

# Community Involvement in Hand Hygiene (HH)

**Moustafa Abdelnasser**

**Professor of Microbiology & Infection Control,  
ESIC, ICAN & APIC Member**



# Introduction

- This year “2017” the title is “**FIGHT ANTIBIOTIC RESISTANCE: IT'S IN YOUR HANDS**”.

# HH 2017

Since the call for Hand Hygiene (HH) in 5 May 2005 by WHO represented by Professor Didier Pettit , a celebration is held every year in all WHO regions shared with their healthcare settings (HCS)



- In most times we stress on the role of HCS in HH,
- But what about the community, where most infections emerge “**outbreaks**”, other come from or come back to hospitals and other HCS.

# Aim & Objectives

- To spotlight on community acquired infections (CAIs).
- To stress on the role of HH in prevention of these infections.
- To call social media to share and take an active role in HH.

# Why is hand hygiene important?

- Infectious disease remains a serious problem worldwide.
- However, there is increasing evidence to show that good hygiene practice in the home and community prevents not only the spread of foodborne infections but also has an important role in preventing the spread of many other common infections.



## **The Doctor Who Championed Hand-Washing And Briefly Saved Lives**



Semmelweis considered scientific inquiry part of his mission as a physician.

De Agostini Picture Library/Getty Images



# Community acquired infections (CAIs)

- **Foodborne diseases** are a serious and global problem.
- The WHO estimates that worldwide foodborne and waterborne diarrhoeal diseases taken together kill about 2.2 million people annually.
- In developing countries, diarrhoeal disease is a major health problem.

# Infectious intestinal disease (IID)

- It is not foodborne, but is the result of person-to-person spread within families.

# Respiratory disease

- The last two years have seen an unprecedented effort to develop global strategies for preventing transmission of influenza,

# Skin and wound infections

- Transmission of skin-wound and eye infections can occur via contaminated hands.
- The danger posed by methicillin-resistant *Staphylococcus aureus* (MRSA) infection in HCS has been well publicised.

# Patient and Family Education when in Hospital

- Handwashing is like a "do-it-yourself" vaccine—it involves five simple and effective steps (Wet, Lather, Scrub, Rinse, Dry) you can take to reduce the spread of diarrheal and respiratory illness so you can stay healthy.
- Regular handwashing, particularly before and after certain activities, is one of the best ways to remove germs, avoid getting sick, and prevent the spread of germs to others.
- It's quick, it's simple, and it can keep us all from getting sick.
- Handwashing is a win for everyone, except the germs.

# CDC hand hygiene recommendations

- Empower patients to play a role in their care by asking or reminding healthcare providers to clean their hands

# HH at Home



**For kids, washing hands can be a fun and entertaining activity**



# HH at school

## (a Story from Oxford, UK)

- Pupils and staff in intervention and control schools demonstrated a similar level of understanding of how, when and why they should wash their hands.
- Structural factors, including having time to wash hands using accessible, clean facilities, and being encouraged through the existence of hand washing opportunities in the daily routine and hand washing being viewed as the social norm, will also influence hand washing behaviour.
- [Health Educ Res \(2012\) 27 \(6\): 1055-1068.](#)

# HH at Working Places

- Handwashing is one of the best ways to avoid getting sick and spreading illness to others.
- Sick employees are less productive even when they come to work.
- They may also spread illness to others at work.
- One recent study promoting clean hands in corporate environments showed:
  1. Fewer employee illnesses
  2. Less use of sick days



- **Here are some other ways to celebrate World Hand Hygiene Day.**
- You can play **handwashing** games by singing a song for children when they wash their hands. You can make **handwashing** a routine and important part of your daily life to prevent the spread of harmful germs in your home.

# When should I wash my hands? (APIC)

- Many illnesses can be prevented with regular hand hygiene using soap and water or alcohol-based hand sanitizer.  
Clean your hands often, and request that others do the same.
- Before eating;
- Before, during, and after preparing food;
- After using the bathroom;
- After coughing, sneezing, blowing your nose, or caring for someone who is ill;
- After taking out the garbage;
- After petting animals;
- When visiting someone who is sick; and
- *Whenever your hands look or feel dirty!*

# Role of Media

- Role of Media ( Newspapers, Magazines, Radio & TV).
- **Whether you are at home, at work, traveling, or already sick, find out how good hand hygiene can protect you, your family, and others.**

# Role of Social Media

- Social media tools reach millions of individuals, private or not-for-profit organizations, and government officials around the world.
- Global Handwashing Day 2015 Social Media Toolkit.
- Facebook, Tweet, Blogs, Youtube

# Promoting a Hand Hygiene Program Using Social Media: An Observational Study

- Facebook had the highest connection rate in the HH video campaign.
- The use of novel social media such as Facebook should be considered for future programs that promote hand hygiene and other healthy behaviors.

# Stories from other countries







[www.cdc.gov/HandHygiene](http://www.cdc.gov/HandHygiene)

# Break the Chain of Infection

## BREAK THE CHAIN!

- ✓ Immunizations
- ✓ Treatment of underlying disease
- ✓ Health insurance
- ✓ Patient education



## BREAK THE CHAIN!

- ✓ Diagnosis and treatment
- ✓ Antimicrobial stewardship

## BREAK THE CHAIN!

- ✓ Cleaning, disinfection, sterilization
- ✓ Infection prevention policies
- ✓ Pest control



### Infectious agent

- Bacteria
- Fungi
- Viruses
- Parasites



### Susceptible host

- Any person, especially those receiving healthcare.

### Reservoir

- Dirty surfaces and equipment
- People
- Water
- Animals/ insects
- Soil (earth)



### Portal of entry

- Broken skin/incisions
- Respiratory tract
- Mucous membranes
- Catheters and tubes

### Portal of exit

- Open wounds/skin
- Splatter of body fluids
- Aerosols



### Mode of transmission

- Contact (direct or indirect)
- Ingestion
- Inhalation



## BREAK THE CHAIN!

- ✓ Hand hygiene
- ✓ Personal protective equipment
- ✓ Personal hygiene
- ✓ First aid
- ✓ Removal of catheters and tubes



## BREAK THE CHAIN!

- ✓ Hand hygiene
- ✓ Personal protective equipment
- ✓ Food safety
- ✓ Cleaning, disinfection, sterilization
- ✓ Isolation

## BREAK THE CHAIN!

- ✓ Hand hygiene
- ✓ Personal protective equipment
- ✓ Control of aerosols and splatter
- ✓ Respiratory etiquette
- ✓ Waste disposal

# Conclusion

- In recent years a many high profile campaigns have been launched to promote the message: **“wash your hands”** .
- A primary aim of these campaigns is the prevention of the spread of infections such as MRSA, *Clostridium difficile* and norovirus in **hospitals** and other healthcare settings.
- Promotion of **handwashing** is also a key part of public health campaigns to reduce the incidence of **food poisoning** arising in the **home**, where **hand hygiene** plays a crucial role.

# References:

- WHO (2017)
- APIC (2017)
- Hand hygiene in the home and community (2015). Information & Hygiene advice Sheet .
- **Factors influencing hand washing behaviour in primary schools: process evaluation within a randomized controlled trial.** Health Educ Res (2012) 27 (6): 1055-1068. Chittleborough CR, Alexandra L. Nicholson, Elaine Basker , Sarah Bell & Rona Campbell DOI: <https://doi.org/10.1093/her/cys061>
- <https://www.cdc.gov/handhygiene/campaign/promotional.html>
- **Promoting a Hand Hygiene Program Using Social Media: An Observational Study.** Monitoring Editor: Gunther Eysenbach. Reviewed by Qingpeng Zhang and Lucy Yardley [Sung-Ching Pan](#), MD MPH,<sup>1</sup> [Wang-Huei Sheng](#), MD,<sup>1</sup> [Kuei-Lien Tien](#), RN,<sup>1</sup> [Kuang-Tse Chien](#),<sup>1</sup> [Yee-Chun Chen](#), MD,<sup>1</sup> and [Shawn-Chwen Chang](#), MD<sup>1</sup>

# Thank You for HH



## Backyard poultry infection prevention

Soft, fluffy chicks are practically synonymous with spring. With their downy feathers, chicks seem like great cuddling companions, but caution must be taken to prevent infection. Many human illnesses can be acquired through contact with live poultry.

APIC.ORG