

# World Sepsis Day 2013

The Global Sepsis Alliance (GSA) provides a look at sepsis facts and figures.



# World Sepsis Day 2013

Every 3 to 4 seconds someone dies of sepsis. Through World Sepsis Day, which will take place on Sept. 13, 2013, the Global Sepsis Alliance (GSA) and its founding members have come together to raise the public and professional profile of sepsis – a condition that is common, global in scope and devastating in its consequences.

The mission of the Global Sepsis Alliance is to reduce the incidence and mortality of sepsis by 20 percent by the year 2020.

The Global Sepsis Alliance is a worldwide association driven by health professionals, with seven international federations targeting intensive, critical and acute care medicine as well as 43 national organizations – the Global Sepsis Alliance represents more than 600,000 physicians, nurses and allied healthcare workers.

The key targets of World Sepsis Day are:

- Reduce the incidence of sepsis through effective prevention strategies.
- Increase sepsis survival rates for all population groups around the world.
- Provide better access to suitable rehabilitation services for people everywhere.
- Increase awareness and understanding of sepsis among healthcare professionals and the general public.
- Track and measure the global burden of sepsis and the positive impact of sepsis control and management interventions.

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## THE WORLD SEPSIS DECLARATION

*Sepsis is one of the most common, least-recognized illnesses in both the developed and developing world. Globally, 20 to 30 million patients are estimated to be afflicted every year, with over 6 million cases of neonatal and early childhood sepsis and over 100,000 cases of maternal sepsis.*

*Worldwide, a person dies from sepsis every few seconds.*

In the developed world, sepsis is dramatically increasing by an annual rate of between 8-13% over the last decade, and now claims more lives than bowel and breast cancer combined. Reasons are diverse, but include the aging population, increasing use of high-risk interventions in all age groups, and the development of drug-resistant and more virulent varieties of infections. In the developing world malnutrition, poverty, lack of access to vaccines and timely treatment all contribute to death.

Despite its remarkable incidence, sepsis is practically unknown to the public and is often misunderstood as blood poisoning. Sepsis arises when the body's response to an infection injures its own tissues and organs. It may lead to shock, multiple organ failure, and death, especially if not recognized early and treated promptly. Sepsis remains the primary cause of death from infection despite advances in modern medicine, including vaccines, antibiotics, and acute care with hospital mortality rates between 30 and 60%.

To stem the rising tide and take appropriate steps to ultimately reverse the global increase in the numbers of deaths from sepsis, we - the global sepsis community - issue this common call to worldwide action.

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The 2013 goals of World Sepsis Day are:

- Achieving governmental involvement in 10 countries that require hospitals to adopt proven best practices for the early identification and treatment of sepsis.
- Aligning 2,500 hospitals and healthcare-providing associations behind the key targets of the World Sepsis Declaration

GSA's global goals are:

1. Place sepsis on the development agenda. The Declaration will increase the political priority given to sepsis by raising awareness of the growing medical and economic burden of sepsis.
2. Ensure that sufficient treatment and rehabilitation facilities and well-trained staff are available for the acute and long term care of sepsis patients.
3. Support the implementation of international sepsis guidelines to improve earlier recognition and more effective treatment of sepsis and enable adequate prevention and therapy for all people throughout the world.
4. Mobilize stakeholders to ensure that strategies to prevent and control the impact of sepsis globally are targeted at those who are most in need.
5. Involve sepsis survivors and those bereaved by sepsis in planning strategies to decrease sepsis incidence and improve sepsis outcomes at local and national levels.

## Key targets to be achieved by 2020:

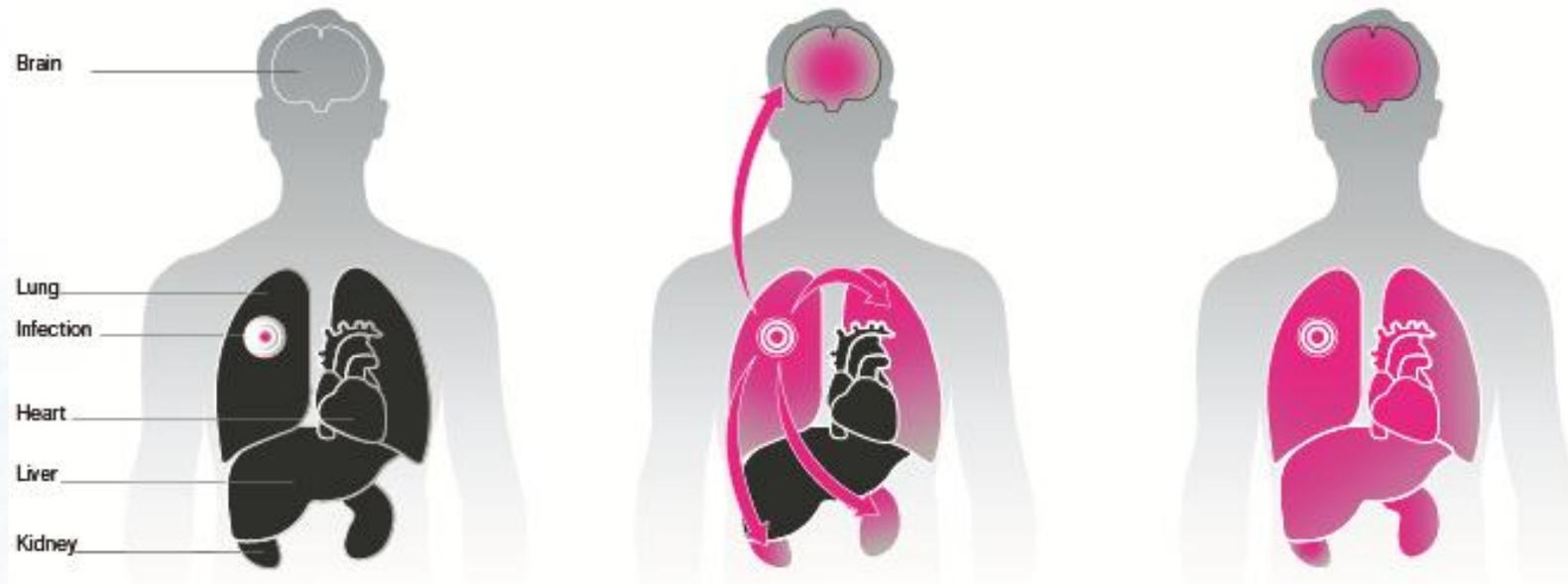
- By 2020, the incidence of sepsis will have decreased by at least 20% by promoting practices of good general hygiene and hand washing, clean deliveries, improvements in sanitation, nutrition and delivery of clean water and through vaccination programs for at risk patient populations in resource poor areas.
- By 2020, at least two-thirds of acute health systems and community and primary care organizations in participating countries will support the Declaration and have incorporated routine sepsis screening into the care of the acutely ill patient.
- By 2020, sustainable delivery systems will be in place to ensure that effective sepsis control programs are available in all countries. All countries will be monitoring time taken for patients with sepsis to receive the most important basic interventions, antimicrobials and intravenous fluids in accordance with international consensus guidelines.
- By 2020, GSA intends that survival rates from sepsis for children (including neonates) and adults will have improved by a further 10% from their levels at 2012. This will be monitored and demonstrated through the establishment of sepsis registries, and is intended to build upon the improvements seen following the launch of the Surviving Sepsis Campaign and the International Pediatric Sepsis Initiative. >>>

- By 2020, sepsis will have become a household word and synonymous with the need for emergent intervention. Lay people will much better understand what the early warning signs of sepsis are. Families' expectations of delivery of care will have risen such that delays are routinely questioned.
- By 2020, all member countries will have established learning needs for sepsis among health professionals and ensured the inclusion of training on sepsis as a medical emergency in all relevant undergraduate and postgraduate curricula. Recognition of sepsis by health professionals as a common complication of high-risk medical interventions will have significantly improved, thereby reducing the numbers of patients who become exposed to the risk.
- By 2020, all member countries will have set standards and established resources for the provision of follow-up care following discharge from hospitals of patients who have suffered sepsis.
- By 2020, all member countries will have established voluntary or mandated sepsis registries which are consistent with and complementary to the data requirements of the international community, helping to establish sepsis as a common health problem. The international community will be working toward the establishment of an international sepsis registry.

## What is Sepsis

**Sepsis** arises when the body's response to an infection injures its own tissues and organs.

It may lead to shock, multiple organ failure, and death, especially if not recognized early and treated promptly.



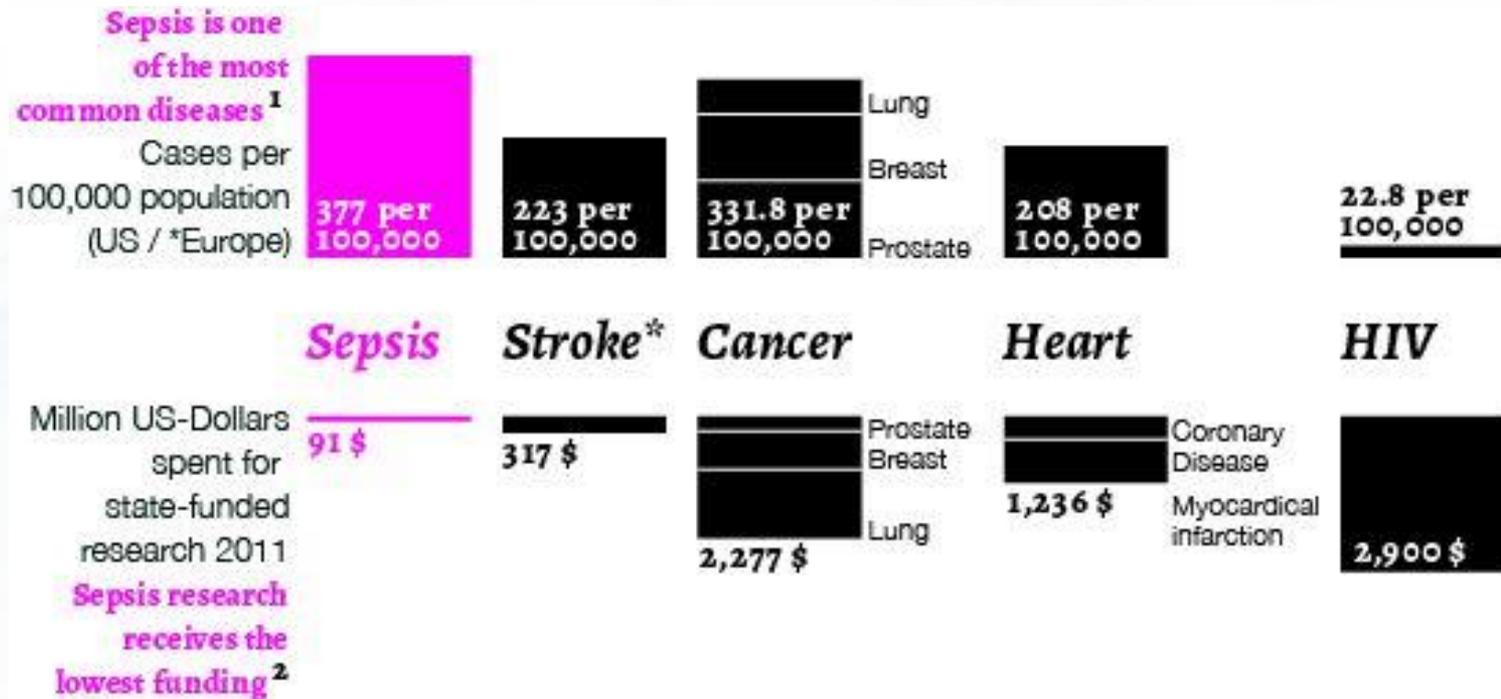
**Stage 1:** A local infection – e.g. in the lung – overcomes the body's local defense mechanisms, and pathogenic germs and the toxins they produce leave the original site of the infection and enter the circulatory system. This leads to a general inflammatory response called SIRS (systemic inflammatory response syndrome)

**Stage 2:** The function of individual organs starts to deteriorate and may completely fail

**Stage 3:** Several organs stop functioning sequentially or simultaneously, and cardio-circulatory failure leads to a sudden drop in blood pressure. Doctors call this septic shock.

According to the GSA, sepsis remains the primary cause of death from infection despite advances in modern medicine, including vaccines, antibiotics and intensive care. Sepsis, which is often misunderstood by the public as “blood-poisoning,” is one of the leading causes of death around the world. Sepsis arises when the body’s response to an infection injures its own tissues and organs. It may lead to shock, multiple organ failure, and death, especially if not recognized early and treated promptly. Between one-third and one-half of patients with sepsis die. (1-2)

In the developing world, sepsis accounts for 60% to 80% of lost lives per year in childhood, killing more than 6 million neonates and children yearly and is responsible for more than 100,000 cases of maternal sepsis. (3) Every hour, about 50 people die from sepsis. Sepsis causes more deaths than prostate cancer, breast cancer and HIV/AIDS combined. Globally, an estimated 20 million to 30 million cases of sepsis occurs each year. Experts in the field believe sepsis is actually responsible for the majority of the mortality associated with HIV/AIDS, malaria, pneumonia and other infections acquired in the community, in healthcare settings and by traumatic injury. (4) Patients surviving sepsis have double the risk of death in the following 5 years compared with hospitalized controls and suffer from physical, cognitive and affective health problems. (5)





Sepsis is often diagnosed too late, because the clinical symptoms and laboratory signs that are currently used for the diagnosis of sepsis, like raised temperature, increased pulse or breathing rate, or white blood cell count are unspecific. In children, the signs and symptoms may be subtle and deterioration rapid. Sepsis is under-recognized and poorly understood due to confusion about its definition among patients and healthcare providers, lack of documentation of sepsis as a cause of death on death certificates, inadequate diagnostic tools, and inconsistent application of standardized clinical guidelines to treat sepsis. (4)

Rapid initiation of simple, timely interventions including antimicrobials (6-7), intravenous fluids (7) and targeted treatment to restore the circulation (8) can halve the risk of dying. Patients with suspected sepsis should be referred immediately to an appropriate facility. Early sepsis treatment is cost effective, reducing hospital and critical care bed days for patients.

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