

# TRANSLATING RESEARCH INTO PRACTICE: AZERBAIJAN'S PERSPECTIVE

Dr. Nabil Z. Seyidov, MD, PhD  
Public Health & Reforms Center  
Ministry of Health  
Azerbaijan Republic

# IDEAS BEHIND RESEARCH

- ▶ Medical Research can be fundamental to advance the knowledge, our understanding of things
- ▶ Medical Research can also be applied to address the clinical problems, solve public health issues or advance the way how healthcare services operate.
- ▶ In Soviet Union the research results were applied in real life mostly in military field and only in some instances (and with huge delays) were finding their ways to positive affect or enhance the lives of ordinary people.
- ▶ In Azerbaijan there is unified understanding that research results shall be translated into changes in the clinical practices and healthcare policies and thus benefit entire population or in some cases, for example, genetic disorders or rare diseases, should benefit certain groups of population.

# WHERE SCIENCE IS MADE

- ▶ Azerbaijan National Academy of Sciences: 39 scientific institutions and organizations
- ▶ National Oncology Center
- ▶ Azerbaijan Medical University
- ▶ 11 Scientific-research Institutions of Ministry of Health
- ▶ Public Health and Reforms Center



# SCIENCE DEVELOPMENT FOUNDATION UNDER THE OF AZERBAIJANI PRESIDENT

- ▶ President of the Republic of Azerbaijan His Excellency Ilham Aliyev in 21 October 2009 has signed a Order # 526 on the establishment of the Science Development Foundation under the President of the Republic of Azerbaijan.
- ▶ Foundation is aimed in stimulation of scientific researches in Azerbaijan, strengthening of exploration of the country's natural resources, cultural and historical heritage, increasing effectiveness of researches in various spheres of science.
- ▶ Foundation intends not to be confined only in certain types of scientific researches, and in contrary, aims in support of all branches of scientific investigations - fundamental, applied as well as innovative-search ones.

# PUBLIC HEALTH RESEARCH

## ▶ Key areas:

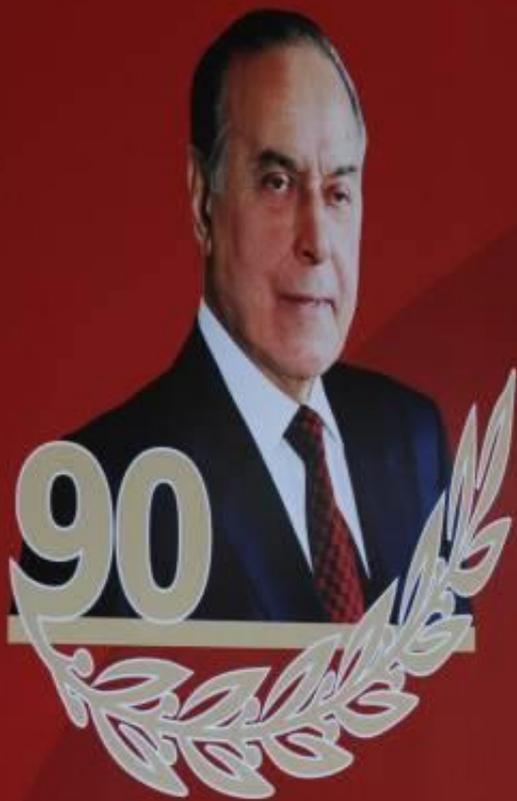
- ▶ Non-infectious diseases
- ▶ Patient care, including quality of health care (patient satisfaction, s
- ▶ Use of clinical guidelines and protocols
- ▶ National health screening programs (cancer, children, women, etc)
- ▶ Epidemiologic research

## ▶ Methods:

- ▶ Observational studies (surveys, interviews): DHS, NCD-2011, health&behaviour survey among children
- ▶ Intervention-based cohort studies: “healthy classroom – healthy nation” program with Ministry of Education
- ▶ Needs assessment or community diagnosis: study entails to collect data on existing health problems, achievements, constraints, etc. It is intended to define the needs and get baseline data for future references and comparison.
- ▶ Case-control studies: using the cancer registry data

# TRANSLATION OF RESEARCH

- ▶ Development of new approaches
  - ▶ i.e. new screening programs
  - ▶ i.e. new training and educational programs (ALSO, NRP, neonatology, immunisations and vaccinations)
- ▶ Development of national strategies
  - ▶ i.e. national strategy on prevention of NCDs
- ▶ Development of state programs and national action plans
  - ▶ i.e. state program on improvement of mother and child health



# "Baku Heart Days" 3rd International Congress of the Azerbaijan Society for Cardiovascular Surgery

Dedicated to the 90th birth anniversary of  
the National leader Heydar Aliyev



May 17-19, 2013 | "Gulustan" palace

[www.bakuheartdays.az](http://www.bakuheartdays.az)  
[www.audcc.org.az](http://www.audcc.org.az)

# EXAMPLE #1. USE OF EVIDENCE-BASED MEDICINE AMONG PRIMARY CARE DOCTORS

- ▶ In 2015 Public Health & Reforms Center of MoH initiated the study to determine the knowledge/understanding of evidence-based medicine and extend to which clinical protocols and guidelines are used by Azerbaijani primary care doctors.
  - ▶ The validated methodology (similar study in Turkey) was used and surveys and interviews were conducted among >400 primary care physicians throughout the country.
- 
- Based on the results of the study, PHRC developed recommendations to advance further knowledge and application of evidence-based medicine in Azerbaijan.
  - Ideas for new and very much needed clinical guidelines/protocols were gathered.
  - Need for trainings on use of clinical protocols and guidelines were revealed.



# EXAMPLE #2. CANCER REGISTRY

- ▶ In 2015 National Oncology Center of MOH in partnership with Public Health & Reforms Center established the National Cancer Registry that collects the data on more than 25 variables, *including intervention based outcomes, risk factors analysis, etc.*
- ▶ In 2016 National Oncology Center of MOH in partnership with Public Health & Reforms Center established National Childhood Cancer Sub-registry that collects data on pediatric cancer based on more than 30 variables, *including intervention based outcomes, risk factors analysis, etc.*
- In 2016 National Oncology Center of MOH initiated the project to establish the Hospital-based Cancer related Molecular Genetics Registry that will collect the data on molecular genetics and provide analysis of data to assist in clinical decisions.





# EXAMPLE #3: CRITICAL CONGENITAL HEART DISEASES AMONG NEWBORNS

- ▶ In 2016 MoH initiated the pilot intervention-based screening program for early detection and treatment of congenital heart defects among newborns.
- ▶ 2 scientific-research institutions, 2 clinical hospitals and 1 public health institution are involved with over 25 researchers and clinicians
- ▶ 1 innovative method for early detection will be applied for the first time
- ▶ Expected outcomes:
  - ▶ Defined incidence rate of CHD among newborns in Azerbaijan
  - ▶ Identify needs in cardiac care of newborns in Azerbaijan (cardiologists, cardiac surgeons, etc) for years to come
  - ▶ Develop new guidelines and protocols for diagnosis and treatment of newborns/children with CHD
  - ▶ Support Azerbaijani scientific-research centers and researchers to develop necessary experience and skills in design and conduction of modern investigational clinical researches



# EXAMPLE #4. NUTRITION, PHYSICAL ACTIVITY AND ACCESS TO HEALTHCARE AMONG SCHOOLCHILDREN

- ▶ In 2014-2015, PHRC of MoH in partnership with MoEdu conducted cross-sectional study among 1000 children, 400 parents and 50 pediatricians to reveal the status of health and access to healthcare, level of physical activity, nutrition and bad habits.
- ▶ This was first such study among children that used validated methodology (Australia and UK).

Based on the results of the study PHRC and MoEdu initiated closer cooperation within the “Healthy School – Healthy Nation” program that is an intervention-based program currently piloted in 34 schools of Azerbaijan.



# SOME PERSPECTIVE AREAS OF FUTURE WORK

- ▶ Collaboration between scientific research centers/institutions of Azerbaijan and Europe, USA, Turkey, and Asia.
- ▶ Open-access scientific journals in Azerbaijani, Russian and English to enable access of junior and senior researchers and public health professionals to the information
- ▶ Improvement of capacity of medical institutions in conduction of high level clinical trials, adherence to GCP, ethics committees, elimination of unnecessary burocratic mechanisms