Government of Western Australia
Department of Health
Child and Adolescent Health Service

NUTRITIONAL ASSESSMENT OF RESETTLED PAEDIATRIC REFUGEES IN WESTERN AUSTRALIA

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- 2018 RACP Rue Wright Awards Presentation

Princess Margaret Hospital for Children

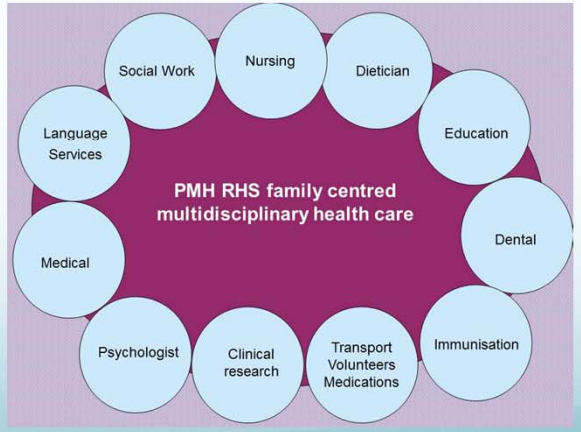
Perth Children's Hospital

Why is this important?

- Nutritionally vulnerable group
- High rates of 'food insecurity'
  - 55.9% of refugees resettled in Perth metro
- Limited Australian population data

Aims

- To establish baseline data for Refugee Health Service (RHS) cohort between 2010-2015
  - Social and demographic
  - Anthropometric
  - Nutritional concerns



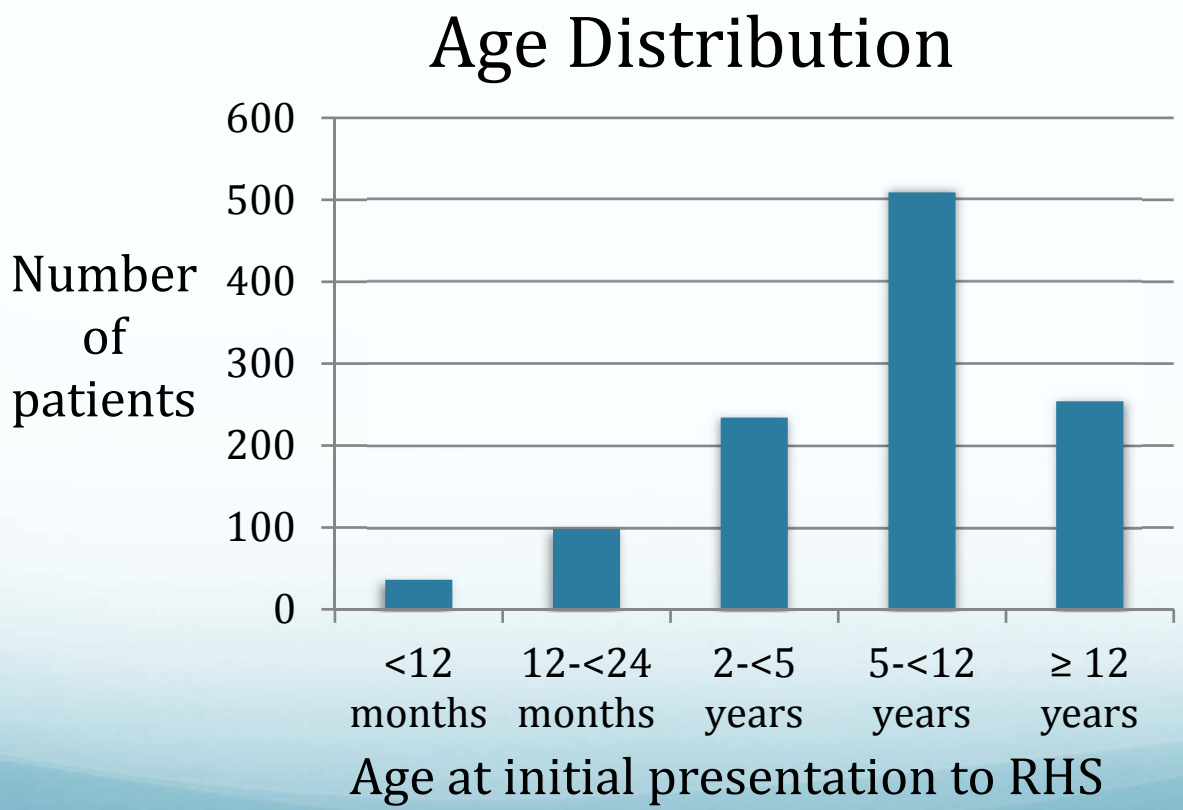
Methods

- Prospective completion of standardised PMH RHS initial multidisciplinary health assessments
- Retrospective audit
- Data analyses - SPSS V.23
- Project approval: GEKO Quality Activity #8473, HREC #1255EP

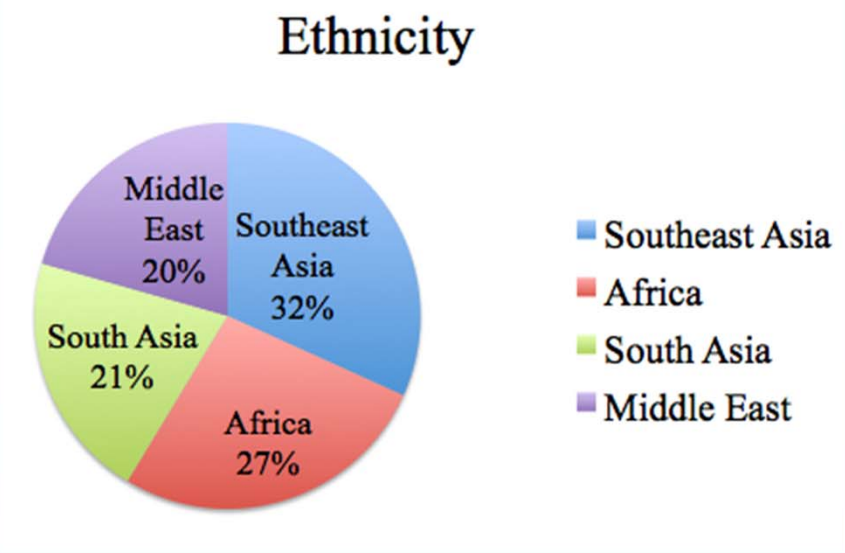
Results: Demographics

- 1131 children (male 53.6%)
- Age range 2 months - 17.8 years (median 7.4 years)
- Median time from arrival in Australia to assessment at RHS 5 months (IQR 3.6-6.6)
- Median transit time 36 months (IQR 18-72 months)

Results: Demographics



Results: Demographics



- 25.8% spent time in refugee camp
  - Long periods for African and Southeast Asian children
- 14.6% spent time in detention
  - Majority Middle Eastern and South Asian

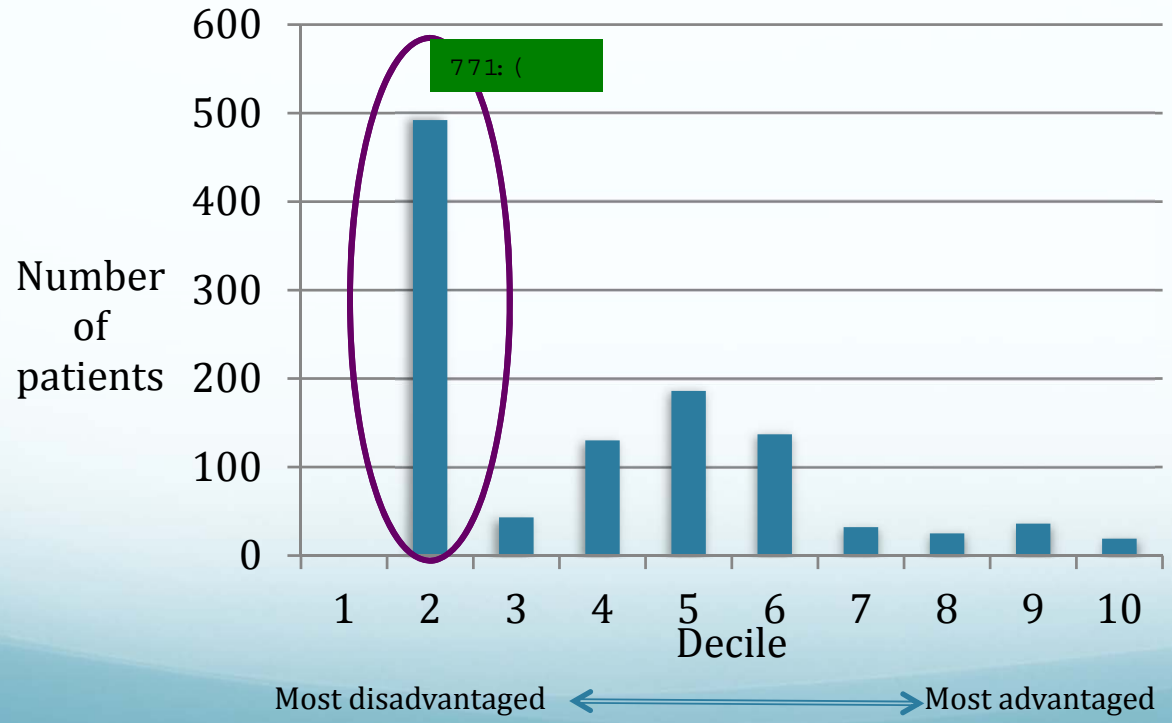
Results: Demographics

- 93.5% permanent visas, 2.5% asylum seekers
- Nuclear family separation 27.9%
- Majority of carers (86.7%) not English proficient
- Limited parental education (nil or primary only) 44.1%*

* n=458 parents where data available

Results: Demographics

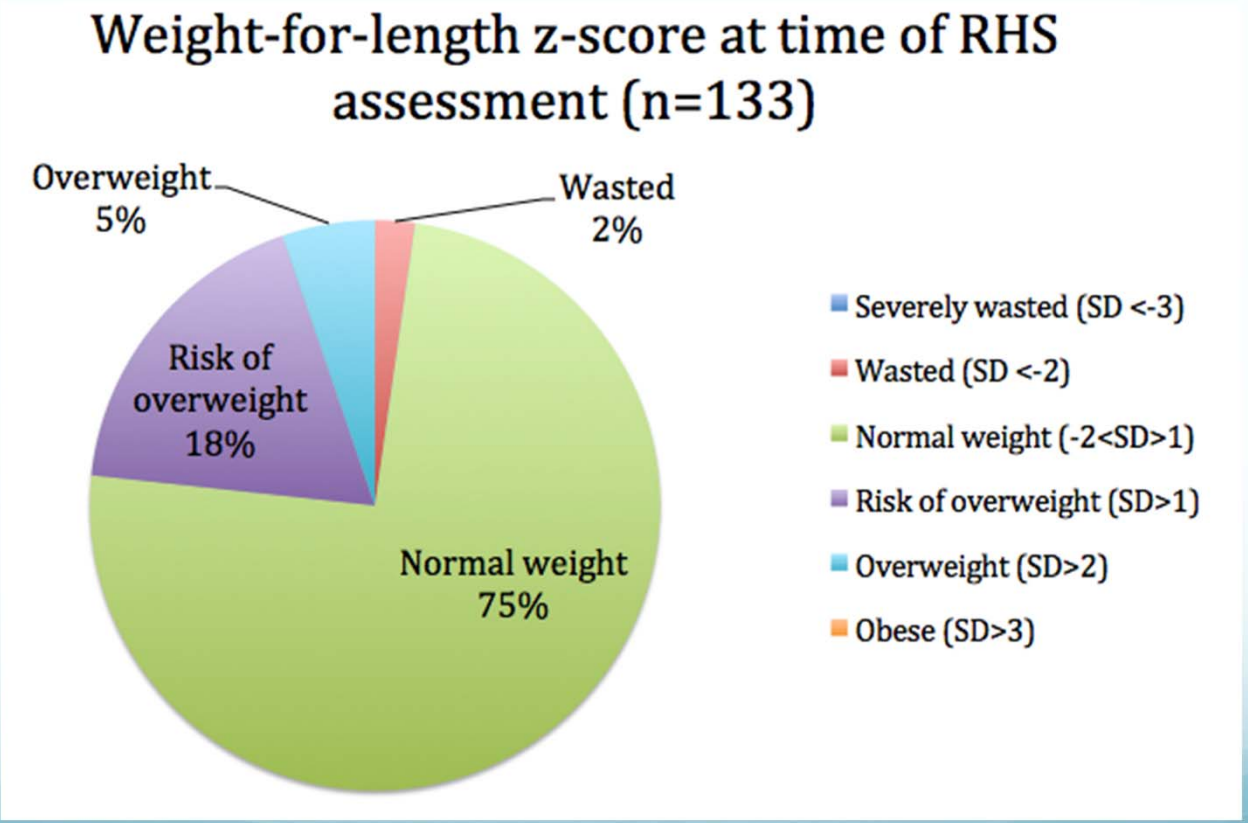
Postal Area Index of Relative Socio-economic Advantage and Disadvantage



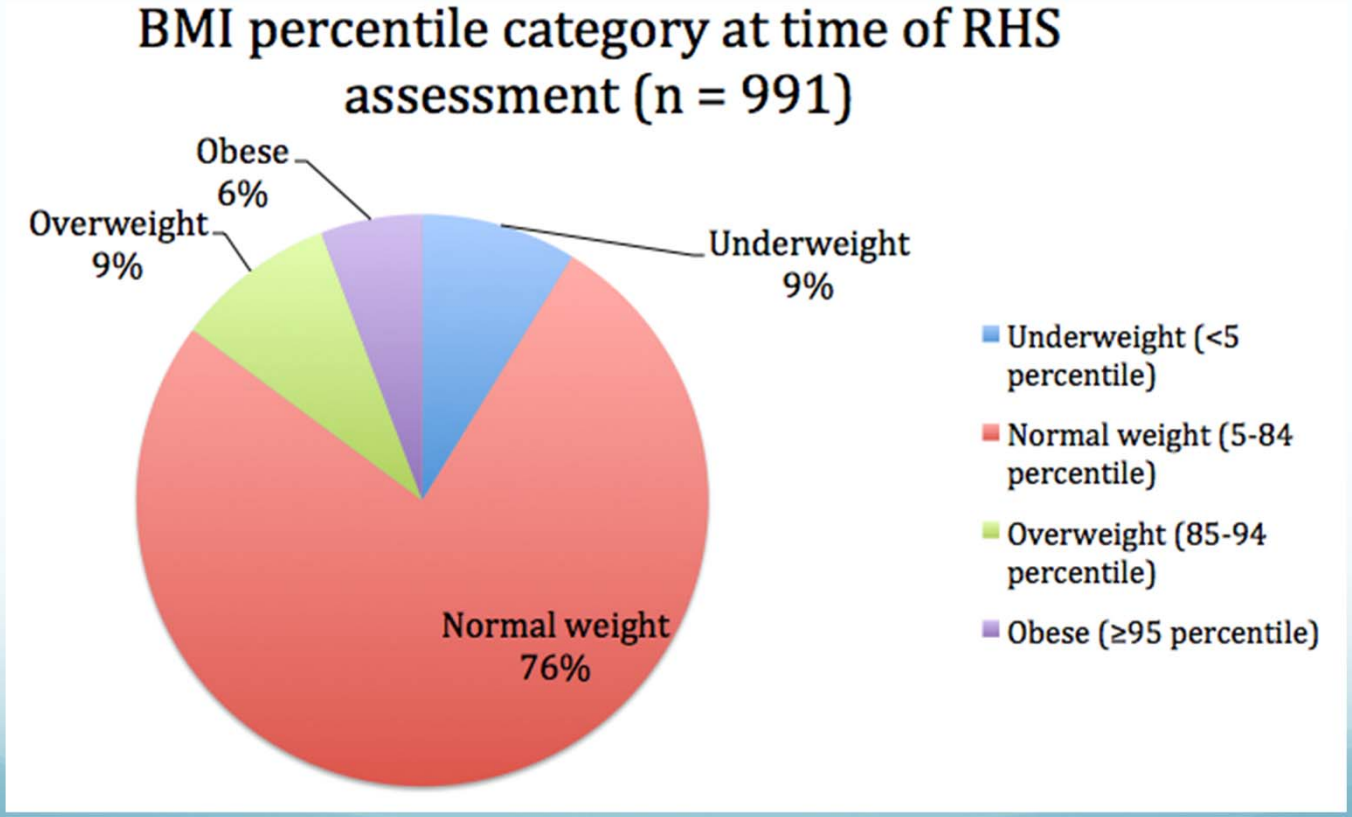
Results: Haematological/biochemical

- Vitamin D insufficiency (<50nMol/L) 50.3%
- Iron deficiency 12.3%
- Anaemia 7.3%
  - Southeast Asian children (11.5%, p<0.001)
  - Ages 12-24 months (19.8%, p<0.001)

Results: Anthropometric <24 months



Results: Anthropometric ≥24 months



Results: Dietary

- Breastfeeding of those 12-24 months = 44%
  - 4x increased odds iron deficiency (OR 4.0, 95% CI 1.4-11.6, p=0.012)
- Median age completed weaning 18 months (IQR 12-24 months)
- Median age of introduction of solids 6 months (range 3-24 months)

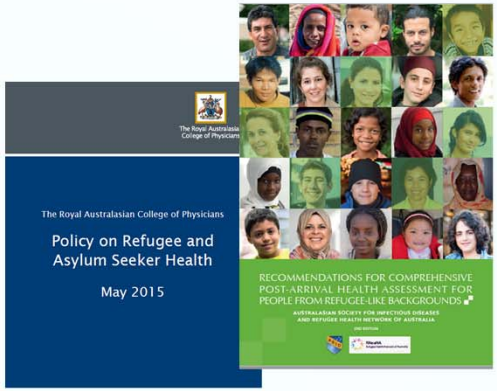
Results: Dietary

- 'Excess' juice consumption 34.4%
- Inadequate dairy intake 20.9%
  - Highest amongst Southeast Asian (31.5%, $p<0.001$)
- Red meat intake 66.7%
- Non-meat eaters - significantly higher prevalence of iron deficiency
  - 34.7% versus 12.4%
  - OR 3.7, 95% CI 2.0-7.0, $p<0.001$

RHS care issues identified

1. Relative poverty and poor English proficiency
2. Nutritional compromise
   - Vitamin D deficiency
   - Anaemia – Southeast Asian, 12-24 months
   - Iron deficiency - vegetarian, prolonged breastfeeding
   - Low dairy intake – Southeast Asian
   - Excess juice
3. Growth concerns <u>at presentation</u>
   - Underweight in African children
   - Overweight in Middle Eastern children

Strengths



- Largest Australian paediatric refugee dataset post resettlement
- Standardised assessment
- Demonstrates importance of holistic assessment at time of resettlement
  - Awareness of cultural norms
  - Heterogeneity
  - Socioeconomic determinants of health

Limitations

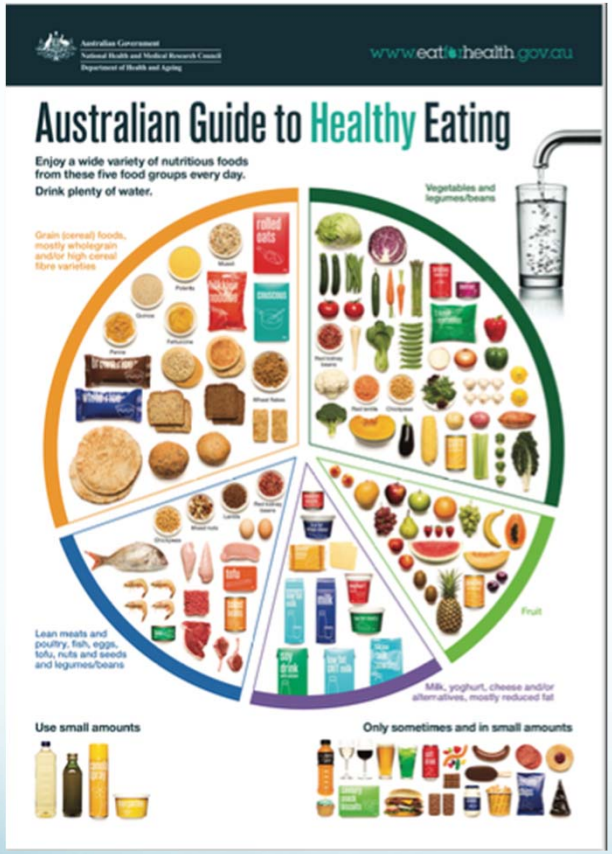
- Cross-sectional and retrospective
- Subjective dietary histories
- Impact of trauma on recall
- Cultural variation and “norms”
- Potential cohort with incorrect date of birth

Service implications

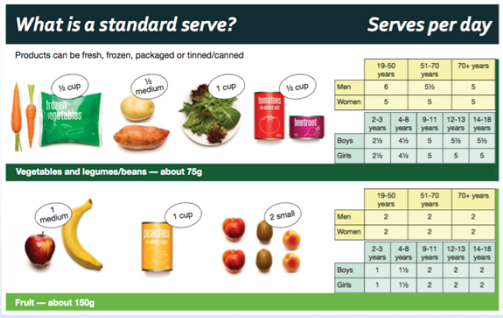
- Health literacy and relative disempowerment of cohort
- Screening for food insecurity
- Importance of multidisciplinary assessment, particularly routine dietetic review
  - No community dietetic service available
- Cultural heterogeneity of concerns
- Targeted nutritional interventions

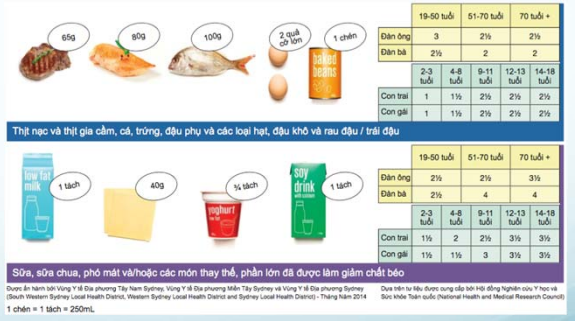
Future directions

- Longitudinal research to assess growth trajectories
- Status of physical activity, “junk food” intake, screen use
- Need for resource development for health professionals



Perth Children's Hospital Foundation





http://www.mhcs.health.nsw.gov.au/publicationsandresources/

Acknowledgements

- The other PMH RHS Dietitians involved during the study period (Leah Queit and Marina Keating),
- RHS staff, interpreters and families.

Thank you ☺

Questions?