

## 2020 Market Analysis of 3rd Global Experts Meeting on Infectious Diseases

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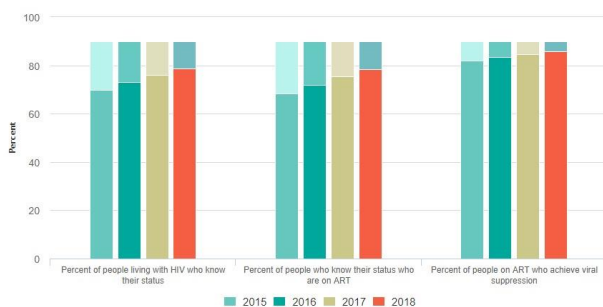
Conference Series takes the immense Pleasure to invite participants from all over the world to attend the "3rd Global Experts Meeting on Infectious Diseases (Infectious Diseases Meet 2020)", to be held in Bangkok, Thailand during January 27-28, 2020. Infectious Diseases Meet 2020 program focuses on "Research Reformulate: Latest Prognosis in Infectious Diseases". In collaboration with its Editorial Board Members along with institutional partners the Infectious Diseases Meet 2020 includes various people presenting their research in the form of Keynote speeches, Oral Presentations, Video presentations, Symposia, Workshops, Poster Presentations, E-Posters and Exhibitions covering a range of topics and important issues which may be helpful for us all from the research to the practical implementations.

### Market Analysis:

This entry lists major infectious diseases likely to be encountered in countries where the risk of such diseases is assessed to be very high as compared to the United States. These infectious diseases represent risks to US government personnel traveling to the specified country for a period of less than three years. The degree of risk is assessed by considering the foreign nature of these infectious diseases, their severity, and the probability of being affected by the diseases present. The diseases listed do not necessarily represent the total disease burden experienced by the local population.

The risk to an individual traveler varies considerably by the specific location, visit duration, type of activities, type of accommodations, time of year, and other factors. Consultation with a travel medicine physician is needed to evaluate individual risk and recommend appropriate preventive measures such as vaccines.

Progress towards 90-90-90 target



Diseases are organized into the following six exposure

categories shown in italics and listed in typical descending order of risk. Note: The sequence of exposure categories listed in individual country entries may vary according to local conditions food or waterborne diseases acquired through eating or drinking on the local economy:

**Hepatitis A** - viral disease that interferes with the functioning of the liver spread through consumption of food or water contaminated with fecal matter, principally in areas of poor sanitation victims exhibit fever, jaundice, and diarrhea 15% of victims will experience prolonged symptoms over 6-9 months vaccine available.

**Hepatitis E** - water-borne viral disease that interferes with the functioning of the liver most commonly spread through fecal contamination of drinking water victims exhibit jaundice, fatigue, abdominal pain, and dark colored urine.

**Typhoid fever** - bacterial disease spread through contact with food or water contaminated by fecal matter or sewage victims exhibit sustained high fevers left untreated, mortality rates can reach 20%.vectorborne diseases acquired through the bite of an infected arthropod:

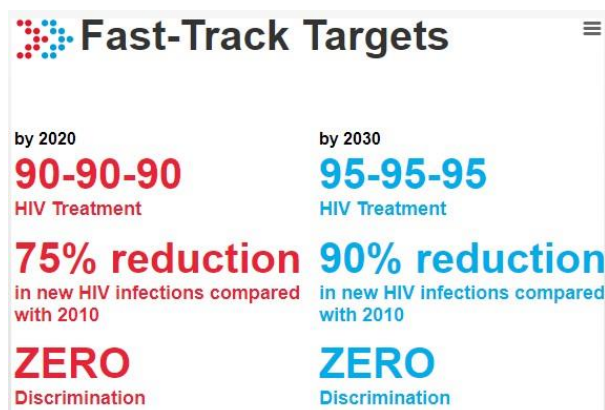
**Malaria** - caused by single-cell parasitic protozoa Plasmodium transmitted to humans via the bite of the female Anophelesmosquito parasites multiply in the liver attacking red blood cells resulting in cycles of fever, chills, and sweats accompanied by anemia death due to damage to vital organs and interruption of blood supply to the brain endemic in 100, mostly tropical, countries with 90% of cases and the majority of 0.4-0.8 million estimated annual deaths occurring in sub-Saharan Africa.

**Dengue fever** - mosquito-borne Aedes aegypti viral disease associated with urban environments manifests as sudden onset of fever and severe headache occasionally produces shock and hemorrhage leading to death in 5% of cases.

**Yellow fever** - mosquito-borne in urban areas Aedes aegypti viral disease severity ranges from influenza-like symptoms to severe hepatitis and hemorrhagic fever occurs only in tropical South America and sub-Saharan Africa, where most cases are reported fatality rate is less than 20%.

**Japanese Encephalitis** - mosquito-borne Culex tritaeniorhynchus viral disease associated with rural

areas in Asia acute encephalitis can progress to paralysis, coma, and death fatality rates 30%.



**African Trypanosomiasis** - caused by the parasitic protozoa *Trypanosoma* transmitted to humans via the bite of bloodsucking Tsetse flies infection leads to malaise and irregular fevers and, in advanced cases when the parasites invade the central nervous system, coma and death endemic in 36 countries of sub-Saharan Africa cattle and wild animals act as reservoir hosts for the parasites.

**Cutaneous Leishmaniasis** - caused by the parasitic protozoa *leishmania* transmitted to humans via the bite of sandflies results in skin lesions that may become chronic endemic in 88 countries 90% of cases occur in Iran, Afghanistan, Syria, Saudi Arabia, Brazil, and Peru wild and domesticated animals as well as humans can act as reservoirs of infection.

**Plague** - bacterial disease transmitted by fleas normally associated with rats person-to-person airborne transmission also possible recent plague epidemics occurred in areas of Asia, Africa, and South America associated with rural areas or small towns and villages manifests as fever, headache, and painfully swollen lymph nodes disease progresses rapidly and without antibiotic treatment leads to pneumonic form with a death rate in excess of 50%.

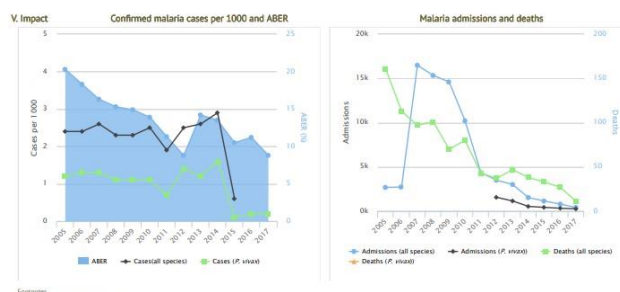
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**Crimean-Congo hemorrhagic fever** - tick-borne viral disease infection may also result from exposure to infected animal blood or tissue geographic distribution includes Africa, Asia, the Middle East, and Eastern Europe sudden onset of fever, headache, and muscle aches followed by hemorrhaging in the bowels, urine, nose, and gums mortality rate is approximately 30%.

**Rift Valley fever** - viral disease affecting domesticated animals and humans transmission is by mosquito and other biting insects infection may also occur through handling of infected meat or contact with blood geographic distribution includes eastern and southern Africa where cattle and sheep are raised symptoms are generally mild with fever and some liver abnormalities, but the disease may progress to hemorrhagic fever, encephalitis, or ocular disease fatality rates are low at about 1% of cases.

**Chikungunya** - mosquito-borne *Aedes aegypti* viral disease associated with urban environments, similar to Dengue Fever characterized by sudden onset of fever, rash, and severe joint pain usually lasting 3-7 days, some cases result in persistent arthritis. water contact diseases acquired through swimming or wading in freshwater lakes, streams, and rivers:

**Leptospirosis** - bacterial disease that affects animals and humans infection occurs through contact with water, food, or soil contaminated by animal urine symptoms include high fever, severe headache, vomiting, jaundice, and diarrhea untreated, the disease can result in kidney damage, liver failure, meningitis, or respiratory distress fatality rates are low but left untreated recovery can take months.



**Schistosomiasis** - caused by parasitic trematode flatworm *Schistosoma* fresh water snails act as intermediate host and release larval form of parasite that penetrates the skin of people exposed to contaminated water worms mature and reproduce in the blood vessels, liver, kidneys, and intestines releasing eggs, which become trapped in tissues triggering an immune response may manifest as either urinary or intestinal disease resulting in decreased work or learning capacity mortality, while generally low, may occur in advanced cases usually due to bladder cancer endemic in 74 developing countries with 80% of infected people living in sub-Saharan Africa humans act as the reservoir for this parasite.

aerosolized dust or soil contact disease acquired through inhalation of aerosols contaminated with rodent urine:

**Lassa fever** - viral disease carried by rats of the genus *Mastomys* endemic in portions of West Africa infection occurs through direct contact with or consumption of food contaminated by rodent urine or fecal matter containing virus particles fatality rate can reach 50% in epidemic outbreaks.

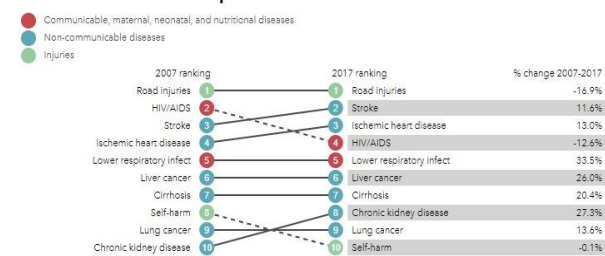
respiratory disease acquired through close contact with an infectious person:

**Meningococcal meningitis** - bacterial disease causing an inflammation of the lining of the brain and spinal cord one of the most important bacterial pathogens is *Neisseria meningitidis* because of its potential to cause epidemics symptoms include stiff neck, high fever, headaches, and vomiting bacteria are transmitted from person to person by respiratory droplets and facilitated by close and prolonged contact resulting from crowded living conditions, often with a seasonal distribution death occurs in 5-15% of cases, typically within 24-48 hours of onset of symptoms highest burden of meningococcal disease occurs in the hyperendemic region of sub-Saharan Africa known as the "Meningitis Belt" which stretches from Senegal east to Ethiopia.

animal contact disease acquired through direct contact with local animals:

**Rabies** - viral disease of mammals usually transmitted through the bite of an infected animal, most commonly dogs virus affects the central nervous system causing brain alteration and death symptoms initially are non-specific fever and headache progressing to neurological symptoms death occurs within days of the onset of symptoms.

**What causes the most premature death?**



**HIV and AIDS:**

With nearly 520,000 people ages 15-49 living with HIV and AIDS, Thailand has the highest adult HIV prevalence in the South East Asia region. 1 Successful efforts throughout the past two decades have reduced the number of annual new HIV infections from 143,000 in 1991 to 10,853 in 2010. 2 WHO has supported Thailand's response to HIV and AIDS through evidence-based technical assistance and its convening power aimed at revitalizing priorities among disparate health stakeholders. With nearly 520,000 people ages 15-49 living with HIV and AIDS, Thailand has the highest adult

HIV prevalence in the South East Asia region. 3 This burden was driven largely by high rates of infection among sub-populations including men who have sex with men, direct and indirect sex workers, youth ages 15-22, and people who inject drugs. Successful prevention and treatment efforts throughout the past two decades have reduced the number of annual new HIV infections from 143,000 in 1991 to 10,853 in 2010. 4 According to the 2012 Global AIDS Response country progress report for Thailand, nearly 225,272 64.61 per cent of eligible adults and children living with HIV and AIDS are on anti-retroviral therapy.

In the recent years, WHO has supported Thailand's response to HIV and AIDS through evidence-based technical assistance and its convening power aimed at revitalizing priorities among disparate health stakeholders. In 2012, WHO will concentrate on supporting the national response in scaling up of timely high quality care and treatment interventions, revitalising the HIV testing and counselling program, and ensuring equitable access to essential medicines via its support for the International Trade and Health Programme outlined in the Country Cooperation Strategy 2012-2016. In addition, WHO will continue its normative functions of knowledge sharingmanagement with key stakeholders throughout the country.

Progress towards 90-90-90 target

