

## Current Stance of Immunization and Vaccine Industry in the OIC Countries

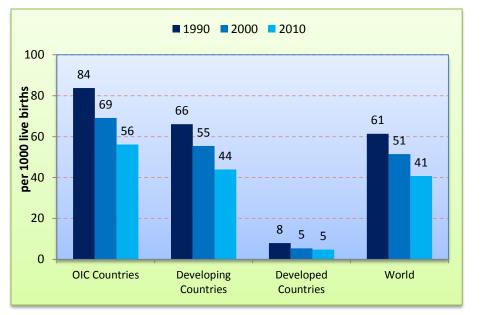
Dr. Umut UNAL

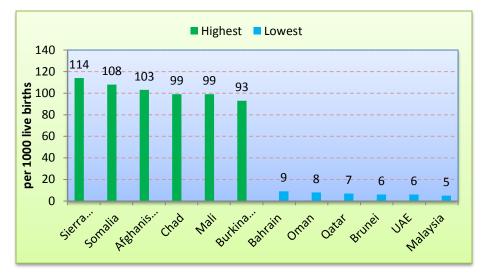
STATISTICAL, ECONOMIC AND SOCIAL RESEARCH AND TRAINING CENTRE FOR ISLAMIC COUNTRIES ORGANIZATION OF ISLAMIC COOPERATION

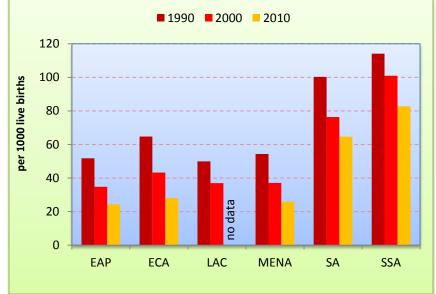
# Immunization

- Childhood immunization is one of the most efficient and effective methods of preventing diseases like Measles, Meningitis, Diphtheria, Tetanus, Pertussis (whooping cough), Yellow fever, Polio and Hepatitis B.
- Immunization is an essential component for reducing under-five mortality.
- Immunization coverage estimates are used to monitor coverage of immunization services and to guide disease eradication and elimination efforts.
- It is a good indicator of health system performance.

### Infant Mortality Rate (IMR)



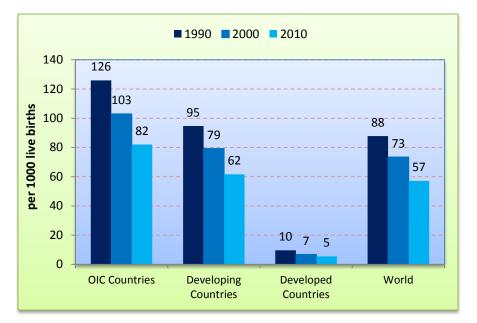


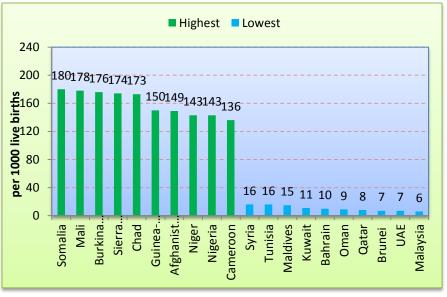


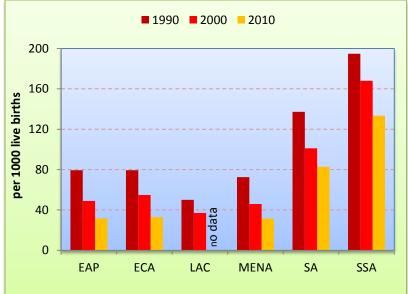
Infant mortality rate (IMR) indicates the number of deaths of babies less than one year of age per 1000 live births.

Despite the impressive progress, IMR in OIC member countries remained quite higher than the developing countries and world.

#### Under-Five Mortality Rate (U5MR)



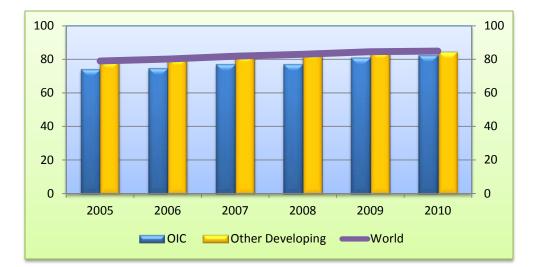




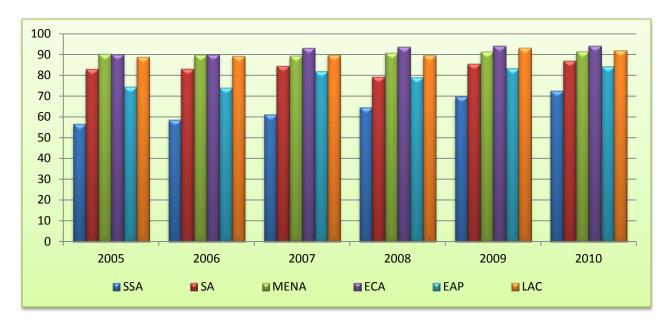
The under-five mortality situation has also been improved in the OIC member countries and U5MR has fallen from 126 deaths per 1000 live births in 1990 to 82 in 2010, corresponding to decline of 35 per cent.

However, despite this improvement, one in 12 children in OIC member countries die before their fifth birthday compared to one in 16 children in developing countries and one in 18 children in the world .

### DTP3: The third dose of Diphtheria-tetanus-pertussis vaccine

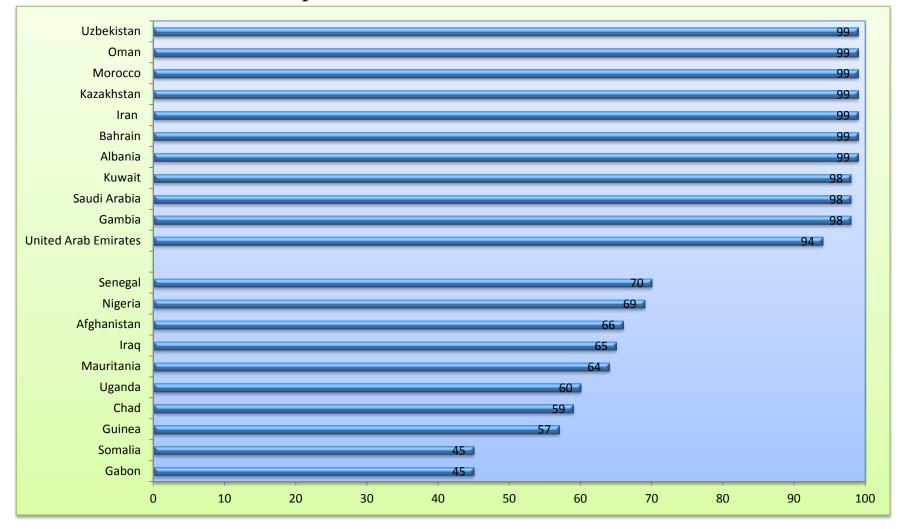


The third dose of combined Diphtheria-Tetanus-Pertussis (DTP3) immunization coverage has increased substantially in OIC countries during the last decade. The coverage rate increased to 83 per cent in 2010.

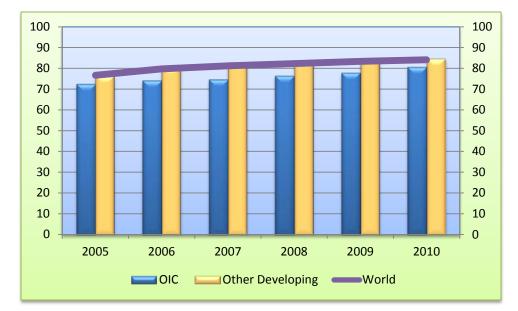


DTP3 coverage rates in LAC, ECA and MENA and regions remained higher than the OIC average and the world average. However, in contrast, SSA is still seriously lagging behind.

### DTP3: The third dose of Diphtheria-tetanus-pertussis vaccine



#### MCV: Measles Immunization Coverage



100 90 80 70 60 50 40 30 20 10 0 2000 2001 2002 2003 2004 2005 SSA 🖬 SA 📓 MENA ECA LAC 🖬 EAP

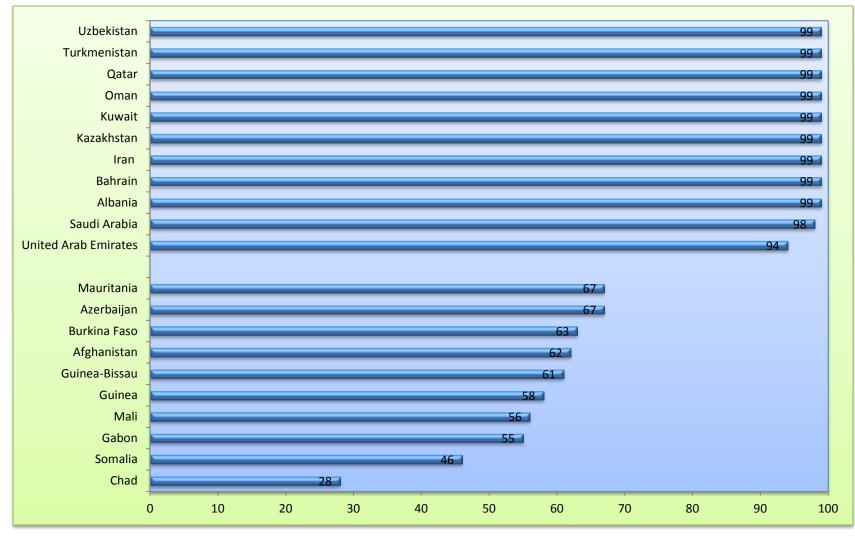
Measles is the most deadly of all childhood rash/fever illnesses.

Measles immunization coverage has increased substantially in OIC member countries and coverage rate increased to 80 percent in 2010. However, OIC countries still remained below the world, developing countries averages.

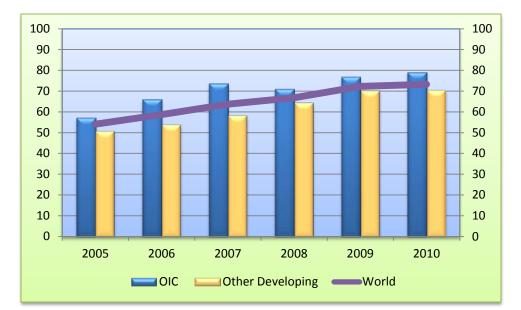
Immunization coverage in MENA, ECA and LAC regions remained quite high.

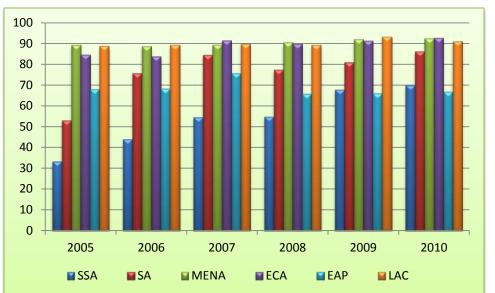
The rest of the regions, particularly SSA and SA, are seriously lagging behind.

### MCV: Measles Immunization Coverage



#### HepB3: The third dose of Hepatitis B vaccine.





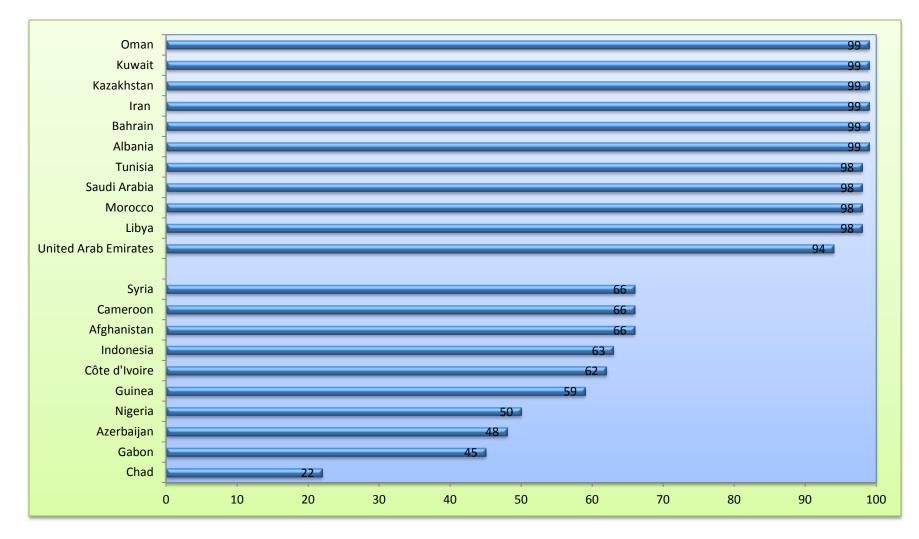
Hepatitis B is a serious infection that affects the liver. It is caused by the hepatitis B virus and 50 to 100 times more infectious than HIV.

According to the latest estimates of WHO, 25 percent of adults who become chronically infected during the childhood later die due to liver cancer.

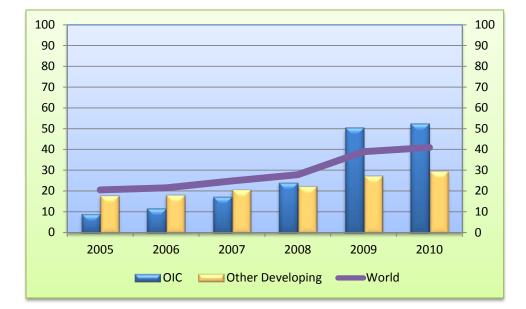
As shown in figure, OIC coverage rate remained higher than that for developing and world averages in 2010.

In 2010, among the OIC regions, HepB3 coverage ranged from a low of 67 per cent in EAP region to a high of 93 per cent in ECA.

### HepB3: The third dose of Hepatitis B vaccine.



### Hib3: The third dose of haemophilus influenza type B vaccine

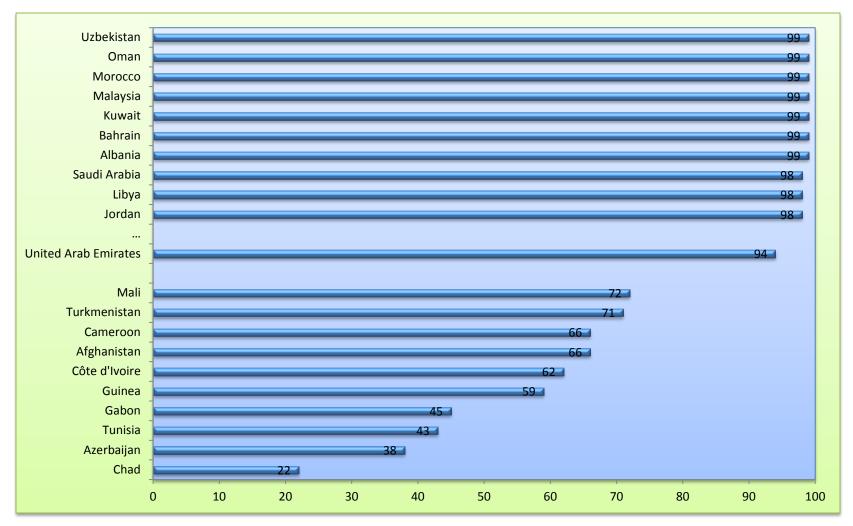


100 90 80 70 60 50 40 30 20 10 0 2009 2010 SSA 🖬 SA 📓 MENA ECA LAC Haemophilus influenza type B a bacterium that can infect the outer lining of the brain causing meningitis.

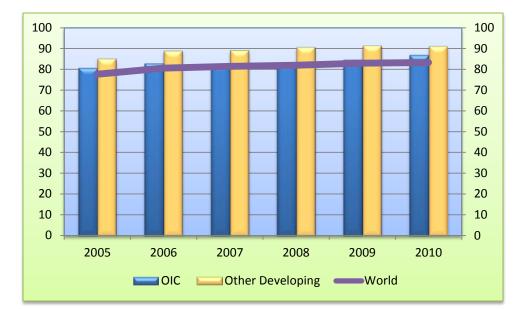
As shown in figure, OIC coverage rate remained higher than that for developing and world averages in 2010. However, the coverage rate is still around 50 per cent.

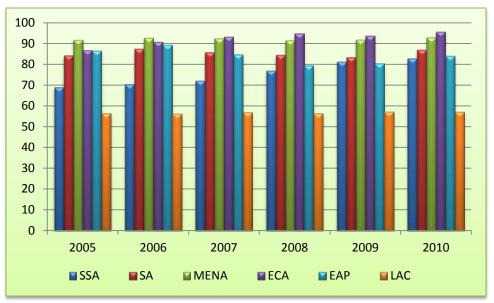
The SSA and MENA regions are lagging behind the OIC average.

### Hib3: The third dose of haemophilus influenza type B vaccine



#### BCG: Bacille Calmette-Guerin vaccine





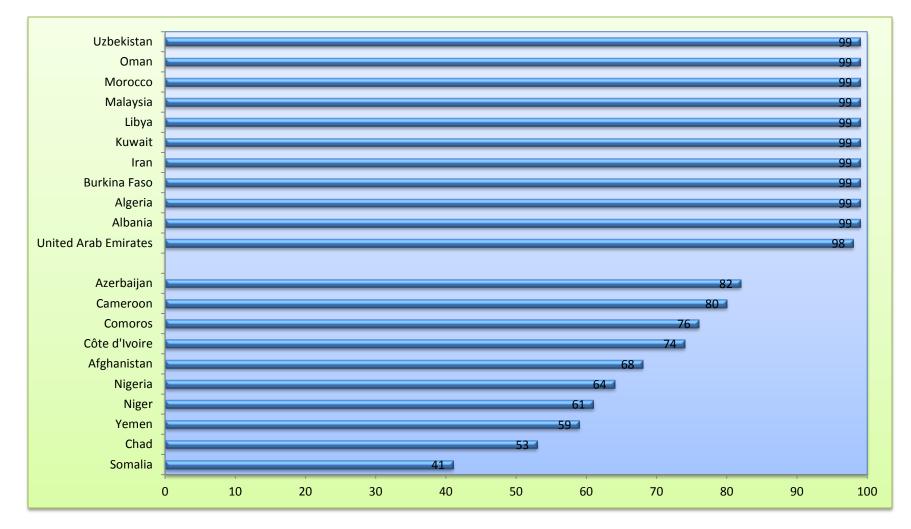
BCG is a vaccine for tuberculosis (TB) disease.

During the period under consideration, the coverage in OIC countries are in line with the world and slightly lower than that of developing countries.

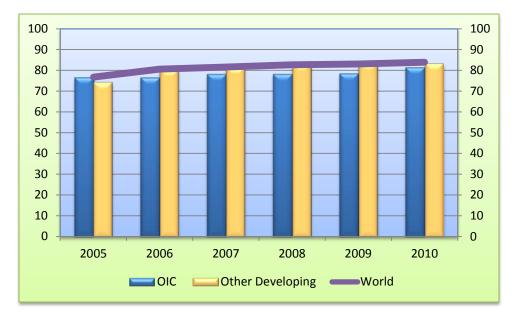
In 2010, the coverage rate increased to 87 per cent in OIC countries on average.

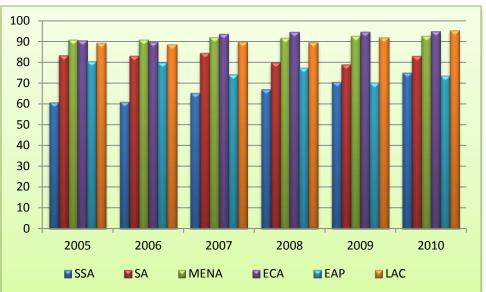
SSA and LAC regions are lagging behind. ECA and MENA are the leading regions.

### BCG: Bacille Calmette-Guerin vaccine



### Polio Vaccine



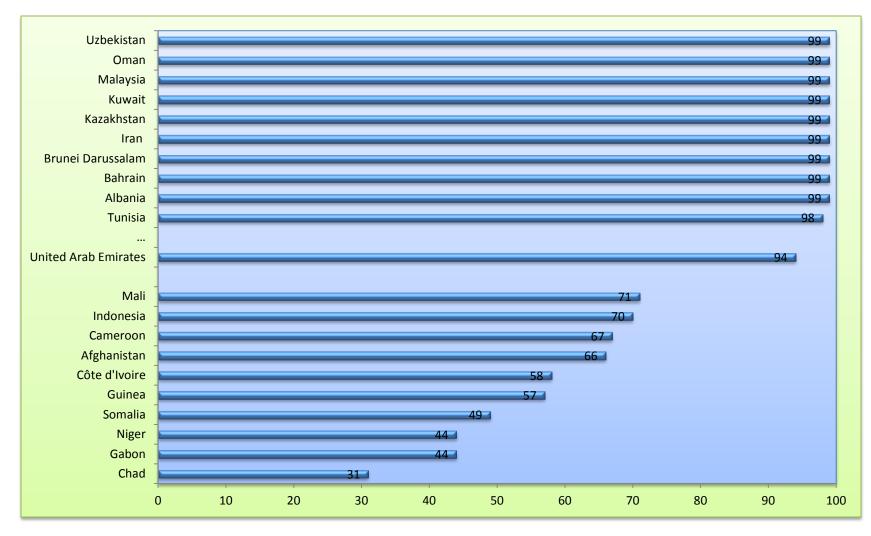


Polio immunization protects against poliomyelitis, a severe disease that leads to the loss of movement.

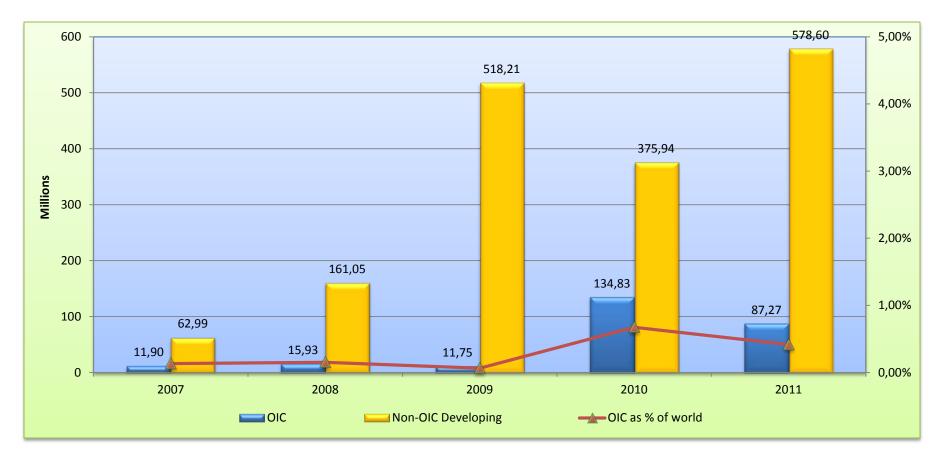
Despite some improvement, OIC countries are lagging behind the averages of the world and other developing countries during the period under consideration.

By 2010, SSA and EAP regions were seriously lagging behind.

#### Polio Vaccine



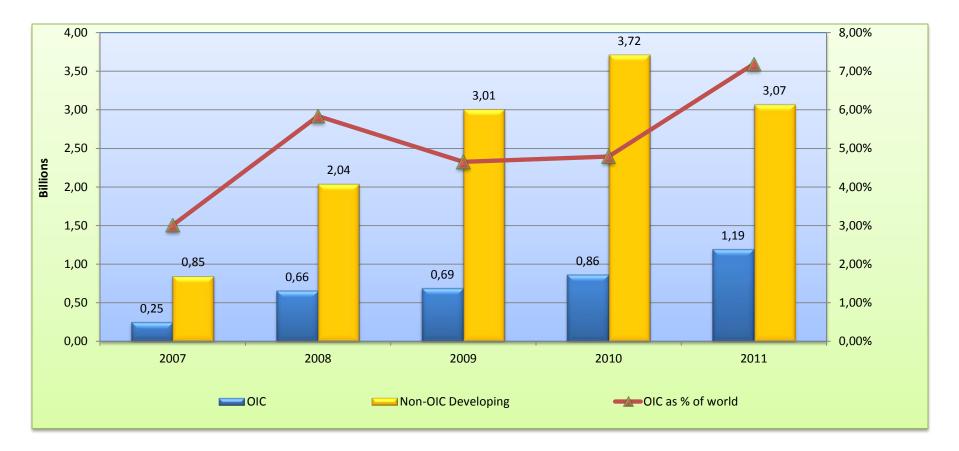
## Exports of Vaccines for Human Use



OIC countries are still accounting for less than 1% of the total world vaccine exports.

• OIC exports of vaccine recorded only 87.27 million USD in 2011.

## Imports of Vaccines for Human Use



#### OIC countries accounted for 7% in total world vaccine imports in 2011.

• OIC imports of vaccine recorded over 1.1 billion for the first time in 2011 which is almost 13 times higher than their exports.

# Current Stance of Vaccine Supply

- OIC countries display heterogeneous structure in terms of being able to uptake new vaccines.
  - Low income countries obtain vaccines mostly through Global Alliance Vaccines and Information (GAVI).
  - Middle income countries have been experiencing financial and operational difficulties with the introduction of new vaccines. They have the following obstacles
    - Lack of sufficient funds
    - Prevailing high prices of vaccines.
  - High income countries such as GCC have been successful in the uptake of new vaccines.

## **Current Stance of Vaccine Distribution**

- The purchase of vaccines is complex and requires a specialized knowledge and a precise approach.
- Due to the specificities of the vaccines, quality, safety and efficacy should be the first considerations to be taking into account.
- Cold chain conditions should be respected during shipment and cold room capacity should be available at the time of the receipt of the vaccines.
- There are many companies producing vaccines but only a few meet internationally-recognized standards of safety and efficacy.

# **Policy Recommendations**

• Supporting Local Production of Medicine and Vaccine.

#### - Actions at National Level

- Provide direct government support to the local manufacturers of medical products i.e. policies that reduce the cost of manufacture such as grants, subsidies, land, tax and duty exemptions for imported inputs for local production
- Improve national capacity in producing raw material based on available local/natural resources, to initiate self-reliance of medicine
- Improve investment climate by simplifying the requirements for doing business in pharmaceutical and other medical products industry without making any concessions to quality

#### - Actions at OIC Level

- Target bringing coherence of vision at the OIC level to support local production of medical products/vaccines under the OIC program on achieving Self Reliance in Vaccine Production (SRVP) in the Islamic world
- Establish an intersectoral intra-OIC committee of experts on local production
- Provide technical assistance to countries regarding the production of raw material for drugs production

# Policy Recommendations

• Increasing the Availability of Essential Medicines, Vaccines and Medical Technologies.

#### - Actions at National Level

- Implement regulations to prevent high mark-ups on essential medicines and vaccines
- Develop national guidelines related to distribution of vaccine and medicine in order to ensure the safety, efficacy, and quality well-maintained across distribution channel
- Support funding programs in order to improve the efficiency in the procurement and supply management

#### - Actions at OIC Level

- Identify the countries where capacity building at the country level, at the policy level or at the firm level is required
- Keep cooperating and collaborating with Global Alliance Vaccines and Information (GAVI)
- Provide material and technical assistance to develop national guidelines related to distribution of vaccines
- Facilitate development of regional pooled procurement mechanism which will enable local production to meet regional needs and allow for the mutual cooperation in increasing the availability of essential medicines and vaccines

## Thank you for your attention!



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