We’re headed towards a ‘post-antibiotic era,’ World Health Organization warns

BY ROBERT PURSELL  May 1, 2014 at 3:49 PM EDT

In a report released Wednesday, the World Health Organization warned that society may soon be sliding into a “post-antibiotic era” in which common illnesses like pneumonia will once again become feared killers and surgery will come with heightened infection risks.

In its first investigation into antimicrobial resistance across the globe, WHO reported
startling findings about the extent to which viruses and bacteria have evolved to combat antibiotics. Among it’s more notable findings:

- Resistance to the last-resort treatment against common intestinal bacteria Klebsiella pneumoniae has now spread worldwide. Klebsiella pneumoniae is a major cause of hospital-acquired infections across the world including pneumonia, bloodstream infections and infections of newborns. In some countries the type of antibiotics used to treat it, carbapenem antibiotics, were effective in less than half of all patients.

- Resistance to fluoroquinolones — the antibiotics used to treat urinary tract infections caused by E. Coli — is extremely widespread. Despite being introduced in the 1980’s with a zero percent resistance rate, there are countries currently where at least half of all patients are resistant to fluoroquinolones treatment.

- In parts of Africa, as many as 80% of all Staphylococcus aureus (the bacteria that causes staph infections) have become resistant to methicillin. These MRSA (methicillin resistant Staphylococcus aureus) infections aren’t treatable by common antibiotic treatment. In certain parts of the Americas, as much as 90% of all Staphylococcus aureus infections have now become MRSA.

- This proliferation of resistant infection strains comes at a grave cost. Those with resistant strains of infections are destined to be sicker for longer and have heightened fatality rates. For instance, those with MRSA are 64% more likely to die as a result of an infection than those with non-resistant strains.

The report combines data from 114 different countries to paint a grim picture.

“Without urgent, coordinated action by many stakeholders, the world is headed for a post-antibiotic era, in which common infections and minor injuries which have been treatable for decades can once again kill,” said Dr Keiji Fukuda, WHO’s Assistant Director-General for Health Security. “Effective antibiotics have been one of the pillars allowing us to live longer, live healthier, and benefit from modern medicine.”

The report did provide guidelines for how to correct the problem. It called on patients to
only use antibiotics when prescribed by doctors, and to make sure they always finish their antibiotic cycles. It asked doctors to be more diligent in how they prescribe antibiotics while enhancing prevention control through the promotion of sound hygienic practices. Finally, it called on policymakers to fund and promote innovation and research into the development of new antibiotics. If its guidelines are not met, WHO officials fear for the worst.

“Unless we take significant actions to improve efforts to prevent infections and also change how we produce, prescribe and use antibiotics, the world will lose more and more of these global public health goods,” said Fukudam “the implications will be devastating.”