A healthy population is essential to delivering sustainable and inclusive economic growth and security. One extra year of life expectancy raises a country’s per capita GDP by about four percent. Governments need to develop health care solutions that provide access to healthcare in a sustainable, cost-effective manner. Prioritizing investments in healthcare and the development of effective, sustainable healthcare systems will improve both the health of domestic populations and support the financial stability/security of G7 economies. For the global community to succeed in tackling the health challenges, the private sector needs better governance on the national as well as international level.

The health care sector is one of the largest business sectors in the G7. Its research intensity and power to innovate, its large share in employment and its outward orientation make the sector an important driver of economic growth. Future prospects are promising: the global market is expected to grow by approximately six percent until 2030.

At the same time, the global healthcare sector has never faced more challenges than today. Demographic change, an aging population and increasing life expectancies, together with increasing demand for healthcare products and services, place a growing burden on the health care system of many countries, stretching public and private funding systems. Timely and efficient investment in healthcare can help address these challenges and make added years of life productive to the individual and the society. In sustainable health systems, increased life expectancy increases the wealth of the society. The increase of numerous chronic diseases (heart...
disease, stroke, cancer, diabetes and other chronic diseases) and the high prevalence of debilitating communicable diseases, including emerging and re-emerging diseases, as well as medical intolerances also put enormous pressure on the sector.

The poorest nations tend to suffer most from the health problems. Illnesses are a severe impediment to economic growth and sustainable development. They create a significant financial burden in the form of healthcare expenditures and lost productivity. Governments in less and least developed countries are struggling in particular in offering adequate access to health care to their populations. Often, they struggle due to workforce shortages, patient locations, and infrastructure limitations, in addition to budgetary constraints. Innovative treatments need to reach a wide group of patients who urgently need them in often remote areas without sufficient health care or distribution infrastructure.

Many pharmaceutical companies are already contributing significantly to combat diseases in emerging and developing countries. But it is a battle which can be won only with joint efforts. Therefore, the B7 lauds the efforts of the G7 placing the issue of health on the agenda of this year’s summit.

The challenges are manifold. Two issues call for our immediate attention: Antibiotic resistance and so called neglected tropical diseases. G7 countries and B7 companies play a vital role in tackling these challenges.

**Antibiotic Resistance**

Since the first antibiotic penicillin, which was introduced in 1940s and came into wide scale use in the 1950s, anti-infective drugs have been one of the most effective health interventions in the history of modern medicine. Whether used to treat bacterial infections, tuberculosis, malaria, or HIV, antibiotic drugs have become a crucial part of modern life. Over many decades meticulous scientific research has left modern societies in a healthy condition that we all aim to pass on to future generations. The objective of universal health, however, is being threatened by the growing problem of infectious diseases being resistant to a growing number of antibiotics.

In recent decades, the rate of discovery of novel compounds, especially of antibiotics, has decreased considerably. From discovery to market it typically takes 10 to 15 years. The current need, therefore, is not only to extend the life span of existing drugs but also to encourage the discovery and development of new anti-infective drugs to combat imminent drug resistances.
The current situation is getting more and more serious. An increasing number of resistances are being detected to all known drug treatments, especially amongst bacteria. The common bacterial infections caused by enterobacteria in hospital settings are rising as well. It has been recently discovered that they have become resistant to ‘last-resort antibiotics’. These bacteria are an increasing cause of mortality in many countries.

Various factors have been identified as contributing to the emergence and spread of resistant microorganisms. These include: irrational and self-use of antibiotics; lack of adherence to a prescribed regimen; and partially inappropriate non-human use of antibiotics in livestock. Problems also arise due to the lack of policies which regulate the rotation of antibiotics and infection-controls in hospitals.

**Neglected Tropical Diseases**

More than one billion people worldwide are at risk to become infected by neglected tropical diseases (NTDs). Children are deprived of their development prospects since maternal mortality is much higher among infected women. Adults are unable to work. The disease burden due to NTDs is comparable to that of HIV/AIDS, tuberculosis and malaria. Yet, the highly developed countries have merely taken notice of NTDs so far. This needs to be changed.

Moreover, the successful prevention and treatment of NTDs is to a large extent already possible and can be achieved at relatively low costs. In many countries there are already partnership programs encouraging civil society, industry, the affected countries, and the World Health Organization (WHO) to cooperate. These partnership programs need to be expanded and extended to cover the endemic regions. The current focus lays on the so-called “Big 5” (Onchocerciasis, Trachoma, Schistosomiasis, Lymphatic Filariasis and Soil-transmitted Helminths). The objective should be to assure that those health interventions currently available to prevent and treat poverty-related diseases also reach the people who most urgently need them. The recent Ebola outbreak has demonstrated how fragile and underdeveloped the healthcare systems in developing countries are.

**B7 Recommendations**

**Sustainable Health Care Systems**

G7 governments should demonstrate global leadership in developing health care solutions that provide access to healthcare in a sustainable, cost-effective manner by recognizing the immense societal value of public and private investment in health. Sustainable health systems start with:
• optimizing population health management across the continuum of care and increasing investment in prevention and wellness;
• focusing health system design on measuring the right outcomes and supporting treatment tailored to the patient while relying on the advancement of digital technology and other innovations;
• promoting healthcare systems that provide incentives for the uptake of high value products that deliver societal benefits;
• supporting pricing models that enable broader access to medicines.

Differentiated pricing has the potential to significantly improve access to innovative medicines in developing economies while preserving the incentives for investment in innovation.

Antibiotic Resistance

The following actions are needed to reduce the burden of drug resistance in order to improve global health and to enhance economic well-being.

Promote Information Programs on the Rational and Responsible Use of Anti-infective Drugs: This should target medical doctors, patients and other members of society, particularly those involved in animal husbandry and industrial use of antibiotics.

Set up a “Drug Policy” among Member Countries: This “drug policy” would encompass all necessary regulations for dispensation of vulnerable anti-infective drugs, standard guidelines for anti-infective drug prescriptions, limiting the use of these agents in animal husbandry and assuring the availability of high-quality and appropriate anti-infective therapies.

Enhance Prevention and Control Policies: This can be achieved by preventing and controlling the infections through more systematic use of existing vaccines and in some cases development of new vaccines against problematic infections including bacterial infections acquired in hospital settings, and promotion of universal measures of hygiene and sanitation relevant to prevention of infection.

Encourage Pharmaceutical Companies, in Collaboration with Public Funded Researchers, to Develop New Antimicrobials: New scientific approaches using genomics, proteomics and bioinformatics can speed up the identification of new targets and development of new therapeutic molecules particularly against resistant microorganisms. The policies should include financial and regulatory measures to encourage pharmaceutical industry to develop novel antibiotics expeditiously. For example, given the lack of commercial viability of antimicrobials, a mechanism of transferable intellectual property (IP) and exclusivity could be a game-changer in creating incentives for companies to invest in antimicrobials and drugs
for neglected tropical diseases. There is an urgent need to develop effective drugs against neglected tropical diseases. Development of new diagnostics tests and biomarkers for drug resistance are also important to fight the menace of antimicrobial drug resistance.

Enhancement of R&D Capability of Developing Countries to be a Partner in the Fight against Emerging Antimicrobial Drug Resistance: The developing countries need to take a lead in all the above endeavors, more so than the developed countries, since the problem of antimicrobial drug resistance more acutely affects them. The cooperation, both amongst scientists and industry, between the industrialized and developing countries should be actively supported to achieve the desired end.

**Neglected Tropical Diseases**

The following actions are needed to reduce the burden of neglected tropical diseases.

*Extension of the Mandate of the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (GFATM):* The creation of the Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria (GFATM) shows how successful a concerted campaign by the global community can be. The GFATM has become a central tool in supporting affected countries in their efforts to implement suitable treatment programs. NTDs were disregarded during the creation of the GFATM. This omission needs to be corrected. The B7 call upon the governments of the G7 member states to advocate for the extension of the GFATM mandate and to take the fight against NTDs seriously. Towards this end, an additional 300 million Euros per year are required in total. The GFATM should ensure that drug programs are coordinated appropriately and, whenever possible, integrated to prevent parallel structures and to realize synergies. The GFATM should also ensure high-quality implementation and install appropriate operational research activities to detect any shortfalls.

*Strengthening of Research and Development as Part of G7:* The development of new vaccines and medicines is essential to effectively fight a number of NTDs. There is an urgent need to expand and intensify research and to develop activities in the area of neglected tropical diseases. Considering the risks of possible transmissions of dangerous disease pathogens from animals to humans ("zoonoses"), as illustrated recently by Ebola, strengthening the basic research of NTDs is also essential. The B7 call upon the governments of the G7 member states to strengthen global research and development activities in the field of neglected tropical diseases.

*Research Funds Financed Jointly at the forthcoming G7 Summit:* Investment is also required in diagnostics, surveillance systems, and map-
ping technologies. The recent extension of the European & Developing Countries’ Clinical Trials Partnership (EDCTP) is much welcomed but it can constitute only a first step. The B7 call upon the G7 to promote transnational research for new diagnostics, drugs, and vaccines to fight NTDs.

The WHO’s roadmap for the fight against NTDs anticipates the reduction or elimination of the majority of the diseases by 2025. This objective seems realistic if appropriate tools and adequate resources are available in a well-coordinated manner. In this way, the health and the development prospects of millions of people can be improved decisively.

The research-based pharmaceutical industry is a partner in many of these programs. About 220 partnership programs with industry support exist worldwide. However, the provision of medicines and the provision of healthcare services is a complex issue. Manufacturers, healthcare providers, distributors, regulatory authorities, insurance companies, and many others have to work hand in hand to make sure that the patients get the services and commodities they need.