



Technology Transfer Partnerships to improve vaccine supply in Bangladesh

**By:
Mir Mohammad Ibna Masud
On Behalf of Mr. Abdul Muktedir
Chairman & MD
Incepta Pharmaceuticals Ltd
Incepta Vaccine Ltd**



Bangladesh



People's Republic of Bangladesh, a highly densely populated country in the world, born as Independent in 1971.

Total area of around 144,000 square Km and population of over 165 million

A poor lower middle income group country, under LDCs classification with an graduation to middle income developing countries expected by 2024.

Due to high Population , poor hygienic conditions, environmental issues , lack of clean drinking water and porous borders with neighboring countries, population is on very High risk of Infectious diseases till few years Back.



Bangladesh

Support from various funding agencies, supply of vaccines through UN , various initiatives by WHO and other organizations, literacy about sanitation and supply of Clean drinking water has helped much better Health condition in Bangladesh in recent Years.

1.7 million annual death among children under 6 years age are due to disease that could have been prevented by routine vaccination

But Bangladesh has one of the world's best EPI programme and immunization coverage and it has coverage 92% in 2013 which was higher than global coverage. Besides this Bangladesh achieved two GAVI best performance award in EPI



Bangladesh

So EPI in Bangladesh has been recognized for its sustained high coverage and great contribution to the reduction of childhood morbidity & mortality.

Till 2011, all the vaccines used in EPI as well as private markets were imported.

Due to organizations like GAVI, WHO, UN, BMGF Bangladesh has come a long way in improving Health Status of Population and now life expectancy is

69 Years – Male

70 Years - Female



Tech. Transfer Requirement

Technology plays a central role in the economic & social transformation of countries. According to WHO TRS 961_Annex7 Technology transfer is defined as “a logical procedure that controls the transfer of any process together with its documentation and professional expertise between development and manufacture or between manufacture sites”. It is a systematic procedure that is followed in order to pass the documented knowledge and experience gained during development and or commercialization to an appropriate, responsible and authorized party.

Transfer of processes to an alternative site occurs at some stage in the life-cycle of most products, from development, scale-up, manufacturing, production and launch, to the post-approval phase

So it disseminates the gained knowledge to another party by which it helps to serve mass population.



Why for LDCs

- R&D institutes and testing facilities in developing countries fall short of modernized equipment with supportive infrastructure & technical skilled or expertized personnel when compared to industrialized & developed countries
- Lack of collaborative research
- Isolation of universities and R&D from Industry
- Most of the developing countries are neither innovating nor adopting technologies innovating economics
- Lacks capability to create globally competitive technologies
- Lack of access to information on new technologies and innovations.
- Lack of Funding for doing Basic Research.
- More Emergency situations due to poor sanitization condition and lack of basic requirements such as lack of drinking water.
- Bureautic issue on taking decision and lack of good governance



Why Bangladesh ???

1. Most of the people out of 165 million people, living in poor hygienic conditions requires low cost, easily available vaccines and other health related products.
2. Un employment- Biologic graduates have few jobs, so wasting talent in other sectors
3. Poor cold chain availability for mass storage of Biologicals leading to ineffective vaccines availability.
4. Imported vaccines less effective as disease burden is different in Bangladesh population . eg Rota Virus carrier.
5. Emergency situations - Rohnigyas presently
6. Poor Country – Loss of Foreign Currencies , causing dent in Economy
7. Lack of electricity in rural areas



Benefits to Bangladesh

1. Vast coverage and availability of Vaccines.
2. Tackle emergency Situations
3. Fast registration as only couple of manufacturers ,so less work load on NRAs
4. Employment to Youth- Their Growth helps to grow nation.
5. Saving cold Chain cost from importing Vaccine.
6. Less problem with Cold Chain storage
7. More effective vaccines as manufactured according to disease burden and particularly from local strains as for example Rota virus
8. Low cost of production helps more population coverage with same money. It helps to the Development of Country Economy
9. Due to regulation of Bangladesh government, inability of many manufacture to bring finished product in Bangladesh- Tech Transfer can Indirectly Help them



Benefits to Bangladesh

10.Improvement in living standards.

11.Self reliance

12. Help to move forward the country status from LDC.

14.Create skilled workforce

15.Bridge the research & development

16.Ensuring availability of quality & affordable vaccine.

17.Focusing on technology transfer, will save foreign currency and help to build strong economic nations in the world.



summary

Technology transfer partnership in Bangladesh will be helpful to be assured quality supply vaccine in affordable price covering the vast area with the same cost.

People of Bangladesh life expectancy will be more that have tremendous impact on the world economy .

Incepta Vaccine already started to work international vaccine institute (IVI) on project cholera and typhoid conjugate vaccine through technology transfer.

Already clinical study done.

Hope it will help us to eradicate the disease like cholera & typhoid



THANK YOU