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For a healthier life

Screening practices for infectious diseases among newly arrived migrants – the Israeli experience

**Itamar Grotto, Director, Public Health Services
Israel Ministry of Health**



Patterns of immigration to Israel

- **Legal Jewish migrants**
 - West and East Europe and the US (26,500 in 2014)
 - Ethiopia (Total of ~ 80,000, 240 in 2015)
- **Legal labor migrants: South-East Asia, Former USSR (~ 100,000 per year)**
- **Undocumented migrants: horn of Africa (total of 53,000, stopped in 2013)**



Immigration Centers

- In Ethiopia – **Public Health Clinic**
- Immigration centers for Legal Jewish migrants
- “Immigration center” for undocumented migrants who are caught at the border

Family Health Center in Gondar, Ethiopia



Family Health Center in Gondar, Ethiopia



Family Health Center in Gondar, Ethiopia





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Immigration Center in Israel





Disease screening

- **Ethiopian Jews (mostly in Ethiopia)**
 - TB – PPD + Chest XR (**+treatment**)
 - HIV
- **Legal labor migrants**
 - TB, HIV, Hepatitis B, Syphilis
- **Undocumented migrants for horn of Africa**
 - TB (Chest XR) **+treatment**
 - HIV for pregnant women (**+treatment**)



Vaccination

- **Ethiopian Jews:**
 - In Ethiopia: Meningococcal vaccine (ACWY)
 - In Israel: Catch-up of routine vaccination program + BCG for children < 4 years
- **Undocumented migrants:**
 - Meningococcal vaccine
 - Routine vaccination for all children – **as all other children in Israel** (+BCG)
 - Adult vaccination in cases of outbreak



Health Promotion

- **Special health promotion programs for Ethiopian Jews:**
 - HIV/AIDS
 - Healthy lifestyle
- **Health promotion among undocumented migrants (HIV/AIDS)**
- **Free walk-in clinic operated by MOH**
- **Designated free STD clinics**



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STD clinic in Tel-Aviv



Israeli clinic provides lifeline for refugees

A Tel Aviv health clinic run by the Israeli Ministry of Health and the Terem urgent care network is dedicated to helping the country's refugee and immigrant population. Talha Burki reports.

Roughly 2000 km separate Eritrea and Israel. By foot, it is a ferocious journey. Eritrean border guards are instructed to shoot people fleeing the country without permission. Those who make it over the border must traverse Sudan, and sneak into Egypt. The last leg of the crossing, over the lawless Sinai peninsula, is fraught with danger. Criminal gangs prey on travellers, kidnapping and torturing them. These

not", explains Dor. "They do not get any reports from my staff; people feel safe using our services."

Initially, volunteer general practitioners saw patients three times a week. The demand was overwhelming, and under the leadership of director Orel Ben-Ari, the clinic began to grow. It caught the attention of the government. A US\$1.5 million grant from the Israeli Ministry of Health

full-time Eritrean employees act as medical translators. "Health-care providers must consider special cultural health beliefs and practices", stressed Berent. "The Eritrean staff have a key role at the clinic putting patients at ease and helping to bridge the cultural and linguistic barriers between the medical staff and the patients."

Public Clinic Terem sees around 20000 patient visits every year. As a



Hendrik Schiffer



National Guidance

- **Immigration law (legal immigrants)**
- **Public Health Services official guidelines**
 - **Ethiopian Jews (updated 2006)**
 - **Undocumented migrants from the horn of Africa (updated 2012)**



Results and evaluation (examples)

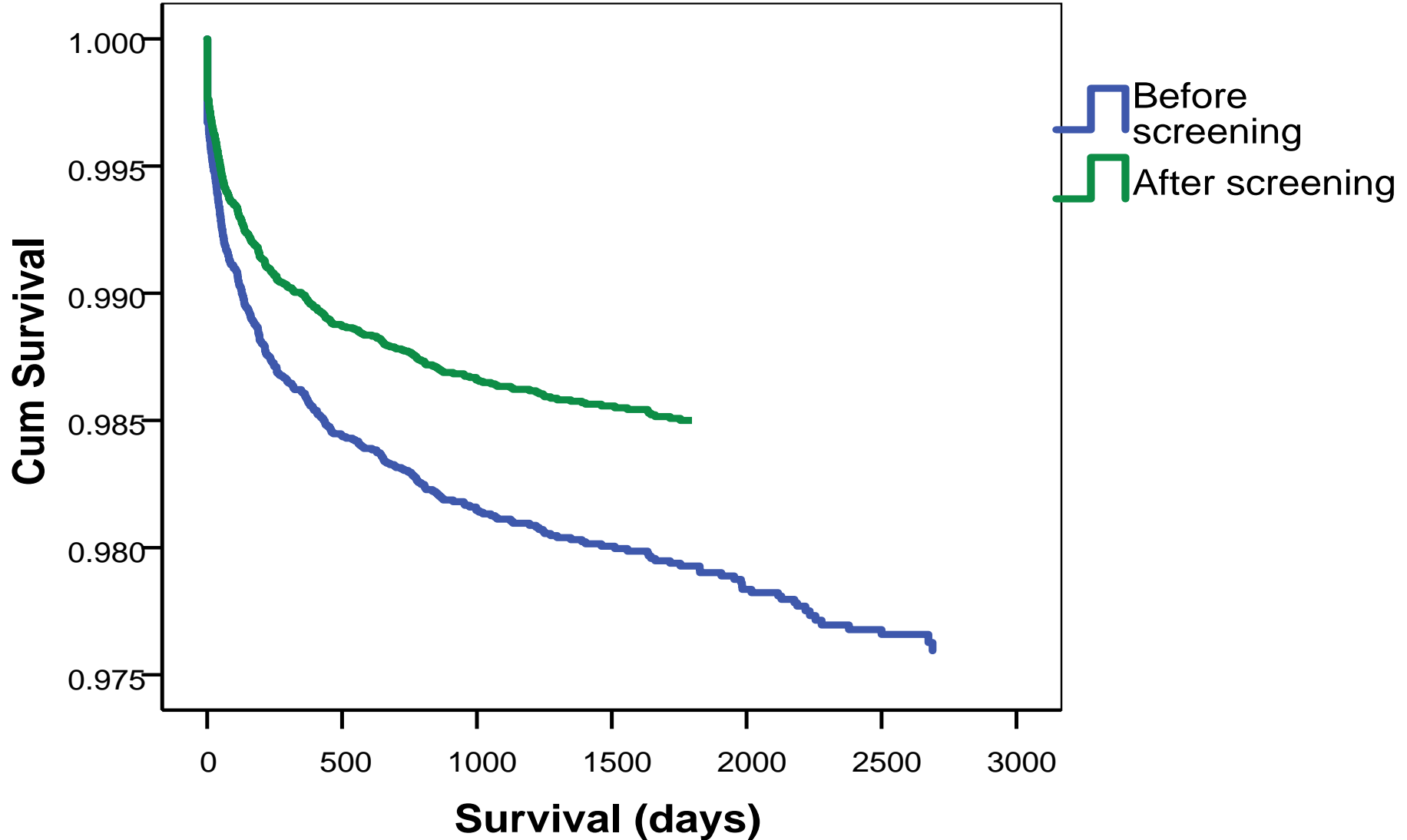


The Yield of Tuberculosis Screening of Undocumented Migrants from the Horn of Africa based on Chest Radiography

Zohar Mor MD MPH MPH^{1,2}, Orly Weinstein MD MHA³, Dini Tischler-Aurkin MD MPA⁴, Alex Leventhal MD MPH MPA^{5,6}, Yaniv Alon⁷ and Itamar Grotto MD PhD MPH^{8,9}

- Evaluation of the validity and costs of CXR in a random sample of 1087 HoA migrants
- Sixty-two migrants (5.7%): CXRs with TB-suspicious findings 11 - finally diagnosed as TB
- TB point-prevalence: (1.0%).
- CXR sensitivity – 100%; specificity - 96.1%; positive predictive value - 17.7%
- The interview did not contribute to the detection of migrants with TB
- Direct costs detection of TB case - US\$ 4585 lower than the treating cost -\$7335.
- During 2008-2010, 88 HoA migrants who had been screened negative were later diagnosed with TB in the community

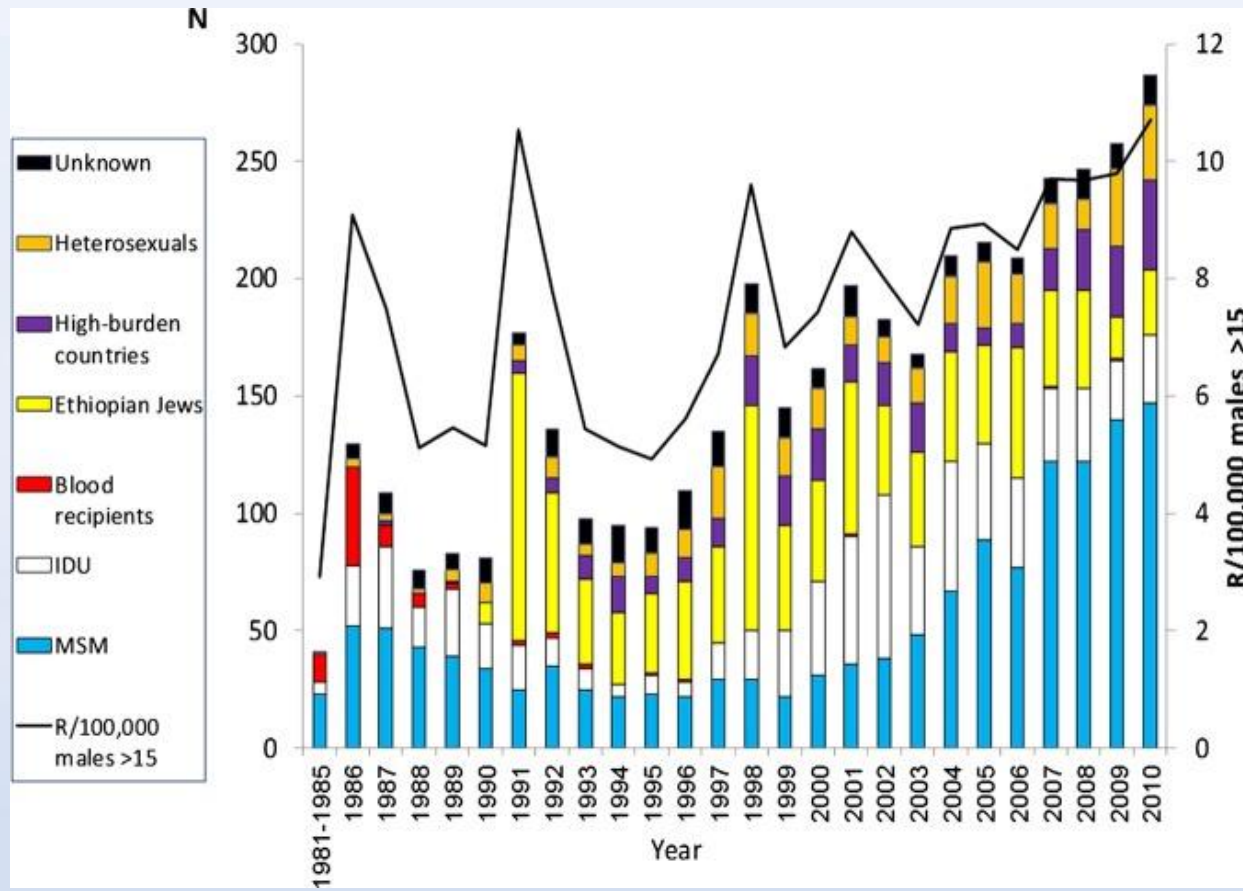
Evaluation of Screening in Ethiopia: Comparison of Survival Function for cohorts before and after screening process



OR= 0.72 (0.59-0.89), p=0.002

Thirty years of HIV in Israel: current epidemiology and future challenges

Zohar Mor,^{1,2} Ruth Weinstein,³ Itamar Grotto,^{4,5} Yana Levin,¹ Daniel Chemtob¹



Disease outbreak and response



Int Health 2014; **6**: 203–207

doi:10.1093/inthealth/ihu017 Advance Access publication 28 March 2014

Use of vaccination in a large outbreak of primary varicella in a detention setting for African immigrants

Eric J. Haas^{a,b,*}, Larissa Dukhan^a, Liav Goldstein^c, Michael Lyandres^a and Michael Gdalevich^{a,b}

ORIGINAL ARTICLE

RAPID COMMUNICATIONS

Ongoing African measles virus genotype outbreak in Tel Aviv district since April, Israel, 2012

E Kopel (eran.kopel@mail.huji.ac.il)¹, Z Amitai¹, M Savion¹, Y Aboudy², E Mendelson^{3,4}, R Sheffer¹

1. Tel Aviv District Health Office, Ministry of Health, Tel Aviv, Israel
2. National Centre for Measles, Mumps, and Rubella, Central Virology Laboratory, Ministry of Health, The Chaim Sheba Medical Centre, Tel Hashomer, Israel
3. Central Virology Laboratory, Ministry of Health, The Chaim Sheba Medical Centre, Tel Hashomer, Israel
4. School of Public Health, Sackler Faculty of Medicine, Tel-Aviv University, Tel Aviv, Israel



Lessons learned and recommendations

- **Outreach (if possible) or immigration centers**
- **TB screening by CXR**
- **Routine vaccination**
- **Free access to Public Health Services**
- **No POLICE for undocumented migrants**

Not all infectious diseases can be screened...

RAPID COMMUNICATIONS

Relapsing vivax malaria cluster in Eritrean refugees, Israel, June 2010

E Kopel (eran.kopel@mail.huji.ac.il)¹, E Schwartz², Z Amitai¹, I Volovik¹

1. Tel Aviv District Health Office, Ministry of Health, Tel Aviv, Israel

2. Centre for Geographic Medicine and Tropical Diseases, Sheba Medical Centre, Tel Hashomer, Ramat Gan, Israel

and not only infectious disease can be screened:

Brugada syndrome in Thai workers



Challenges and Possibilities

- Validity of screening
- Patients without medical history
- Effect on disease burden
- Adherence
- Stigma
- Global health

Adult tuberculosis in Israel and migration: trends and challenges between 1999 and 2010

Z. Mor,*† G. Pinsker,* N. Cedar,* M. Lidji,† I. Grotto*†

INT J TUBERC LUNG DIS 16(12):1613-1618
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<http://dx.doi.org/10.5588/ijtld.12.0296>

...??

break (pandemic influenza, polio)



Main Challenges

- **Validity of screening**
- **Positive and negative predictive values**
- **Effect on disease epidemiology??**
- **Adherence to treatment**
- **Patients without medical insurance**
- **Stigmatization**
- **Generalized outbreak (pandemic influenza, polio)**