KEYNOTE ADDRESS
by H.E. Prof. Dr. Sujudi
Minister of Health The Republic of Indonesia
at The Opening of
The Third Asia Pacific Symposium on Typhoid Fever and Other Salmonellosis
and The Seventh National Congress of The Indonesian Society for Microbiology
Denpasar, Indonesia, 8 December 1997

Distinguished guests, ladies and gentlemen,

It is a great honor for me to address the opening of this Third Asia Pacific Symposium on Typhoid Fever and Other Salmonellosis and the Seventh National Congress of the Indonesian Society for Microbiology.

First of all, I would like to welcome all of you to Denpasar, the capital of the Province of Bali which is one among 27 provinces of Indonesia. On this opportunity, I would also like to express my sincere expectation that Denpasar could be indeed the best place to hold the two important events. Hopefully, the results of this international symposium on typhoid fever and other salmonellosis will be beneficial not only for the members of the international microbiology community but also for supporting further development of microbiology in Indonesia.

Indonesia is fully aware of the increasing need to strengthen health and human resource development, that is why, our Ministry of Health is very eager to support any initiative that will contribute not only to public health problem solving in this country, such as communicable disease problems, including typhoid fever and other salmonellosis, but also to human resource development, especially in the health sector.

It is necessary to mention here that the Indonesian Society for Microbiology has given significant contributions to the National Health Development in the country, especially in the control of communicable diseases.

Distinguished guests, ladies and gentlemen,

The health development programme in Indonesia has achieved significant results. It is reflected by improved health status of the people. Over the period of the First Long Term Development Plan (1967 - 1993), infant mortality rate has decreased from 145 to 58 per 1000 live births. As we all know, infant mortality rate is one of the key indicators of health status. Other health status indicator have also been improved. For example, live expectancy at birth has increased from 45.75 to 62.72 years and crude death rate has decreased from 18.7 per 1000 to 7.5 per 1000 population.

In Indonesia, we are fortunate, because we have designed our Health Development as an integral part of the National Development Programme right from its very beginning. This policy has enabled us to coordinate many different development activities of all sectors in our attempt to achieve higher efficiency and effectiveness in programme implementation. By doing so, the relatively low budget portion for health - which is only 2.5% of country’s GDP - can achieve remarkable results during the last two decades.

The Health Development in Indonesia has also prioritized the improvement of coverage, access, equality of health services. For these purposes the governement has established more than 7000 health centers and 21,000 sub health centers throughout the country. We also try to bring the health service closer and closer to the community by posting a midwife in every village and by motivating communities to play their important role in health de-
velopment activities. We have also launched the generic drug programme in order to provide drugs at affordable prices for all people in need at the grassroot level. For the under privilege we have distributed the Health Cards or Kartu Sehat to enable them having access to free health services.

Just like many other countries, at present we also face the problem of emerging and re-emerging infectious diseases. While we are still struggling to overcome some old infectious diseases, such as tuberculosis and malaria, new infectious diseases as HIV/AIDS and new identified microorganisms such as *Vibrio cholerae* 0139 have appeared.

_Distinguished guests, ladies and gentlemen,_

Typhoid fever is endemic in Indonesia. Based on epidemiological studies conducted in an urban area and a semi urban area in Indonesia, the incidence rate ranged from 360 to 810 cases per 100,000 population per year. Recent data from hospitals throughout the country showed increased number of hospitalized cases. Data from Infectious Disease Hospital in Jakarta revealed that the proportion of hospitalized typhoid fever cases or suspect cases has increased from 11.4% to 18.9% in 1983 - 1990 to 22.0% - 36.5% in the period of 1991 - 1996. The reported incidence rate of typhoid fever from Health Centers and Hospitals has also increased from 92 to 125 cases per 100,000 population per year (1994 - 1996). But in the contrary, case fatality rate has decreased from 3.4% in 1981 to 0.6% in 1996 due to the improvement of case management.

Although the diseases were found in younger children, their symptoms were more severe in older children and young adults. Some cases proceed to have intestinal bleeding and perforation that leading to death.

Fortunately, *Salmonella typhi* is still sensitive to most of the drugs of choice for typhoid fever. At present, Salmonellosis mostly causes diarrhoea.

As we all know, the incidence rate of typhoid fever and other salmonellosis are remarkably influenced by various factors such as environment, socioeconomic status, and behavior. That is why, interventions to further improve environmental sanitation, food sanitation and personal hygiene are carried out to prevent these diseases. The control of typhoid fever in Indonesia is done as a part of this framework.

In the past we have a program of conventional typhoid vaccination, a parenteral vaccine of whole cell. This vaccine provided a fair efficacy of around 50% - 80% but unfortunately this vaccine caused inconvenient side effect, such as fever, headache and malaise. In 1963 this vaccination program for infants had already been terminated accordingly.

At present there are two kinds of licensed vaccines against typhoid fever. Namely: the attenuated oral typhoid vaccine (TY21a, Vivotiv) and the parenteral vaccine (Vi-Capsular polysaccharide, TyphimVi). These vaccine are available in Indonesia. Both vaccines have been evaluated with the efficacy range 50% - 80% and the side effect is very low. Unfortunately the price of these vaccines are too expensive to be used in mass vaccination campaign.

In relation to increasing number of tourists visiting Indonesia, hygiene and sanitation are continuously improved to achieve the best possible standards, especially in hotels, restaurants, airports, seaports, bus and railway stations and other public places. The WHO Golden rules for safe food preparation is increasingly implemented throughout the country.

Surveillance on the strains which caused salmonellosis is done by Health Laboratory Services and Research Institute for Veterinary Sciences. Sample are collected and isolated from human, animal, water, litter and other sources.
Distinguished guests, ladies and gentlemen,

I do hope that all participants of both the symposium and the Congress will do their best, so that the two important events will end successfully.

I also wish that all of you would enjoy your stay in this beautiful Island of Bali with its well-known art and culture. I really believe that the hospitality of the people, here, in Bali, the Earth’s Last Paradise as international tourists usually call it, will make your stay a very memorable one.

Let me also express my sincere hope that God will bless all of us as we work together to make these events end successfully. Finally, I hereby declare that The Asia Pacific Symposium on Typhoid Fever and Other Salmonellosis and The Seventh National Congress of The Indonesian Society for Microbiology officially open.

Thank you.

Minister of Health of The Republic of Indonesia
Prof. Dr. Sujudi