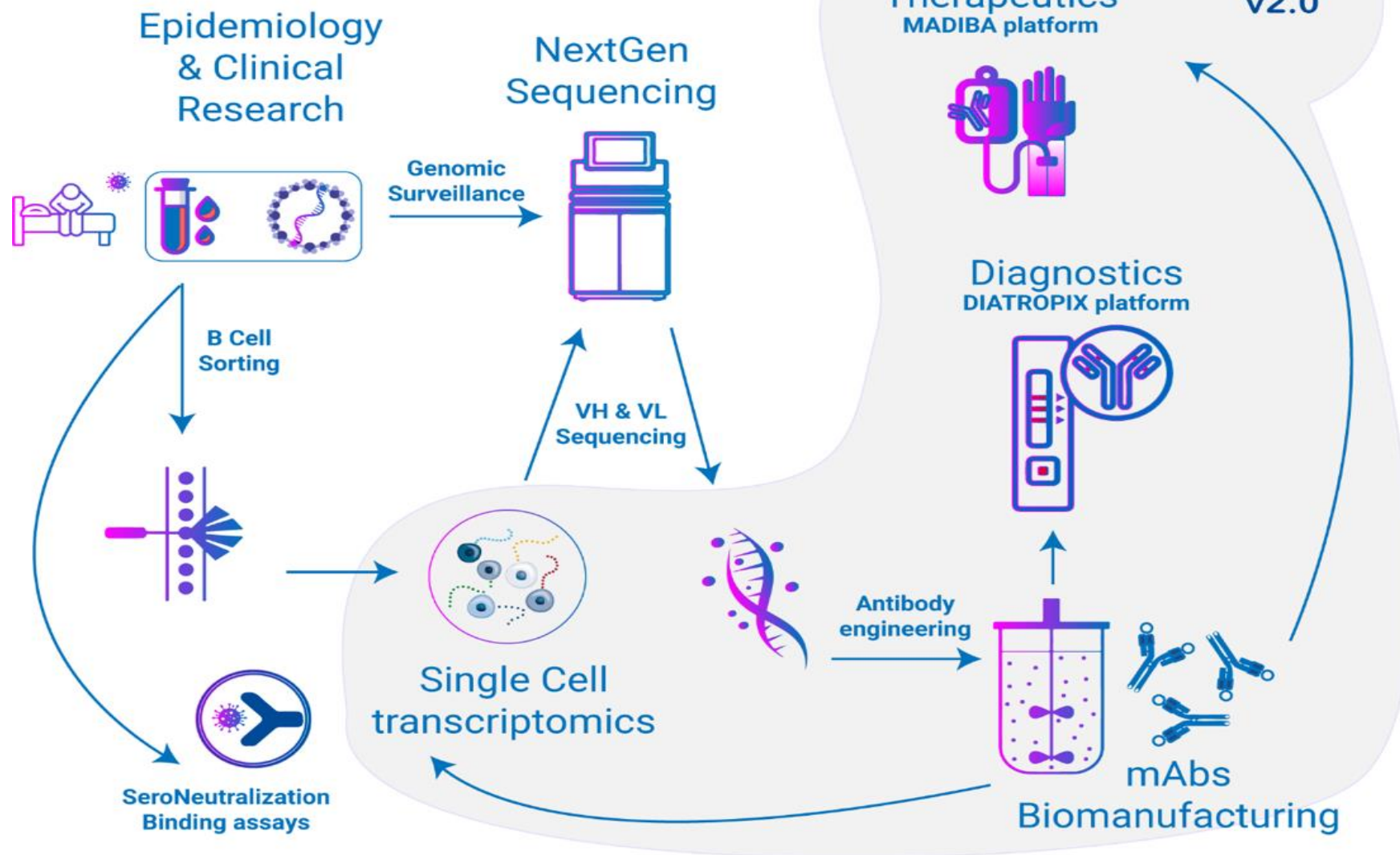


Disease severity



Diagnostics

Beyond SARS-CoV-2



Take home messages

- **Diagnostics and detection is foundational and starting point to any research & development and innovation for any new diseases**
- **Sequencing technology is key to identification, monitoring, detection of new pathogens and variants and may become more and more dominant for manufacturing of medical countermeasures**
- **Building the ecosystem that connecting surveillance, case management and R&D would make diagnostics impactful**
- **Local diagnostic capacity is key to the first detector first responder approach**

Our trusted R&D funding partners





Dolley Jën Ndox!

Senegalese proverb