

Control and Eradication of MRSA Through Culture Change

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Outline

- Hospital acquired infections are adverse events
- Why our current strategies don't work all that well
- How to move forward
 - Positive Deviance
 - Human Factors

Consider...

- A family member is admitted to the ICU following a heart attack. She initially does well but then suddenly dies after **inadvertently being given too high a dose of a beta blocker.**

Consider...

- A family member is admitted to the ICU following a heart attack. She initially does well but then suddenly dies after **developing septic shock from a hospital acquired MRSA infection.**

Are these different?

- Both events resulted in death
- Both events were preventable

So why do we treatment them differently?

- Medication error would result in a root cause analysis being undertaken
 - Incident report filed
 - Human factors considerations
 - Concern of legal liability
 - Prevent the error from occurring again
- MRSA acquisition would likely end up as a statistic

If something is preventable,
should it be considered a cost of
doing business...


...or should we try to prevent it
from happening?

Examples of Trying

- Hand hygiene
- Improved hospital design
- Follow best practice for surgical procedures
- ARO control strategies
- Staff education
- Environmental cleaning
- Appropriate antibiotic use
- Appropriate medical device reprocessing
- Surveillance
- Vaccination

Changing gears....

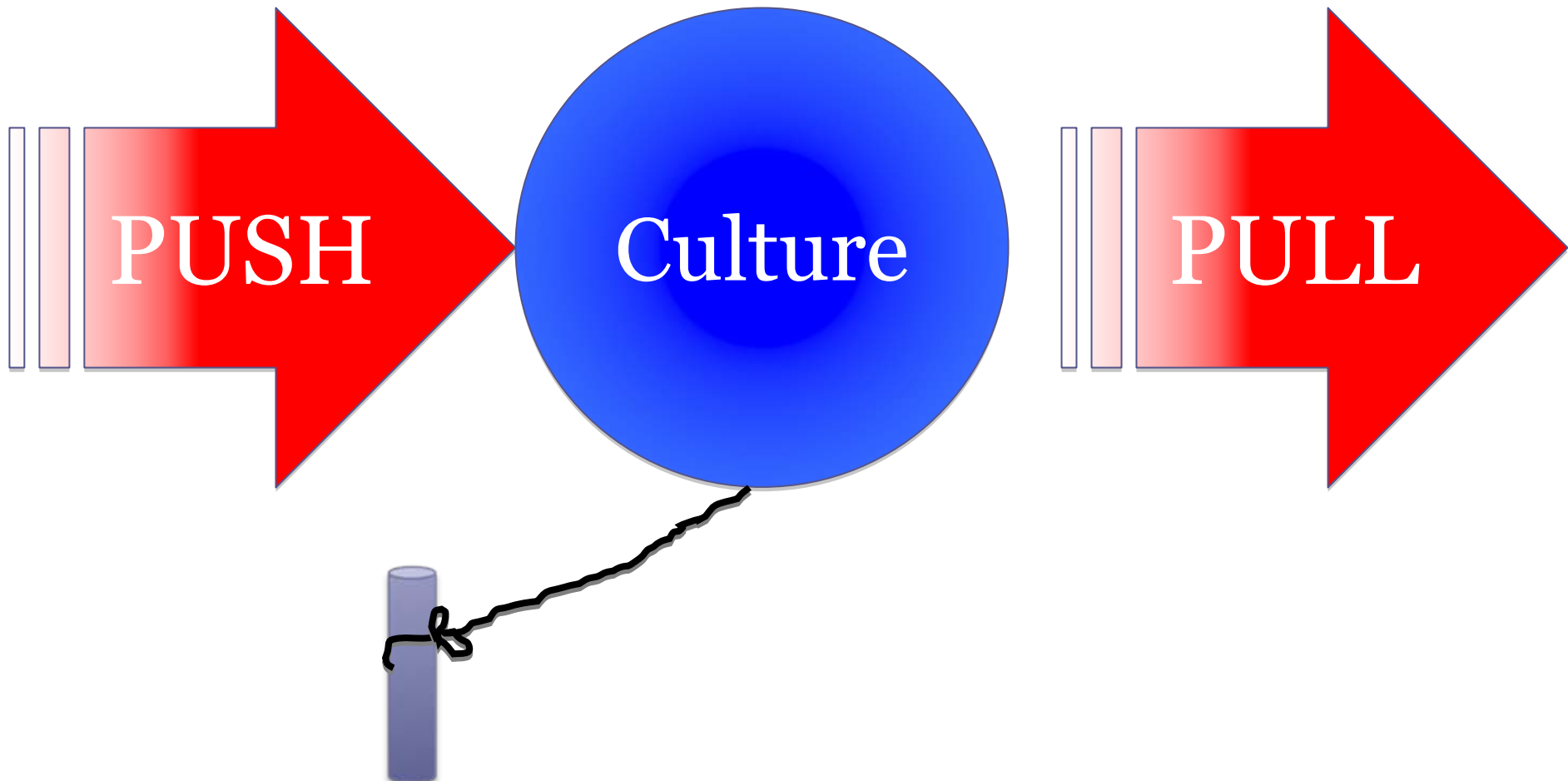
- As the ICP your manager calls you in to express her disappointment that your hospital's MRSA rate is the highest in the province. What is your response?
 - a) I'll try harder
 - b) I need more staff to make this happen
 - c) Why are you looking at me? I can't fix this on my own.



In order to tackle hospital acquired infections, we need to change our healthcare culture...

...and this cannot be done by infection prevention and control programs alone

The engines of culture change



TORONTO LIFE

SUPER BUGGED

I went in for minor surgery and came out with a vicious infection. A story about contaminated hospitals, dirty doctors and the bacteria that are killing 8,000 Canadians a year

By Stephanie Verge

globeandmail.com 

Superbugs Suspected in Nurse's Death

Ontario's Ministry of Labour is investigating whether the death of a London nurse last month was caused by a superbug caught at work

Josh Wingrove, February 11, 2009

Why turn to a behaviour change approach?

- We already know what to do
- Previous successes have been resource intensive
- Pace of spread in healthcare organizations using “best practice” approach has been disappointing
- Broad scope

One successful strategy...

Positive Deviance

The Premise Of Positive Deviance

No matter how seemingly intractable a problem, in every community there are certain individuals whose uncommon practices/behaviours enable them to find better solutions to problems than their neighbours who have access to the same resources

Malnutrition in Vietnam Children

- In 1990 > 60% of children under 5 were severely malnourished. However, among a few families who were poorest of the poor, the kids were well nourished
- Observation of these nourished kids, showed that the parents and older siblings were collecting tiny shrimps
- Split rice portions up
- Higher prevalence of hand washing
- Other families in the village recognized that they could use similar practices and therefore the “deviant” practices became the norm.



Helpful Frames of Context

- Appreciating self-organization
 - Naturally occurring
 - Relies on self discovery
 - Can work for or against what “leader” wants to happen
 - Is messy
- Matching the right method to the right challenge

This is about...

- Creating sustainable change
- Transforming culture
- Changing personal human behaviours and habits

Positive Deviance

- Involves social and behavioural change
- Problem recognized by the community and the community wants to solve it
- Innovative behaviours are identified from within
- Self-discovery

- Define: the problem and a successful outcome
- Determine: individuals who already exhibit behaviour
- Discover: uncommon practices/behaviours
- Design: and implement intervention enabling others to access and practice new behaviours

How does it work?

- Invite those who are interested. Everyone in the group must identify with others in the group
- Front-line staff is integral in the process
- IPAC does not have the answer. IPAC has the “what, but not the “how”
- Let them adopt solutions on their own
- Identify and analyze the deviants
- Track and publish results



Who is included?

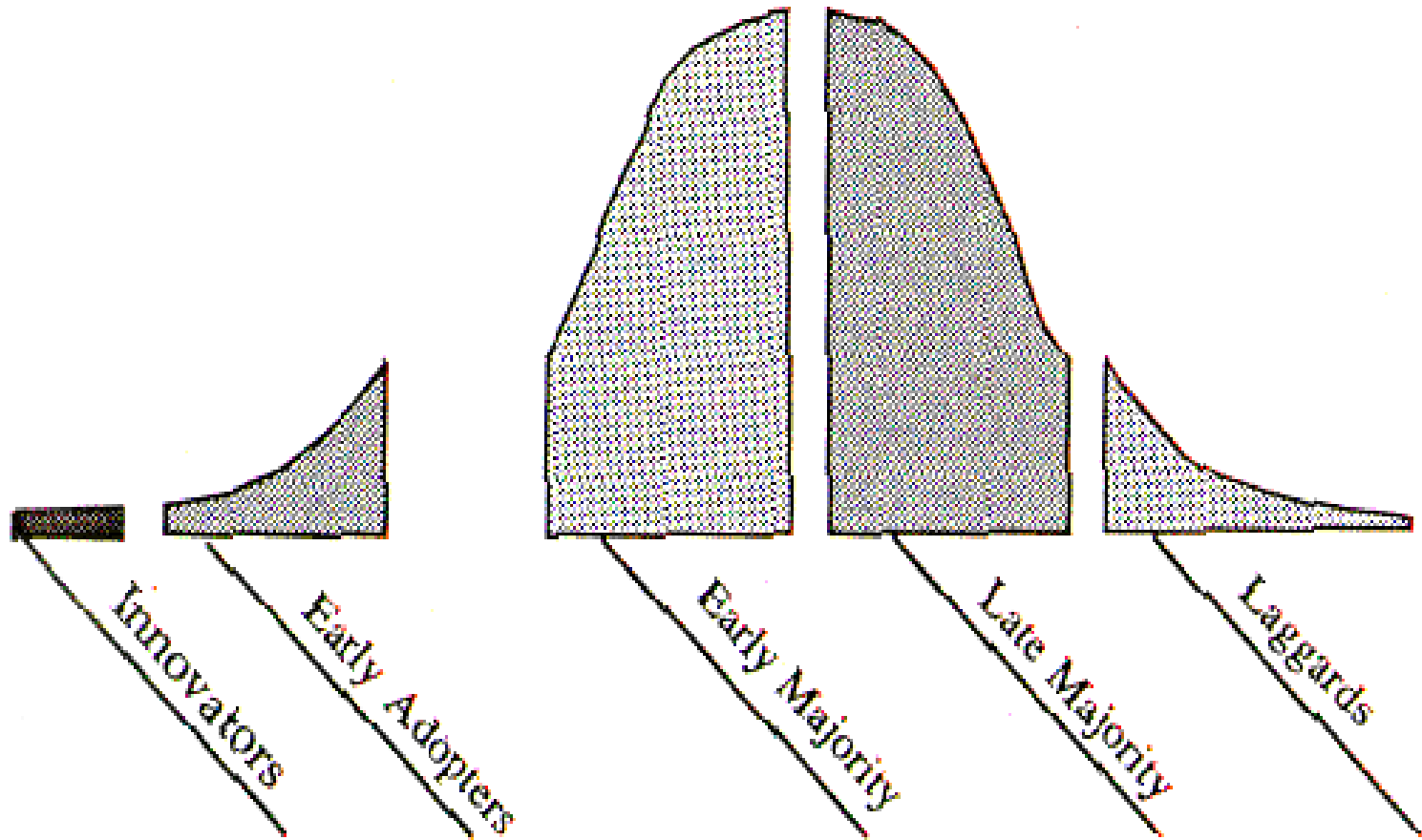
- Who are your customers?
 - Get the right people around the table
 - Who isn't here?
 - “nothing about me without me”
- Don't answer questions nobody has asked yet-work on those that people have asked and want to find solutions for

Who is Included?

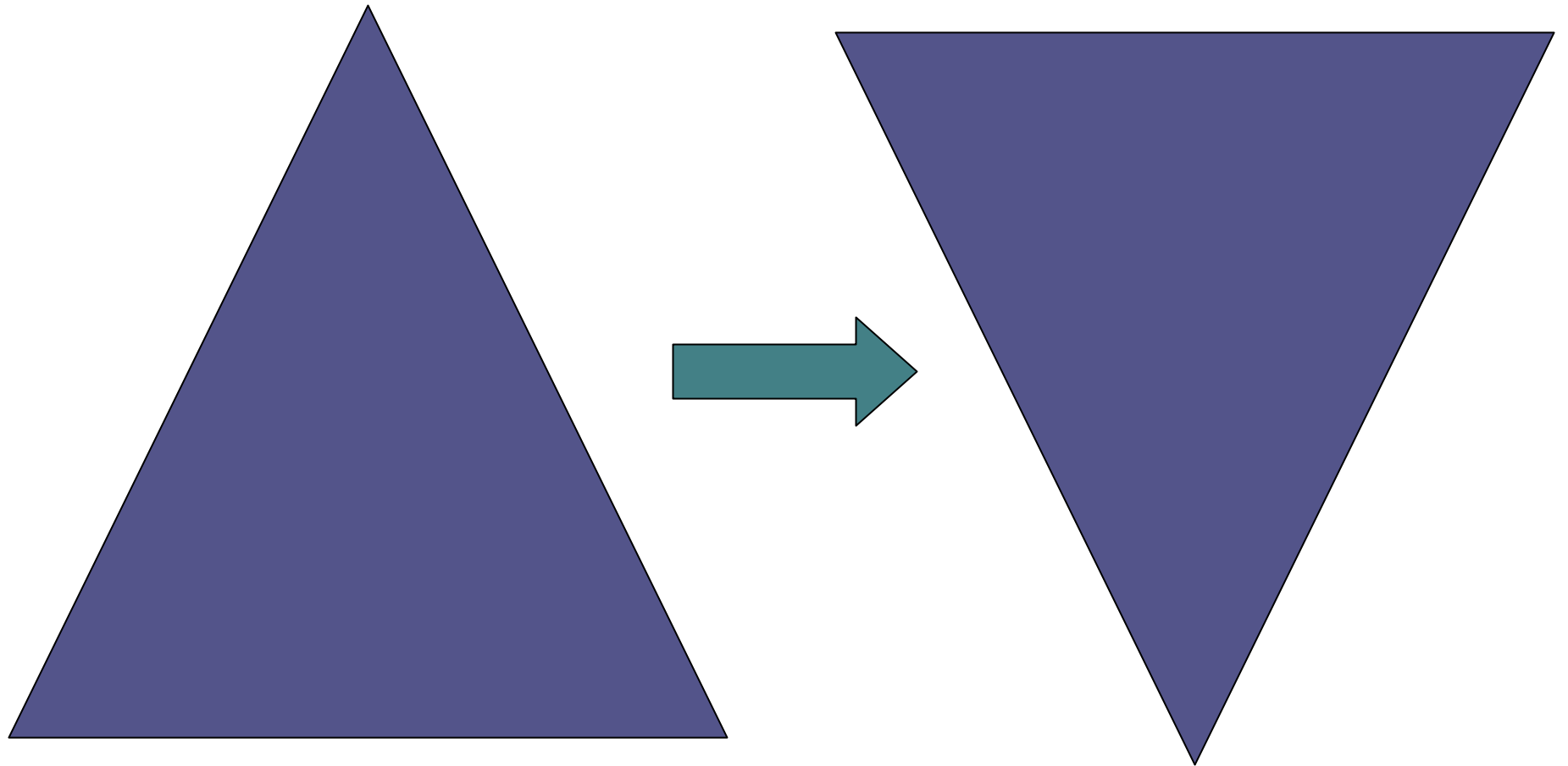
- The very people whose behaviour needs to change
- The community owns the project
- Everyone that touches the problem are invited to join in
- Often “unusual suspects” join and take unexpected leadership roles

What PD Tells us that is Different

- Solutions imported from external sources results in “social immune response” in the same way that our body triggers an immune defense response



What about Leadership?



PD Tools

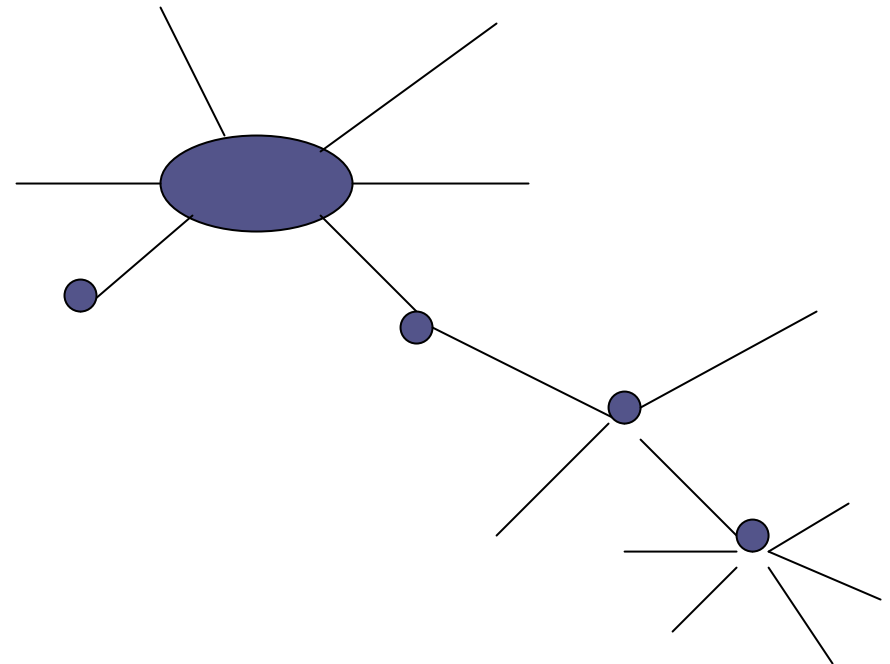
- Kick offs
- Improvisation
- Sharing Stories
- Discovery and Action Dialogues
- Social Network Analysis

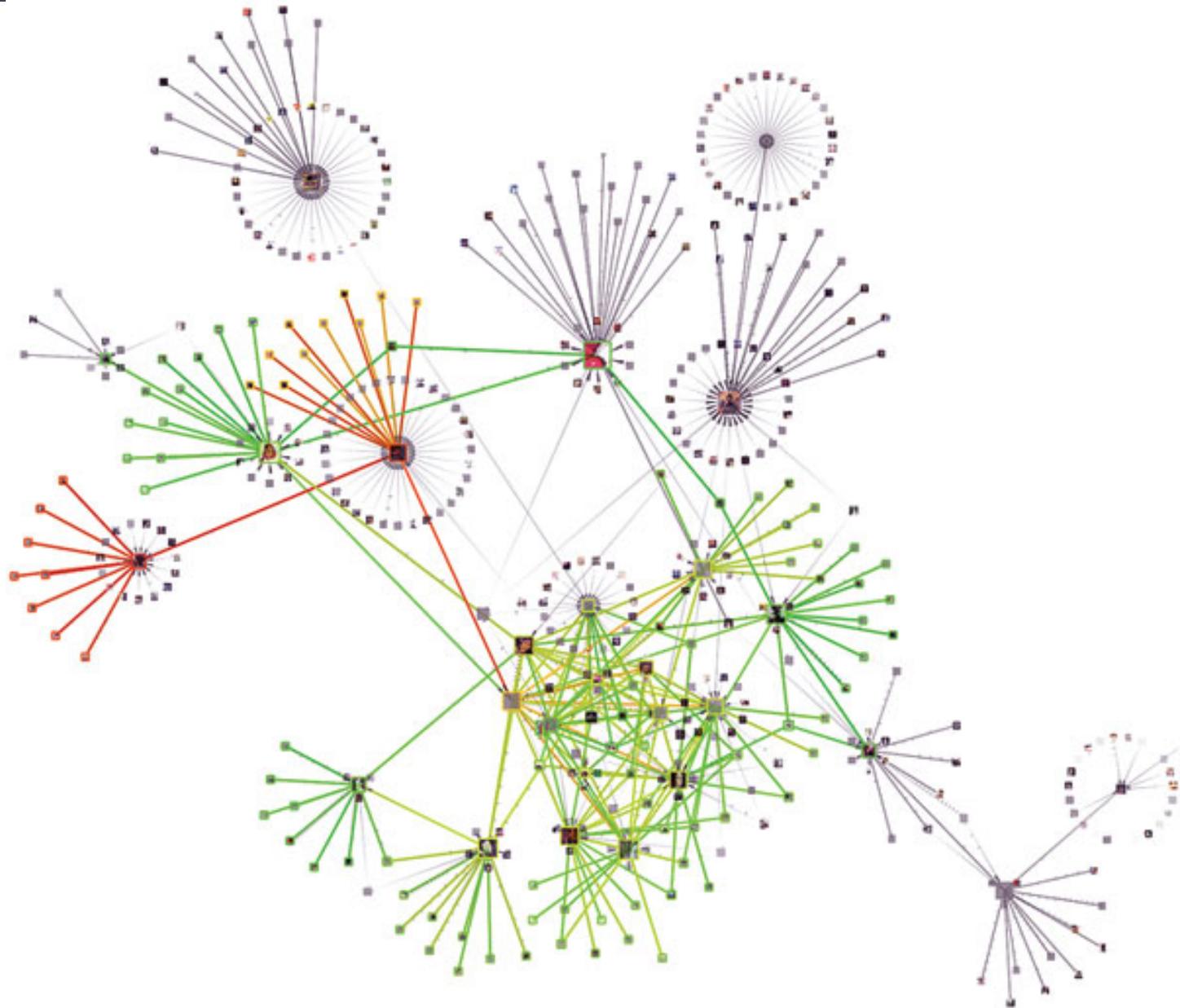
Discovery and Action Dialogue

- How do you know if your patient carries MRSA?
- What do you do to prevent spreading MRSA to other patients or staff?
- What prevents you from doing these things all the time?
- Is there anyone who has a way of doing things that helps them to overcome these barriers
- Do you have any ideas?
- What can we do now? Volunteers?

Social Networks

- Mapping the spread of contagion
- Integration – how well connected is the network
- Assists in finding opportunities to communicate





The Power of Storytelling

Data Collection is Integral to PD

- Ongoing measurement reinforces change when it is owned by the community

MRSA Incidence Rates (Healthcare-Associated Infections Only) 1999 – September 2007



The vertical axis on this graph represents healthcare-associated MRSA infections per 1,000 patient days.

Challenges

- Requires comfort with uncertainty
- Ownership of data
- IPAC taking a step back
- Paradigm Shift for Practitioners
- Scaling up strategies
- Time

If we start looking for existing solutions, and include everyone, especially those who are not the usual suspects, the possibilities vastly exceed our wildest notions in their simplicity, scope and speed of implementation

Traditional versus PD Strategies

- Externally fuelled
 - Top-down
 - Deficit based-”what’s wrong”
 - Begins with analysis of underlying problem
 - Solution limited by perceived problem parameters
- Internally fuelled
 - Down up, inside-out
 - Asset based “what’s right”
 - Begins with analysis of successful solutions
 - Enlarged through discovery of actual parameters

Why Does it Work?

- Enables us to act today
- It is possible to find successful solutions today before underlying causes are addressed
- Enables the community to discover successful uncommon practices
- Only strategies that are accessible to all are kept without needing extra resources

What about other QI Initiatives

- Still relevant
- Can be done along with a PD strategy
- Complement one another

Type of Problem and Approach

- Clear “what” and “how” – classic model for improvement
- Needs discover, high uncertainty - PD

Human Factors

- The study of how people interact physically and psychologically with products, tools, procedures and processes
- Designing systems so that they are natural for people

Science finds
Industry Applies
Man Conforms

Slogan from the 1933 Chicago World's
Fair

People Propose
Science Studies
Technology Conforms

Don Norman, *The Invisible Computer*
2001

Human Factors in Healthcare

- Medical error
- Adverse events

- Hand Hygiene
 - CPSI funded study
 - To identify barriers and enablers to hand hygiene in different clinical environments
 - Toolkit development

Environment Modifications



Embrace New Strategies

- The solutions exist
- Go and ask the experts
- Simple actions generate grand results

It is easier to *Act* your
way into a new way of
Thinking, than *Think*
your way into a new
way of Acting

Any Questions?



It was on a short-cut through the hospital kitchens that Albert was first approached by a member of the Antibiotic Resistance.

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