



# Infection Prevention and Control (IPAC) in Public Sector Hospitals in Nigeria: An Integrated Approach

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**ADVANCING  
EXCELLENCE**



# Presentation outline

- Background
- Methodology
- Baseline assessment
- Components of the integrated approach to infection control
- Recommendations
- Conclusion

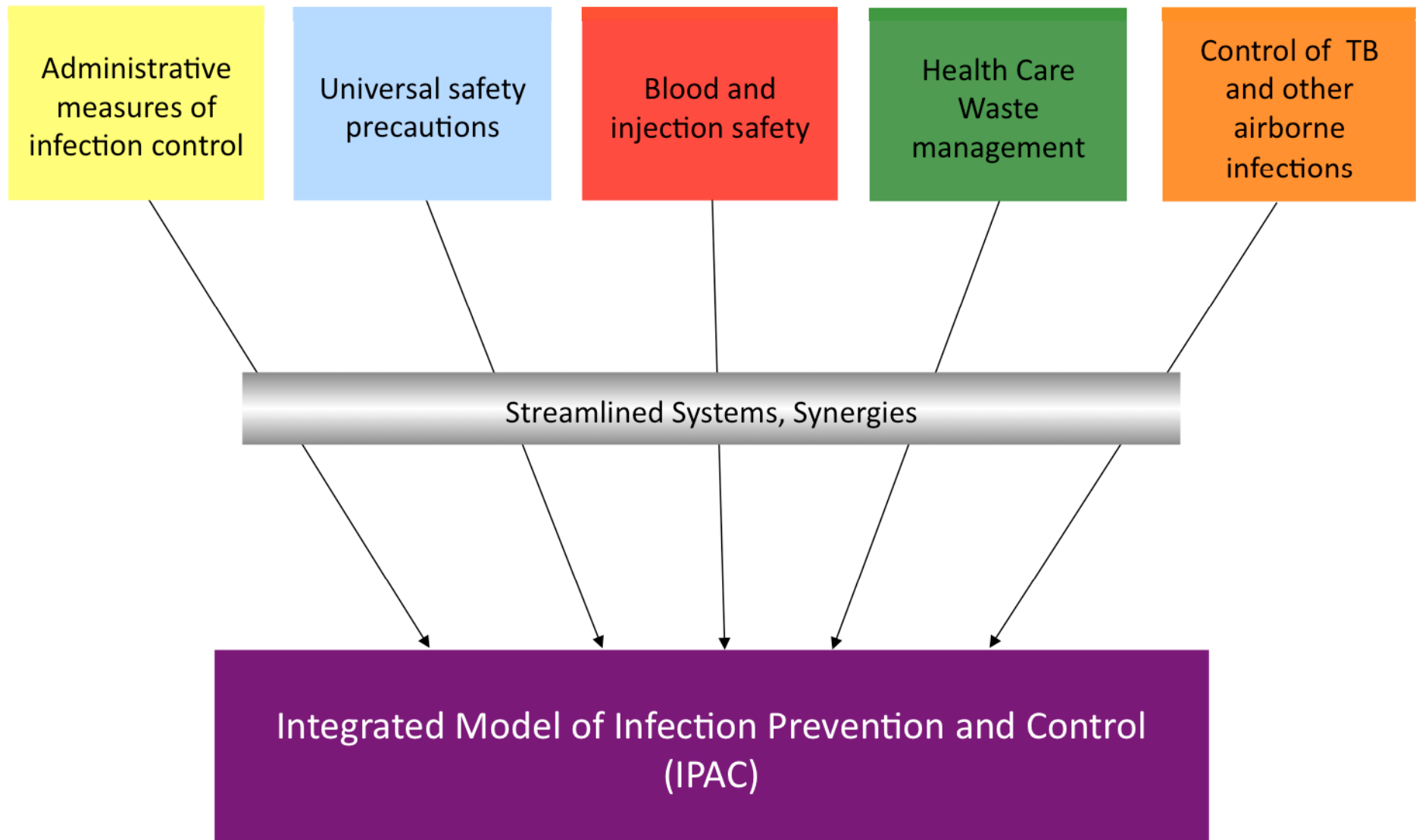
# Background Infection Control in Nigeria

## Current approach

- Individual disease programs handle vertical infection control activities
- Multitude of vertical guidelines and policies

## The concept: IPAC

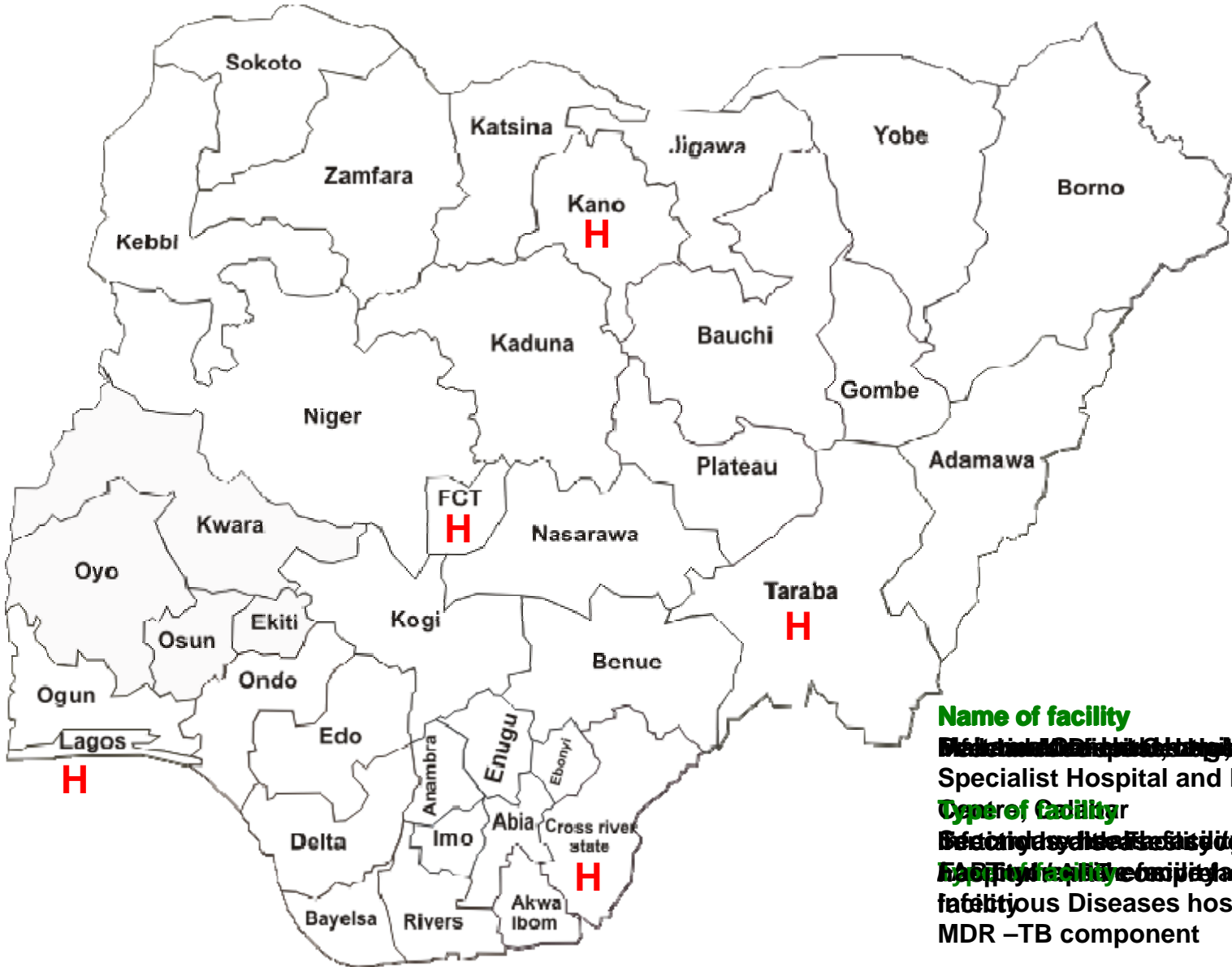
- Integrated *Infection Prevention and Control* (IPAC) on policy, management and services level
- Improved efficiency and effectiveness



# Methodology

- Concept development
- Advocacy with stakeholders
- Baseline assessment of 5 public health facilities
- Development of implementation strategies and work plan
- Implementation of strategies
- Supportive supervision and monitoring of implementation

## IPAC pilot sites



### Name of facility

**Medical Director, Cardiology, Brigham Young University  
Specialist Hospital and Research**

### Type of facility

## Section 1: Systemic Health & RRT Hospital

## Types of facility comprehensive

## Infertile Diseases hospital with MDR –TB component

# Findings from the baseline assessment of the five facilities

Standards and criteria	Frequency	Percentage
Availability of infection control manual	0	0
Existence of budget line for infection control	0	0
Evidence of previous infection control assessment	0	0
Formal staff health program	1	20
Written guidelines for hand hygiene	0	0
Isolation of patients with contagious infections available	0	0
Use of appropriate PPE devices by housekeepers	1	20
National blood policy available	2	40
Policy for hepatitis B vaccine	1	20
Written procedures for post exposure management of staff and others exposed	1	20

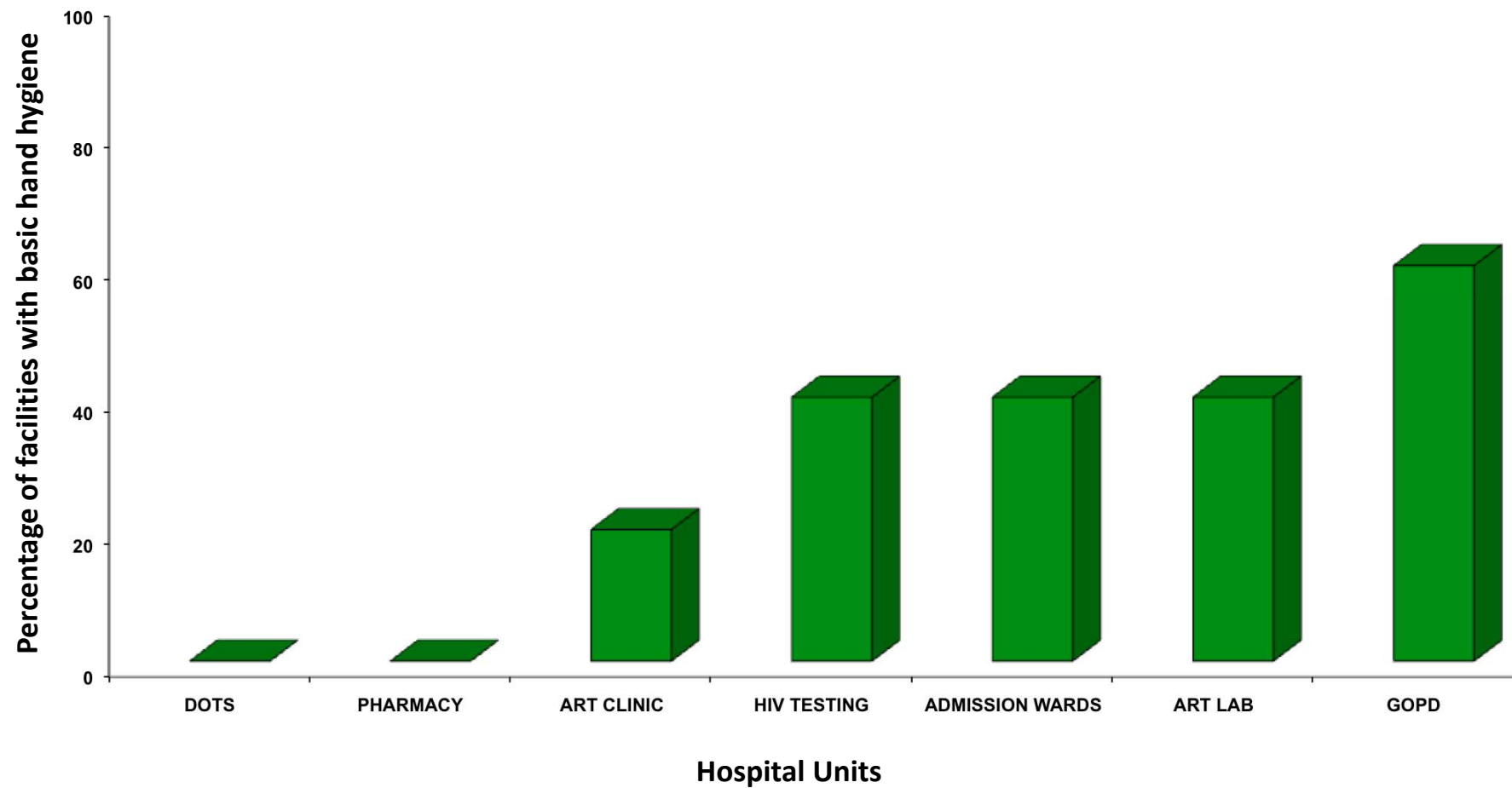


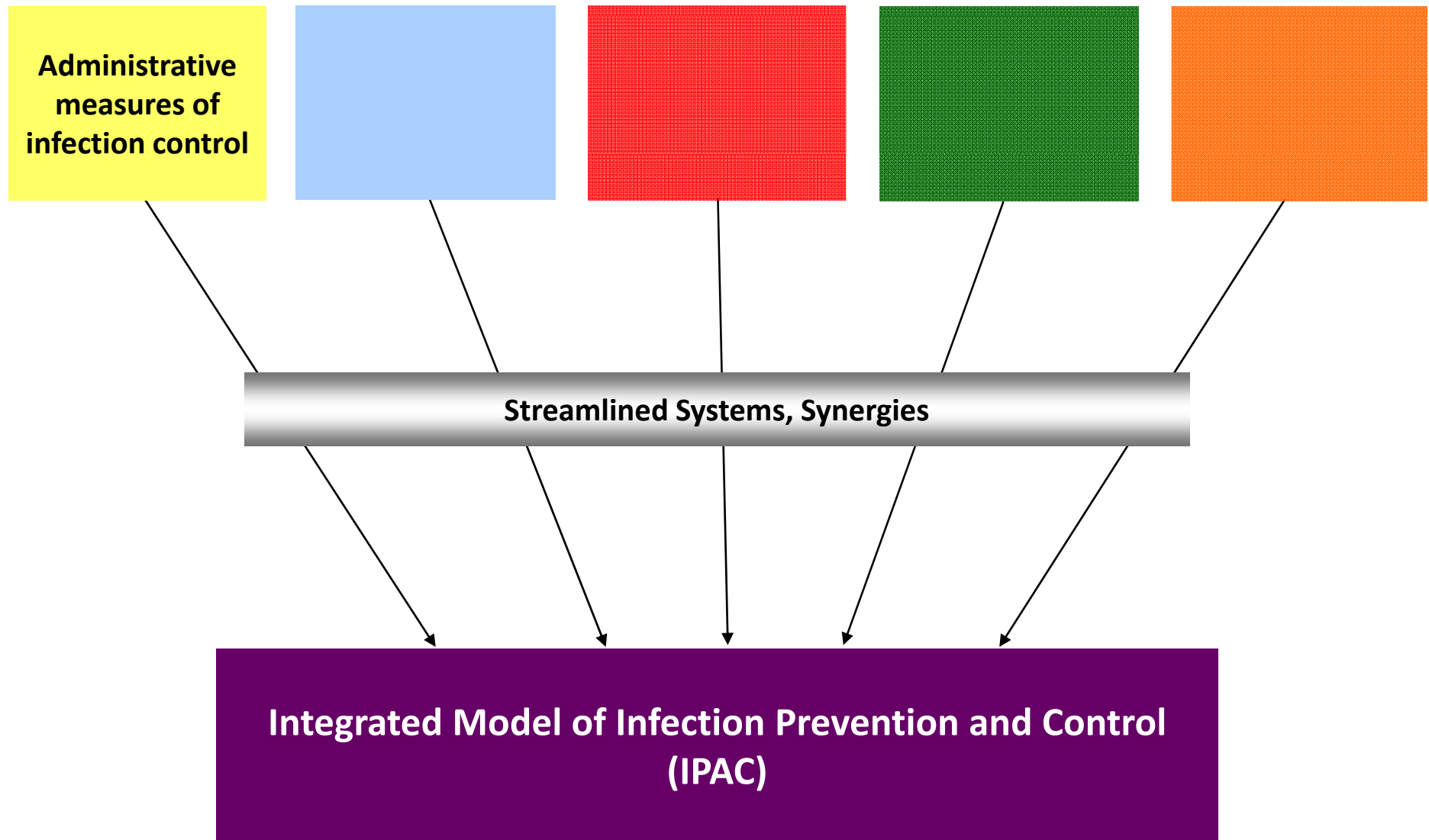
# Findings from the baseline assessment of the five facilities

Standards and criteria	Frequency	Percentage
Written policy for handling and disposal of infectious waste	1	20
Presence of a named waste management officer	4	80
Waste disposal by pit burning	3	60
Availability of incinerator	1	20
Patients screened for prolonged duration of cough (> 2 weeks)	1	20
Isolation precautions for TB patients	4	80
Isolation precautions for measles patients	3	60
Isolation precautions for patients with influenza	1	20



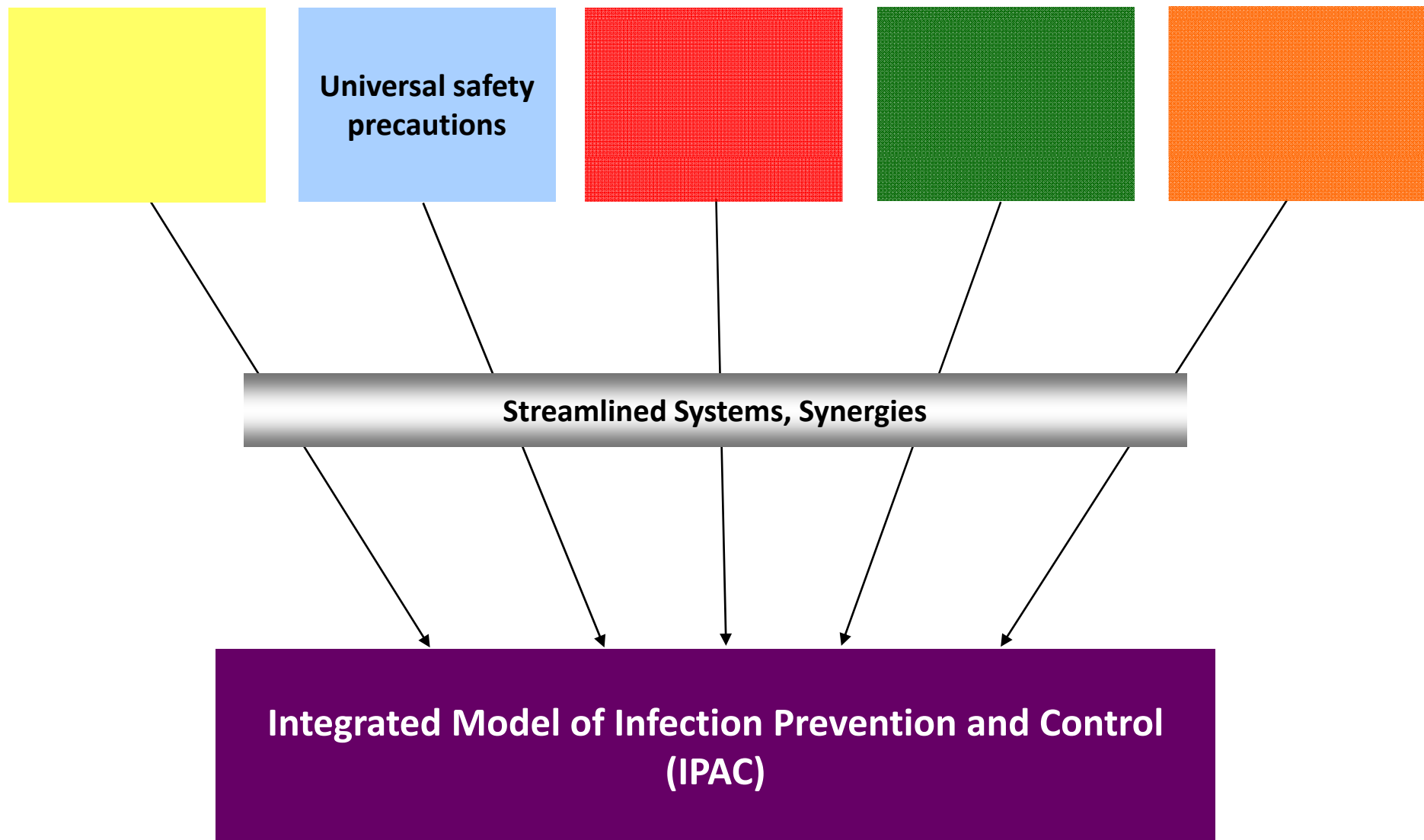
# Hand hygiene at different service points





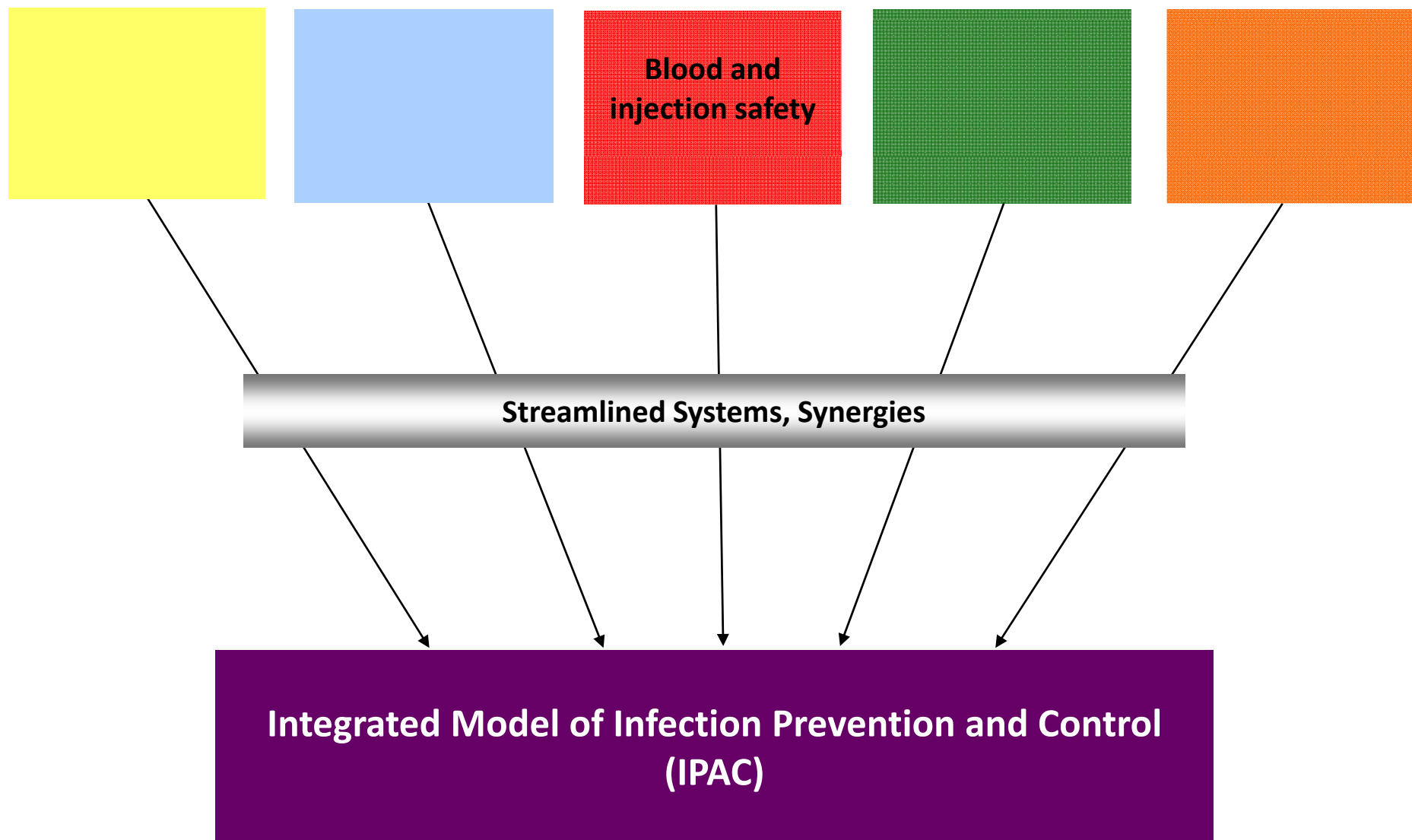
# IPAC: Administrative measures

Measures	Status	Challenges
Appropriate infrastructures		Funding, Lack of political will
Policies and guidelines	✓	Timelines
Governance and management structures	✓	Management commitment, Resistance to change
Procurement and supplies		Funding, Sustainability
Staff capacity building	✓	Transfer of trained staff
Supportive supervision and monitoring	✓	Lack of commitment, Funding
Behavior change	✓	Staff attitudes and resistance to change



# IPAC: Universal Safety Precautions

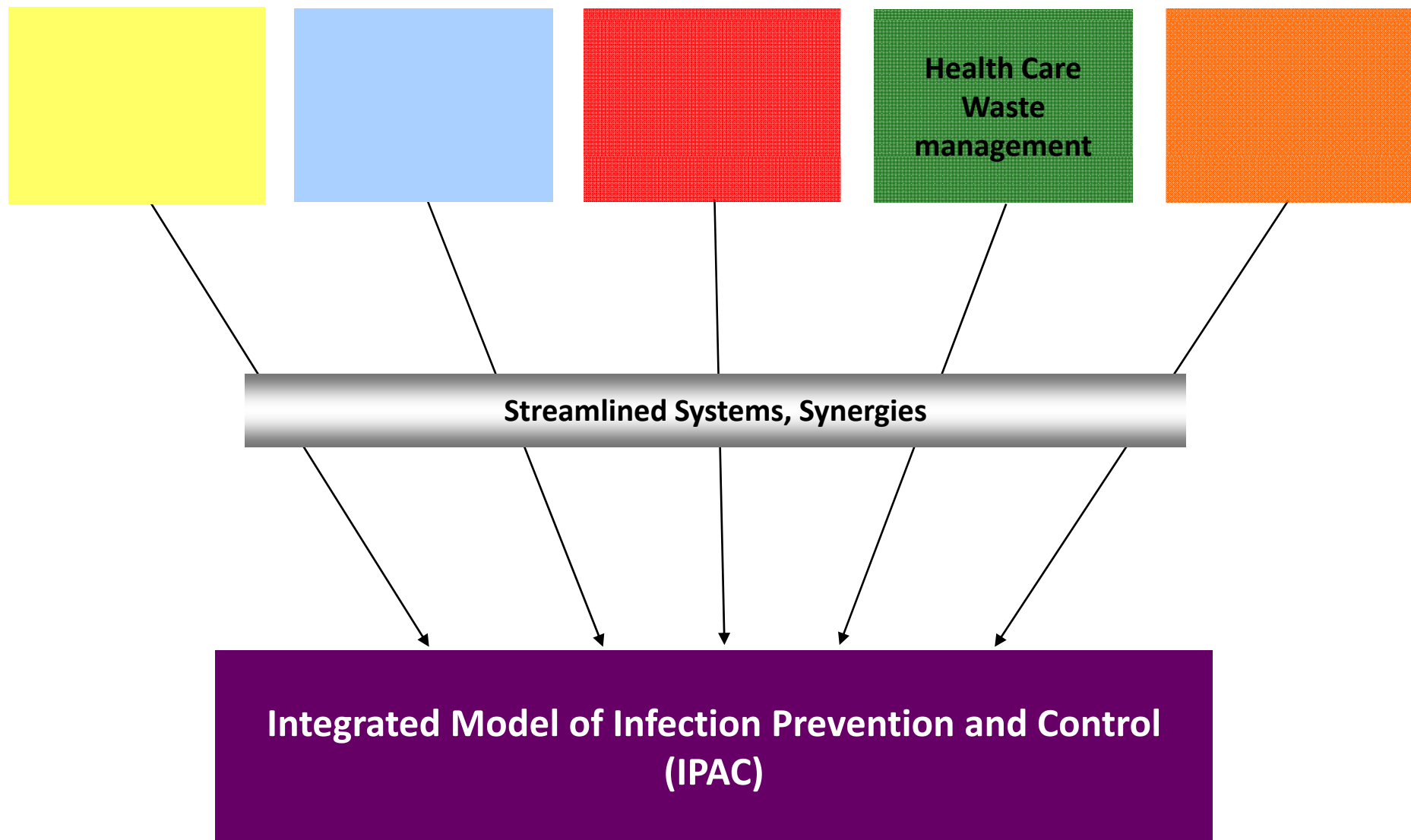
Measures	Status	Challenges
Hand hygiene	✓	Infrastructural challenges, Procurement issues
Isolation precautions	✓	Infrastructural challenges, Policy issues
Use of Personal Protective Equipment (PPE)	✓	Funding, Resistance to change
Handling of contaminated materials	✓	Resistance to change



# IPAC: Blood and Injection Safety

Measures	Status	Challenges
Collaboration with NBTS	✓	Resistance to change, Funding, Logistic issues
Screening of all blood units for HIV, Hepatitis B, Hepatitis C, Syphilis	✓	Funding
Use of voluntary non-remunerated blood donors	✓	Inadequate capacity of NBTS, Requests for payments
Strategic Behavioral Communication (SBC) and advocacy	✓	Resistance to change
Procurement and supply of safe injection equipment	✓	Funding
Training and capacity building	✓	Staff attrition
Health care waste management	✓	Funding, resistance to change





# IPAC: Healthcare Waste Management

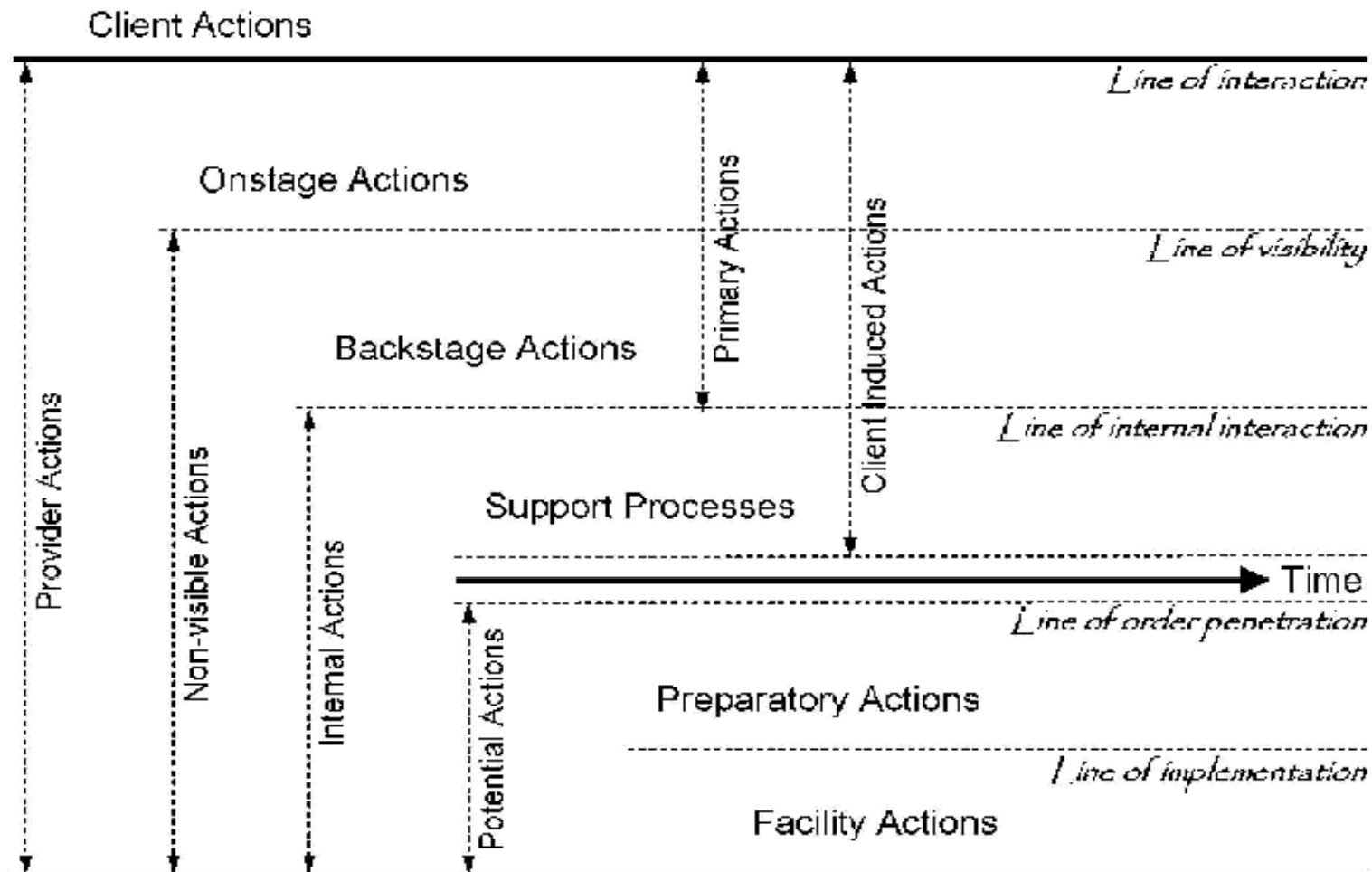
Measures	Status	Challenges
Waste minimization		Poor forecasting and procurement of supplies for services rendered, Improper packaging of medical goods
Policies and guidelines	✓	Timelines, Commitment
Management structure and staffing	✓	Inadequate staffing
Procurement and supplies	✓	Funding
Staff capacity building	✓	Staff attrition
Supportive supervision and monitoring	✓	Lack of commitment
Final treatment and disposal		Funding

# Utilization based model for healthcare waste assessment

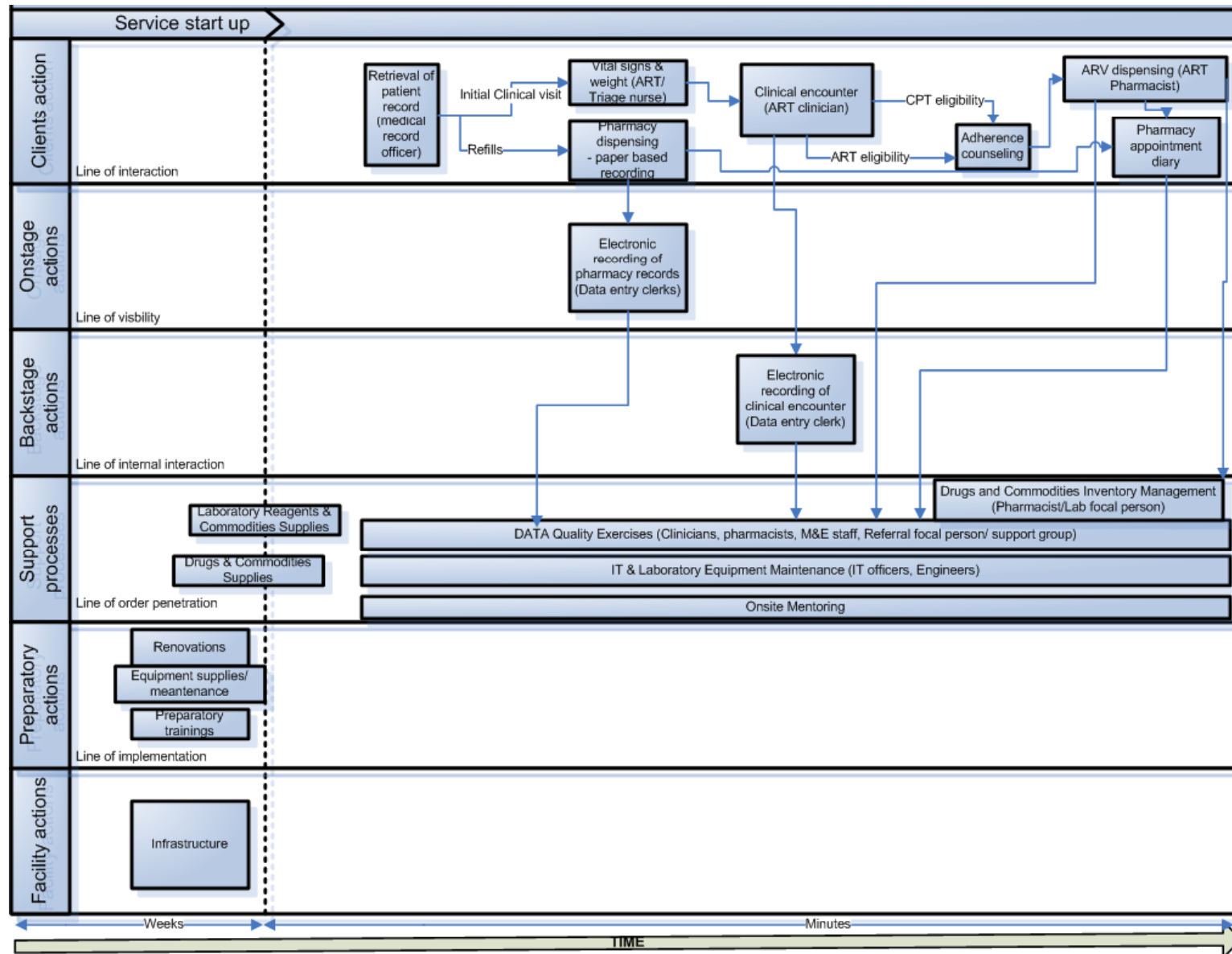
Pilot: Development of HIV/AIDS waste assessment model

- Aims at quantifying and qualifying the waste produced from HIV/AIDS service areas activities by:
  - Considering the commodities input and service processes
  - Quantifying the waste generated per patient encounter per service area
  - Measuring the actual waste generated per day per service area
- This information can be used to calculate HCW estimates linked to service utilization at all ART comprehensive facilities

# Service blue print



# ART service blue print



# District Health Information Software - Routine Data

Nigeria Federal Ministry of Health - 30 August 2007

Version 1.4.0.88

Data - Entry/Edit

Export to Data Mart

Standard Reports

Export / Import

Data Quality

Switch Data File

Maintenance

Quit



Transfer Folder



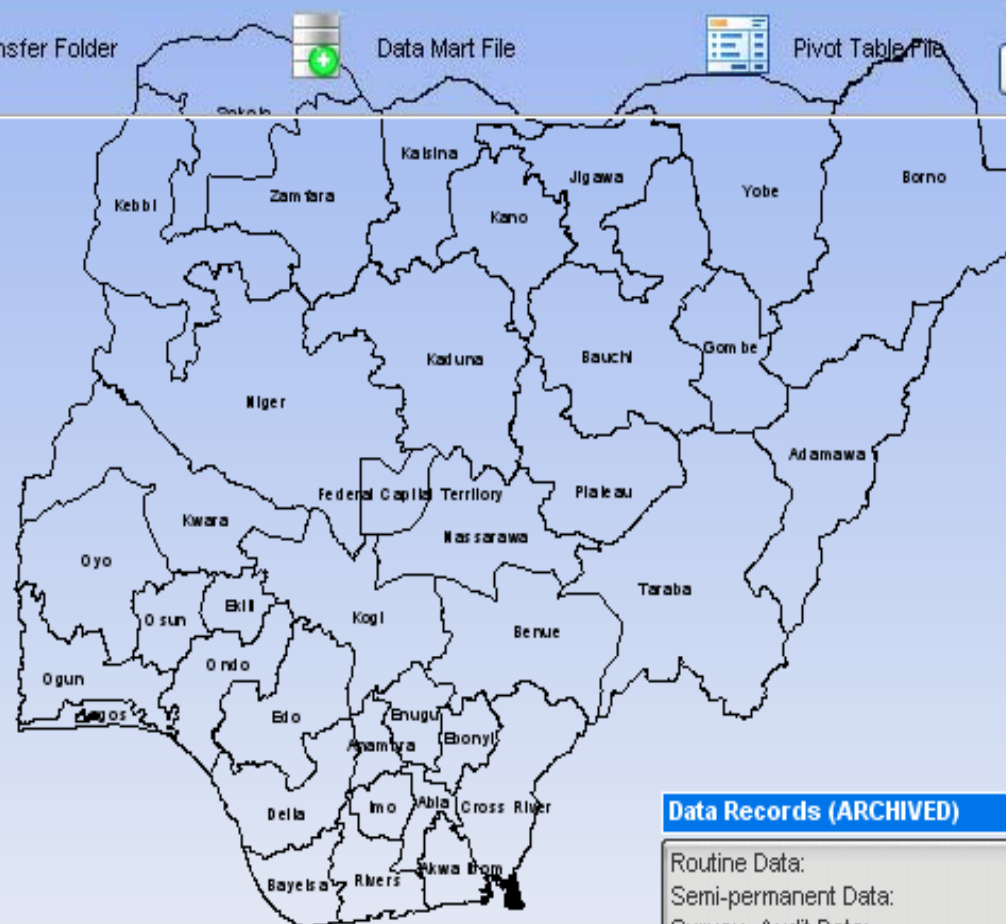
Data Mart File



Pivot Table File

[Calle Hedberg](#)

About DHIS



## Data Records (ARCHIVED)

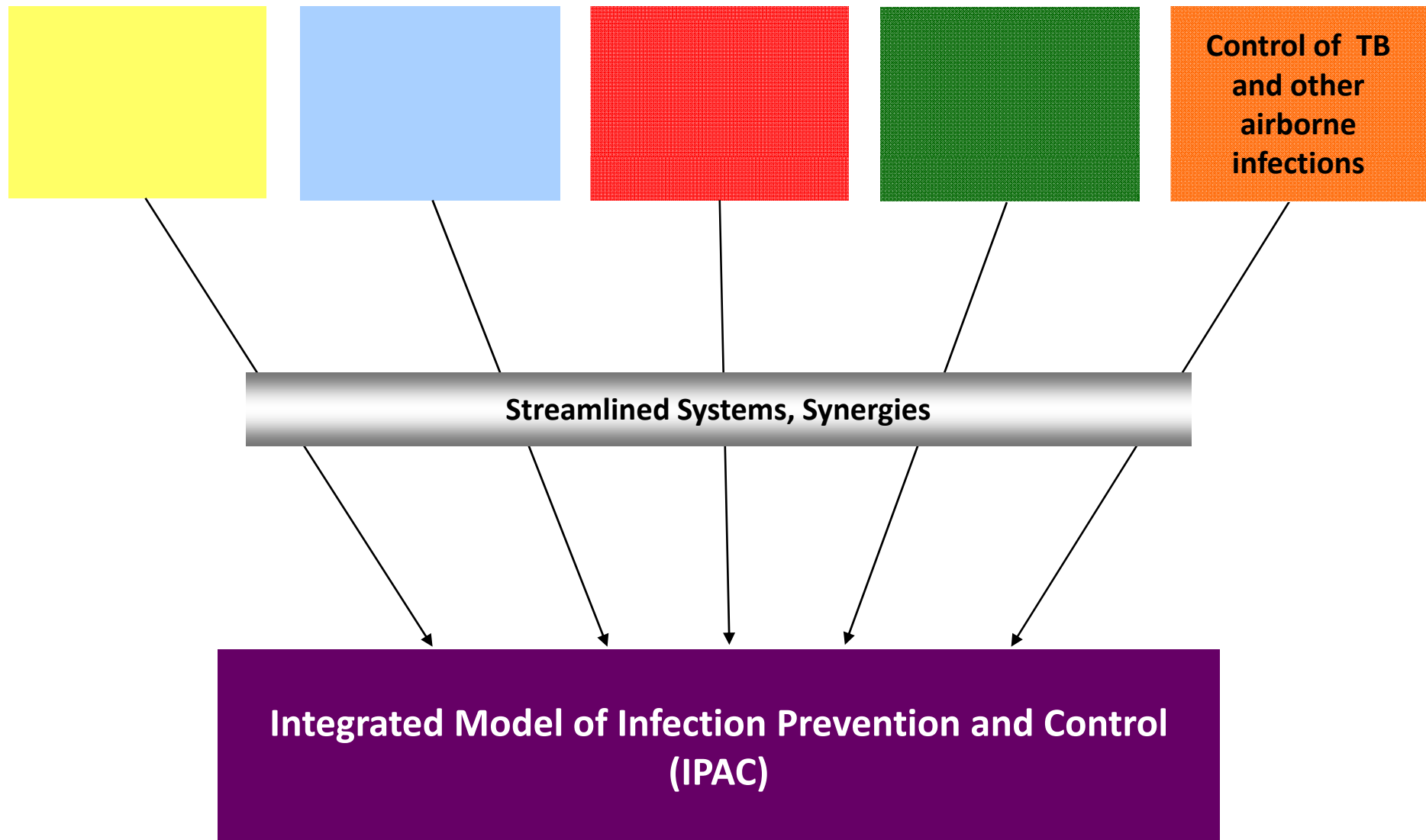
Routine Data:	0 (0)
Semi-permanent Data:	65,875 (0)
Survey_Audit Data:	0 (0)



Software from the Health Information Systems Programme (HISP) - [www.hisp.org](http://www.hisp.org)

HISP - A Research and Development Programme (South-South-North Network) comprising universities and/or Ministries of Health and/or NGOs in South Africa, Malawi, Mozambique, India, Nigeria, Norway, Tanzania, Ethiopia, Vietnam, Namibia, Botswana, Swaziland, Zambia, and other countries.





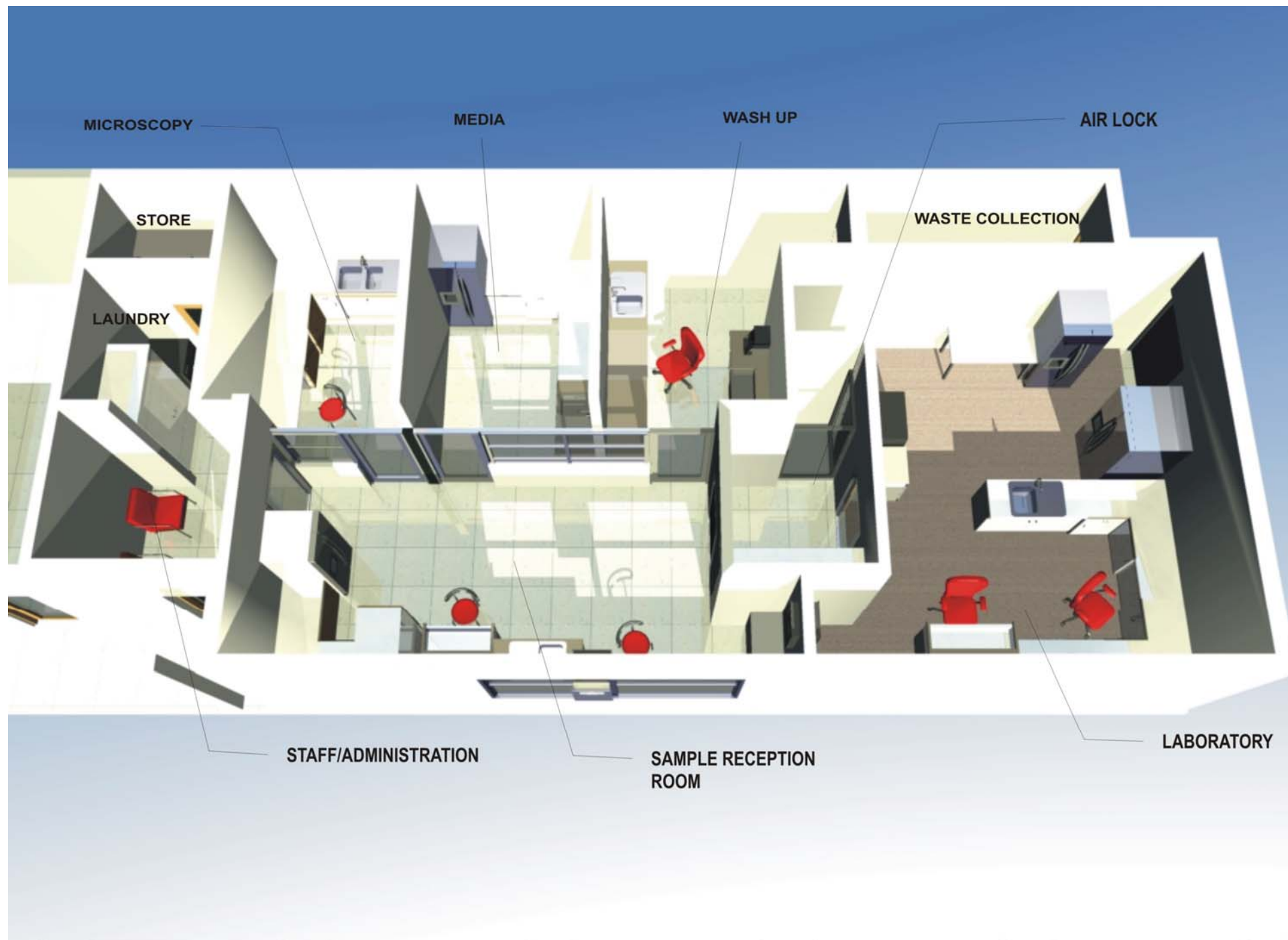


# IPAC: Control of airborne infections

Measures	Status	Challenges
Written policies and guidelines	√	Funding
Proper design and use of space	√	Infrastructural design
Procurement and supplies	√	Funding
Natural or mechanical ventilation	√	Infrastructural design
Staff capacity building	√	
Filtration	√	Funding
Use of PPE	√	Funding
Purification/disinfection	√	
Supportive supervision and monitoring	√	

# MDR-TB Lab Calabar





# MDR-TB Lab Calabar



# Assessment report of six zonal TB Reference Laboratories in Nigeria

Final draft submitted to National Tuberculosis and Leprosy Control Programme  
December, 2009



# Recommendations

Area	Recommendation
Funding	Government and donors need to allocate sufficient funds for comprehensive infection prevention and control
Policies and guidelines	Clear policy direction, widely disseminated and easy to implement
Behavioral change	Healthcare workers and hospital management need to adopt a positive change to infection control
Infrastructure	IPAC consideration in the design, construction, renovation and maintenance of health facilities and provision of basic amenities

# Recommendations

Area	Recommendation
Training and capacity building	IPAC included in new staff orientation package and other staff retraining program
Procurement and supplies	A well coordinated procurement process is needed to ensure availability of IPAC commodities
Supportive supervision	Regular monitoring and prompt corrective measures



## Conclusion

- It is the responsibility of government on federal, state and LGA level to provide effective and safe health services
- Health professionals should be strong advocates for infection prevention and control and drivers of change in their own service environment
- Improvements in infection prevention and control are urgently required

# Thank You

