

Training Program in Turkmenistan Achieves Results by Linking Family Physicians and Laboratory Specialists

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Murat (not his real name), a six year old boy from Lebap Velayat, Turkmenistan, was recently taken to his family physician by his parents, who were concerned by their son's lack of appetite and lethargic behavior. After being referred to a specialist for consultation, his parents were shocked when they were told by oncologists that Murat had leukemia. His parents were understandably distraught and, as any parent would do, they sought a second opinion confirming this frightening diagnosis. Saodat Romanova – a laboratory physician at House of Health #5 in Turkmenabat – was able to give Murat's parents much better news after reevaluating the laboratory tests. Ms. Romanova determined that Murat was indeed sick. However, his lethargy and lack of appetite were the result of *anemia* – a relatively common and easily treatable condition.

Ms. Romanova was able to quickly reverse the original diagnosis and was confident in the accuracy of her diagnosis of anemia, due in large part, she says, to her participation in a ZdravPlus training course on hematology for laboratory and family physicians.

In two distinct stages, the USAID-funded ZdravPlus project has been working since 2002 to strengthen the capacity of laboratory workers in Turkmenistan's health care system. Until 2005, ZdravPlus concentrated on improving basic laboratory practices through trainings that focused on quality assurance, safety, and equipment use. The first project covered over 600 laboratory workers from throughout Turkmenistan and received broad praise from health care workers and the Ministry of Health.

Linking Laboratory Specialists with Family Physicians

While ZdravPlus and the MOH chose to address underdeveloped laboratory capacities early on, it was anticipated that without

corresponding improvements in clinical diagnosis and treatment, laboratory trainings would not necessarily translate to improved health outcomes for the population. Even when laboratory workers provide the highest quality of service, their efforts are only useful to patients if their family physicians are ordering the right laboratory tests, making correct diagnoses and prescribing the most appropriate treatment. To ensure the strength of all links in the health care chain, ZdravPlus



Participants in the ZdravPlus joint laboratory/primary health care hematology training

is taking a health systems strengthening approach to primary health care (PHC) and laboratory training in Turkmenistan that links laboratory and family physicians together in the education process.

The Laboratory/PHC Training Module

The new training module focuses on hematology and associated health conditions that are both relevant to the primary health care setting and identified by current laboratory trainers as being particularly important in Turkmenistan. Developed by ZdravPlus specialists, the training module emphasizes the relationship between family physicians and laboratory specialists and how the two groups

should work together to ensure that appropriate blood tests are performed and interpreted correctly.

Specifically, the training teaches laboratory technicians to make and analyze blood samples using basic equipment available in both urban and rural primary health care facilities. Doctors are taught to how to request relevant tests and how to interpret the results they receive from their laboratory colleagues.

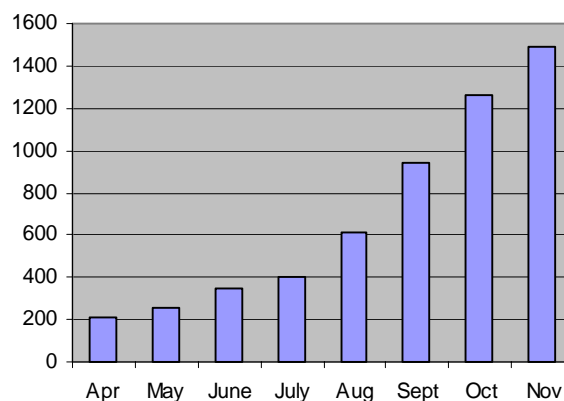
Perhaps the most important aspect of the laboratory/PHC training module is its practical, student-centered approach to learning and engaging laboratory specialists and family physicians in working hand-in-hand to improve quality of care. The approach uses clinical case scenarios developed for a number of important conditions and encourages teams to work together to identify which tests are needed and which diagnosis should be made based upon test results. The process promotes a better understanding of the complementary role that doctors and laboratory technicians play in the health care system and ensures that both groups are able to put their new skills to practice in a mutually supportive fashion when they complete the course.

Beginning with a training of trainers (TOT) followed by ten roll-out trainings in 2006, a total of 212 participants have received laboratory/PHC training to date, including 111 laboratory physicians and 101 family physicians. Pre- and post-testing of laboratory/PHC training participants showed a dramatic 32% increase in laboratory and family physician knowledge following participation in the training (66% pre-test, 98% post-test).

Encouraging Results

ZdravPlus chose the diagnosis of anemia – a relatively common, yet under-detected condition in Turkmenistan – as a monitoring indicator with which the effectiveness of the training could be assessed. Monitoring took place in 24 PHC facilities in all five velayats (provinces) of Turkmenistan from April to November 2006 and found that diagnoses of anemia rose by a factor of *seven* across all sites in just eight short months.

Cases of Anemia Diagnosed
April – November, 2006



Fortunately, this remarkable increase does not indicate an increase in the prevalence of anemia in Turkmenistan. Rather, it represents something quite positive: family physicians and laboratory physicians are working together to diagnose anemia more effectively on the primary health care level and to ensure that patients receive the care they need to improve their condition.

The monitoring results also demonstrate an important achievement in the development of the health care system in Turkmenistan. In this example it took 1) skilled family physicians; 2) skilled laboratory physicians; and 3) a system that connects the two groups to enable the delivery of effective care to the population. Even in difficult environments, it is almost always possible to develop strategies to link and integrate health services using a health systems strengthening approach.

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