
Refugee Health – a Public Health perspective

Dr Mitchell Smith
Director, NSW Refugee Health Service

Background

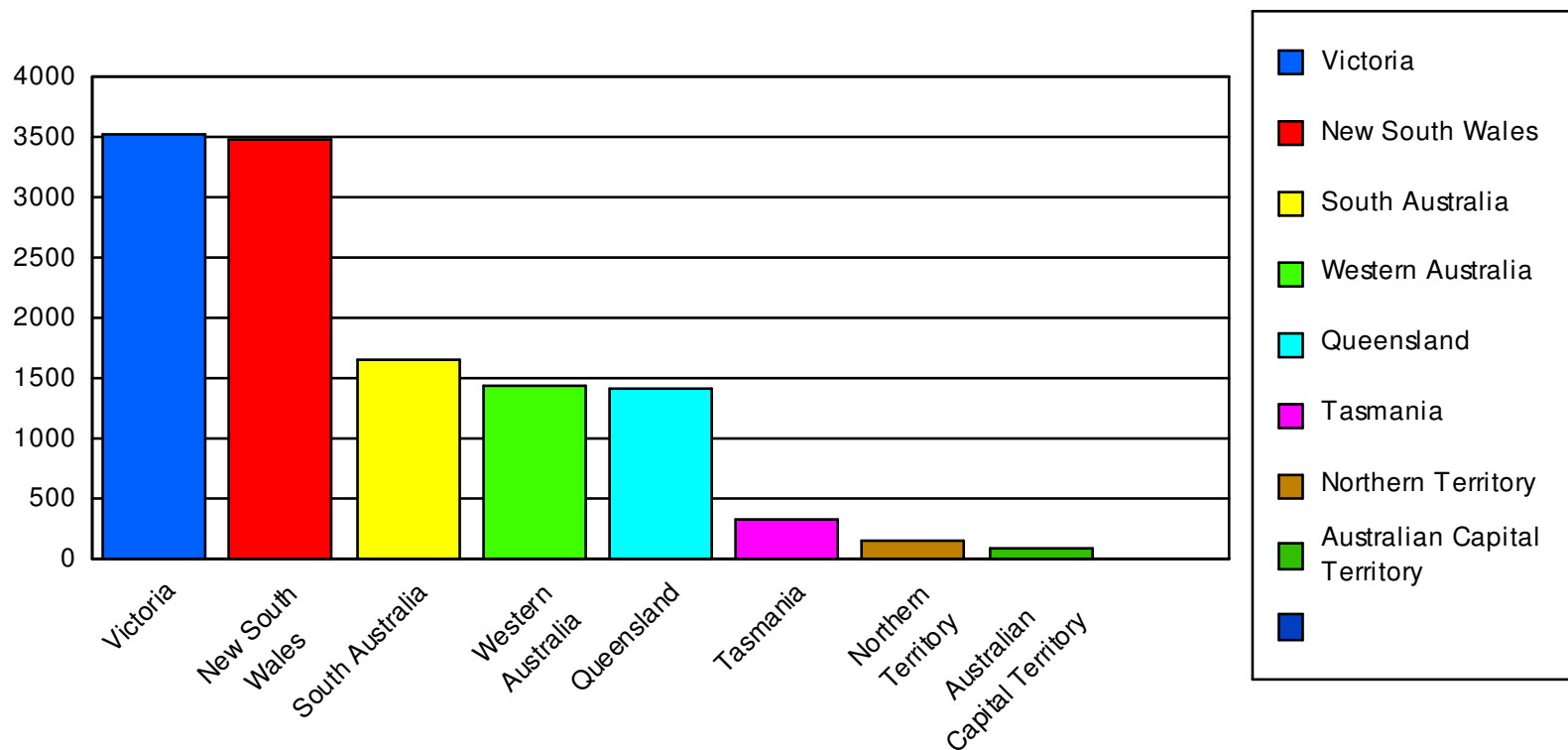
- 13,000 Humanitarian entrants to Australia per year
- Since 2002, increasing % from sub-Saharan Africa
- Significant burden of acute & chronic infectious diseases due to:
 - Prevalence in countries of origin
 - Exposure in camps
 - Poor sanitation
 - Poor nutrition
 - Disrupted health care infrastructure & immunisation pgms

Acknowledgement: Dr P Newton, Medical Microbiologist, Wollongong

Key factors

- Region of origin
 - Sudan, Somalia; Burundi, Congo; Liberia, Sierra Leone
 - Iraq, Iran, Afghanistan
 - Burma
 - Prior screening
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Refugee settlement by state/territory 2006



Source: DIAC Settlement Database

Overseas health screening

- All migrants & refugees – visa requirement
 - Hx & Exam
 - CXR 11 yrs & over
 - HIV test 15 yrs & over (unless unaccompanied child)
 - Hep B only if pregnant, unaccompanied child, history
 - Syphilis refugee >15 from camp...
 - Valid 6 months
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What if HIV positive?

- Don't meet health criteria for permanent visa...
 - Health waivers do exist
 - Exceptional circumstances eg existing family ties
 - Less likely for refugees
 - 'Health Undertaking' as flag
 - Chest Clinics
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The Daily Telegraph, March 8 2006

**Refugees
bringing
in exotic
diseases**
Exclusive

Health dangers

“Malaria

Tuberculosis

Intestinal parasites

Clinical rickets...”

Common health issues

- Psychological
 - Musculo-skeletal
 - incl. torture/war injury
 - Chronic diseases
 - Anaemia
 - Vit D deficiency
 - Sickle cell disease
 - Dental
 - Infectious
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Screening results - Burundian arrivals to Sydney, March 2005 (n=90)

<u>Condition</u>	<u>Positive</u>
Schistosomiasis	36 (41%)
Malaria	24 (26%)
Measles non-immunity	14 (16%)
Rubella non-immunity	4 (5%)
Anaemia	3 (3%)
Hepatitis B	1 (1%)
Syphilis	1

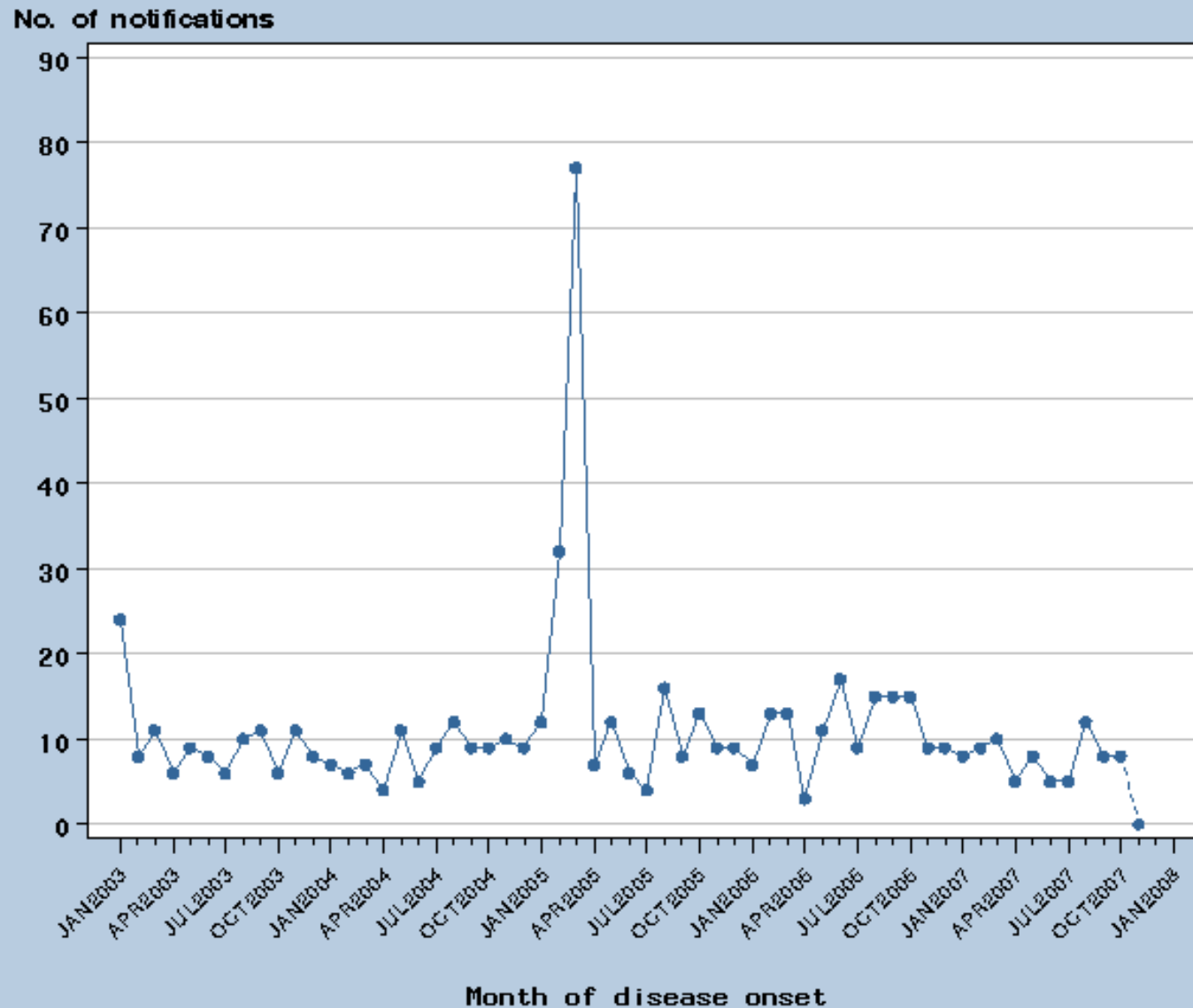
Findings in NSW

- Newcastle 2005 (Davis J & Webber M)
 - 215 refugees ex-Africa screened

Table 2 –Screening Blood Test Results

	n	%
Schistosomiasis serology	80	37
Eosinophilia	47	22
Microcytic anaemia	24	11
'Neutropaenia'	26	12
Malaria	22	10
Hepatitis BsAg positive	10	5
Syphilis serology pos	2	1
HIV serology pos	1	<1

Malaria notifications in NSW residents,
by month of disease onset. January 2003 to November 2007



Pre-Departure Medical Screen

- Since mid-2005, some *refugees* undergo pre-flight check
 - Sub Saharan Africa & Thailand
 - Albendazole
 - Malaria rapid Ag test
 - MMR vaccine (<30 yrs old)
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Chloroquine resistant Plasmodium falciparum malaria

(ackn Dr Don Packham)

	Pregnancy category	Number of tablets	Number of doses
Quinine/ Doxycycline*	D	42	21
	D	14	14
Atovaquone/ proguanil	B2	12	3
Mefloquine	B3	4	2
Artemether/ lumefantrin	B3	24	6

*Extensive experience with quinine/clindamycin in pregnancy

Some issues

- Asymptomatic infections common
 - Significant regional variation
 - May arrive on 'Health Undertaking'
 - Chest Clinic will manage
 - The normal range of neutrophils is lower
 - "benign ethnic neutropaenia"
 - Catch-up immunisation complex
 - Some medications not on PBS
 - eg praziquantal
 - Post arrival screening variable
 - Consensus on screening has been lacking...
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ASID guidelines (draft - Sept 07)

- Focus on those ex-Africa

- FBC
- Malaria Ag & films
- Hep B
- Hep C
- HIV
- Schistosomiasis
- Strongyloides
- Syphilis

- Chlamydia & gonorrhoea

- Latent TB infection

- Other issues

- H.pylori
 - Under-immunity
 - Faecal micro
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Case study: Lon

- 35 yr old male, born Cambodia
 - 2 years in border refugee camp
 - in Australia 20 years
 - History
 - sub-acute abdominal pain: laparotomy = omental abscess
 - 6 mths later: two convulsions
 - normal EEG & CT
 - anti-convulsant therapy
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Lon (ii)

- after 2 mths, generalised rash:
 - treatment changed; + prednisone
 - developed cough (dry then productive), fever, sweats & dyspnoea
 - review of omental abscess histology = “granulomatous inflammation”
 - 6 weeks after cough, direct sputum smear AFB +ve
 - MRI scan of brain = cerebral tuberculoma
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Lon (iii)

- failure to “think TB” in patient from SE Asia
 - surgical specimen not sent for culture
 - fits not linked to abdominal problem
 - prednisone accelerated
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Case 2 Lancet 3 (9) 2003

- 26 yr old Brazilian man
 - 2cm nodule right testis
 - WCC, HCG, aFP normal
 - US: well defined hypoechoic mass
 - Biopsy: interstitial tissue with schistosoma ova & granuloma
 - Stool pos for ova
 - Nodule excised, treated oxamniquine, well
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Schistosomiasis

- Cercariae in or about freshwater, penetrate skin.
 - Adults end up in the veins
 - Around the bladder:
S. haematobium
 - Around the colon/rectum:
S. mansoni
 - Male and female lie together, live for ~7 years.
 - The eggs penetrate the bladder and bowel walls
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Treatment with praziquantel

- Well tolerated
 - Reduces parasite burden by ~90%
 - Repeat treatment in 6 months
 - Progress faecal specimens at 3 and 6 months in patients with initially positive specimens
 - Limited ability to reverse chronic pathology.
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Case 3

- 8 yo boy, first fit
 - West Papuan
 - Asylum seekers arrived by boat
 - Neurocysticercosis – cerebral tapeworm
 - Entire group screened
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