

Use of Modern, Advanced Medical Technology in Uzbekistan

Background of the project

A dramatic rise in the prevalence and incidence of cardiovascular diseases, cancer, diabetes, in the recent years has brought several major health care reforms in Uzbekistan, aiming to improve efficiency of the health care services. To secure the availability of modern advanced health care technology the Uzbek government has invested several hundred million USD in the years after independence to address the rising demand for quality health care. Despite the availability of high technology medical equipment, shortage of skilled health workforce resulted in insufficient and compromised service delivery. To address this issue, GIZ together with the Ministry of Health (MoH) of the Republic of Uzbekistan initiated the project “Advanced training for medical and technical professionals to work with modern advanced medical technology”.

The main objectives included

1. Capacity building of medical and technical professionals for the use of advanced, modern health technology as well as preventive maintenance;
2. Quality assurance in clinical applications and improvement of the health technology management;
3. Improvement of the management of diagnostic methods – imaging technologies (MRI, CT, Doppler sonography, digital x-ray) - and treatment strategies – minimal invasive surgery (laparoscopy, hysteroscopy, endoscopy and etc.) - in selected clinical interventions;
4. Close collaboration with the financial cooperation (German Development Bank, KfW) of the German Government, with selected tertiary referral hospitals, the medical device industry and academia.

Project name	Advanced training of medical and technical professionals to work with modern high technology medical equipment in Uzbekistan
Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Project region	Uzbekistan
Lead executing agency	Ministry of Health of the Republic of Uzbekistan
Duration	2014-2018

The project is implemented in close cooperation with the Tashkent Institute for Postgraduate Education of Doctors (TIPED), the Republican Research Centre of Emergency Medicine (RRCM), Republican Perinatal Centre, Republican Pediatric Endosurgery Centre, Andijan State Medical Institute clinic, Republican Training-production Centre for technical maintenance of medical equipment and “Uztibtehnika”.

The project is organising master classes inviting international experts, study tours to Germany, information visits to medical manufacturers in countries such as Austria, Belarus, Germany and Russia.

Assistance in the development of health technology management strategies

Project supported establishment of one training centre for technical specialists (Training and Production Centre) and one for user



Photo 1: Training for radiologists at the training centre at Republican Centre for Emergency Medicine

Photo 2: Master class on gynaecological laparoscopy at newly established training centre at Republican Perinatal Centre



Photo 1: Technician is repairing medical equipment at newly established training centre at Republican training-production centre of maintenance

Photo 2: Newly established training centre on laparoscopy at clinic of Andijan State Medical Institute

trainings (MedInTech) in Tashkent.

All centres were fully equipped with modern instruments, office equipment and furniture. These training centres will be responsible for advanced post-graduate training and provide state-approved certificates for their operations.

The project started the installation of the open source software for medical inventory system openMedis at the training centres. The scale-up of the use of this software is planned.

Training of medical and technical staff in the use, operation and maintenance of medical equipment

The project commissioned four training centres for surgeons specializing in minimal invasive interventions at referral hospitals in Tashkent and Andijan. These centres for advanced trainings became the integral part of above-mentioned continuous education provided by TIPED's and Andijan Medical Institute's clinical sites. International experience and international standards, guidelines, information materials and research provided by close collaboration with high-profile university clinics in Germany, Russia and France.

In 2016, the Samarqand Perinatal Centre became a new pilot site where it is planned to assess the use of in-house oxygen generation with an option for extension to other facilities.

The project introduces tools for supervision and mentoring of medical, paramedical and technical personnel to ensure ongoing quality of the offered services. Through web-based online and offline tools trained staff has access to regular support and assistance.

The project carried out over 60 master classes and trainings, trained in total of 1,321 specialists including 691 endosurgeons, 266 radiologists, 95 nurses, 145 technicians and 124 administrative staff.

Impact

An expected long-term impact is to ensure a healthy life for all people of all ages and promoting their well-being (SDG, sustainable development goal 3).

At institutional level, the project strengthens professional competences of medical doctors, nurses and technical staff. This will directly extend the life cycle of expensive equipment, improve diagnostic results and procedures, reduce the ALOS (Average Length of Stay) and prevent undesired interventions.

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	Bilateral project 'Advanced training for medical and technical professionals to work with modern high technology equipment in Uzbekistan'	On behalf of	Federal Ministry for Economic Cooperation and Development (BMZ)	
	Dr. Gunnar Strote, Project manager gunnar.strote@giz.de	Division	East Asia, Central Asia	
	Dr. Nigora Muratova Project coordinator nigora.muratova@giz.de	Addresses of the BMZ offices	BMZ Bonn Dahlmannstraße 4 53113 Bonn, Germany T +49 (0)228 99 535-0 F +49 (0)228 99 535-3500	BMZ Berlin Stresemannstraße 94 10963 Berlin, Germany T +49 (0)30 18 535-0 F +49 (0)30 18 535-2501
	7A, Chimkentkaya str. 100029, Tashkent, Uzbekistan T + 998 71 280 67 51 F + 998 71 280 67 52 www.giz.de		poststelle@bmz.bund.de www.bmz.de	
Author	Dr. Gunnar Strote / Dr. Nigora Muratova			
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