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*Köklü geçmiş, güçlü gelecek...*

# Exploring needs for healthy growth and development in refugee children

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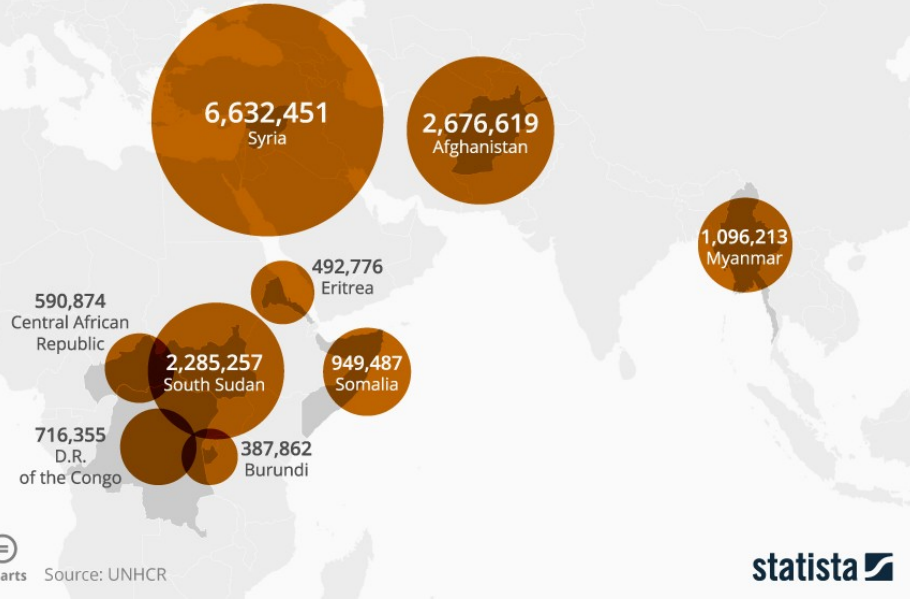
Session F

Health Problems & Miscellaneous

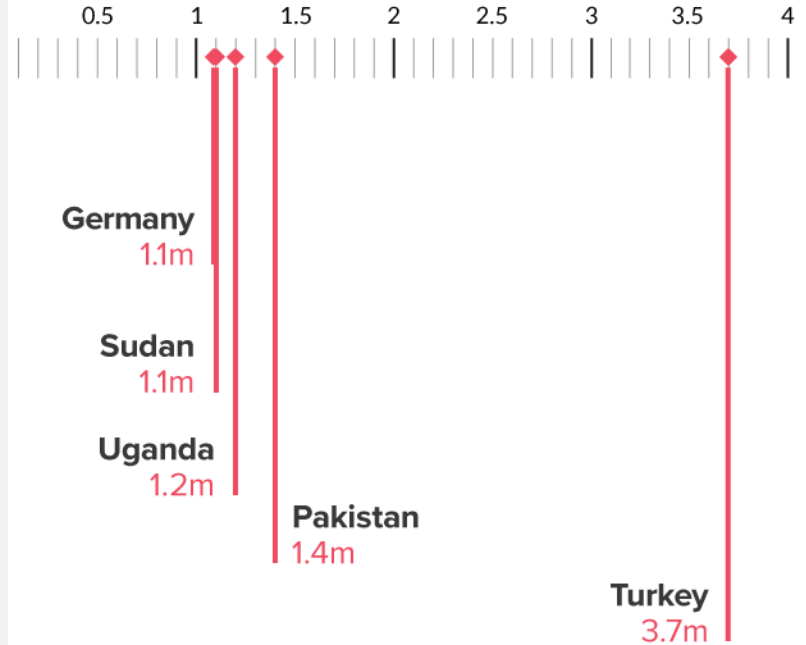
# Introduction

## Mapping The World's Refugee Population

Total number of forcibly displaced people by origin country in 2018



## Top refugee-hosting countries



Source: UNHCR / 19 June 2019

# Introduction



- It is estimated that 46.5% (1,697,199) of Syrians refugees in Turkey are under the age of 18.
- 405.000 Syrian babies were born in Turkey.

# Introduction



- In the setting of resettlement, routine follow-up of refugee children may be compromised.
- Refugee children are considered to be at high developmental risk, thus developmental screening is important.
- Currently, there is no routinely performed validated developmental screening test for refugee children in Turkey.

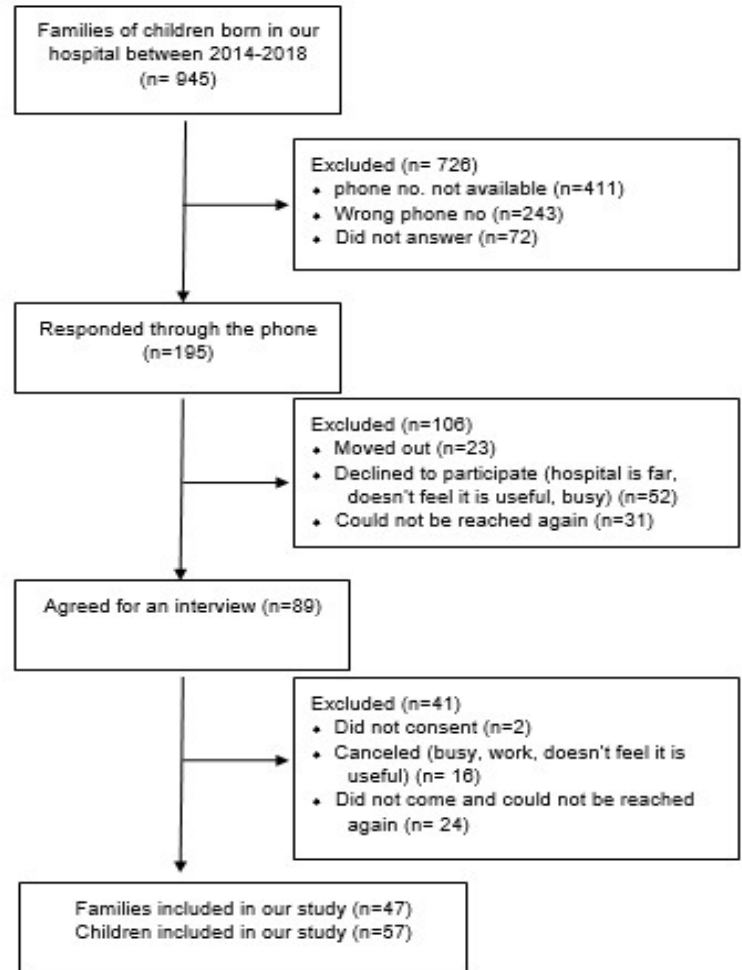
# Aims of the study



1. To examine growth and nutrition of children.
2. To evaluate refugee concerns related to child development.
3. To explore the applicability of screening tests.

# Material and Method

Families of children born between Jan 2014 and Jan 2018 were called for a well-child visit where; physical examination, developmental surveillance and nutritional assessment were performed by a pediatrician.



# Material and Methods



- Later, Turkish validated Denver II test was performed by a developmental specialist with the interpretation.
- Four families agreed to be included out of sixteen families who had behavioural and/or speech concerns earlier.
- Reasons for refusal were, not being concerned anymore or busy.

# Results – Sociodemographic characteristics

Age, median [min-max], months	26 [7-63]
Gender, male/female, n	29/28
Family Structure, Nuclear/Extended, n	33/22
Number of Children per Family, median [min-max], n	3 [1-8]
Number of Individuals per House, median [min-max], n	6 [3-12]

# Results – Growth parameters

WA Z-score, mean (±SD)	-0.0626 (±1.207)	WA Z-score, mean (±SD)	-0.0626 (±1.207)
HA Z-score, mean (SD)	-0.751 (±1.466)	HA Z-score, mean (±SD)	-0.751 (±1.466)
WH Z-score, mean (±SD)	0.291 (±1.243)	WH Z-score, mean (±SD)	0.291 (±1.243)
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WA Z-score <2SD, n (%) –underweight	3 (7.1)
HA Z-Score <2SD, n (%) –stunting	10 (23.8)
WH Z-score <2SD, n (%) –wasting	1 (2.4)

# Results – Breast Feeding patterns

Type of Feeding, BF/Formula/Mixed, n	48/6/2
Total BF Duration, median [min-max], months	10 [0-25]
Exclusive BF, median [min-max], months	6 [0-18]
Exclusive BF for 6 month only, n (%)	11 (20)
Exclusively breast-fed after 6 month of age, n (%)	26 (47)

# Results – Immunization



- Except for two family, vaccinations were completed and **up to date** to Turkish immunization schedule.

“They are complete but we started them late. He was 1yr 7mth. Wherever we go they would tell us go to another place, you are Syrians they would say. Go get him immunized from Hatay (Turkey). We moved to Istanbul from there that’s why. Then finally we were told we can get them from a place in Kucukyali (Istanbul-Turkey) “

# Results

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- In general, poor knowledge of developmental milestones and unbalanced nutrition patterns was noted.
- When asked about developmental milestone, half of the mothers answered that “everything is okay”
- Unbalanced nutrition pattern:

*"HE ATE A ZAATAR SANDWICH BY EVENING HE ATE SEASONED POTATOES. HE ATE A LOT OF SNACKS, YESTERDAY HE ATE CHIPS, ICE-CREAM, AND BISCUITS. BUT HE DOESN'T LIKE COOKED FOOD."*

# Results



- Eighteen percent (n=10) of parents expressed concern about their child speech development.
- Twenty percent (n=11) of parents expressed concern about their child behavior (aggression).
- None of these children was seen by a specialist. Main reasons were language barrier, difficulties in taking an appointment, or feeling it will get better by time.

# Results – Developmental test (Denver II)

		Gross Motor	Fine-motor adaptive	Language	Personal-social
W	1 yr. 11 mth	✓	delay	✓	✓
X	2 yr. 5 mth	✓	✓	delay	delay
Y	3 yr. 8 mth	✓	✓	✓	✓
Z	4 yr. 2 mth	✓	✓	✓	✓

# Discussion



- Refugee and resettlement experiences may impact critical stages of intellectual, social, emotional, and physical child development.
- Refugee families' perspectives on child development and balanced nutrition may differ because of cultural norms, poor healthcare knowledge and life circumstances

# Discussion



- Refugee mothers may have different attitudes about child nutrition due to cultural differences
- Pediatric visits of refugee children should include counseling about healthy diet for children to inform the mothers
- Interventions should provide access to a healthy diet for children but also for the mothers because healthy nutrition of mothers is essential for optimal child growth, since many women still only breastfed after 6 months of age

# Discussion



- Among our participants, vaccinations were complete.
- This can be attributed to the Social Risk Reduction project, a project started by the Turkish Ministry of Health.
- The project is directed toward the poorest families with children younger than 6 years old.
- An amount of money is given to families who follow up regularly in well child clinic.
- Another reason is that in Istanbul there are 32 family medicine centers directed toward immigrants and refugees, making vaccinations accessible.

# Discussion

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- In our study, **underweight (WA z-score)** prevalence was **7%**, **stunting (HA z-score)** prevalence was **24%**, and **wasting (WH z-score)** prevalence was **2.4%**.
- Years before the crisis, children under 5 years of age in the Syrian Arab Republic:
  - had high underweight prevalence (11.1% in 2001, 10% in 2006 and 2009)
  - had high wasting prevalence (10.3% in 2001 and 2006, 11.5% in 2009)
  - had high stunting prevalence (31.1% in 2001, 28.6% in 2006, and 27.5% in 2009)

# Discussion



- Literature suggested that nutritional status of refugee children is usually comparable with that of the host communities.
- In Turkey (2013) ;
  - underweight prevalence was 2.3%
  - stunting prevalence was 9.9%
  - wasting prevalence was 1.9%

# Discussion



- Developmental tests in Arabic are sparse. Our developmental specialist was certified in Denver, so we used it with interpretation.
- Language domain could not be assessed completely; receptive language could be assessed, however, there were no words to assess expressive language.
- The prevalence of developmental delays and disability in the pediatric refugee population is unknown
- Appropriate surveillance and screening questions should be part of every refugee child's health visits despite the lack of an appropriate screening tests

# Strengths

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- Our study yielded useful, and important data which will have practical implication, enabling us to develop strategies beneficial to refugees.

# Limitations

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- Small sample size.
- Some families were reluctant to participate in the initial examination or later in the developmental assessment.

# In conclusion



- Refugee children are under risk for healthy growth and development
- Paediatric visits should always include guidance for healthy nutrition for both mothers and children
- Developmental surveillance and screening should not be neglected in refugee children even the available tests may not be valid
- Education of refugee parents about healthy growth and developmental milestones should be part of paediatric visits.