



Reinventing the wheel - Redesign of the Infection Prevention and Control Program

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Introduction

- The world of Infection Prevention and Control (IPAC) is rapidly changing and the role of those working in the field is continually expanding.
- There is a continuous threat of new and emerging pathogens, global disease outbreaks, anti-microbial resistance and the pressure to stay abreast of the new and cutting edge medical procedures and processes.
- There is a need to meet more stringent standards with increased audit and reporting requirements



Introduction (2)

- There is also increasing focus on financial performance whilst improving patient safety and clinical outcomes.
- The patient population we treat and the settings in which we provide our healthcare are changing.
- Expectations of our patients and consumers are also changing.



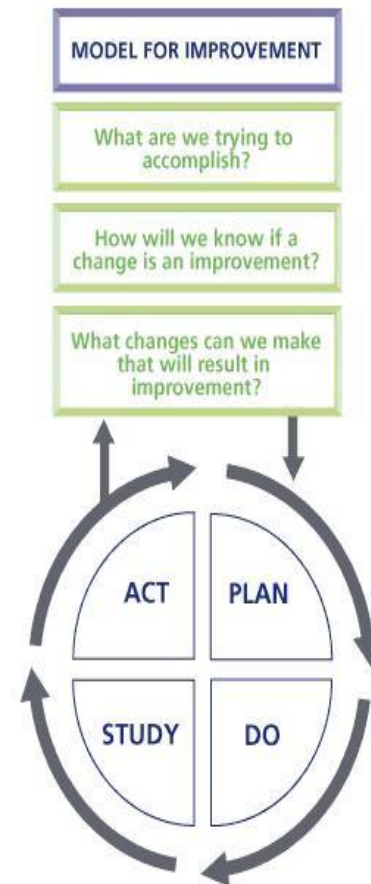
Overview

- Establishing the scope of the IPAC program and undertaking a gap analysis
- Other factors in IPAC Program redesign:
 - Capability and training of IPAC team and others
 - Executive Support
 - Information Systems
- Implementation of changes and enabling strategies
- Evaluating the changes
- Case Study: Eastern Health IPAC Redesign



Redesign Principles

- PDSA Cycle- four stages:
 - **Plan** – Review the current program and identify gaps. Plan the changes to be trialled or implemented
 - **Do** - carry out the changes, set a goal for review
 - **Study** – Review the program goals before and after the change and reflect on what was achieved
 - **Act** - plan the next change cycle or progress to full implementation





Redesign Principles (2)

- PDSA cycles form part of our organisations improvement process, which provides a framework for developing, testing and implementing changes leading to improvement.
- Reduces the impulse to take immediate action without careful study.
- The framework includes three key questions and a process for testing change ideas.
- The three questions are:
 - *What are we trying to accomplish?*
 - *How will we know if the change is an improvement?*
 - *What changes can we make that will result in improvement?*



Scope of the IPAC Program

- What are you trying to accomplish (AIM)?
 - To ensure that a robust IPAC program is in place that will meet national, jurisdictional, organisational and community expectations in regards to preventing Healthcare Associated Infections (HAI).
- What is current scope of the IPAC Program?
 - Engage IPAC team/Key stakeholders to identify current core activities
 - Consider using time/motion tools to identify what percentage of time is spent on which activities



Scope of the IPAC Program (2)

- What is the scope of the current IPAC Program?
 - Identify the perceived strengths and weaknesses of the current program
 - What are the barriers to achieving the aims/goals of the current program?
 - Identify data/measures you have to monitor program compliance/performance





Scope of the IPAC Program (3)

- What is the expected scope of the IPAC Program?
 - What are the minimum required elements / activities for the IPAC Program?
 - National Standards - Standard 3
 - National IC Guidelines
 - Jurisdictional requirements - i.e. State Government Statement of Priority mandatory reporting/monitoring
 - Organisational requirements / expectations
 - Consumer expectations
 - Scope may be influenced by other factors:
 - Size of Hospital / Health Service
 - Complexity of services offered
 - Available resources



Scope of the IPAC Program (4)

- What are the gaps between the current and required scope of the IPAC Program?
 - Identify gaps
 - Are there any current activities being undertaken that are no longer considered part of the scope or are considered to be low priority/low risk
 - How do you plan to “close the gap”?





Scope of the IPAC Program (5)

– Address gaps between the current and required scope of the IPAC Program

- Risk Assessments - Is the risk of not addressing the gap low or high
- Prioritise interventions to address gaps based on Risk
 - *you may not be able to do everything!*
- Use Organisational Improvement Methodology to develop a detailed plan for implementation of actions to address the gap - A3, RCA
- Be realistic with setting goals
 - *Don't set yourself up for failure*





Other Considerations

- Resources
 - Do you have sufficient staff to provide the IPAC program both current and future?
 - Do you need a business case to request additional resources?
 - Are there other methods to assist with meeting goals-
 - *E.g. IPAC Liaison's, Champion's, redesigning responsibility/accountability*
 - IPAC Team Capability
 - Do you have the right people to provide the service?
 - *Do you share the same values and goals?*
 - *Do you work as a team?*
 - Are the team trained/capable in IPAC core activities?
 - *Is further training required?*
 - *Is Professional Development a core activity?*
 - Are the team trained in improvement methodology?
 - This is becoming a large component of IPAC business



Other Considerations (2)

- Executive and Organisational Support
 - Is there Executive/Organisational support for IPAC?
 - Does the organisation and executive have a shared understanding of the IPAC role?
 - Is the organisational culture supportive?
 - *Is IPAC seen as everyone's role?*



Other Considerations (3)

- IT Support/Data Management
 - Are there IT systems in place to assist with data collection, analysis and identification of infections?
 - Are they linked?
 - How much manual data entry is required?
 - Are there IT systems to support staff health management?
 - Are there systems that could be implemented to assist with IPAC core activities?



Implementing the identified needs

- Have a Plan!
- Use your organisations quality improvement / implementation plan if one exists.
- Implementation Plans should include:
 - A designated person as a lead /coordinator
 - Description of the actions to be undertaken
 - A time frame for each of the actions (*GANTT Charts are useful*)
 - Description of the measures
 - Document progress on Business Plan /Innovation and Improvement Plan



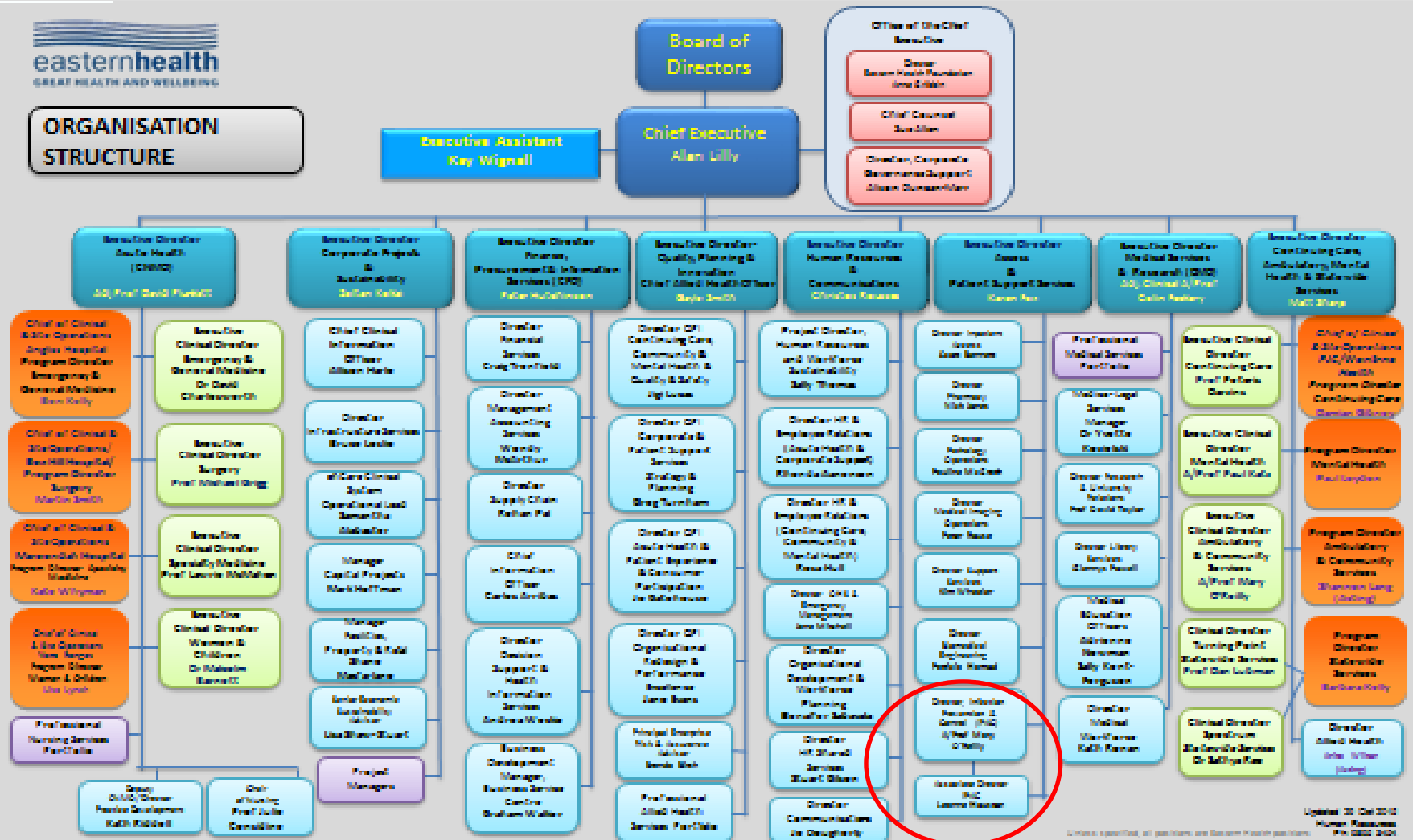
Redesign- Eastern Health

- Provides a range of emergency, acute, obstetrics, sub-acute, palliative care, mental health, drug and alcohol, residential care, ambulatory and community health services
- Total 1,456 beds
- Services a community of 750,000 people located across 2,800 square kilometres
- Largest geographical catchment area of any metropolitan health service in Victoria
- 7 hospitals with 3 Emergency Departments with 65 sites across 21 locations
- Over 8,500 staff
- >1 million episodes of patient care each year



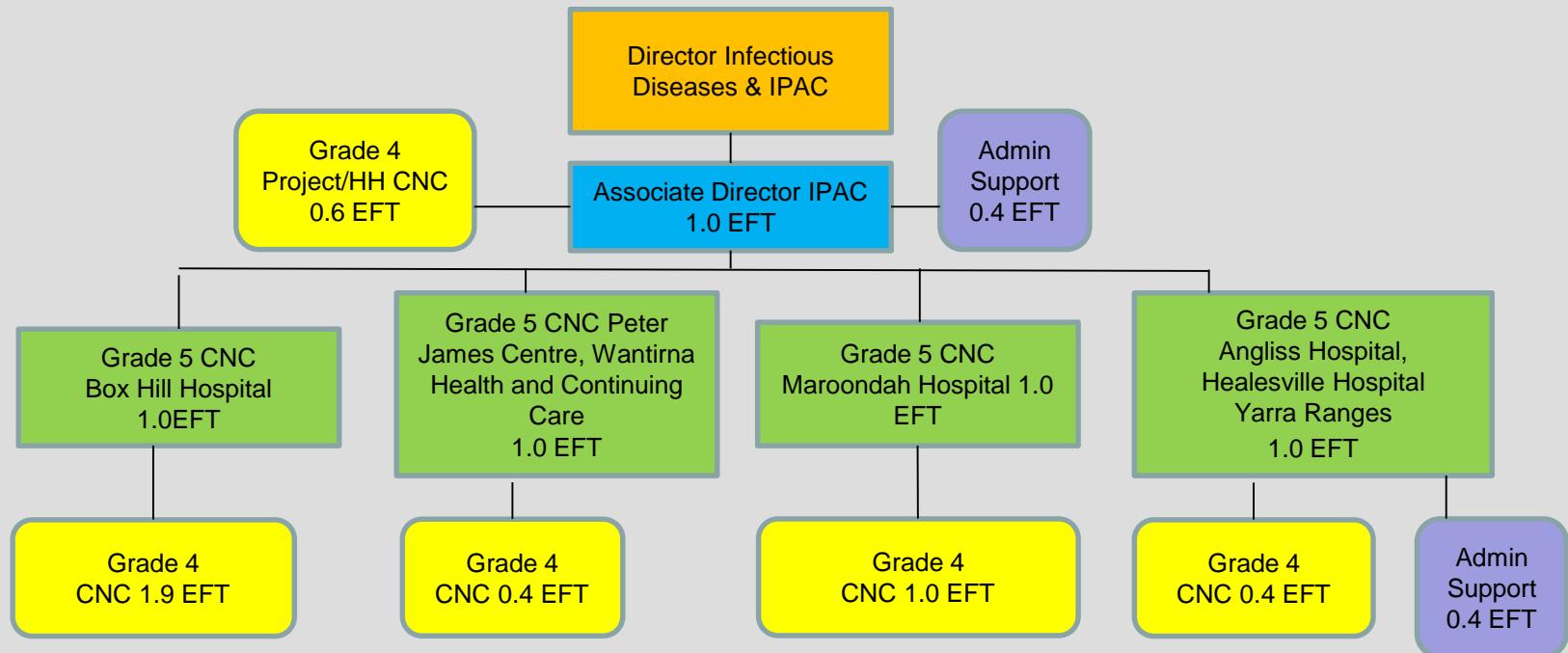


ORGANISATION STRUCTURE





Eastern Health IPAC Service Structure





IPAC Planning Day

- A planning day was convened for all IPAC Managers
- The planning day addressed the following:
 - An overview of Eastern Health Planning and Risk Framework
 - *What are the IPAC Services Core Activities?*
 - What have been the major achievements for IPAC in 2014/2015
 - *What are the greatest opportunities for improvement and major threats for 2015/2016?*
 - Undertake a Risk Assessment of identified priorities
 - *Prioritise the improvement initiatives based on risk*



Core Activities

- Surveillance
 - Mandatory
 - Local
 - Ward Rounds
- Auditing
 - Environmental
 - Standard 3
 - Hand Hygiene
 - Point Prevalence
 - Observational
- Hand Hygiene Program
- Product Evaluation
 - Product Evaluation Committee
 - Other requests
- Staff Health
 - Immunisation
 - Occupational Exposure
 - Look Backs
- Construction Renovation
- Education
 - Informal
 - Formal
 - Orientation
- Governance
 - IPAC Standards & Practice Guidelines
 - Review other clinical practice guidelines
 - Standard 3 Requirements
 - DHHS Directives/ Statement of Priorities



Core Activities (2)

- Incident Management
 - Sterilisation Failures
 - Clusters/Outbreaks
 - Infrastructure: Floods/Fires/Pests
- Accreditation Preparation
 - Meetings/Reports
 - Organisational requests for data
- Real Time Resource
 - Calls and advice
 - Emerging Diseases:
 - Ebola, Flu, Gastro. SARS, CRE
 - Development of new practice guidelines at short notice
- Liaison Program
 - Education/Training
 - Meetings
- Clinical Lead for Expert Advisory Committee
 - Reports
 - Quality Improvement Initiatives
 - Meetings/Agendas/Briefing Papers





Achievements

- Always celebrate your achievements - It is important to acknowledge all the improvements already undertaken
 - Aged Care Accreditation - 4 facilities in 4 months
 - All Standards & Practice Guidelines reviewed and up to date
 - Improved and sustained Hand Hygiene Compliance
 - Improvement Training undertaken by IPAC Team
 - Flu Vaccination Rates up by 8%
 - Improved look-back methodology
 - Raised IPAC profile within the organisation
 - Implementation of an electronic staff health database
 - Brand new facility - Box Hill Hospital
 - Teamwork: Working together for a common goal





Greatest Opportunities for Improvement - Gaps

- Staff Immunisation and Occupational Exposures
 - Populating our new staff health database
 - Improving immunisation history at employment
 - Reducing occupational exposures
- Quality Improvement Processes
 - Data Management Support
 - Surveillance Feedback Mechanisms
- Service Model
 - Standardising work
 - Reviewing existing structure in light of changes to facilities/programs
 - Maximising current resources / workflows / processes
- Professional Development
 - Training and Research





Priorities for Improvement – Redesign 1.

- Staff Immunisation/Occupational Exposure Management
 - High risk of staff being exposed to vaccine preventable diseases
 - Resource intense currently as no dedicated human resources - part of everyday IPAC activities
 - Consider implementation of a whole of organisation approach to infectious disease exposure management:
 - Establish a process for critical incident management approach by the organisation with IPAC oversight
 - Occupational Exposure rates continue to increase despite improvements with introduction of safety devices
 - Introduction of a one-page root cause analysis tool to establish the root causes of occupational exposures to provide data to guide improvement activities



Priorities for Improvement – Redesign 2.

- Service Provision
 - Increasing demands for IPAC support with no additional resources available
 - Surveillance activities
 - Hand Hygiene Auditing
 - Governance
 - Focus on Culture change driven by Executive that IPAC is everyone's responsibility
 - Build capability of IPAC Liaison's/Champions to lead IPAC activities at the local level
 - Set goals/targets at an organisational level for KPI's i.e. Hand Hygiene, aseptic technique compliance
 - Establish local capacity to audit and drive improvement initiatives where non-compliance is identified
 - Undertake a full service review of current IPAC structure/processes
 - Is the current structure sustainable given changes to facility size, complexity, service provision changes?
 - Are there IT systems available to assist with the data management currently required?
 - Consider what training/capability needs to occur to improve processes
 - Establish methods to plan for the unplanned - Critical incidents, outbreaks etc.
 - Look at training of Nurse Bank, Casual staff who can be called in to assist with incident management



Conclusion

- Due to ever changing threats and expectations, it is essential that the IPAC program be regularly reviewed and redesigned to provide a robust and strategic service.
- Redesign methodology is a necessary tool for all IPAC programs
- Redesign should focus on finding the balance between maintaining strategic elements of the program and being able to respond to the unplanned events that are almost certain to occur



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