Saskatchewan Health Authority

Insights for Better Health

Saskatchewan Antimicrobial Stewardship (AMS) Measurement Framework

A phase approach to provincial antimicrobial stewardship measurement and reporting



Why Measure AMS?

Provincial AMS measurement supports patient safety, quality improvement, accountability, and informed decision making.

Stewardship Program Measures +

Antimicrobial Use (AMU) Measures how antimicrobials are prescribed and utilized. +

Antimicrobial Resistance (AMR) & Outcomes Monitors resistance trends and patient outcomes.

The Provincial AMS Measurement Framework

THREE DOMAINS. A STRONGER, HEALTHIER SASKATCHEWAN.

1. Stewardship Program Measures

Foundational Measures (Start Now)	▪ AMS staffing/resources (FTEs) ▪ Number of AMS guidelines/resources ▪ Number of providers using stewardship resources
Enhanced Measures (Next steps)	▪ Use of selected restricted antimicrobials ▪ Acceptance of stewardship recommendations (%)
Future Opportunities (Build over time)	▪ Prescribing alert use ▪ % of therapies exceeding guideline-recommended duration ▪ % of AMU attributable to AWaRe Watch/Reserve agents

2. Antimicrobial Use (AMU)

Foundational Measures (Start Now)	▪ DDD per 1,000 patient days ▪ DOT per 1,000 patient days ▪ Length of therapy (LOT) ▪ % of dispensations involving SHA restricted antimicrobials
Enhanced Measures (Next steps)	▪ Broad/narrow ratio ▪ Prescriptions per 1,000 population (or visits, as applicable)
Future Opportunities (Build over time)	▪ AWaRe distribution ▪ % of specific infection cases prescribed antibiotics ▪ % of eligible patients converted from IV to oral therapy

3. Antimicrobial Resistance (AMR) & Outcomes

Foundational Measures (Start Now)	▪ Selected organism-antibiotic resistance trends (annual antibiograms) ▪ *C. difficile* infection rate ▪ % CRE among *Enterobacterales*
Enhanced Measures (Next steps)	▪ AST testing patterns ▪ Resistant organism incidence (cases/month by organism)
Future Opportunities (Build over time)	▪ 30-day mortality associated with resistant infections

A Phased Implementation Roadmap

START NOW. BUILD CAPACITY. EXPAND OVER TIME.

Phase 1: Foundational
Available now using existing provincial data sources

- ✓ Pharmacy systems
- ✓ Laboratory systems
- ✓ Infection prevention systems
- ✓ Stewardship program data

Phase 2: Enhanced
Requires analytical development and enhanced reporting capability

Phase 3: Future Opportunities
Dependent on data integration, new data elements, and advanced linkage

Increasing Analytical Maturity

Key Messages

Practical and Action-Oriented
Start with indicators that can be produced immediately using existing provincial data assets.

Aligned with Best Practice
Framework reflects national and international AMS measurement approaches

Built for Growth
Establishes a provincial foundation while supporting future expansion as data systems mature