Challenging Behaviour, Changing the Culture
Dr. Elaine Larson, Columbia University
Sponsored by Deb Ltd. www.deb.co.uk

Challenging Behaviour, Changing the Culture

Elaine Larson
Columbia University School of Nursing
(Presented live at Infection Control Nurses Association conference 2007)

Hosted by Paul Webber
paul@webbertraining.com

Sponsorship generously provided by:
Deb Ltd.
www.deb.co.uk

Acknowledgements and Thanks
Slides adapted or blatantly plagiarized (with permission) from

- Carla Alvarado
- Marguerite Jackson
- Denise Murphy (APIC President)
- Kathy Warye (APIC Executive Director)

Goals

- Identify personal, environmental, and technologic factors that influence one's ability to change
- Explore challenging behaviour--potential reasons for inadequate adherence to practice guidelines
- Discuss potentially successful strategies for the infection prevention professional

Life Cycle of Infection Prevention and Control

- Formative Stage (1950s-60s): Profession emerges, response to outbreaks, emphasis on control
- Normative Stage (1970s-2000): Measurement refined, understanding risks, data used to develop interventions
- Integrative Stage: Systems based approaches, targeting zero infections

Current Realty

- More isolation than integration
- No dedicated learning systems
- Lack of authority to implement change
- Poor understanding of economics of HAI
- Disbelief that zero can be achieved
- ICP is more 'cop' than 'coach'
- Staff see IP measures as a distraction or interruption

What Factors Affect One's Ability to Change?

- Person: Capabilites and limitations
- Environment
- Tasks: Skills, knowledge, paced work
- Technology/Tools

Alvarado, 1999

A Webber Training Teleclass www.webbertraining.com
Hosted by Paul Webber paul@webbertraining.com
With thanks to the Infection Prevention Society www.ips.uk.net

Personal and Cultural Factors Affecting Behavior Change

--Generational differences
--Personal beliefs
--Need to 'please' others or comply with rules and expectations

Generational/Cultural Differences

- Conformers and non-conformers knew intervention messages well
- But importance attached to them differed markedly
  Pinfold, Health Educ Res 1999
- Hence, the problem is not knowledge/education

*Generational Impact on Our Ability to Change**

* M. Jackson, APIC Annual Conference, 6/07

Baby Boomers

- Born ~1945-1964, currently ages 43-60+
- Greater than one-fourth of population
- Influenced by
  - WWII
  - Television
  - Contraception (~1960)
  - Ed Sullivan, The Beatles
  - Space flight

Generation Xers

- Born 1965-1980, ages 25-42
  - About 14% of population
  - First 'latchkey kids'
  - Civil rights, 'hippies', Vietnam war, music

Millennials (GenYs)

- Born 1981-present, aged up to 26
- 3 X the size of GenX
- The digital era (computers, videogames, cell phones, IPods, cable TV)
- Teens with machines, 90% use internet
- Immersed in their own universe

Generational Themes



Baby Boomers

- Need to be 'nice, well liked, cooperative
- Large, crowded, competitive generation
- Win/lose world
- Care what others think
- Want to be part of a team
- Recognition is important

GenXers

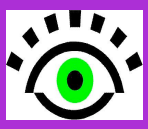
- Do not like to participate, attend meetings, or hear others' opinions
- "Just tell me what you want done and I'll do it"
- Recognition less important
- Value technology, speed, continuous change
- More individualistic

Millennials (GenYers)

- Digital generation
- Texting, emailing, instant messaging

Attitudes

- Boomers: Tell me what I need to know
- Gen X: Show me how to do it
- Gen Y: Why do I need to know this?


Challenges for Behaviour Change:
Most 'teachers' are boomers, most 'learners' are GenX

Adapt and develop educational approaches across generations

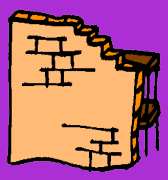


Personal Beliefs

Barriers to Following Practice Guidelines

(JAMA, 1999; 282:1458)

- Survey of 5,658 publications
- 75 articles of 120 surveys
- Investigated 293 potential barriers to physician adherence



Internal Barriers

- Lack of awareness, familiarity
- Lack of agreement
- Lack of self-efficacy
- Lack of outcome expectancy
- Inertia of previous practice

Conclusions

- Few studies consider the diversity of barriers
- Hence, important interventions are missed

Clean Hands and Morality

- "Macbeth Effect"
- Zhong and Liljenquist, *Science*, 2006; 313:1451-2

Experiment 1 (n=60)

- Those asked to recall unethical versus ethical behaviour were 1.59 times more likely to select cleansing-related words
- Examples: Wash, shower or soap versus wish, shaker, step

Experiment 2

- Those who recalled unethical versus ethical behaviour were twice as likely to select a gift of an antiseptic wipe rather than a pencil

Experiment 3

- After describing an unethical deed from their past, participants either cleansed their hands or not.
- Those who cleansed were half as likely to volunteer to help someone else (i.e. cleansing their hands had 'restored a suitable moral self'

Authors concluded…

- Physical cleanliness (hand hygiene) has psychological and behavioural consequences
- "It remains to be seen whether clean hands…make a pure heart, but our studies indicate that they at least provide a clean conscience after moral trespasses"

What Drives Hand Hygiene?

- Emotional concepts of 'dirtiness' and cleanliness'
- Hand hygiene behaviour may be inherent (e.g. when touching 'dirty patient') or elective (e.g. to follow guidelines)
- Elective hand hygiene is not instinctively triggered

Whitby, McLaws, Ross 2006; Infec Contr Hosp Epidemiol 27:484-92

The hand hygiene practices of healthcare workers are learned behaviors from childhood, which are continued in a professional context and reinforced in everyone's daily lives.

We strongly caution against unrealistic expectations that entrenched, longstanding behaviour patterns will be changed in a sustained fashion solely by the introduction of a new…product.

Whitby, McLaws, Ross 2007; Infec Contr Hosp Epidemiol 28:107-8

Need to 'please' others or comply with rules and expectations

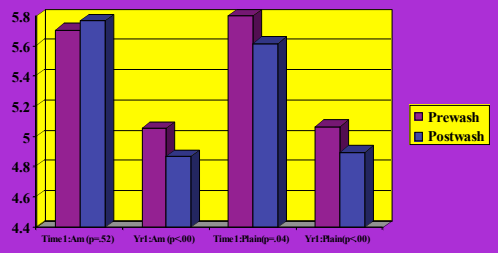
Effect of an Observer

Handwashing in public bathrooms (women):

- 18/20 (90%) washed when observed
- 3/19 (15.8%) when not knowing they were observed

Percep Motor Skills, 1986

Impact of Being Observed



Role model

Health-care workers in a room with a senior (e.g., higher ranking) medical staff person or peer who did not wash hands were significantly less likely to wash their own hands (odds ratio 0.2; 95% CI: 0.1 to 0.5; p<0.001)

Lankford, EID 2003; 9:217

"Community" Approach vs. Mandate

- Impact=efficacy X reach
- 100% efficacy X 20% reach =20% impact
- 50% efficacy X 50% reach=25% impact
- If staff won't do it, the impact is poor

Environmental, Organizational, and Technological Factors Affecting Behavior Change

Observational study in two large NICUs in New York City

Hand hygiene regimen in NICU A: waterless alcohol-based product and in NICU B: a traditional hand washing detergent containing CHG

Observations made by two trained research assistants during a one-month period of time

Cohen, et al. Pediatr Infec Dis J, 2003; 22:494-499

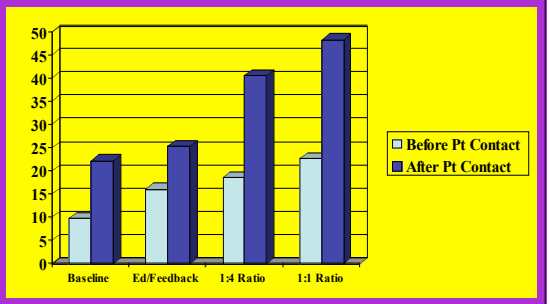
1472 observations of hand hygiene and gloving practices during 38 different time periods

Mean rate of direct touching/neonate/hour:

- *With* hand hygiene:
  - 1.20 with alcohol-based antiseptic
  - 0.81 with CHG (p=0.10, standard error: 0.23).
- *Without* hand hygiene:
  - 0.82 with alcohol-based antiseptic
  - 2.02 with CHG (p=0.01; standard error: 0.43).

Improvement in Practice

Bischoff, Arch Intern Med 2000; 160:1017



Effect of several interventions on handwashing frequency

- First and fourth graders, 5 Wash DC area public schools
- Four groups:
  - Peer education
  - Hand wipes and poster
  - Both
  - Neither

Results….

- Significant increase pre-to-post in all intervention groups, but not control
- Change sustained over 2 months only in group with BOTH peer education AND wipes

Early, AJIC, 1998

Is Infection Control an Added Task or an Integral Part of Practice?

- Is infection prevention the task or is it an *interruption* to what is perceived as the "real" task?
- If it is a task, how can it be imbedded into other tasks and not remain a "stand alone task" with no clear and timely feedback?
- Remember a "stand alone task" can be worked around…

Health (A Special Report): Care and Chaos on the Night Nursing Shift; In a Search for Purpose, An Editor Changes Careers; 'He's Asking for You Again' John Blanton. Wall Street Journal. (Eastern edition). New York, N.Y.: Apr 24, 2007. pg. D.7

Most nights, unexpected contingencies unwound the tight choreography of the shift, diagrammed in hourly increments in the sprawling spreadsheets of patients' charts. I lurched from one task to the next, fulfilling all requirements, but little more.

For a while, the electronic thermometers we used were in short supply, and the shift started with a mad dash to nab one. We made a joke of it, but behind the laughs, I heard the clock ticking. Infection control slows down all movement: Hands must be washed before and after every contact with a patient, and fresh gown and gloves donned every time one enters a patient room, to be discarded when exiting. A thermometer or any other piece of equipment moved from one room to another must be cleaned, too.

Understand the "System"

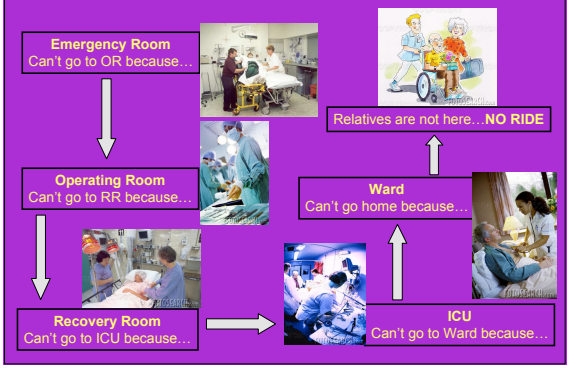
In infection control we are trained to break down into parts…but in complex systems *relationships* between parts are far greater than the parts alone

Example

- Termite hill
  - There is no CEO termite or Chief Nurse termite, etc.; just termites that all know their places and tasks in the system
  - We establish order and control through actions of a few top people in the organization – this may be the biggest factor holding back innovation and progress in our organizations

Infection Control is a Complex Adaptive System and a Socio-technical System

- Every organization has social (people, values, norms, culture, climate) and technical (tools, equipment, procedures, technologies, facilities) parts, and exists in an external milieu (economics, regulation, law)
- Reciprocal determinism (Bandura)
  - Changes to one aspect cause changes in the other (after varying time delays), which cause changes in the first, *etc*
  - Any "simple" change will reverberate through the system in planned and unplanned ways
- All components need to fit together
- That means the technical issues – are social!



What Is the Status of Interventions to Change Behaviour?

Intervention Studies for Behaviour Change (n=49)

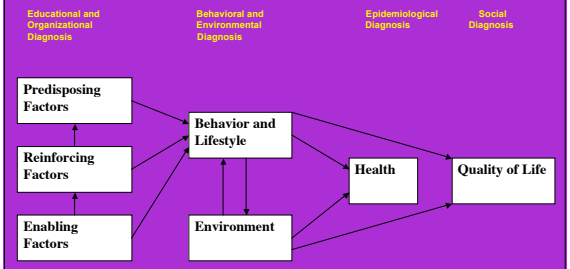
- Simplistic interventions: education, guidelines, feedback, audits, approvals processes/standing orders, gatekeeping
- 76% yielded desired behavior change
- Many methodologic flaws, no improvement over time
- None used behavior change models or applied rigorous evaluation over longer periods of observation

Taking a More Conceptual Approach

At the individual level…

Conceptual Framework

Green Precede-Proceed Model [1991]



Enhancing Individual Change

- Predisposing factors: Knowledge, beliefs, attitudes
- Enabling factors: Skills, equipment
- Reinforcing factors: Organizational systems, climate, and culture to affirm behaviour

New Teaching Methods for New Generations

- Blogs, used to disseminate information and as discussion sites
- Podcasts like an audio magazine subscription
- M-learning (moving from electronic learning on computer to mobile learning with wireless technology, PDAs)

Enhancing Systems Change

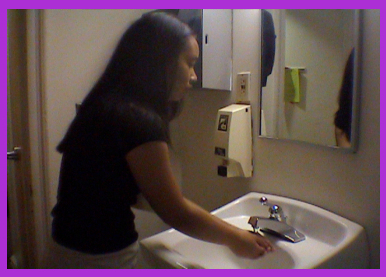
Systems Change-All Levels

- Structural: Convenient, time saving locations
- Philosophical/Conceptual
  - Heightened institutional priority
  - Rewards and/or sanctions (accreditation, legislation, Joint Commission 'best practices' survey)
  - Marketing (Clean Your Hands Campaign)

Therefore, a multi-factorial approach is essential

- Education: how, when, why with specific emphasis on elective hygiene
- Motivation: peer pressure and modelling, overt and continuing administrative support
- Cues to action: posters, easy access
- Patient/staff empowerment ("Ask me if I have cleaned my hands")

Hospital-Wide Intervention to Improve Hand Hygiene Practices



An Intervention to Change Organizational Culture

- to improve hand hygiene practices

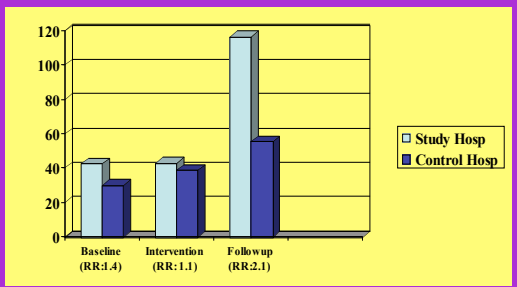
- to reduce healthcare-associated infections

Intervention *Comparison*

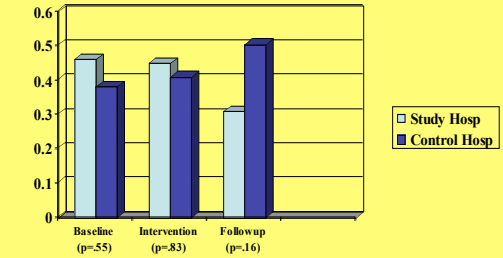
(8 months)

- 477,680 handwashes recorded
- 382,887 handwashes recorded

Mean handwashes/PCD

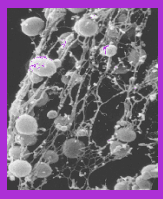


MRSA Rates/1000 Patient Days

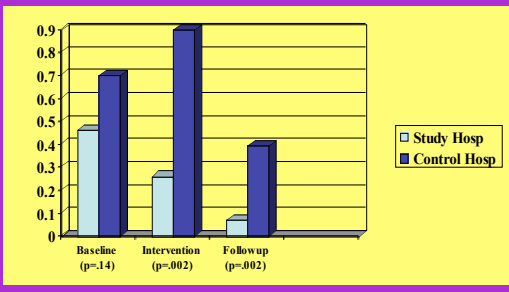


Change from Baseline to Follow-up Period: MRSA

- Intervention Hospital: 33% decrease
- Comparison Hospital: 31% increase
- p<0.0001



VRE Rates/1000 Patient Days



Change from Baseline to Follow-up Period: VRE

- Intervention Hospital: 85% decrease
- Control Hospital: 44% decrease p<0.0001

Larson, et. al. Behav Med 2000; 26:14

Change at the Societal Level

Principles of Social Marketing

- Learn from the commercial sector
- Be audience-centered; understand staff perceived norms & perspectives
- Use strategic planning
- Employ along with other theory and tools for change
  - Social ecology
  - Diffusion of Innovation
  - Transtheoretical model (stages of change)
  - Social cognitive theory

How to Use Social Marketing

Careful design of messages can shift perceived social norms and raise awareness and knowledge
- Professional journals and conferences
- Popular media
- Comprehensive campaign including media

Publicizing global health norms to national and local health care professionals, policymakers, and the public

Lessons

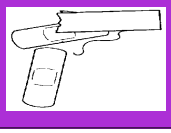
- Society's expectations of healthcare professionals can have an impact on practice
- Hence, social marketing is useful and community campaigns using mass media can work
- Addressing the problem requires attention to diversity in our workforce—people learn and are motivated by different things

Why Was 100,000 Lives Campaign Successful?

- Explicit and overt support from the top down
- People felt that they were part of a 'movement'
- Simple, clear, measurable actions
- Clear, measurable outcomes
- It addressed personal AND organizational factors needed for change

Berwick (JAMA)

"Systems thinking is not easy...part of the reason is the need to deal with change at two different levels--the system of work and the system of management of work"



Future Challenges

- Focus on behavior
- Expansion beyond hospital
- Outcomes research
- Global perspective

Sociology of Infection Control

- Challenges are interpersonal, interprofessional, not just scientific

People differ less from century to century than we are apt to suppose;

You will encounter the same opposition,
If you attack any prevailing opinion…
Let not such experiences…foster any love of dispute for its own sake.
It is not often that an opinion worth expressing,
Cannot take care of itself.

Holmes, 1862

We shall not cease from exploration, and the end of all our exploring will be to arrive where we started and know the place for the first time.

- T.S. Eliot

Here's Why We Do It

Evelyn, 5 mins old

Evelyn, 4 mths old