

# **Engaging with Immigrant Communities to Increase Vaccine Acceptance and Uptake: A Somali-American Community Example**

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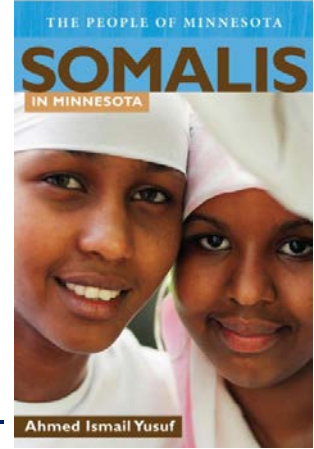
# Disclosure & Acknowledgments

- Patricia Stinchfield has no conflicts of interest to disclose
- Thank you to Minnesota Department of Health for research slide
- Thank you to parents for giving permission to photograph their children for the purpose of provider and parent education.

# Somalis in Minnesota?

2012 Book: by Ahmed Yusuf *Somalis in Minnesota*

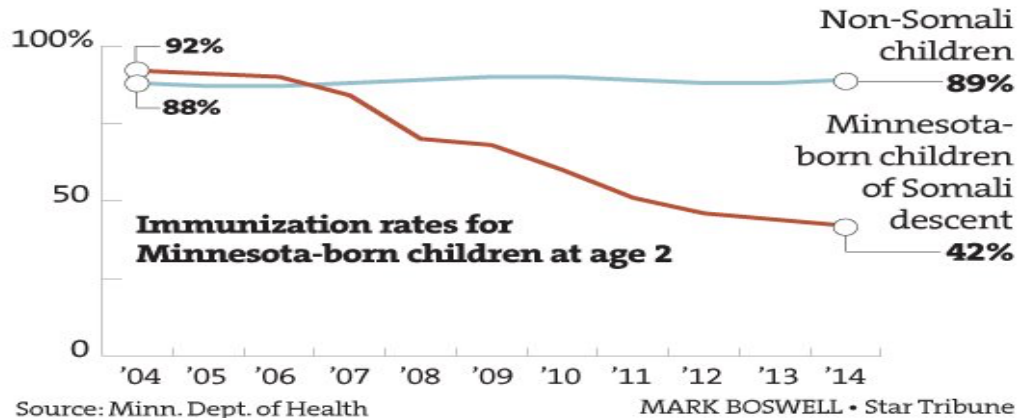
- Primary refugees began coming to MN in 1993— jobs, acceptance, quality of life
- An oral society whose community relies on word of mouth +/-
- American Community Survey 2017 had MN as largest Somali community in US
- 52,333 Somali MN in 2017. Primary and secondary migration
- Word spread in refugee camps that MN was welcoming & had jobs
- New Somali refugees highest in 2006 at 3639, lowest in 2018 at 48
- Somalis hold elected positions locally and in congress



# So how did MN get in this situation?

## SOMALI VACCINATION RATES FALL

The Somali backlash against the measles vaccine is new; their kids' vaccination rates matched the general population until 2008, when fears of a link between the vaccine and autism sparked a reaction among Somali parents.

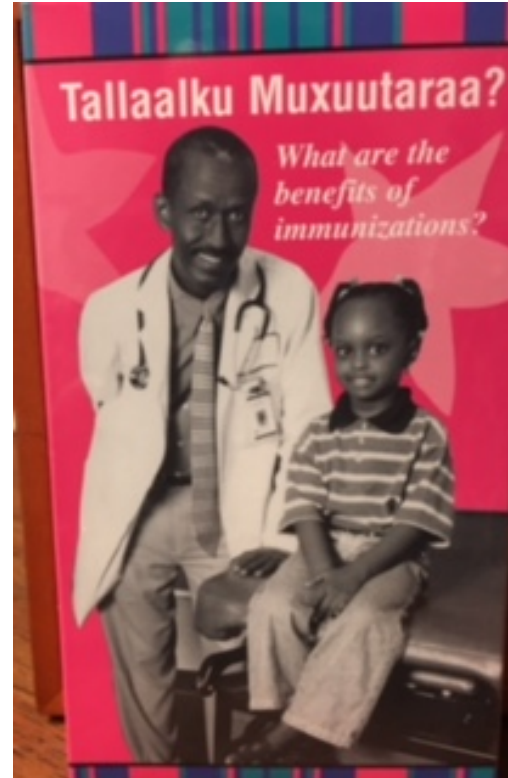


MMR uptake among Somali immigrants in Minnesota: This is the effect of nearly a decade of antivaccine propaganda.

Source: MN Department of Health

# Education in Somali 2002 by VCR!

- *All I knew was that when I came to America, don't take "the triple shot." I didn't know why but now I have evidence of how dangerous it is to not protect your children.*
  - *Mom of child admitted with measles in 2017*



# Minnesota 2011 Outbreak Follow Up Research

*Childhood Vaccine Beliefs Reported by Somali and Non-Somali Parents E. Wolff, and D. Madlon-Kay, MD, MS 458 JABFM July–August 2014 Vol. 27 No. 4 <http://www.jabfm.org>*

This project was to (1) ascertain whether Somali parents are more likely than non-Somalis to refuse childhood vaccinations, particularly the MMR, (2) determine what factors influence the decision not to vaccinate.

- Methods: Explored parental perceptions and utilization of vaccines through a survey distributed in FP Clinics
- Results: Somali parents were significantly more likely to believe that autism is caused by vaccines (35% vs. 8% of non-Somali parents).
- Conclusions: Statistically significant differences in perceptions and use of vaccines were reported by Somali and non-Somali participants. Somali parents are more likely to believe that the MMR vaccine causes autism and more likely to refuse the MMR vaccine than non-Somali parents. These beliefs have contributed to an immunization gap between Somali and non-Somali children.

# Fever, rash, cough, conjunctivitis, coryza





# Measles Cases – 2017 Outbreak Status

## State:

- 75 total cases
  - 66 in Hennepin County
  - 68 confirmed unvaccinated
    - (2) 1 MMR
    - (3) 2 MMR
    - (2) Unknown
  - 71 in children
  - 61 Somali Minnesotan

## Children's:

- 53 cared for at Children's
  - Median age 3 yrs (range 10 mos-14 yrs)
- **21 children hospitalized 100% at Children's**
  - One child re-hospitalized for pneumonia for 22 hospitalizations
  - Average length of stay 4 days (range 2 d-17 d)





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BBC World News



NBC Nightly News

CBS NEWS

## Behind Minnesota's worst measles outbreak in nearly 30 years



CBS This Morning

wbur 90.9

h&N Here & Now

National Public Radio

## 9 Cases Of Measles Confirmed In Minnesota

05:26



April 18, 2017

Health officials in Minnesota have confirmed nine cases of measles in the state, all in children who have not been vaccinated. There have also been recent cases of measles in Nebraska, Michigan and Texas. Experts say it could be a bad year for measles globally.

Here & Now's Meghna Chakrabarti speaks with [Patsy Stinchfield \(@InfectiousPS\)](#), senior director of infection prevention and control at Children's Hospitals and Clinics of Minnesota.

CBS THIS MORNING

MAY 9, 2017, 8:12 AM | Health officials in Minnesota have confirmed the worst measles outbreak in the state in nearly 30 years. Most of those with the disease are unvaccinated Somali-American children. The state's health commissioner says the Somali community has been targeted with misinformation about vaccine risks. Jamie

# Similar Somali MMR issues in England, Sweden and Minnesota

- **England:** Diversity and Equality in Health and Care 2013;10:101–13 *Health beliefs about preschool immunisations: an exploration of the views of Somali women resident in the UK.* N. Tomlinson & S. Redwood
- Found that fear and mistrust greatly impacted health beliefs
- **Sweden:**
- There was a strong emotional component to the decision-making process, which was characterized by mistrust and fear

# Systems communication





# Local, social, cultural communication



# Trusted Individual Communications



# Trusted people reaching out to trusted leaders in their familiar settings





# Children's Interventions

- Somali Employee resource group
- Somali Clinicians Listening dinner
- Somali Imam meetings
- Ramadan Eid meeting & dinner
- Public Meetings
- Day to Day 1:1
- Phone conversations, build trust, really listening
- Translated materials
- Somali staff helping lead



Photo CBS Morning Show

# Public Health Interventions

- Outreach via Somali Imams and Somali health care providers
- Multiple Somali community meetings with health leaders and legislators
- Language and culturally appropriate messages on Somali radio and TV
- Newspaper ads and articles





## Reporting Back to Health Care Providers: MMR Survey

The Minnesota Department of Health (MDH) saw a significant increase in measles, mumps, and rubella (MMR) vaccination among the Minnesota Somali community during the 2017 measles outbreak. Following the outbreak, MDH Somali outreach staff conducted a telephone survey with 300 Minnesotan Somali families who had previously delayed MMR vaccination. All families lived in the seven county metro area. From these families, 380 children got their first dose of MMR vaccine during the outbreak. We wanted to learn more about why families decided to vaccinate their children, where they got information about MMR vaccine, and how their children are doing after vaccination.

The design of the project included both quantitative and qualitative methods. Results below are descriptive and further analysis is currently being pursued. Surveys were completed in the Somali language, and translated results have been shared back to the survey participants via mail and text message.

### Most families got the MMR vaccine because they feared measles disease.

Fear of measles

95%

School or child care requirement	9%
Child now old enough	5%
Doctor recommendation	4%
Other	5%
Unknown	4%

### Health care providers were top source for MMR vaccine information.

- Knowing the community's strong oral tradition is influential, we wanted to know who or what influenced participants to get their child vaccinated.



Health care provider	65.7%
School or child care	21.7%
TV	17.7%
Family	9.3%
Friends	7.3%
Other	24.1%

Respondents could provide more than one answer. "Other" includes radio, MDH outreach, social media, flyer, work, community, imam, mosque and unknown.

### The MMR vaccine was well tolerated.

- Respondents perceived routine side effects such as fever and rash to be present. Families also described pain at injection site and crying. These are expected side effects.
- Perceived changes in speech/behavior were reported by a few respondents. MDH followed up on all these concerns. For those we were able to reach, the concerns around speech and behavior had gone away or were present before the child was vaccinated.

No concerns after MMR

80%

Fever	15%
Pain at injection site	3%
Behavior concerns	3%
Rash	2%
Pain/swelling	1%
Speech issues/concerns	1%

Post Outbreak  
MDH Survey  
N=300 Somali  
parents  
Previously  
unvaccinated  
Vaccinated during  
outbreak  
Why?  
How did it go?

Fatuma Sharif-Mohamed, MPH  
Ben Christianson, MPH

# Lessons learned

1. Fear and Mistrust are major obstacles
2. Tap the Somali oral communication method
3. Somali speaking healthcare professionals are key
4. Gaining trust of Imam's by listening, going to them, sharing
5. Partner with PH Somali Outreach workers
6. Look at systemic, local/social and individual communication modes
7. Outbreaks change minds

# Fear of Measles, not MMR, not autism

- Index patient in 2011 outbreak who survived 15 days on a ventilator in PICU.
- Mom requests his picture shown to educate about what we should fear.



## Call to Action

Vitamin A for the Management of Measles  
in the United States







- ❖ Pandemic causing drop in vaccine rates worldwide; creativity needed to safely immunize
- ❖ Potential for measles outbreaks, especially as travel increases
- ❖ Continue to keep MMR vaccine rates up
- ❖ Keep measles in the forefront of our mind to stop early
- ❖ We are all in it together