The Tanseeq Program

The First Abu Dhabi Residency Match
The Problem
Most recent data shows that Abu Dhabi has over 3000 licensed certified physicians as of 2010. As a result, the Emirate has 171 full time physicians providing care for every 100,000 residents, a ratio lower than European, North American and even some neighbouring gulf countries. This shortage is even more profound in critical specialties such as emergency medicine, intensive care, and obstetrics medicine. The below illustrations describe the fundamental factors required for a sustainable physician work force and some of the unique issues leading to this deficiency in Abu Dhabi.

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<th>Red Blood Cell Track</th>
<th>Life cycle</th>
<th>Health Professional Track</th>
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<td>The bone marrow is the factory of producing blood cells with the help of several elements and hormones.</td>
<td>Production of graduates in all health professionals should occur in high standard academic institutions. Student recruitment and teaching capacity are critical to optimizing the number of graduates in the health professions.</td>
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<td>The small blood cell will grow to become a mature blood cell provided a strict milieu of hormones and growth factors</td>
<td>To produce skilled HP’s, education programs must be well structured with competency based assessments through standardized examination and certification processes.</td>
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<td>During its life cycle, the red blood cell will travel through different organs where it grows further and increases its oxygen carrying capacity</td>
<td>During their careers, health professionals must be provided with a nurturing work environment providing opportunities for professional development, career promotion, and continuing education</td>
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<td>Mature and healthy blood cells are vital to sustain the various organs of the body and its functions. The red cell end in the spleen where it recycled back to the bone marrow and used to generate new blood cells</td>
<td>Health systems should utilize their mature health professionals in multiple capacities. Their expertise should be utilized to feedback into the cycle at different levels.</td>
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*Figure 1a: Illustration of the normal mechanism of blood cell cycle and the similarity to the career path of health profession graduate.*
### The Anemia Model

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<th>Bone marrow unable to produce red blood cells properly.</th>
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<th>Deficits of growth factors and hormones do not allow red blood cells to mature properly.</th>
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<th>External/Internal destructive (e.g. infections) processes may lead to restriction of function or destruction of red blood cells.</th>
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<th>Severe anemia (red blood cell deficits) dictate the need for emergency, external blood transfusions</th>
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<th>No current dedicated recruitment efforts at a school/undergraduate level. Medical/Health professional schools are not producing enough graduates. There are no formalized exit examinations to ensure the quality of graduates.</th>
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<th>Unstructured training programs with no uniformity in trainee selection processes, and expected competencies. No standardized in-training examinations, promotions procedures. Weak or non-existent certification health professional certification.</th>
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<th>Scarcity of professional development and leadership training activities, as well as cumbersome promotions policies lead to the drop out or stagnation of existing Emirati health professionals and contribute to a smaller work force of specialized Emiratis</th>
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<th>Severe deficits in Emirati health professionals lead to the reliance on highly migratory non-Emirati workers to supply our diseased healthcare system without addressing the sources of the deficiency.</th>
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*Figure 1b: Illustration of the current deficiencies present in the system in Abu Dhabi.*
The Team
The Health Authority Abu Dhabi established the post graduate medical education section (PGME), a team dedicated to delivering a solution to the issues outlined through the improvement of medical education (figure 1a). Recognition of the medical education continuum as a comprehensive pathway to address these health systems needs, the PGME section benchmarked its objectives with the world renowned U.S. model (Figure 2a-c).

**Fig.2a** – U.S. medical education continuum (top), UAE medical education continuum pre-TANSEEQ initiative (bottom). Lack of residency entrance examination and systematic match identified as key elements missing for the Abu Dhabi medical education continuum

**PGME Abu Dhabi 2010**

The Process of Residency Training

- Entrance Examination
- Residency Application & Match
- Training
- Certification
- Licensing

No Exam

**TANSEEQ**

**Fig.2b** – PGME Initiative #1 - TANSEEQ implementation 2010.

**PGME USA vs. Abu Dhabi**

The Process of Residency Training

- Entrance Examination
- Residency Application & Match
- Training
- Certification
- Licensing

No Exam

**Random**

**USA**

**UAE**
The Initiative
“TANSEEQ”, the first medical residency match program for the Emirate of Abu Dhabi was pioneered by the PGME section at HAAD as an initial project in the trajectory outlined above. TANSEEQ was carried out with the following critical components:

- The determination of training posts in teaching facilities in accordance accreditation status, community needs, and facility resources
- The determination of a one uniform start date (September 1st, 2010) for all programs across all health facilities.
- The implementation of uniform application requirements and submission process for all medical graduates
- The conduction of a standardized examination and interview process in accordance with international standards
- The execution of systematic ranking of all applicants and matching
- The distribution of applicants to training facilities in accordance with their rank order
- The publication and simultaneous dissemination of match results to all teaching facilities

The Achievements
Following match outcomes were achieved through the TANSEEQ process (as illustrated in Fig 3 below):

- Standardization of application, examination, interview, and match process.
- Uniform program start date across all training programs and facilities in Abu Dhabi.
- Comprehensive analysis of strategic workforce needs.
- The largest number of medical graduates ever distributed into post graduate training posts with 81% occupancy of training posts compared to 54% average occupancy in the last 5 years.
- The recruitment of multiple educational stakeholders across the Nation resulting in unification of the GME vision and a dramatic increase participating facilities/programs.
- Partnership with the United States National Residency Match Program – International, marking the first international collaboration with the largest residency match organization in the world.
The Future
We continue to strive towards our Graduate Medical Education Benchmark as illustrated below.

Future projects include the benchmarking of accreditation, certification, and licensing standards with the ultimate goal to provide Abu Dhabi (and the UAE as whole) with a sustainable health workforce delivering international standards of care.
References:

- Health Authority – Abu Dhabi Sets the Standard of Continuous Medical Education (5/11/2011)

- Health Authority - Abu Dhabi Introduces CME Online Accreditation System for Healthcare Professionals in the Emirate (10/18/2010)


- The National Resident Matching Program (NRMP) http://www.nrmp.org/

- HAAD Continuing Medical Education, Continuing Professional Development
  http://www.haad.ae/cme/

The PGME Team (100 words)
The project lead was Dr Hatem Al Ameri, PGME Section Head and Dr. Sawsan Abdel Razig, Senior PGME Officer. The involvement of many educational stakeholders including national regulatory authorities, academic institutions, hospital operators, and educators was crucial in successful implementation of the TANSEEQ initiatives.

Dr. Al Ameri earned his MD degree from the Sultan Qaboos University from the Sultanate of Oman. He currently heads the Post Graduate Education at the Health Authority Abu Dhabi. Dr. Abdel-Razig received her MD from the University of Connecticut. She currently serves as the senior post graduate education officer for the Health Authority Abu Dhabi.