Special Olympics World Summer Games, October 2007
a case study

The Special Olympics 2007 World Summer Games, held in Shanghai China in October 2007 was the largest sports event world-wide in 2007, and was host to 7,000 athletes from 155 countries for 8 days of Olympic style events.

The Healthy Athletes program of free healthcare screenings was offered to all athletes in six separate screening programs:

Fit Feet	Podiatry: assessment of feet, gait and footwear, provision of heel raises, onward referral, education.
FUNFitness	Physical therapy: measurement of muscle strength, joint mobility, flexibility, range of movement, onward referral, education.
Health Promotion	Health Promotion: comprehensive lifestyle assessment including smoking, diet, exercise, measurement of height and weight, education.
Healthy Hearing	Audiology: comprehensive hearing assessment, fitting hearing aids, onward referral, education.
Opening Eyes	Ophthalmology: comprehensive visual assessment including acuity, color vision, perception, provision of new prescription eyewear on the spot, onward referral, education.
Special Smiles	Dental: comprehensive dental assessment, onward referral, education.

As the exclusive *Special Olympics Healthy Athletes Global Partner* Health One Global provides HEALTH*one* for two different applications:

- Healthy Athletes Software (HAS) to record the screening details of all athletes screened. This also occurs at up to 700 events world-wide each year;

- Medical Encounter Software (MES) for the medical primary care of the participating athletes, their coaches, volunteers and member of the public attending all Games events but also including all residential venues.

Healthy Athletes software

HEALTH*one* was installed on a local area network at the Healthy Athletes screening venue and connected via the Internet through a Citrix Virtual Private Network to the Games server room where Health One Global had installed 2 servers for HAS and MES respectively.

All demographic data including sporting event, medical history, contact data was imported directly from the Special Olympics Games Management System (GMS) to create the basic patient record in HEALTH*one*.

18,536 screenings were carried out in 8 days from October 3, 2007 to October 10, 2007 by global volunteer screeners from around the world assisted by Chinese volunteers. All screening data was recorded on Special Olympics standard Healthy Athletes forms and taken to the Healthy Athletes data centre, set up specifically for the event. 50 Chinese IT students worked in shifts on 18 networked PCs to enter the 18,536 screenings into HEALTH*one*.

Of the 7,289 athletes from 155 countries who attended the Games, 4,879 (66.9%) of them underwent at least one of the 6 screening programs available. On average each athlete attended 3.8 of the 6 screening programs.

To screen 4,879 people from 155 countries in 8 days was a world record for Special Olympics. It may well be a world record for anyone else too! Certainly it is probably the largest number of people with intellectual disability to be screened in 8 days ever.
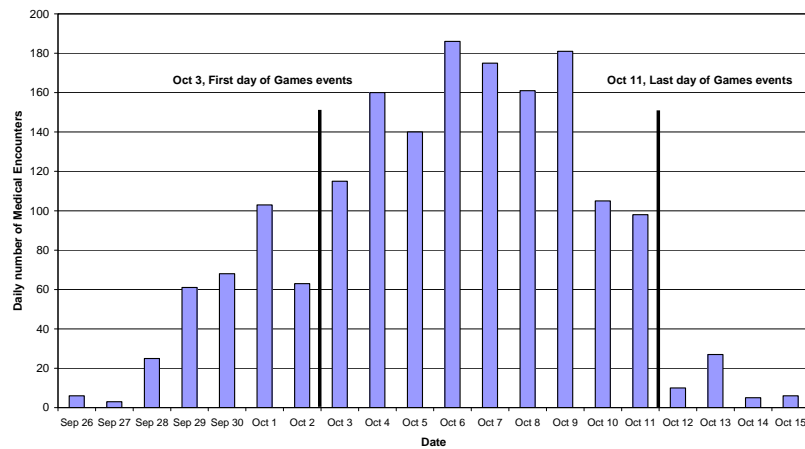
Statistics

		As % of athletes at World Games
Number of athletes at World Games	7,289	
Number of athletes screened (by 1 or more of the 6 screening programs)	4,879	66.94%
Fit Feet	2,817	38.65%
FUNFitness	2,576	35.34%
Health Promotion	2,609	35.79%
Healthy Hearing	3,156	43.30%
Opening Eyes	3,571	48.99%
Special Smiles	3,805	52.20%
Total number of screenings	**18,536**	
Average screening programs completed per athlete	3.8	

Medical Encounter Software

HEALTH*one* was made available to 200 Medical Centers across the whole of Shanghai connected via the Internet through a Citrix Virtual Private Network to the Games server room where Health One Global had installed 2 servers for HAS and MES respectively. The 200 Medical Centers were established for the duration of the World Games and were based in 70 hospitals in Shanghai, at all the sports venues and at all the athletes' residential venues.

1,698 Medical Encounters were recorded in HEALTH*one* between Sep 26, 2007 when athletes began arriving in Shanghai for acclimatisation and training and Oct 15, 2007 when the last athletes left Shanghai. The distribution of Medical Encounters by date is shown below.

Special Olympics World Summer Games, 2007 - Medical Encounters by Date

Chinese version

The 200 Medical Centers were manned by many hundred Chinese doctors and nurses working in shifts. Many of them did not speak English. HEALTH*one* was therefore made available in both Chinese and English. At the click of a button HEALTH*one* switched between English and Chinese so that users could use the language most familiar to them. All structured data entered in Chinese was immediately visible in English as HEALTH*one* is inherently multilingual and is already available in multiple languages.

Note that not only did all structured data switch instantly between English and Chinese but all systems commands and drop down menus changed too, see the screen shots below.

HEALTH*one* therefore behaved as a fully Chinese solution for the Chinese doctors and nurses.

Healthy Athletes Screenings Key findings

As at every Special Olympics Healthy Athletes event the screening results in Shanghai of athletes from all around the world were alarming and demonstrated, yet again, the poor healthcare status and massive unmet needs of people with Intellectual Disability:

- 24% had never had an eye examination before;
- 25% reported difficulty seeing;
- 60% did not pass the eye screening test;
- 20% were issued with new glasses at the Games;
- 45% had untreated dental decay;
- 8% needed urgent dental treatment;
- 19% did not pass the hearing screening test;
- 13% needed a referral for an ear condition.

The data from Shanghai will be merged with the master global database that Health One Global manages on behalf of Special Olympics which is already the world's largest research database on the health parameters of people with Intellectual Disability. Each year data from up to 700 Health Athletes events world-wide area is added by Special Olympics.