

Global progress in health not inevitable anytime soon

STAR HEALTH REPORT

The latest global estimates for the state of the world's health from the Global Burden of Disease study (GBD), published in a special issue of The Lancet, highlight that global progress in health is not inevitable.

This year's GBD study estimates that improvements in mortality rates for adults were less pronounced overall and stagnated or got worse in some countries in 2017. In addition, no countries are on-target to meet the United Nations Sustainable Development Goals to improve health by 2030.

Total fertility rates, which represent the average number of children a woman delivers over her lifetime, have declined since 1950. In 2017, 91 countries had rates lower than two and were not maintaining their current population size, while 104 nations were seeing population increases due to their high fertility rates (total fertility rates above two).

The lowest rate was in Cyprus, where, on average, a woman would give birth to one child throughout her life, as opposed to the highest, in Niger, with a total fertility rate of seven children.

Emerging adverse trends could



lead to negative shifts over time if action is not taken – for example, conflict and terrorism is an increasing threat to global health (with numbers of related deaths increasing by 118% between 2007-2017), and an era-defining epidemic of opioid dependence continues – with more than 4 million new cases and around 110,000 deaths in 2017. In addition, half of all global deaths (51.5%, 28.8 million of 55.9 million deaths) were caused by just four preventable risk factors in 2017 (high blood pressure [10.4 million deaths], smoking

[7.1 million deaths], high blood glucose [6.5 million deaths], and high body mass index [4.7 million deaths]), presenting a public health challenge and an opportunity for action.

Historically, in 2006, the World Health Organisation (WHO) estimated that there should be a minimum of 23 physicians, nurses, or midwives per 10,000 population. However, this estimate has not since been updated and the study authors expect that larger, more varied health workforces are needed to provide a broader range of ser-

vices and achieve universal health care. Although no target was set, the United Nations pledged to increase the health workforce in developing countries in Sustainable Development Goal (SDG) 3.c.1.

The authors estimate that having more than 30 physicians, 100 nurses or midwives, and 5 pharmacists for every 10,000 people in the population has diminishing returns for healthcare access and quality.

Overall in 2017, the estimates suggest that only 41 out of 195 countries had more than 30

physicians per 10,000 population, while only 28 countries had more than 100 nurses or midwives. Almost half (47.2% - 92 of 195 countries) of the countries included had fewer than 10 physicians per 10,000 people, while 46.2% (90/195 countries) had fewer than 30 nurses or midwives for every 10,000 people.

Non-communicable diseases (NCDs) comprised the greatest fraction of deaths globally in 2017 (contributing 73.4% of total deaths, equivalent to approximately 41.1 million deaths). The total numbers of deaths from NCDs increased from 2007 to 2017 by 22.7% (from 33.5 million in 2007 to 41.1 million in 2017), representing an additional 7.6 million deaths in 2017. While the age-standardised death rate from NCDs decreased globally between 2007-2017 by 7.9%, this change was smaller in the most recent period – slowing from a decrease of 7.8% between 2003-07 to a decrease of 2.1% for 2013-17. The largest numbers of deaths from NCDs were from cardiovascular diseases (17.8 million deaths), neoplasms (9.6 million deaths) and chronic respiratory diseases (3.9 million deaths).

WVD 2018

World Vasectomy Day 2018

World Vasectomy Day (WVD) is a worldwide movement about starting conversations, helping men and their families become more informed about their choices, and creating alliances with governments, organisations, and individuals willing to help train providers, educate families, and deliver services to men who are stepping up for their loved ones. WVD will be taking place from November 12- 16, in dozens of countries. It is a two-week event that is produced from where the movement works with the local providers and health care providers to build sustainable vasectomy programmes.

WVD was founded in 2012 by the American filmmaker Jonathan Stack while he was working on a documentary about the decision of having a vasectomy. The underlying goal was to involve men in family planning decisions and educate them about vasectomies as a simple way of taking responsibility for birth control.

Vasectomy is a surgical procedure for male sterilisation or permanent contraception. The family planning community has largely ignored men, but when presented with accurate and compelling information, many men will share responsibility for family planning. For those whose families are complete, and who want to support their wives and children by voluntarily choosing to get a vasectomy, we believe that the family planning community needs to respond with up-to-date information and quality procedures. The WVD gives an opportunity to educate men and women about a variety of family planning options.

WVD continues to spread and grow – continually inspiring men who rise up out of love for their family, their partners and our future. It is a year round effort that builds awareness through communication and community, through collective effort by creating strategic alliances with Ministries of Health, Family Planning organisations and consci-

HEALTH bulletin



Review questions wisdom of limiting salt intake in heart failure

It is not clear whether lowering dietary salt intake actually helps patients with heart failure, according to a review in JAMA Internal Medicine.

Researchers reviewed nine trials that randomised nearly 500 patients with heart failure to restricted sodium intake or to a control group. There was little evidence supporting a low-sodium diet in terms of cardiovascular and all-cause mortality and cardiovascular-associated events. Two of the trials reported improvements in NYHA functional class with a restricted-sodium diet.

Dr. Harlan Krumholz, editor-in-chief of NEJM Journal Watch Cardiology, said in an email that this is "an important study for what it does not find, which is a lack of evidence to support salt restriction. For all the burden we have imposed on patients with this strategy, it turns out we have too little evidence to support the practice."

Air pollution killing thousands of children globally

More than 90% of the world's children breathe toxic air every day

STAR HEALTH DESK

Every day around 93% of the world's children under the age of 15 years (1.8 billion children) breathe air that is so polluted it puts their health and development at serious risk. Tragically, many of them die: World Health Organisation (WHO) estimates that in 2016, 600,000 children died from acute lower respiratory infections caused by polluted air.

A new WHO report on Air pollution and child health: Prescribing clean air examines the heavy toll of both ambient (outside) and household air pollution on the health of the world's children, particularly in low- and middle-income countries.

It reveals that when pregnant women are exposed to polluted air, they are more likely to give birth prematurely, and have small, low birth-weight children. Air pollution also impacts neurodevelopment and cognitive ability and can trigger asthma, and childhood cancer. Children who have been exposed to high levels of air pollution may be at greater risk for chronic diseases such as cardiovascular disease later in life.

One reason why children are particularly vulnerable to the effects of air pollution is that they breathe more rapidly than adults and so absorb more pollutants. They also live closer to the ground, where some pollutants reach peak concentrations – at a time when their brains and bodies are still developing. Newborns and young children are

also more susceptible to household air pollution in homes that regularly use polluting fuels and technologies for cooking, heating and lighting

Key findings:

- In low- and middle-income countries, 98% of all children under 5 are exposed to PM2.5 levels above WHO air quality guidelines. In comparison, in high-income countries, 52% of children under 5 are exposed to levels above WHO air quality guidelines.

- More than 40% of the world's population – which includes 1 billion children under 15 - is exposed to high levels of household air pollution from mainly cooking with polluting technologies and fuels.

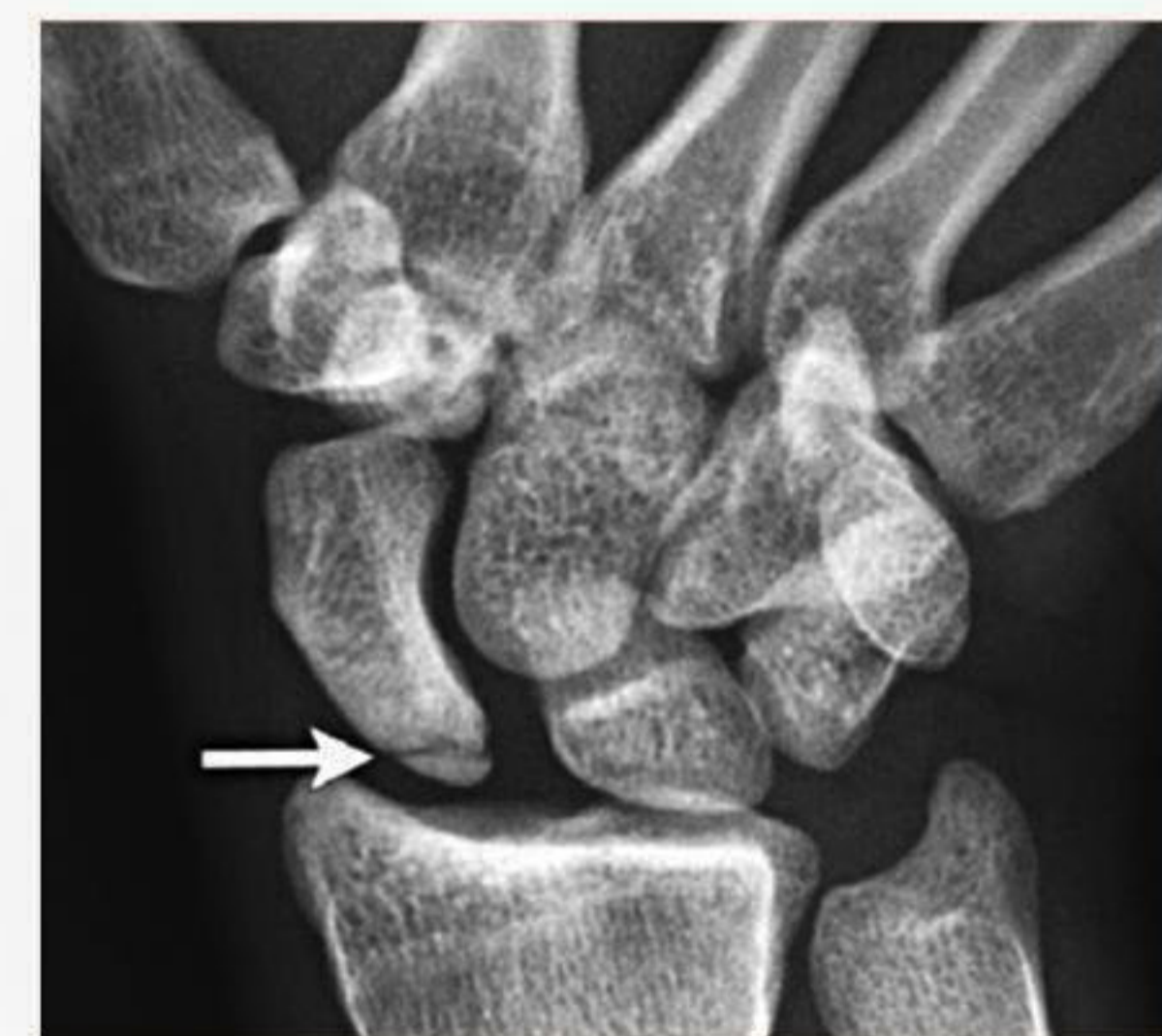
- Together, household air pollution from cooking and ambient (outside) air pollution cause more than 50% of acute lower respiratory infections in

children under 5 years of age in low- and middle-income countries.

- Air pollution is one of the leading threats to child health, accounting for almost 1 in 10 deaths in children under five years of age.

All countries should work towards meeting WHO global air quality guidelines to enhance the health and safety of children. To achieve this, governments should adopt such measures as reducing the over-dependence on fossil fuels in the global energy mix, investing in improvements in energy efficiency and facilitating the uptake of renewable energy sources. Better waste management can reduce the amount of waste that is burned within communities and thereby reducing 'community air pollution'.

Source: World Health Organisation



Artificial intelligence improves wrist fracture detection

Missed fractures are a common category of diagnostic errors and can cause malunion, osteonecrosis, and arthritis, with consequent impairment of function. In a study, researchers examined 135,845 x-rays of various bones (nearly 35,000 of which involved the wrist). Senior orthopaedic surgeons scored each image for the presence of fractures and used neural network artificial intelligence (AI) techniques to 'train' a computer to diagnose wrist fractures.

Researchers then conducted a controlled experiment with 40 emergency department clinicians: Each participant was shown an x-ray and asked to determine the presence or absence of a fracture. Then, those in a randomly assigned 'aided' group were shown the computer model's fracture assessment and asked again to determine the presence or absence of a fracture. When aided performance versus unaided performance were compared in a series of 300 x-rays, sensitivity for diagnosing fracture was 92% versus 81%, and specificity was 94% versus 88%.



What is Scabies?

Scabies is not an infection, but an infestation. Tiny mites called *Sarcoptes scabiei* set up shop in the outer layers of human skin. The skin does not take kindly to the invasion. As the mites burrow and lay eggs inside the skin, the infestation leads to relentless itching and an angry rash.

Symptoms

Scabies signs and symptoms include:

- Itching, often severe and usually worse at night
- Thin, irregular burrow tracks made up of tiny blisters or bumps on your skin

The burrows or tracks typically appear in folds of skin. Though almost any part of the body may be involved, in adults and older children scabies is most often found:

- Between the fingers
- Around the waist
- On the inner elbows
- Around the breasts
- On the buttocks
- In the armpits
- Along the insides of the wrists
- On the soles of the feet
- Around the male genital area
- On the knees

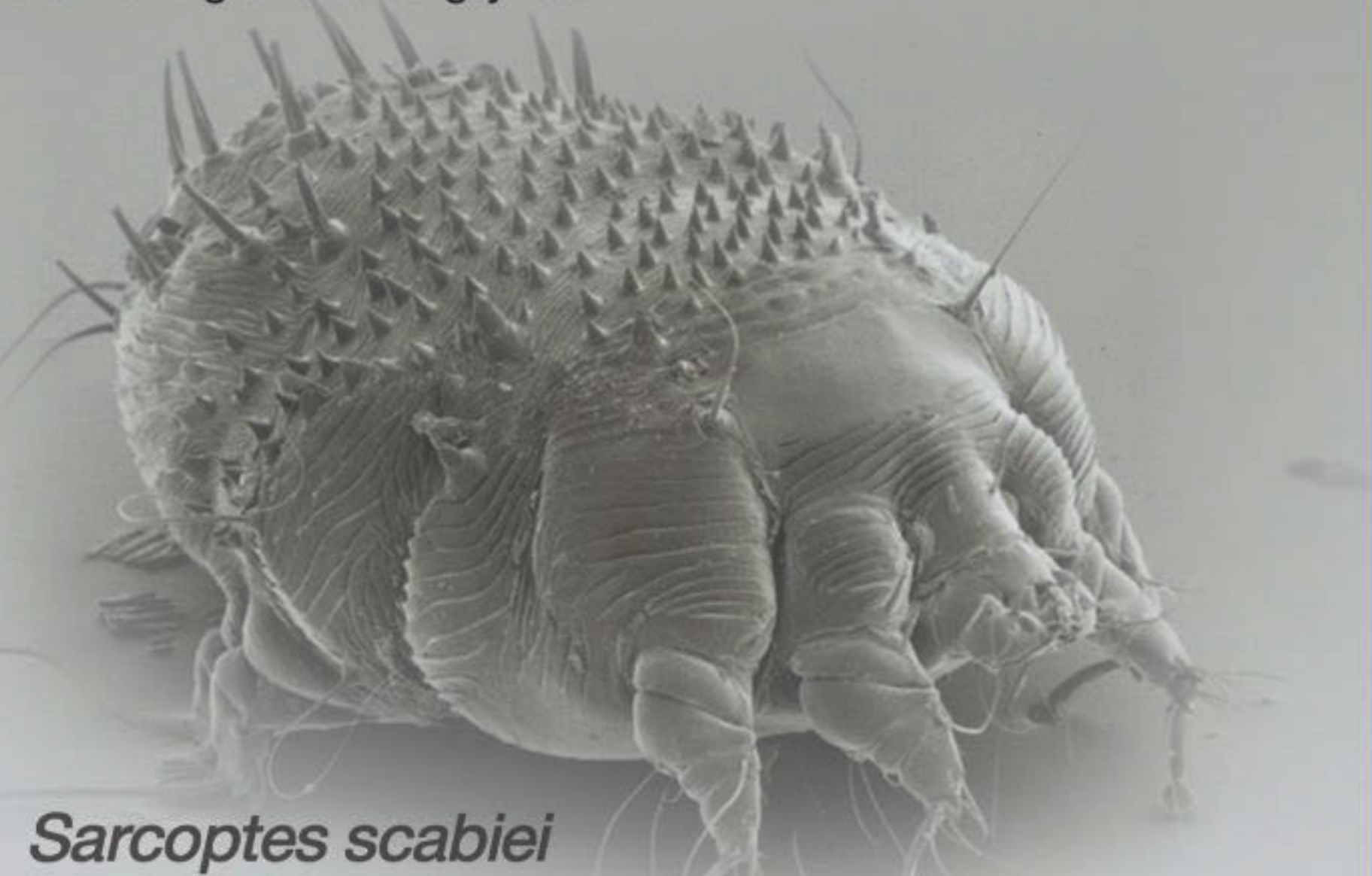
In infants and young children, common sites of infestation usually include the:

- Scalp
- Palms of the hands
- Soles of the feet

Lifestyle and home remedies

Itching may persist for some time after you apply medication to kill the mites. These steps may help you find relief from itching:

- Cool and soak your skin. Soaking in cool water or an oatmeal bath, or applying a cool, wet washcloth to irritated areas of your skin may minimize itching.
- Apply soothing lotion. Calamine lotion, available without a prescription, can effectively relieve the pain and itching of minor skin irritations.
- Take antihistamines. At your doctor's suggestion, you may find that over-the-counter antihistamines relieve the allergic symptoms caused by scabies.



Sarcoptes scabiei



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