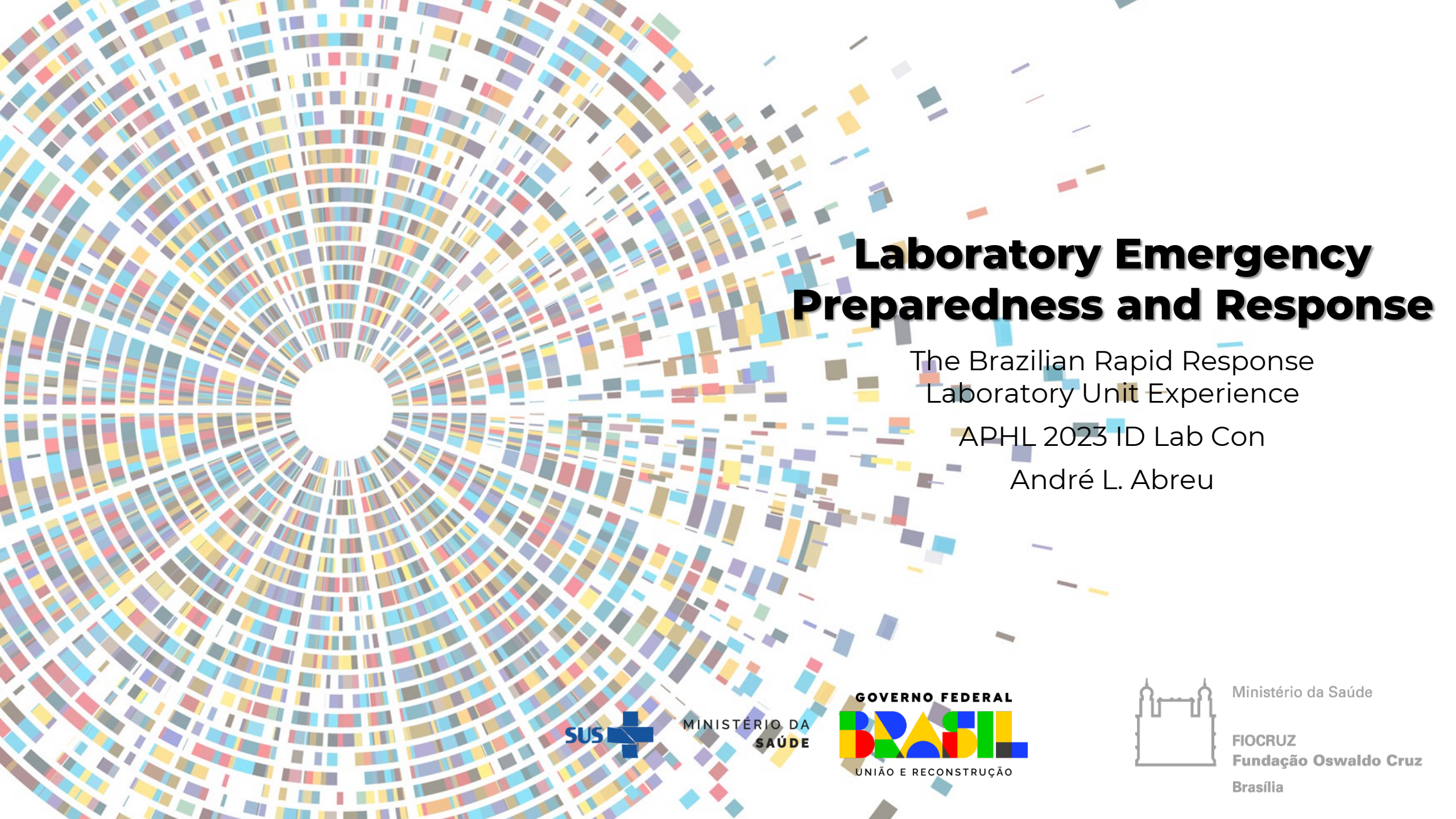




Laboratory Emergency Preparedness and Response

The Brazilian Rapid Response
Laboratory Unit Experience

APHL 2023 ID Lab Con

André L. Abreu



MINISTÉRIO DA
SAÚDE



Ministério da Saúde

FIOCRUZ
Fundação Oswaldo Cruz
Brasília

- BACKGROUND
- THE COVID-19 LABORATORY RESPONSE
- RAPID RESPONSE LABORATORY UNIT STRATEGY
- CAPACITY BUILDING
- PARTNERSHIP and ACKNOWLEDGEMENTS

■ BACKGROUND

■ NATIONAL PUBLIC HEALTH LABORATORIES NETWORK

- National Reference Laboratories, Regional Reference Laboratories and State Reference Laboratories(LACEN)
- Unified Health System – SUS Estructure – Part of the Health Surveillance System
MoH - General Coordination of Public Health Laboratories
- Lab Surveillance Response
 - Epidemiological and sanitary surveillance actions;
 - Technology development, capture, incorporation and transfer to state´s network;
 - Water, food, air, pharmaceutical and health product analyses;
 - Health units guidance;
 - Research on the etiological agents of outbreaks, endemics and epidemics.
 - Collective response tests/exames.

THE COVID-19 LABORATORY RESPONSE

Federal and state funding for new equipment increasing the molecular diagnostic capacity

Establishment of diagnostic support units at Fiocruz Rio de Janeiro, Ceará and Paraná units with a throughput of 30,000 molecular tests per day.

Human, Animal, Environment and University Labs

Increased capacity for genomic sequencing with the establishment of the Genomic Sequencing Network at Fiocruz and at the 27 Central Labs

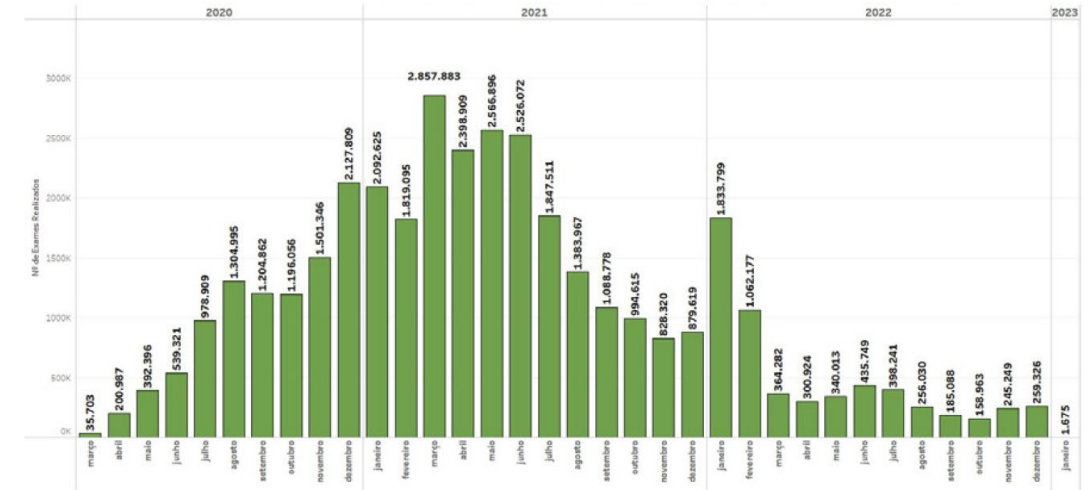


FIGURA 10 Número de exames moleculares realizados para covid-19/vírus respiratórios, segundo o GAL, por mês, 2020/2021/2022, Brasil

Fonte: GAL, 2022.

RAPID RESPONSE LABORATORY UNIT STRATEGY

Strengthening Laboratory Surveillance

Improving prevention, identification, early warning and laboratory response mechanisms to Public Health events of regional, national and international concern.

Aims to support the MoH and the PH Laboratories through technical assistance to improve:

- The role of Lab Surveillance in the Emergency Response
- One Health approach
- The coordinated preparedness and response
- Data analysis and Information sharing with the Surveillance System
- Standardize testing and procedures
- Mapping the laboratory capacity
- Monitoring and Evaluation
- Quality and Biosafety Practices
- Strengthen the Reference workflow
- Strengthen Governance mechanisms

RAPID RESPONSE LABORATORY UNIT STRATEGY

The Strategy Design Phase 1

- An approach focused on the qualification of the workforce and the production of timely information for decision making
 - Establishing an internal incident monitoring committee
 - Responsible for the Institutional Contingency Plan and Coordinated Response
 - Risk assessment and situational analysis
 - Strengthen Leadership
 - Operational capacity mapping and elaboration of response scenarios
 - Improving the workflow of laboratory data collection, processing, and analysis
 - Improving management, quality, and biosecurity processes
 - Performance indicators
 - Pro-activity over reactivity
 - Fast and accurate Lab response

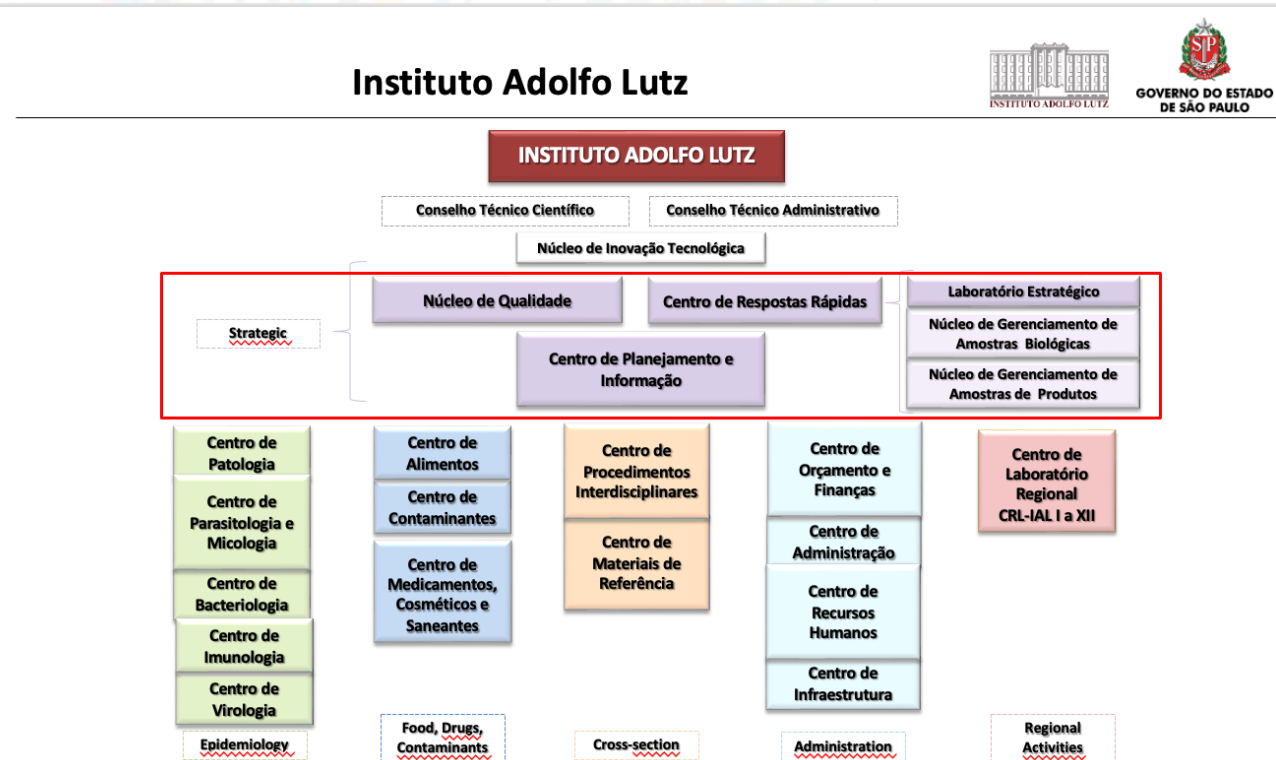
RAPID RESPONSE LABORATORY UNIT STRATEGY

- The Strategy Design Phase 2
- The Strategic Laboratory – Transversal Structure
 - Implementation of methods
 - Reagents and equipments testing
 - Improvement of techniques
 - Scalability on high demands
 - Real time data sharing
 - High Complexity methods
 - Performance indicators
 - Event investigation
 - Exit plan

RAPID RESPONSE LABORATORY UNIT STRATEGY

The Strategy Design Phase 2

The Strategic Laboratory – Transversal Structure



CAPACITY BUILDING

- Quality Management System
- Biosafety and Biosecurity
- Diagnostic Network Optimization
- Data Analysis
- Epidemiology
- Global Laboratory Leadership Program
- Strengthening governance mechanisms

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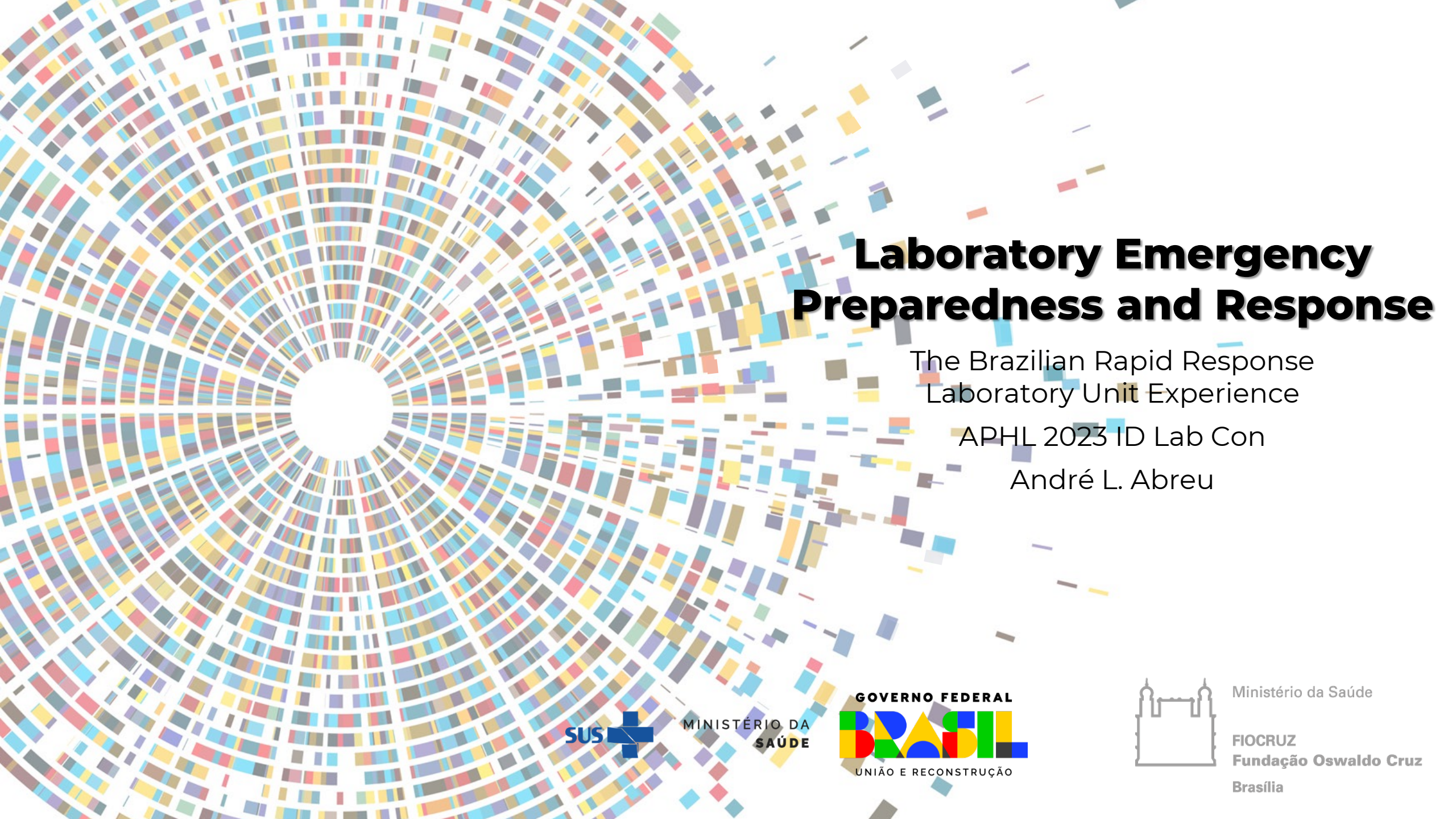
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