The Power is in your hands to prevent the spread of infectious disease!

Together we can make a Difference!
Together a Community can prevent a Pandemic by a coordinated primary infection prevention campaign.

It simply takes a motivated Community.
• If we were truly serious about reducing infectious disease in our communities, we would initiate a community wide collaborative Campaign that raises the public awareness standard about simple primary prevention techniques:

• The 4 Principles of Hand Awareness.
• You would take the Culture of Safety model for hospitals that are used in United Kingdom in their “Clean your hands” Campaign and the U.S. then apply these principles throughout the community and promote genuine communication between its businesses and citizens to reduce the chance for spread of infectious disease.
• Last year the WHO initiated a Clean Care is Safer Care program that is being piloted around the world in 6 sites. There is no coordinated model being used in the U.S. today.

• **We are still functioning in silos.**
To be successful it is necessary to break down artificial barriers that exist between "silos": business, government, food service, schools, health care and religious institutions to accomplish a community protective Campaign.
Amazing statistics from the CDC

- **52,000,000** Upper Respiratory Infections occur each year,
- **164,000,000** days lost from school due to illness,
- **22,000,000** days lost from school due to the common cold
- **36,000** people die from the Flu and flu-like illness annually
- **800 million** patient visits annually
Amazing statistics from the CDC

- **90,000** patients die each year from Hospital Acquired Infections (HAI)
- **2,200,000** HAI occur each year, at a cost of $6.7 billion
- **5,000** people die from food borne illness annually,
- **76,000,000** cases of food borne illness annually
- More than **300,000** hospitalizations due to food borne illness
- **33,000,000** hospital admissions annually
What are the 10 most deadly weapons?
Our Fingers and Thumbs!
HCWs Nares organism found in several patients mediastinal site infections on the same floor, 1989.

Reduction of Surgical site Infections in Cardiothoracic Surgery by Elimination of Nasal Carriage of Staphylococcus Aureus, Jan, AJ et al, Infection Control and Hospital Epidemiology, November 1996.
Other Evidence that the “colonized” HCWs are the source for Staph aureus outbreaks.

The 4 Principles of Hand Awareness

1. Wash your hands when they are dirty and before eating.
2. Do not cough into your hands.
3. Do not sneeze into your hands.
4. Above all, do not put your fingers into your eyes, nose or mouth.

*Endorsed by the AMA and the AAFP (2001)
*referred to as individual ideas for flu prevention by CDC, but not packaged as an integrated concept.
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WASH YOUR HANDS WHEN THEY ARE DIRTY AND BEFORE EATING!
DO NOT COUGH INTO HANDS!

INSTEAD TRY COUGHING HERE!
DO NOT SNEEZE INTO HANDS!

INSTEAD SNEEZE HERE!
ABOVE ALL, DO NOT PUT YOUR Fingers IN YOUR EYES, NOSE OR MOUTH!
How new is Hand Awareness?

- John Snow MD (1854) Broad Street pump handle and Cholera epidemic
- Ignaz Semmelweis MD (1847) perinatal mortality reduced by using a dilute chlorine solution rinse between the morgue and L&D suite.
- Although it took 20 years, respectively for acceptance of their discoveries.
- Let’s not repeat the same mistake.
Hand Awareness

- Knowing where your hands are and what they are doing AT ALL TIMES.
- Scientifically stated it is the integration of Hand Hygiene, Respiratory Etiquette and cross-contamination awareness in a best practice model.
Hand Awareness

• People who are “Hand Aware” are less likely to contaminate themselves, another person, food product or surface.

• Why would anyone purposely give themselves E.Coli 0157:H7, MRSA, VRE, Shigella, etc.?
Respiratory Etiquette

- Principle 2 and 3.
- Do not Cough or sneeze into your hand. Use a sleeve, kleenex, crook of your elbow, etc., anything except a bare hand. Very few people are running to the sink to wash their hands after coughing or sneezing.
- Pertussis, viral illness, pneumocococcus, meningococcus, and many similar diseases would be prevented by diligent practicing of the 4 Principles of Hand Awareness.
Respiratory Etiquette

2. Do not cough into hands!

3. Do not sneeze into hands!

Instead try coughing here!

Instead sneeze here!
Hand Hygiene

- Principle 1 and 4.
- Handwashing is publicly discussed.
- Mucus membrane contact has NOT been publicly discussed as it should be to prevent inoculation and colonization.
Hand Hygiene

1. Wash your hands when they are dirty and before eating!

4. Above all, do not put your fingers in your eyes, nose or mouth!
Unfortunately the single act of handwashing or sanitizing alone does not prevent cross contamination.
The Hand is quicker than the eye!

People “unknowingly” touch a contaminated surface, then transmit the organism to another surface, themselves or a patient due to personal habits.
How soon after starting to work in the hospital do staff nares become “colonized” with MRSA?

• 2 weeks? 6 weeks? Who is checking?
• Does your pre-employment interview ask if you comply with the 4 Principles of Hand Awareness?
• Are you a nose picker, nail biter, licker, eye rubber, etc.?
• 20-30% of HCWs are colonized with MRSA at any one time - Boyce, 1996
When did the CDC and Prevention first address the issues of mucus membrane colonization, self inoculation and cross contamination?

1983
Guideline for Infection Control in Hospital Personnel

Walter Williams MD.MPH, Hospital Infections Program, National Center for Infectious Diseases, CDC and Prevention; July 17, 1983:1-43

- **Staph aureus**: If certain personnel are linked epidemiologically to an increased number of infections, these personnel can be cultured and, if positive, removed from patient contact until carriage is eradicated.
• **Viral respiratory infections**: masks probably will not completely protect personnel from patients with respiratory illnesses because large particles and aerosols may still reach the eyes, and self-inoculation from contaminated hands can still occur by touching the eyes.
What germs are on your hands?

- **Bacteroides**: If you don't wash after using the toilet, we can give you an ear infection.
- **E-Coli**: (caused by bacteria) I can be spread by not washing your hands after using the toilet.
- **Shigella**: I cause Diarrhea.
- **Staphylococcus**: Would you like a big zit or a boil?
- **Streptococci**: I'm delighted to give you a sore throat.
- **Pseudomonas**: I can infect wounds.
- **Streptococcus Pneumoniae**: Among other things, I love to give you Pneumonia.
- **Hemophilus**: I can cause pink eye (highly contagious).
- **Hepatitis A**: I can cause jaundice and diarrhea.
Any other surprises?
MRSA is not walking out of the hospital.

- Staff, patients, visitors, vendors and others are carrying disease out on their hands, in the nares, clothing, equipment, etc.
- How many of us “decontaminate” before leaving or entering the hospital?
- Why not?
- We should do this at school, work and religious institutions, if we are truly concerned about preventing the spread of disease.
Which Behaviors?

- Nose picking and rubbing
- Eye rubbing
- Nail biting, finger licking, etc.
- Curtailing these habits, “Is a simple solution to a complex problem” of nosocomial infections.
“Decontaminating” upon entering a public/private facility.

- Wash, wipe or sanitize your hands upon entering if you do not want to carry any disease into that facility.
“Decontaminating” upon leaving a public facility.

- Wash, wipe or sanitize your hands upon leaving the facility if you do not want to carry any disease out of the facility.
“Decontaminating” upon entering a private facility.

• Wash your hands upon entering your home to minimize the chance of bringing in disease.
So How do you change peoples habits?

CDC, SHEA and many notable scientists put together a review in the MMWR in 2002.

First, you draw the HCWs attention to “what is your (their) habit?”
So How do you change ones habits?

Next, reinforce the knowledge that their Hands ARE the major vector for transmission of respiratory, GI and nosocomial disease.
So How do you change ones habits?

Then you help them change it by a few simple techniques which help them stop the health risk behavior: i.e. touching their eyes, nose or mouth (mucus membranes).
Factors necessary for change include:

1. dissatisfaction with current situation

2. perception of alternatives, and

3. recognition, both at the individual and institutional level, of the ability and potential to change.

The first two necessitate a system change and the latter requires education.
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Guideline for Hand Hygiene in Health-Care Settings,
MMWR, 2002,51(RR16);1-44

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Most importantly, an improvement in Infection Control practices requires:

1. **Questioning** basic beliefs,
2. Continuous assessment of the group (or individual) stage of behavioral change,
3. **Interventions** with an appropriate process of change, and
4. **Supporting** individual and group **creativity**.

Because of the process of change, **single interventions often fail**. Thus, a multimodal, multidisciplinary strategy is likely necessary.

MMWR 2002, 51;1-44(cont)
Champion Handwasher Hospital Campaign

It requires **team work** and **true** collaboration to improve the outcome.

It is human behavior “habits” and administrative barriers that need to be overcome to achieve a “culture of safety”.

We need to promote “genuine” communication across levels of authority to be successful.
Champion Handwasher
Hospital Campaign

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We need to promote **“genuine” communication across levels of authority** to be successful.
Dixon defines the missing link in infection prevention as our being “less comfortable with techniques used to influence human behavior, manage programs or evaluate program effectiveness. The research techniques for addressing this final link in IC have traditionally been in the province of social psychologists, psychologists and management consultants, & biomedical investigators have felt uncomfortable with, or skeptical of, such techniques.”

“IC…must become involved in the management of programs and people, seeking to learn why control programs succeed or fail. In doing so, they must begin to consider the most complex of biologic phenomena…human behavior.”

Source: Richard Dixon in Am Journal of Medicine 1981; 70:976-78
-Denise Murphy RN, BSN, MPH, CIC
Health Belief Model describes specific variables that influence an individual’s self-protective health behaviors and is based on

- Perception of the **risk or susceptibility to the illness**
- **Perception of the severity or degree of consequences of the illness**
- Perception of barriers or cost of undertaking a particular health behavior (or not)
- **Cues** to action that trigger the health behavior
- **Self efficacy**


-Denise Murphy RN, BSN, MPH, CIC
Let’s Get Started

Let’s admit to ourselves that **humans are responsible** for transmitting disease and contaminating surfaces in the community setting.

Let’s agree that we each have personal habits that *may* be contributing to the spread of infectious disease.

Let’s agree to **not take offense** when a staff member of lesser skill or education comments to us about our Hand Awareness technique.

Let’s agree that we are **ALL sensitive** about our personal habits, however we **agree** that we want to **protect** our family and friends, so we will accept more accountability.

Let’s agree that this process makes each and everyone of us a little **nervous**.
Imagine if we **ALL** participated in a community wide Campaign through our Schools, Work and Religious institutions!

- We would Dramatically reduce the incidence of and the transmission of infectious disease.
- Imagine NEVER being sick again from a respiratory or gastro-intestinal disease!
Identify the Champion Handwasher Officer

• The purpose is to have one individual who is responsible for coordinating the efforts ensuring that this Campaign succeeds to benefit the patients in your hospital system.

• They are the contact point to report compliance to the staff, public, HTH Foundation and JCAHO when asked.

• Also to follow up on periodic “reinforcement activities” in the hospital to maintain a high level of compliance.
Culture of Safety

It is critical that this Campaign begin the “genuine” communication and accountability in the community that will help lead to a culture of safety, that is necessary to prevent the spread of infectious disease.

A key component to the Hand Awareness Campaign is there is no social, economic or educational edge any person has over another, in spite of their level of training or authority in the health care system.

It is strictly personal AWARENESS and accountability!
OK

• It sounds plausible.
• How do we get started?
Goals

• Each participant understands, practices and promotes the 4 Principles of Hand Awareness to their patients, colleagues and family.

• Each participant will have a couple of simple non-threatening phrases to use when they notice another child/adult breaches the 4 Principles of Hand Awareness.
Select a few phrases (slogans) to be used that tells a fellow citizen they did not wash or sanitize correctly, or breached their mucus membrane.

A statement(s) that we will not take offense to, and instead, reward our peers and non peers for their correct observation.
Sample Phrases

• Are you a Germinator?
• Don’t touch the “T zone”?
• I do not think you washed before touching that patient.
• Hey Bozo watch those digits!
• You just broke one of the 4 Principles.
Champion Handwasher Tool Kit

Reinforcement Tools for the Campaign, enlisting multimedia strategies (social marketing), that help break through traditional human defenses:

- Animation
- Music
- Visual prompts
- Participatory demonstrations
Who is “Dr. Will”

Solo practice Family Medicine, 1986.
Influenza Sentinel Network, one of 100 sites, member

Henry the Hand Champion Handwasher, creator, 199-
Clean Hands Coalition, founding member, 2003.
Sample of a video that you can do to “surprise” staff and make the Campaign “fun”!