Are we there yet? A review of Surveillance of Surgical Site Infections, Antimicrobial Usage & Resistance in Australia.

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VICNISS Coordinating Centre
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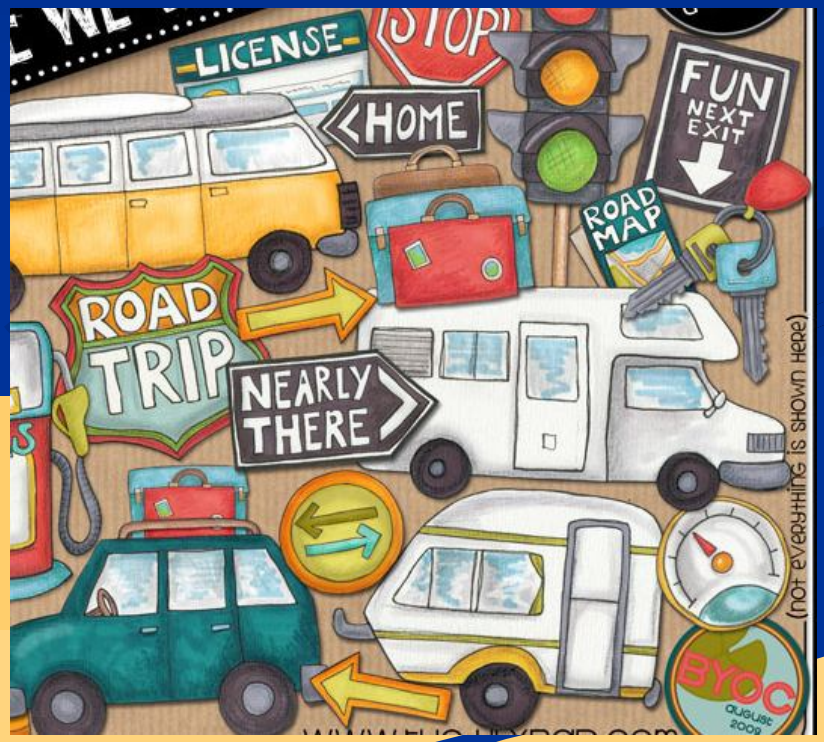

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Background

- ACSQHC contracted VICNISS to develop 2 papers specifying options and costings for hospital, state and National collection & coordination
  - Surgical site surveillance
  - Antibiotic utilisation and resistance data

- Overall aims of the project were to:
  - Review available literature
  - Conduct key stakeholder interviews
  - Review number & type of facilities & activities
  - Review reporting & submitted datasets

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Project outcomes

The review aimed to:

- Highlight similarities and variations between programs
- Identify the benefits and limitations in existing programs
- Inform the development of a national program for surveillance

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Background HAIs

- Patient - increased pain and suffering.
- Healthcare system - additional economic burden
- Healthcare facility – increased patient LOS & various costs managing & treating infection.
- Further disadvantage and excess cost to society through loss of productivity & additional healthcare dollars to manage patient in community.
- A significant proportion of 200,000 HAIs occurring each year in Australia are preventable
- Commission published significant work in Reducing harm to patients from HAIs - role of surveillance

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Background - AUR

- For more than 2 decades antimicrobial resistance has been a key public health issue here & abroad
- In 1998 WHO announced strategy to contain and prevent resistance to antimicrobials
- In Australia JETACAR recommended an integrated management plan for AMR including research, monitoring & surveillance
- AMR has a major economic cost ~ $250 million/yr
- Many bodies have extensive experience in this area but efforts must be consolidated
- Commission published significant work in Reducing harm to patients from HAIs - role of surveillance

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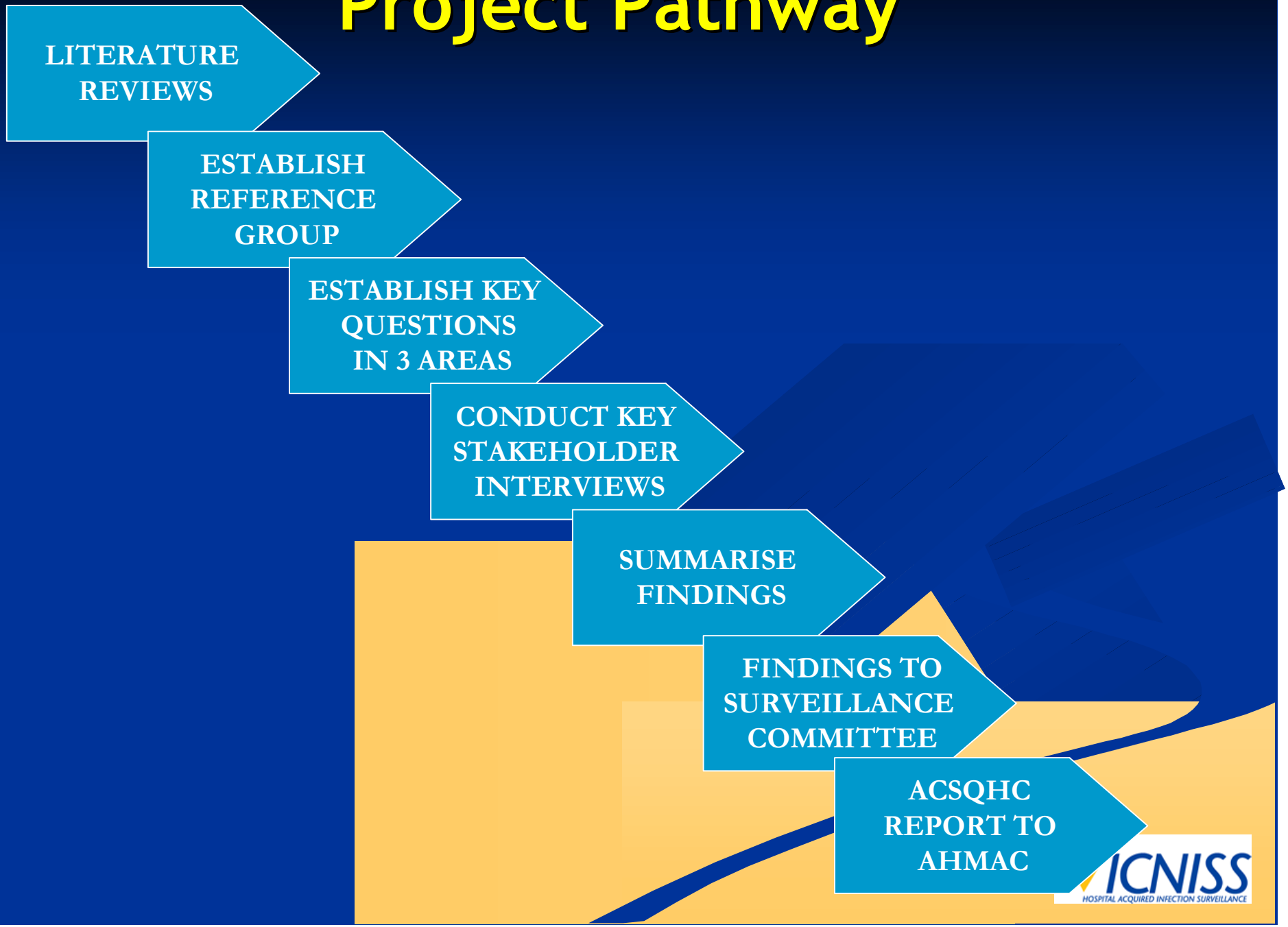
Project Pathway



Key research questions - SSS

- What are the key components of an effective surveillance program for surgical site infections?
- What is the evidence for the benefit of surgical site surveillance programs?
- What is the evidence for using risk adjusted data as a means for comparison of data?
- What is the cost to implement a surveillance system for surgical site surveillance at the hospital, jurisdictional and national level
- What models (international and Australian) exist that perform an effective surgical site surveillance program?

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Key research questions - AUR

- What are the key components of an effective surveillance program for the collection of antibiotic usage and organism resistance data?
- What is the evidence for the benefit of AUR surveillance programs?
- What is the cost to implement a surveillance system for AUR at the hospital, jurisdictional and national level?
- What models (international and Australian) exist that fulfil an effective AUR surveillance program?

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Report structure

- Literature review
- Discussion
- Recommendations

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Literature review

Report structure included:

- Introduction & background
- Scope of problem - International and Australia
- Overview of cost
- Evidence of efficacy
- Validation of SSS programs
- Risk adjustment methods
- Quality & feedback
- Program evaluation & effectiveness
- Reporting
- Computerised surveillance systems
- Resource requirements
- Results of key stakeholder surveys
- Results of healthcare facility surveillance survey

Lit review formed basis for key stakeholder consultation

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Key points - stakeholder surveys SSS

- 3 main Australian CC (CHRISP, HISWA and VICNISS) comparable
  - type and number of SSS data collected &
  - means of analyses, risk adjustment & reporting.
- Tasmania, NT, ACT & SA have no formal SSS jurisdictional program
- ACHS Clinical indicator dataset not risk adjusted
- NSW – SSS mandatory reported to ACHS, no risk adjustment
- No data on costed models for SSS programs except program costs
- Key to success is the submission of:
  - voluntary data
  - using validated and consistent methods,
  - standardised SSI definitions and the provision of
  - risk adjusted data (based on NHSN)
  - reported at regular intervals to key stakeholders.
  - adequately funded & responsive coordinating body
- Automated software surveillance - cost effective method
- All respondents supportive regarding benefits of a national approach enables benchmarking
  - standardisation of methods
  - cost effective method

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Key points - stakeholder surveys AU

- Main Australian CC (NAUSP) collects data for AU
  - DDDs for the agent/1000 OBDs in 6 antimicrobial classes
  - regional and metropolitan hospitals included
- No data on costed models for AUR programs except overall HAI program costs
- Key to success is the submission of data:
  - using validated and consistent methods,
  - reported at regular intervals to key stakeholders.
- Adequately funded & responsive coordinating body

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Key points - key stakeholder surveys

- Automated software for CDSS (AU) and pathology systems (OR) required
- Respondents supportive regarding benefits of a national approach enables benchmarking
  - standardisation of methods
  - cost effective method
- A method for collection & analysis of AU data in paediatric populations remains unresolved

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Key points - stakeholder surveys OR

- No National program in place
- Huge variance in approach at a jurisdictional level
- Few options for software
- No standardised dataset or agreement on key fields
- A comprehensive laboratory based system with ability to generate facility level antibiograms is required
- Key to success is the submission of:
  - key data fields incl. organism sensitivity
  - using consistent methods,
  - reported at regular intervals to stakeholders.
  - adequately funded & responsive coordinating body

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Recommendations

Key areas:

- Coordination
- Funding
- Collaboration
- System
- Evaluation
- National Dataset
- Quality and reporting
- Computerised surveillance systems
- Resources

  - Detailed recommendations in separate document

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What happens next?

- Discussed at the National Surveillance and Antibiotic Stewardship steering committees
- Further recommendations following review by these groups
- Final report handed over to Commission in August
- Document will form the basis of recommendations for surveillance to AHMAC
- Briefing paper to be drafted. Works in well with other commission initiatives

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