KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Antimicrobial Prescribing & Surveillance of Healthcare Associated Infection in the Province of KwaZulu Natal, South Africa

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GROWING KWAZULU-NATAL TOGETHER

Why This Matters

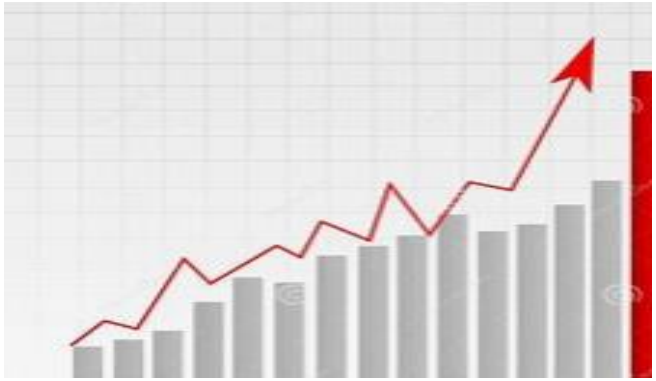
- AMS and IPC are frontline strategies to:
  - Combat antimicrobial resistance (AMR)
  - Improve Clinical Outcomes
  - Reduce healthcare associated infections (HAIs)-decrease morbidity and mortality
  - Reduce costs associated with HAIs
  - Optimize available resources

Why This Matters

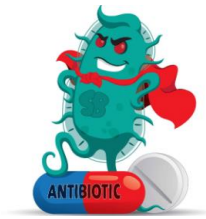
- Data bridges policy and procedure
  - –A policy that does not translate into patient safety is ineffective
  - –But how do we know
  - –“If you can't measure it, you can't improve it”
- Enables real time response
- Drive resource prioritization

Core Objective

- Use data to detect trends and emerging risks
- Drive targeted intervention in AMS and IPC
- Inform policy development and clinical guidelines
  - Using local context
- Enable feedback loops



The Challenge



- Performance is based on:
  - Process indicators
  - Compliance indicators: rewarded
  - Outcomes: Deficient Patient Safety Incident Reporting System???
- How are decisions made
  - Manual Audits/Ideal Facility/Accreditation
  - Lagging Indicators

But we are patient centric

Hinderances

- Surveillance of HAI is inconsistent
- "Auditism and Toolism" -epidemic
  - Public hospitals are over-audited
  - Why not less auditing
  - Better root cause analysis
  - Change
  - Definition of insanity " doing the same thing and expecting change"
- GPPS and Surveillance
  - Seen as " IPC job"

Hinderances

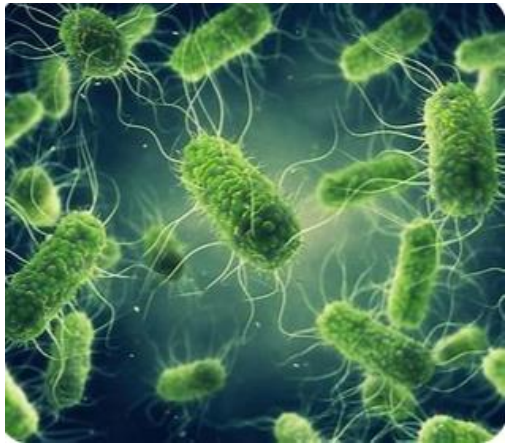
- Seen as “IPC job”
- “Silo”-Poor teamwork. We need bridges
- Limited Resources
  - Optimize what is available
- Long turn around time
- AMS is not effective….Resistance
- SOPs: enabling environment?

The Unknown

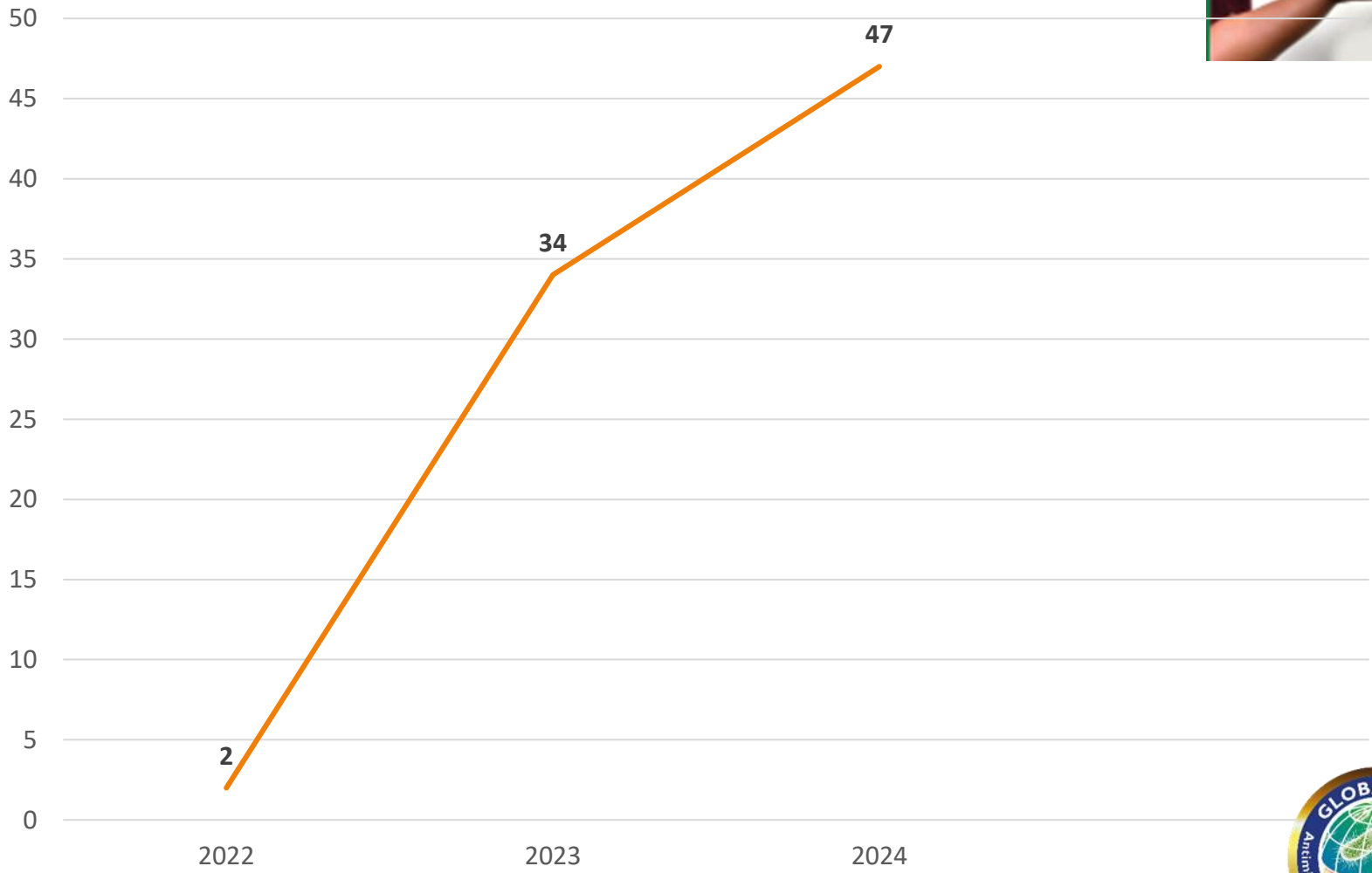
- No baseline for AMS or HAI
- No idea of device usage
- No standardized way of comparison
- Ignorance is bliss

The Solution!

- The Global Point Prevalence Survey
  - Standardized methodology using actual patient data
  - Provides a reliable baseline for AMS and IPC
  - Identifies critical areas for intervention
    - Identify trends
    - Support decision making
    - Enable prioritization
  - Measure success!



Participation: 69 Hosp



Driving Change in AMS

- National/Province/District
  - Political/Leadership support to navigate the sinking ship
  - Framework is outdated: Use current AMS DATA
    - Lack of national strategic direction
    - Taking example from IPC and using simple key strategies
  - Appointment of technical working groups
  - Multi Stake holder engagement: One Health
  - GPPS is not driven at a National level
  - Improve contract management and update specifications

Driving Change in AMS

- Facility
  - Antibiotic Policy is not implemented or not implementable
  - AMS committees not effective
  - Data is not universally applied to effect change, hence similarity in 2023/'24
  - Power lies in the hands of the subscriber
    - Unjudicial use of antibiotic remains
  - Address resistance to surveillance at AMS and IPC

Feedback Loops

- Presented GPPS 2023/4 at all management forums
- Cost benefit analysis
  - Cost of HAIs(Antibiotics, human resources, supplies)
  - Laboratory tests
    - ✓High contamination rate
    - ✓Millions spent without benefit to patients
    - ✓Long turn around times
    - ✓HAIs from susceptible organisms not reported
    - ✓Access to results limited to doctors

Working Smart, not Hard

- Missed doses: need to establish root causes?
  - Serious cause for concern as it encourages mutation
    - Nursing intervention
- Failure to include stop/review
  - Implementation of the prescription chart?
  - Prescriber to be capacitated
- Surgical Prophylaxis: Why are patients receiving more than three doses whilst SSI leads
- Selection of resistance via poor prophylactic practices coupled with poor IPC

Project Considered

- Hang time
- IV to oral switch
- De-escalation/Escalation
- Patient Health Education

Prevention Pays

- Drug Bug: Considering the expenditure of lab tests, 30% is used for patient care!
  - 70% wasteful and fruitless expenditure
- Procurement processes should be revised.
  - Funds for IPC should be prioritized
  - Identify accountable people
  - Must have standardise spec. with SANs etc
  - Enforce Accountability
  - Current shortage of disinfectant/Stock outs etc
  - > 2 years-no constant supply of disinfectant with no contract management consequences etc

Time for Action

- Digital System with built in algorithm
  - Designed to overcome challenges with Patient Safety Incident(PSI)
  - Assesses device usage, insertion and monitoring checklist, pathogen resistance profile
  - Remove bias
  - Assesses Hand Hygiene
  - Neonatal IPC Audits and action plans
  - Download all HAI investigation Report

Enabling Documents

- User guide
- Surveillance Guideline with HAI Algorithm
- Outbreak Guideline with Algorithm
- Outbreak SOP
- Prevention
  - CAUTI
  - VAP
  - HAP
  - SSI
  - CLABSI
  - PLABSI

Simple prevention with insertion and monitoring checklists

Time for Action

- Improved clinical governance in Paeds and Neonatal
  - Essential package of Care for Paeds and Neonate
  - Developed and implemented by Paeds and Childcare
  - Integrated training with IPC
  - Focus on management(Leadership supporting a safety climate
  - IPC was pitched as a cost saver not driver with cost analysis
  - Outbreaks used as “ lessons learnt”

Time for Action

- Training to all cadres of staff in 2024/'25
  - 11 districts over 5 days
  - Surveillance and GPPS training done on day 5- onsite
- Built Environment and WASH
  - Allied staff on Day four
  - Environmental hygiene in IsiZulu
  - Pharmacy
    - ❑Role in GPPS
    - ❑Role in AMS
    - ❑Role in procurement of correct disinfectant

Time for Action

- Built Environment and WASH
  - IPC compliance within the built environment
    - ❑Focus on handwash facilities, Handrub
    - ❑Finishes and fixtures
    - ❑Ventilation
    - ❑Theatre
      - ❖Particles counts as per ISO level
      - ❖Types of procedure Vs theatre
      - ❖Pressure requirement
  - Role of each cadre in WASH
  - Decontamination of equipment

The Result

- Regional Care
  - Surgical Site Sepsis decreased by 0.5%
- Tertiary Care
  - Child and neonate Sepsis decreased by 10.3%
  - Surgical Site infection decreased by 2.8%

What did we learn

- For success of any intervention:
  - Leader support/commitment(plan it, build it)
  - Effective communication with clear rationale
  - Combatting the" Silo" : Foster teamwork
  - Training(Teach it)
  - Importance of feedback sessions and collective decision making(data driven)(Check it)
  - Using all available resources to promote any intervention, share successes(Sell it)
  - Patient safety should be a culture(Live it, lead it)

Basically…

- Multimodal strategies
  - Use data to build effective strategies and systems
  - Train all cadres of staff
    - Roles and responsibilities
  - Forging integration/building bridges
  - Developed simple indicators for quarterly monitoring of our strategies and action plans
  - Using all forum available to “spread the word”
  - Management signs a pledge of commitment yearly on hand hygiene day
  - Political/national/provincial/district advocacy is crucial

THANK YOU

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