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COVID-19: Have you washed your hands?

Part 3 of 4

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Just Clean Your Hands

JCYH is an evidence-based, multifaceted, educational program established in Ontario in 2008 to improve compliance among healthcare practitioners with hand hygiene best practices in healthcare settings (read: hospitals) to prevent healthcare associated infections and promote patient safety. In 2011, the program was transferred from the Ministry of Health and Long-Term Care to Public Health Ontario.

One can be forgiven for questioning why, in the 21C, adequate hand hygiene among healthcare staff, professionals and practitioners requires administrative intervention. A peek at hand hygiene practices among the general public, worldwide, provides a solid clue.

🌣 Handwashing post toilet – 5% success rate

A 2013 peer-reviewed study published by Michigan State University found that only 5% of people who used the washroom washed their hands long enough to kill the germs that can cause infection. 33% didn't use soap and 10% did not wash their hands at all, with males tending to be the culprit more often than females.

Microbiologists survey six airports

A 2003 study by the American Society for Microbiology reports "although handwashing may seem like a basic task, [of 7,541 people using airport public washrooms, many did not wash their hands after using the toilet.]" Toronto airport fared statistically better than the others, with 97% and 95% compliance among females and males, respectively. Looks like we may be doing something right in Canada. (This article quotes the late Dr. Donald Low, microbiologist at Mount Sinai Hospital, who led Toronto out of the 2003 SARS epidemic.)

Witnesses increase compliance

Two UK universities collaborated in 2012 to investigate the cleanliness of the hands of British people. The researchers found that <u>fecal bacteria were present on 26% of the hands investigated</u>. A separate UK study of 200,000 highway commuters which employed electronic wiring of soap pumps found that only 32% of men and 64% of women wash with soap after using the toilet.

$\ddot{f eta}$ Is it all about soap? Yes and no.

Hand sanitizers can fight some bacteria and some viruses, but not all. Health Canada reports that <u>not one hand sanitizer on the Canadian market combats the COVID-19 virus</u>. One needs soap and water for that.

🌣 MIT 2019 – airport disease transmission

A prescient study of global dissemination of infectious diseases in airports and mitigation through handwashing now rings as a harbinger of the COVID-19 pandemic, as the abstract reveals: The risk for a global transmission of flu-type viruses is strengthened by the physical contact between humans and accelerated through individual mobility patterns. The Air Transportation System plays a critical role in such transmissions because it is responsible for fast and long-range human travel, while its building components—the airports—are crowded, confined areas with usually poor hygiene. [The CDC] and the [WHO] consider hand hygiene as the most efficient and cost-effective way to limit disease propagation.... Our results provide evidence for the effectiveness of hand hygiene in airports.

The authors identify 10 critical airports of high commuter volume and key location. They estimate a 37% drop in the risk of a pandemic with cost-optimal handwashing intervention in these 10 airports alone. Something for future consideration.

🌣 Influenza delle stelle...

Influenza is the medical term for the potentially fatal respiratory illness commonly referred to as "the flu" caused by specific <u>viruses</u>, <u>types A, B and C</u>. The term stems from late 16C to early 17C, Italy:

The first record of this <u>strange and inexplicable</u> <u>illness</u> occurred around the year 1580. As the phenomenon recurred, acute observers recognized that it tended to 'pop up' simultaneously in multiple locations, sometimes on multiple continents. In an effort to explain this cognitively dissonant fact, Italian 'scientists' examined sun-spot records and noticed that outbreaks always seemed to coincide with peaks of sun-spot activity. By the early 1600s European scientists had worked out that the cause of the illness was the effect of unusual magnetic waves impacting the human body. Thus," influenza" became the name of this illness, short for "Influenza delle stelle" – the influence of the stars.

Scientific and medical understanding of "influenza" has not advanced all that much since 17C Italy. FF

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