TPG International Health Academy
Scotland Executive Trade/Study Mission
September 26-October 1, 2015
Executive Summary

Introduction
In September 2015, TPG International Health Academy (TPG-IHA) and its delegation of 25 participants visited Edinburgh, Scotland. As is often the case, the delegates were struck with the number of challenges confronting healthcare systems that are similar and yet each country also has some unique responses to the issues. The delegates were able to interact with a broad cross section of the Scottish system, including representatives of the government, the National Health Service (NHS), leading private sector providers and other innovators in Scotland.

Overview
While part of the United Kingdom, Scotland has its own NHS as health is one of the "devolved" areas of responsibility from the central government in London. While there are many similarities among the four NHSs of the UK (England, Wales, Northern Ireland and Scotland), there are some unique differences as well. Most notable in Scotland is essentially all services are free at point of use, including home and community-based services for elders. While there is a private sector delivery system in Scotland, its scope and reach is quite limited.

Scotland consists of approximately 5.6 million people with much of the population centered in the Glasgow/Edinburgh regions. The Scottish NHS is divided into 14 regional health boards which must manage to a budget. Health results are measured regionally as well. Health status and longevity have very distinct regional patterns which tend to follow economic wellbeing indexes for each area. Colloquially called the "Glasgow effect"—life expectancy can vary as much as eight years depending in which neighborhood someone resides.

Scotland also is confronted by the same demographic trends challenging most Organization for Economic Cooperation and Development (OECD) countries—aging population and disproportionate increase in elders; relatively low birth rate (Scotland's is slightly above replacement rate); increasing average age of care providers, particularly physicians. Scotland also faces challenges from the rapid escalation of prices in pharmaceuticals and other products used in healthcare.

The Scottish economy has begun to recover from the international crisis of the last few years but, in addition to the "normal" barriers to recovery, it is vulnerable to the price of

oil as a significant portion of the country's tax revenue is directly related to the extraction and shipment of North Sea Oil.

Healthcare spending in Scotland has begun to flatten, which may create issues in the future given the demographic and cost trends noted previously. The Scots are exploring a number of strategies to mitigate the risk, including expanding the scope of practice for nurses and other healthcare professionals, central purchasing of pharmaceuticals, supplies, general use items, and more.

Scotland Economy
Key Statistics:

- Population: 5.6 million. There was a downtrend in population from 1980 - 2000, but it has stabilized and is beginning to grow
- Healthcare Spending: 12 Billion GBP
- 14 semi-independent geographic health boards
- Care is "free at point of service"
- Referrals must be completed within 18 weeks or NHS must send the patient to the private system
- Limited private healthcare—elective procedures, overflow from NHS

Pharmacy/Logistics/Role of Prescribers
In response to the issues confronting the NHS, the pharmacists' role is being expanded with a goal of all patients having a one-on-one relationship with a pharmacist by 2020. To create the capacity for greater patient interaction, the roles of the pharmacy support staff and the pharmacy techs are being expanded.

Although there is some flexibility within each of the regional boards, purchasing is centralized at the NHS Scotland level. One of the central group's functions is to provide full logistical support for drugs, consumables and other supplies. The central purchasing function reports this has resulted in significant savings and increased efficiency.

NHS formulary decisions are the responsibility of a central organization. Pharmaceutical companies present their new compounds to a committee that includes prescribers, pharmacists, administrators and patient/public representatives. The committee then recommends whether to include the compound or not. Prescribing parameters are set by the medical professionals once the compound is accepted.

NHS considers value in its decisions whether or not to include a medicine in the formulary. While no explicit formula has been defined, a medication must demonstrate superiority in efficacy and pharmacoeconomic value before it will be included.

Nurse Training

The delegation visited the Edinburgh Napier University to explore how nurse and other training programs are developed in Scotland. Of particular note is how closely the training and curricula are tied to the NHS needs. University staff review needs with NHS and tailor the training to those needs. In Scotland, registered nurses have several distinct qualifications, e.g., adult, pediatric, nurse midwife, mental health, persons with intellectual disabilities and most uniquely a specialist certification in clinical trials/research. Scotland has significant drug and device development activities so this curricula and certification supports the clinical protocol and reporting required to certify new treatments.

Training is also provided for advanced practice nurses. These programs are collaborative programs developed and managed by the universities with active participation by the various NHS departments and the individual nurse seeking advanced certification. The programs have flexible scheduling to create opportunities for the fully-employed nurses to achieve the additional certification within their available time.

Spire Murrayfield Hospital

Although it represents only a small portion of total healthcare spend in Scotland, one of the highlights of the trip was a visit to the Spire Murrayfield Hospital. The facility is very modern and provides both direct-pay elective and non-elective services, and sub-contracts with NHS to provide capacity relief when certain services become impacted—particularly orthopedics and oncology. The delegates were impressed with the use and ubiquity of benchmarks in the management of the hospital.

Edinburgh BioQuarter

The delegates also visited the Edinburgh BioQuarter, which is a collaborative consortium that includes the Scottish Enterprise (Scottish Government), the University of Edinburgh, NHS Lothian (the local regional NHS organization) and private sector companies. The areas of emphasis within the campus are: Connected Health, Regenerative Medicine, and Translational Medicine. Its goal is to be a European leader in all of these areas, in addition to incubating private sector companies whose products/services support advancement in these areas.

The campus includes: a 960 bed hospital, the University of Edinburgh Medical School, labs dedicated to each of the areas of emphasis including the JK Rowling Centre for Regenerative Medicine. Planning and construction are underway to add a 600 bed

Pediatric Hospital and a Brain and Body Institute that will house 500 researchers by the end of 2016.

The BioQuarter has a dedicated staff at the incubator who have a successful track record of financing and starting businesses. Since its founding in 2013, 13 companies have been created which have raised nearly £13 million in venture capital funding.

Barriers to Care

As noted above, healthcare is free at point of service. In spite of this, gaps in care still arise because of adherence issues, e.g., prescriptions not filled, appointments not kept, etc. The physicians who spoke to the delegation described problems which could be characterized as very familiar, with the exception of the problems created by affordability.

Summary

The Scottish Healthcare System and its people face many of the same challenges seen in most developed countries—affordability, inflation (especially in the pharmaceutical area), adherence and demographic challenges both in the patient and provider populations.

It has some unique characteristics and challenges as well: its relatively small population, relative homogeneity, and tradition (the long-standing public commitment to providing healthcare to all). It is also confronted with areas of relatively sparse population density, and has geographic/economic strata-based health status problems as well.

The longstanding commitment to healthcare for all provides a basis for addressing the problems, but it is equally challenged by its tradition of care that is free at the point of service. This limits the economic solutions available to policy makers. Solving this dilemma will require innovation and collaboration among the country's various stake-holders—patients, providers, the NHS, suppliers and the government.

The NHS and its constituents have begun to address these challenges as evidenced by some of the Academy's site visits. Scotland is attempting to use education, collaboration and directed innovation to bend the cost and outcome curves so that it can continue to provide healthcare for all.

TPG-IHA (www.tpg-iha.com) develops and conducts educational programs in countries outside the United States for senior healthcare executives.