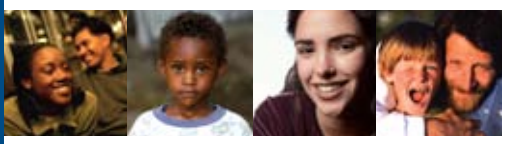
IFH
INTERNATIONAL
SCIENTIFIC FORUM
ON HOME HYGIENE

DEVELOPING AND
PROMOTING BETTER
HEALTH THROUGH
HYGIENE

HYGIENE FOR HEALTH

containing the global burden of infectious disease by sharing responsibility



Why hygiene – why a shared responsibility?

Good health is the basis of prosperity and personal wellbeing the world over. Illness in the family may mean that parents cannot work, or that children cannot go to school. In developing countries, poor health keeps families in poverty and threatens national economic development. Infectious disease is a significant cause of ill health worldwide, accounting for over 13 million deaths every year. Although the majority of deaths occur in the developing world, infectious disease still causes around 4% of deaths in developed countries and is a significant cause of morbidity.

In the developed world, although vaccination strategies and ready access to antibiotics have meant that attitudes to infectious disease have relaxed in recent decades, the threats posed by the emergence of new pathogens and antibiotic-resistant strains of bacteria, the increasing importance of viral diseases (e.g. norovirus, hepatitis, influenza, SARS), together with trends towards providing care in the community mean that the role of infectious disease prevention as part of public health is likely to increase rather than decrease in coming years.

Most recently, outbreaks of SARS and concerns about avian flu have raised awareness of the need for effective and global strategies for preventing the spread of infectious disease in the home and community.

The IFH believes that sustainable control of infectious disease worldwide can only be achieved by greater emphasis on hygiene. If we are to make a difference however, effective hygiene is a goal that must be shared by everyone, including government and non-government agencies, scientists, healthcare professionals, communities and families. While international and national agencies must play their part, we need to ensure that:

- Information about infectious disease and prevention through hygiene is freely available and accessible to all socio-economic groups.
- Hygiene is promoted as a means of maintaining family health, on the same footing as healthy nutrition and other aspects of healthy living.

Hygiene and the developed world

In the developed world, although mortality due to infectious disease has declined substantially over the last 100 years, trends in morbidity suggest a change in patterns of infectious disease rather than declining rates. Common infections such as colds, influenza and food poisoning impose a considerable burden on the individual (e.g. through absence from work or school) and on the community (e.g. through increased pressure on health services).

Foodborne, waterborne and other infectious intestinal disease

Despite the fact that nearly all infectious intestinal diseases are preventable, poor hygiene practice means they are still unacceptably common. A WHO report concludes that up to 40% of food poisoning outbreaks in Europe occur in the home, and that 1 in 5 people in the UK suffer from infectious intestinal disease every year. In the USA the total number of cases of infectious gastrointestinal illness annually is estimated at around 210 million.

Respiratory infections

Hygiene plays a part in limiting the spread of respiratory infections such as colds and influenza. The common cold is reported to be the most frequent, acute infectious illness to humans. Data from the USA suggest that the number of respiratory illnesses experienced per year in adults is around 1.5-3.0, and in children under 5 years it is around 3.5-5.5. Recent studies have suggested that hand hygiene can reduce the risk of respiratory infection by up to 23%.

Pathogens as co-factors in cancer and/or degenerative diseases

Pathogens are now known to be associated with the development of other diseases which manifest at a later date. These include cancer (e.g. human papillomavirus and cervical cancer), degenerative diseases (e.g. campylobacter and Guillain-Barré syndrome) and long-term disease (foodborne illness has been estimated to result in chronic sequelae in 2–3% of cases). A significant proportion of childhood wheeze and asthma is believed to be triggered by respiratory infections.

Emergence of new pathogens

New pathogens can spread quickly through communities. Agents such as rotavirus, campylobacter, legionella, *E. coli* O157 and norovirus, largely unknown before the 1980s, are now leading causes of morbidity. Hygiene is an important first line of defence in limiting the spread of new pathogenic strains.

Healthcare-associated infections and antibiotic resistance

The problem of antibiotic resistance, which hinders effective treatment of infectious diseases, means increasing reliance on strategies which prevent spread of infection. Infections such MRSA and *C. difficile* were once considered largely hospital-related problems, but this is no longer the case. Those responsible for ensuring the public are protected from infection in healthcare facilities increasingly realise that their ability to manage the problem is hampered by the spread of germs such as MRSA and norovirus in the community and the home and by the number of infected people or carriers that walk into their facilities.

Changes in healthcare policy

Governments are under pressure to fund the level of healthcare which people expect. Care of increasing numbers of patients in the community, including at home is one answer, but can be fatally undermined by inadequate infection control in the home.

Compromised immunity

Demographic changes and changes in health service structure mean that the number of people in the home needing special care, because they are at increased risk of infection is increasing; up to 1 in 5 people in the community are at increased risk of infection. The most vulnerable of these individuals include the newborn, the elderly and those taking immunosuppressive drugs. Family members with illnesses such as diabetes or HIV are also at increased risk.

Hygiene and the developing world

Infectious disease imposes an enormous burden on the developing world – millions of people die or suffer chronic morbidity as a result of infections that could be prevented by good hygiene practice.

Hygiene – a cost-effective way to reduce the disease burden

In the developing world, unsafe water, poor sanitation and inadequate hygiene together rank as the third most important risk factor for disease. These risk factors are inter-related – the health benefits offered by improved water and sanitation can only be realised if hygiene is properly practised in the home and in the community. Improving hygiene practice is a highly cost-effective way of reducing the infectious disease burden in these communities.

Experience also shows that hygiene promotion can create demand for sanitation and thereby increase sanitation coverage, in line with Millennium Development Goals (MDG).

Diarrhoeal diseases

Diarrhoeal disease is a leading cause of illness and death worldwide, with an estimated 4 billion cases and 2 million deaths every year. Ninety-six per cent of deaths from diarrhoeal disease occur in the developing world and 90% of the victims are children under the age of 5.

The WHO estimates that 94% of diarrhoea cases are preventable through modifications to the environment, including interventions to increase the availability of clean water and to improve sanitation and hygiene. Correct handwashing has been associated with a 42–47% reduction in diarrhoeal disease. A Cochrane literature review found that household water treatment reduced diarrhoeal disease morbidity by about 50%, with some studies showing disease reductions of more than 70%.

Trachoma

Trachoma is the world's leading cause of blindness, but is completely preventable through hygiene (face washing breaks the infection cycle). It is estimated that 92 million people suffer from trachoma and 8 million are visually impaired or blinded as a result of the disease. Up to 600 million individuals live in endemic areas and are at risk for contracting trachoma.

HIV/AIDS

The number of people living with HIV/AIDS is now estimated at 38.6 million with the majority living in developing countries. These people are more vulnerable to infections such as diarrhoeal disease.

About the IFH

What is the IFH?

The International Scientific Forum on Home Hygiene is the leading scientific authority on home hygiene. It is a charity established in 1997 with the mission to promote health and wellbeing through improved hygiene. Activities range from addressing hygiene issues related to controlling the global threat posed by avian flu, to reducing the burden of diarrhoeal and respiratory infections in developing country situations, to addressing the issues related to the hygiene hypothesis and antimicrobial resistance.

The specific aims of the IFH are to:

- Raise awareness of the fundamental role that home hygiene plays in preventing infectious disease.
- Advocate for increased emphasis on hygiene promotion.
- Develop and promote hygiene and hygiene practice based on sound scientific principles.
- Make hygiene and infectious disease information readily available.

- Promote and review research, develop guidelines and drive consensus on issues relating to home hygiene.
- Bring together key stakeholders from the global community to promote interaction and knowledge transfer.

The main target audience for the IFH is health scientists, government and non-government agencies, opinion formers, health professionals (particularly infection control practitioners), public society and the media. The IFH is also actively engaged in advocating for home hygiene among national and international policy makers. The IFH work is global, covering both developed and developing countries and embracing all socio-economic groups and living conditions. The IFH does not communicate directly with the public – our aim is to give effective support to those who do.

The activities of the IFH are developed and co-ordinated by the Scientific Advisory Board, the Trustees Board and the IFH Secretariat. The Scientific Advisory Board is composed of hygiene experts drawn from Europe, the USA and South Asia.

What does the IFH do?

The IFH carries out a range of activities to further our aims and objectives which includes:

Development of scientific and other materials including:

- Expert-level scientific reviews and consensus statements.
- Home hygiene guidelines, manuals and multimedia training materials to support community health programmes.
- Briefing documents to facilitate communication of hygiene issues to the news media, consumer organisations and health promotion organisations.

Communicating with our target audience through:

- The IFH website.
- Organisation of International conferences, satellite symposia, workshops and conference presentations.
- Exhibition stands at international conferences.
- Newsheets.
- Website updates communicated to registered members through regular e-mail alerts.
- One-to-one meetings.

The IFH relies on the Scientific Advisory Board for developing IFH scientific and consensus documents and other materials. Where appropriate the IFH works with other individuals, or expert panels with expertise in specific areas such as handwashing, hygiene and immunity, MRSA etc. to develop or peer review materials. This collaborative and consensus method of working guarantees the objectivity and independence of the organisation.

The IFH also works in partnership with other organisations such as the UK Infection Control Nurses Association, and with the Water Supply and Sanitation Collaborative Council and the London School of Hygiene and Tropical Medicine.

The IFH promotes health through hygiene

In developing and promoting home hygiene, the IFH has pioneered a practical approach which is consistent with 21st century needs. As a key part of this work, the IFH is addressing a number of specific issues which it believes are key to achieving our aims and objectives.

The risk-based approach to home hygiene

Since its formation the IFH has made a detailed review of the data on pathogens in the home and how they are spread, which has been used to develop a risk-based or "targeted" approach to home hygiene. "Targeted hygiene" involves using risk assessment to identify the times and places where transmission of harmful organisms is most likely. Hygiene practice advice is then based on applying effective procedures, such as handwashing, hygienic cleaning of household surfaces and safe disposal of waste, to break the chain of infection transmission.

The family is the cornerstone

The IFH believes that effective hygiene promotion must be approached from the point of view of the family, based on what they know, and addressing what they need to know, in order to prevent infectious disease transmission in the home.

Although the hands are probably the most important "highway" for the spread of germs, handwashing alone cannot break the chain of infection. Home hygiene encompasses food hygiene, personal hygiene and general hygiene (e.g. care of toilets and washbasins, safe disposal of solid waste, care of pets and domestic animals) and care of at risk household members. In rural communities, particularly those with low incomes, home hygiene may also include safe disposal of faeces and household water treatment and safe storage.

At present, the different aspects of hygiene are often dealt with by separate agencies, so that families receive fragmented and sometimes conflicting hygiene advice. The IFH is working to promote an integrated approach to home hygiene promotion.

Advocating for effective hygiene promotion at every level

Awareness of the need for effective hygiene promotion does not necessarily translate into action. Ongoing advocacy is required to ensure that policy makers and funding agencies understand the benefits of investment in hygiene promotion.

The IFH believes that effective hygiene promotion requires a lead agency in every country and proper infrastructure at national, district and local levels. The IFH is working at global, regional and national levels, through conferences, workshops and one-to-one meetings to advocate for more emphasis and investment in hygiene promotion and an integrated approach. The global reputation that the IFH has developed for the quality of its scientific work is a key asset in developing and promoting hygiene.

Building capacity for hygiene promotion at a local level

The IFH believes that, if hygiene is to be a shared responsibility, we need to build capacity for hygiene promotion at the local level. Community infection control practitioners and other community workers are best placed to develop hygiene programmes, but need support. Hygiene education in schools and through community participation is particularly important. Hygiene education in schools encourages the adoption of good hygiene practice at an early age, with obvious long-term benefits. It also allows children to become advocates for hygiene in the community and in the home.

The IFH guidelines and teaching/self-learning materials on home hygiene have been developed to support the training of community-based hygiene professionals in both developed and developing countries. These printed materials are complemented by national and local workshops and one-to-one meetings.

Might there be dangers in being too clean?

The hygiene hypothesis proposes that altered exposure to microbes is a cause of the recent dramatic increases in allergic diseases in industrialised countries, and that this is the result of an overemphasis on home cleaning and home hygiene. From a detailed review of the available data, the IFH has concluded that although there is good evidence that some reduced or changed exposure to certain microbes or their components may be associated with dysregulation of the immune system and increased susceptibility to atopic diseases, there is no evidence that this is linked to "hygiene".

It is also important to ensure that products used to achieve hygiene are designed and used in ways that do not bring other risks, for example, in terms of bacterial resistance; the IFH closely monitors such issues.

The IFH targeted home hygiene approach offers a rational way forward in that it represents the optimum means to protect the family from infection, while disturbing the balance of our human and natural environment to the minimum extent.

The activities of the IFH are supported through an educational grant provided by Unilever, Reckitt Benckiser and Johnson & Johnson Consumer Companies, Inc. The views expressed by the IFH are independent opinions of the members of the IFH and do not necessarily reflect any other group or organization. Moreover, the IFH does not discuss or advertise commercially available products or services by brand or name.

Home Hygiene & Health

Health Protection through Home Hygiene

www.ifh-homehygiene.org

Visit home hygiene and health on-line

For more information visit our website, the first portal dedicated exclusively to the science and practice of home hygiene. The website is regularly updated and provides a one-stop shop for scientists, healthcare professionals, and government advocates with an interest in hygiene and its effective promotion and a need for information.

The IFH website contains a wealth of regularly updated information

- Information about the IFH, its mission, history and partners.
- Home hygiene scientific library containing IFH scientific reviews and a comprehensive database of scientific publications on home hygiene.
- Full text of IFH guidelines and education materials.
- Briefing documents on specific hygiene issues e.g MRSA in the home and community.
- IFH News sheets.
- Information on IFH conferences and workshops.
- Strategic partnerships with international, national and local organisations.

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