

health terms, that steps are taken to ensure that this is achieved without compromising hygiene effectiveness. This report suggests that there are good possibilities to achieve this through one or a combination of approaches which include using powder detergents containing active oxygen bleach, optimising detachment through enhanced detergency and optimising dilution through rinsing. It could also include targeted changes in drying and ironing practices.

This new report can be found at: <http://www.ifh-homehygiene.org/review/effectiveness-laundrying-processes-used-domestic-home-settings-2013>

The 2011 IFH report on the infections risks associated with clothing etc. can be found at: <http://www.ifh-homehygiene.org/IntegratedCRD.nsf/eb85eb9d8ecd365280257545005e8966/d0e3b0f361079f1780257865003d43b1?OpenDocument>.

IFH has also prepared a fact advice sheet containing the key facts and advice on laundering taken from the review. This can be found at: <http://www.ifh-homehygiene.org/factsheet/clothing-household-linens-laundry-and-home-hygiene>

NEW Review – Common touch surfaces as vectors for infection transmission in home and community settings



A new review by IFH Board Member Professor Elizabeth Scott argues that future intervention studies in home and community settings must consider the inclusion of common touch surfaces. The paper sets out to show that, although our hands play an obvious role in the transmission of many of these pathogens, common touch surfaces are also an important part of the transmission equation, but tend to get overlooked because of the lack of intervention study data showing a direct link to infection.

The paper starts by summarising the current evidence showing why hygiene in home and community settings is important, not just in prevention of infection, but also in reducing the need for antibiotic prescribing and the spread of antibiotic resistant strains. The paper then sets out the most recent laboratory and field studies showing how gastrointestinal, respiratory and skin pathogens are transmitted directly between human beings via contact with hands and skin or by breathing in respiratory droplets. The data shows how indirect contact and transmission occurs when pathogens are shed onto environmental surfaces from human beings, pets, and food and are then transmitted back to another human being via hand contact or via cross-contamination to another foodstuff or yet another surface. The review was published online, 13th August 2013, and can be found at: [http://www.ajicjournal.org/article/S0196-6553\(13\)00938-3/abstract](http://www.ajicjournal.org/article/S0196-6553(13)00938-3/abstract)

2. News and new research

Is exposure to green spaces the key to reversing trends in allergies and other chronic inflammatory diseases?



In a new paper published this week in *Proceedings of the National Academy of Sciences*, Professor Graham Rook sets out new ideas about the role of microbial exposure in reducing chronic inflammatory disease risks. Although new data continues to support the “hygiene hypothesis” concept that microbial exposure is important, in 2003 Professor Rook put forward the idea that it is not “exposure to infections” which is the

important contributory factory, but rather a failure of immunoregulation due to lack of exposure to organisms ("Old Friends") from mankind's evolutionary past. These are organisms that needed to be tolerated, and therefore evolved roles in driving immunoregulation. He argues that we have become so dependent on these Old Friends that our immune systems neither develop properly nor function properly without them. His thesis is that the various classes of organism that had to be tolerated were entrusted by evolutionary processes with the role of setting up the immunoregulatory mechanisms. If this process fails we develop susceptibility to chronic inflammatory diseases, and also cardiovascular disease, and some forms of inflammation-associated depression.

In this latest paper he argues that, because many of the vital "Old Friends" (such as helminths and the infections picked up at birth that established carrier states) are now almost eliminated from the urban environments where we live, this increases our dependence on other "Old Friends" which include the microbiota derived from our mothers, siblings and other people, and from the natural environment. He likens the immune system, at birth, to a computer that contains programmes but almost no data. After birth it needs microbial exposures to provide teaching inputs. Exposure to a broad biodiversity of organisms builds up a diverse memory that accelerates subsequent recognition of novel dangerous organisms. It has long been known that living close to natural environments has long-term health benefits. This is often attributed to psychological mechanisms, boosted by exercise, social interactions and sunlight. This latest thinking suggests that development of green spaces in urban areas could also be important for appropriate regulation of our immune system. The publication can be found at: <http://www.pnas.org/content/early/2013/10/23/1313731110.abstract>

CDC releases report on antibiotic resistance threats



The Centers for Disease Control and Prevention (CDC) has released a new report on the burden and threat posed by antibiotic-resistant germs and strategies to address the issue. CDC estimates that more than two million people in the United States get infections that are resistant to antibiotics and at least 23,000 people die as a result. CDC has identified [four core actions](#) to combat the threat posed by antibiotic-resistant germs, with improving infection prevention and control practices listed as the first target area. The report says "Preventing infections from developing reduces the amount of antibiotics used. This reduction in antibiotic use, in turn, slows the pace of antibiotic resistance. Preventing infections also prevents the spread of resistant bacteria." To read the document follow the link: <http://www.cdc.gov/drugresistance/threat-report-2013/>

The role of surface disinfection in infection prevention – Rudolf Schülke Foundation

The Rudolf Schülke Foundation addresses topics related to hygiene, infection prevention and public health. Every two years, the Foundation organises a symposium inviting a panel of scientists from various European countries to discuss a topic of current concern and special relevance for the field of hygiene. For the 2011 symposium, the Schülke Foundation decided to assess "The Role of Surface Disinfection in Infection Prevention". The findings and conclusions of this meeting are summarised in a consensus paper published in *GMS Hygiene and Infection Control* 2013, Vol. 8(1), 1-12.

After discussion and review of current scientific literature the authors agreed that contaminated surfaces contribute to the transmission of pathogens and may thus pose an infection hazard. They concluded that targeted surface disinfection based on a risk profile is an indispensable constituent in a multi-barrier approach of universal infection control precautions. This article is freely available from: <http://www.egms.de/en/journals/dgkh/2013-8/dgkh000204.shtml>

Keypad mobile phones and touch screens – what are the infection risks?



A study of 67 mobile phones belonging to healthcare workers showed that touchscreen mobile phones are less contaminated than their keypad counterparts, and less likely to harbour pathogenic bacteria. Colony counts were significantly higher on the keypad phones. Nine (13%) phones grew either methicillin resistant *Staphylococcus aureus* or vancomycin resistant enterococci. Eight (24%) keypad phones were contaminated with these organisms compared with one touch screen phone (3%). The study can be found at Journal of Infection Prevention March 2013 14: 65-68, doi:10.1177/1757177413475903

Community-associated MRSA from the Indian subcontinent

Evidence suggests that community-associated MRSA is increasing in prevalence in India with a recent multicentre study showing that 65% of community associated *S. aureus* were MRSA, and findings from another study showing that more than 70% of healthy carriers of *S. aureus* harboured MRSA. The report can be found at: [http://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(13\)70231-7/fulltext#article_upsell](http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(13)70231-7/fulltext#article_upsell)

Most *Clostridium difficile* infections are not hospital spread

A study carried out in Oxford University Hospital NHS Trust area, between 2008 and 2011, suggests that only about 1 in 5 of *C. difficile* infections are being spread between patients in hospital. There is growing awareness that community-acquired *C. difficile* is equally important and there are data indicating transmission to humans from animals. Studies suggest carriage rates for *C. difficile* in the healthy adult community of up to 3% with higher colonisation rates in the over 65 age group. One of the researchers, Prof. Tim Peto, told the BBC: "More and more deep cleaning ain't going to do any good." If this is the case then IFH suggests that good hygiene in the community could be a key to reducing infection rates by reducing spread in the healthy community. The study can be found at: <http://www.nejm.org/doi/full/10.1056/NEJMoa1216064>

Public Health and social benefits of “at house” water supplies in developing countries



This new report examines the hypothesis that access to an at-house water supply will deliver significantly greater health, social and economic benefits than those derived from a shared public water supply. The research was carried out in Ghana, South Africa and Vietnam. The headline conclusion is that at-home water supply has significant, measurable benefits when compared with shared water supply outside the home provided that the service provided is reliable enough to ensure access to adequate quantities of water when required. The report can be found at:

http://r4d.dfid.gov.uk/pdf/outputs/water/61005-DFID_HH_water_supplies_final_report.pdf

Infection Prevention and You – a resource for healthcare workers who are not infection preventionists



APIC has just launched the [Infection Prevention and You](http://professionals.site.apic.org/) site intended for healthcare workers who are not infection preventionists. The site offers tips, and tools to help protect patients, vital information on dangerous bugs and outbreaks, and information on International Infection Prevention Week (IIPW), October 20-26, 2013. The resource can be found at: <http://professionals.site.apic.org/>

3. Conferences and events

Hands behaving badly – The science behind hand washing and behaviour change

Royal Society of Public Health – Thursday 3rd April 2014, 28 Portland Place, London. This conference will consider important topics in hand hygiene including barriers to hand washing and how to overcome them, how to encourage the public to wash their hands and the economics of hand washing. Further details will be posted at: www.rsph.org.uk.

Antibiotic Awareness Day November 18th 2013



European Antibiotic Awareness Day is a European health initiative coordinated by ECDC. It is an opportunity to look at how we use antibiotics, the damage we do when we use them inappropriately, and what we can do to keep antibiotics working, now and in the future. Each year across Europe, the European Antibiotic Awareness Day is marked by national campaigns on the prudent use of antibiotics. For more information, visit: <http://antibiotic.ecdc.europa.eu>. This year the British Society of Antimicrobial Chemotherapy have set up a 'Thunderclap' to raise awareness of this event. To access this and show support, click on the link below and sign up and support via a Facebook or Twitter account. <https://www.thunderclap.it/projects/5299-help-keep-antibiotics-working>. A Thunderclap is a social networking tool that, if supported by a minimum of 100 people, the message is delivered at the same time on November 18th to the social networks of all supporters.