

CIC 2014 CCI

December 2-4
2 - 4 décembre
OTTAWA

Canadian Immunization Conference
Conférence canadienne sur l'immunisation

**Household Chaos Plays a Significant
Role in Children's Immunization
Status at Age Two**

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Disclosure Statement



- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

Objectives

1. Determine immunization status at two years of age, focusing on heterogeneity among “not-complete” immunizers

2. Identify personal characteristics associated with immunization status

Background

- Not completely vaccinated = Anti-vaccine?



ageofautism.com

**read the label.
refuse toxic vaccine.**



preventdisease.com



thedailyomnivore.net

Background

- No time? Schedule conflicts? Chaotic lifestyle?



theagendadaily.com



youcanmoveyourself.com



everydaylife.globalpost.com

Cohort and Study Design

- 2008 Alberta birth cohort
 - N=43,965
- Data source: Provincial Vital Statistics registry
- Immunization status at two years of age
 - DTaP-IPV-HIB
 - Pneumococcal
 - Men-C
 - MMR
 - VZ
- Data source: Provincial Immunization repository

Immunization Status

Not Complete

Partial

**Non-
Immunized**

Incomplete

Selective

Complete

Methods

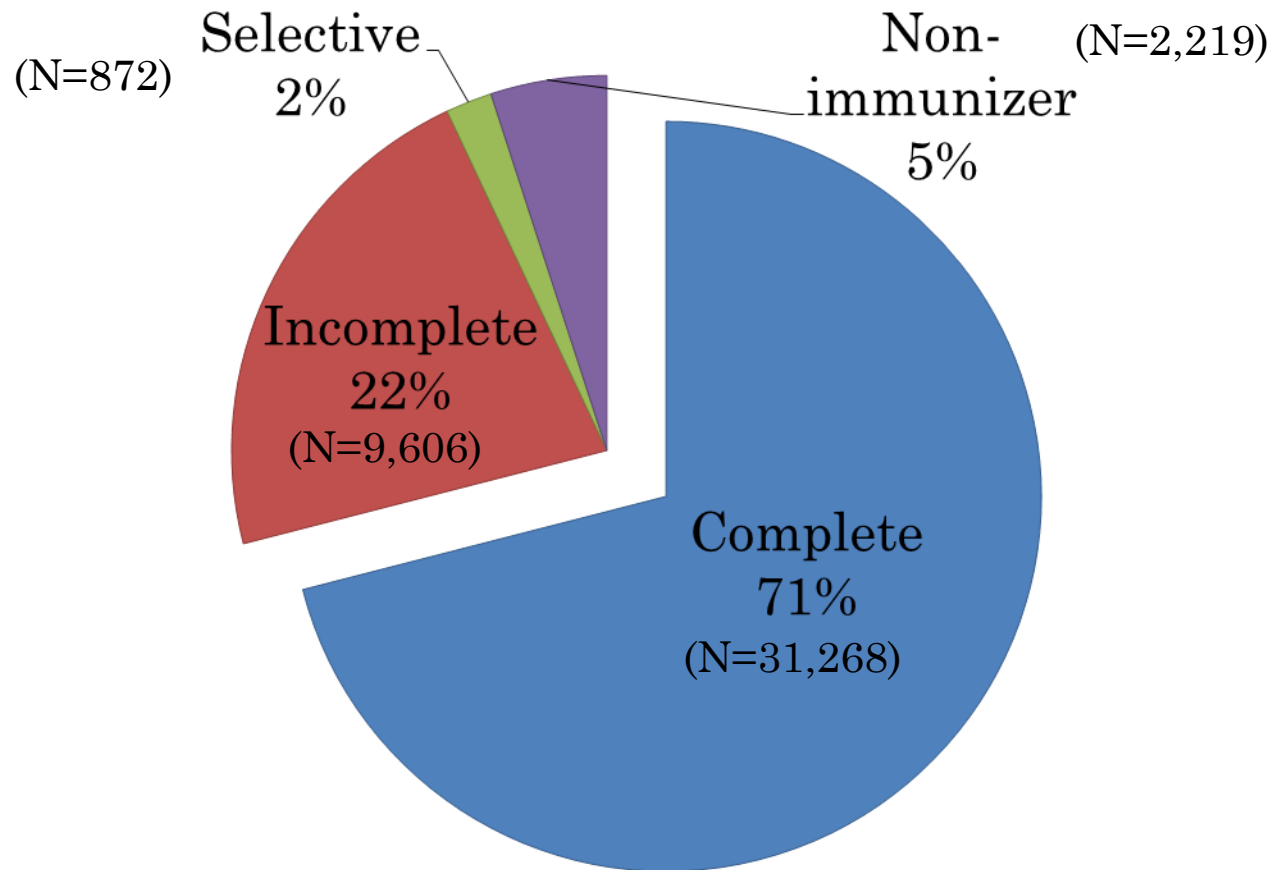
- Variables

- Household moves
- Number of live births
- Marital Status
- Maternal age
- Urban/Rural residence
- Birth attendant and location
- Delivery type
- NICU admission

- Analysis

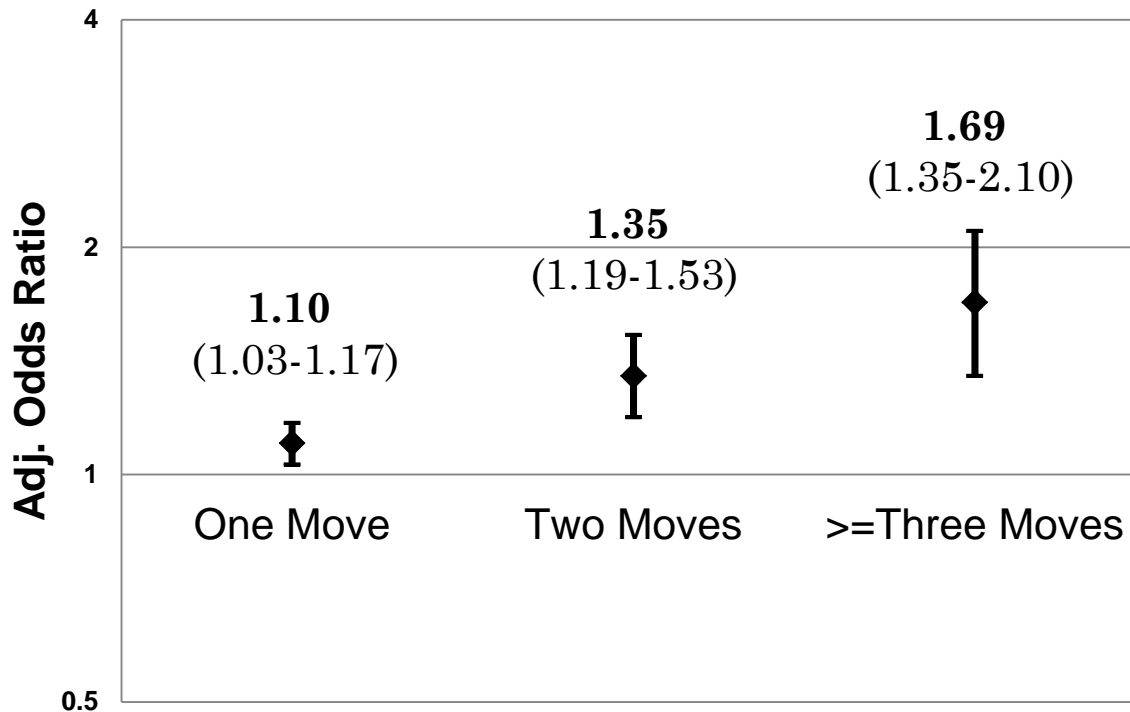
- Descriptive Statistics
- Multinomial Logistic Regression

Immunization Status



Household Moves

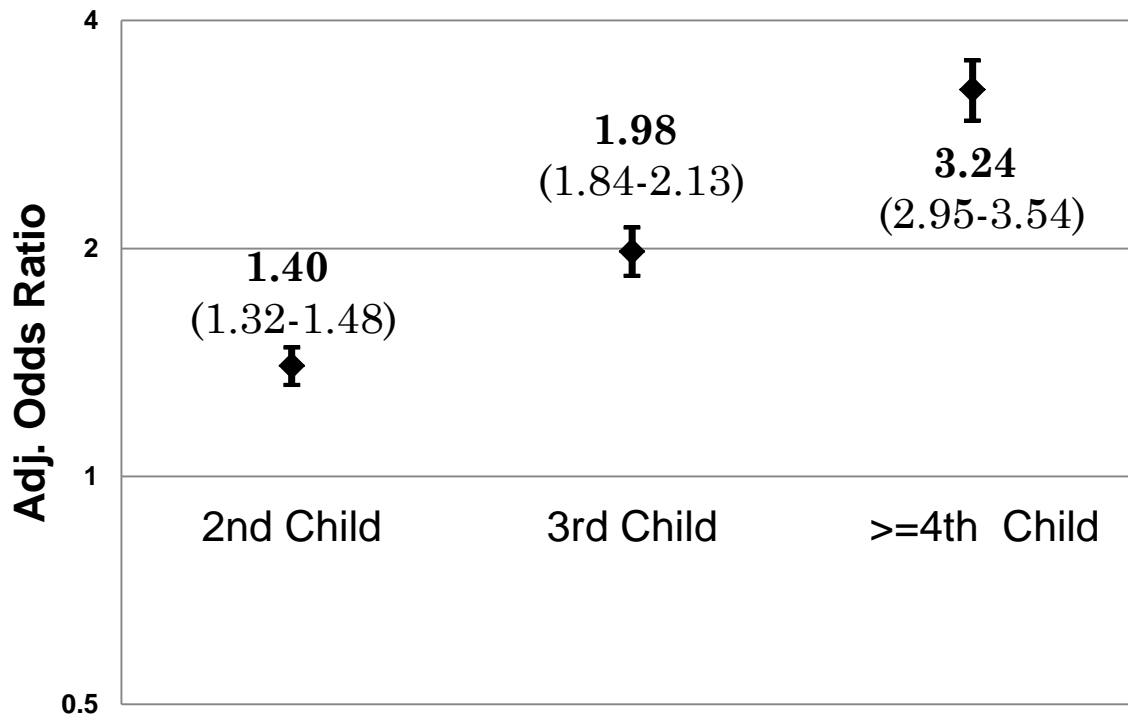
Incomplete vs. Complete | Reference= No moves



Incompletely Immunized N=9,606	
No Moves	74.7%
One Move	19.5%
Two Moves	4.2%
>=Three Moves	1.6%

Number of Live Births

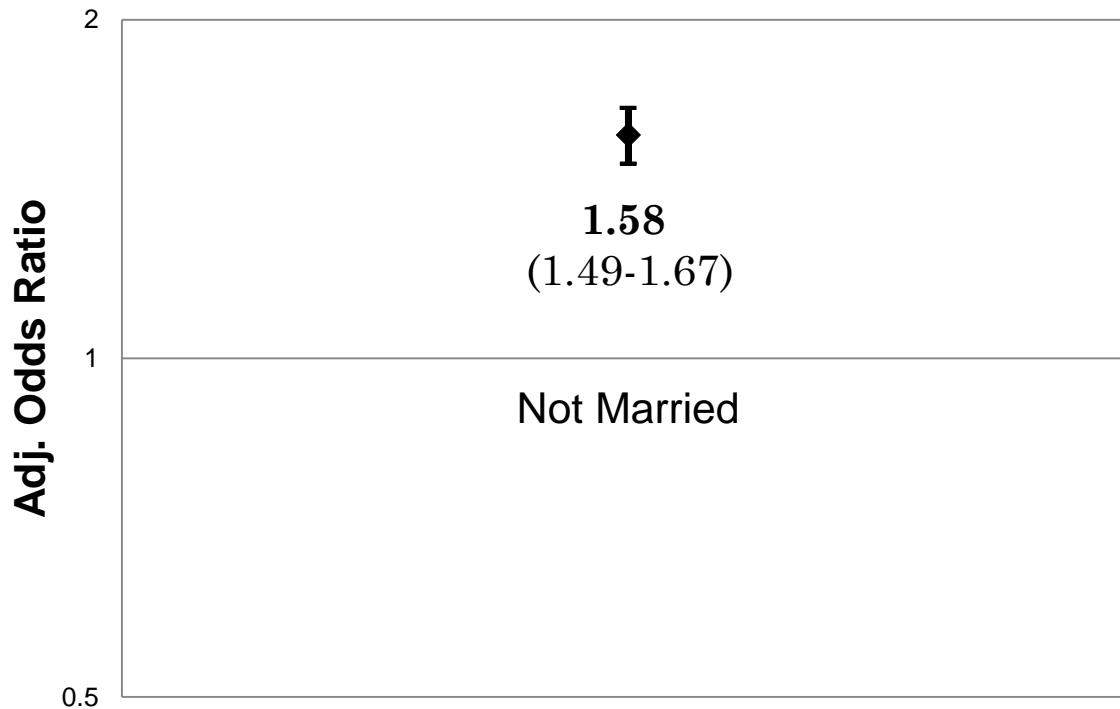
Incomplete vs. Complete | Reference= 1st Child



Incompletely Immunized N=9,606	
1st Child	38.3%
2nd Child	34.1%
3rd Child	16.3%
>=4 th Child	11.3%

Marital Status

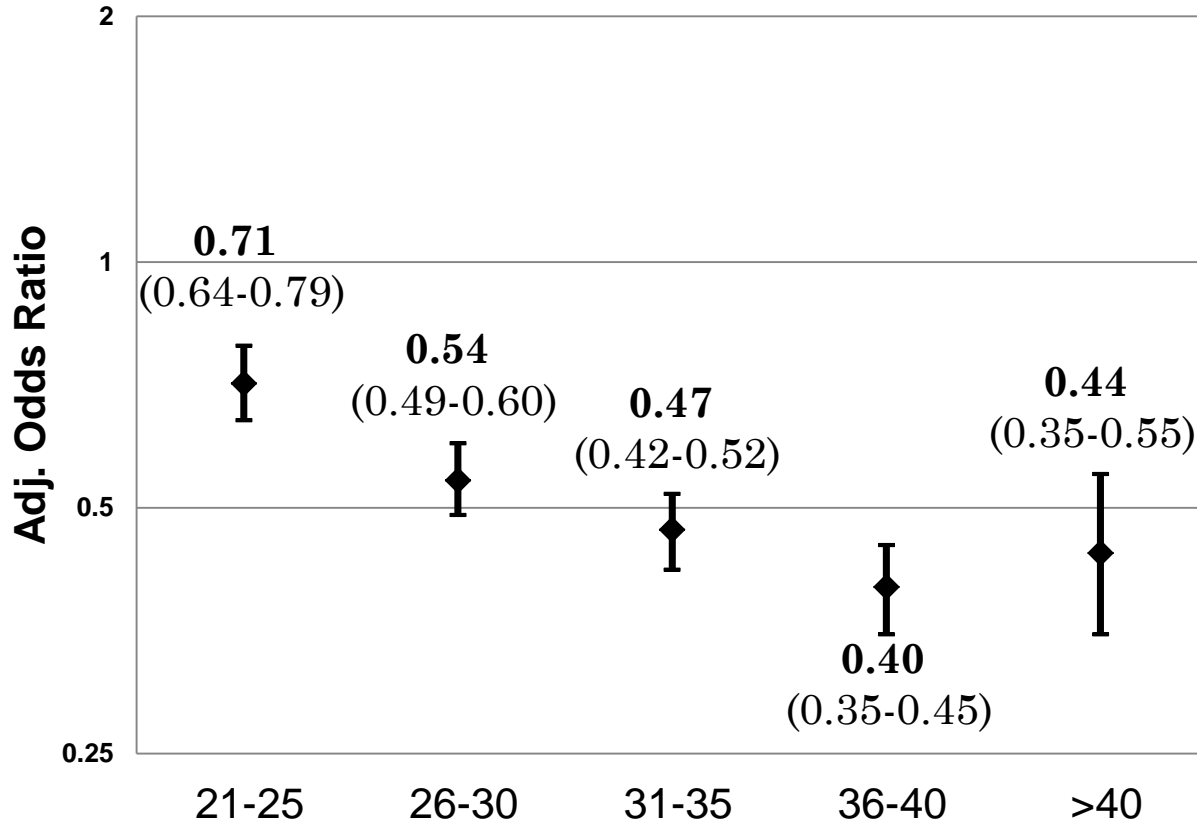
Incomplete vs. Complete | Reference= Married



Incompletely Immunized N=9,606	
Married	65.5%
Not Married	34.5%

Maternal Age

Incomplete vs. Complete | Reference <21 years



**Incompletely
Immunized N=9,606**

<21 years	8.6%
21-25 years	24.0%
26-30 years	32.8%
31-35 years	24.6%
36-40 years	8.6%
>40 years	1.4%

Discussion



Who to Target?


- Incomplete immunizers (22%) represent a large group
 - Received some doses
 - Proven to be accepting at one point
- Non-immunizers (5%) represent a much smaller group
 - Have not started
 - Many are fundamentally opposed

How to Target?

- Enhance surveillance
 - Identify & Flag those at-risk
- Improve access and ease of service
 - Follow-up
 - Reminders
 - Updates
 - Availability



dodea.edu



KEEP ON TRACK

Community Immunization Clinics

Aylmer:
424 Talbot Street West, Unit L7C
Aylmer, ON N5H 1K9
First Tuesday of the Month
1:30 pm - 7:00 pm

St. Thomas:
Elgin St. Thomas
Public Health
1230 Talbot Street
St. Thomas, ON N5P 1G9
Every Thursday
1:30 pm - 5:00 pm
3rd Thursday of the Month
1:30 pm - 7:00 pm



elginhealth.on.ca

In Summary

1. Incomplete immunizers provide the largest target group
2. Factors contributing to a chaotic lifestyle for families have an impact on childhood immunization coverage
3. Public health interventions can improve access/service in addition to addressing knowledge/attitudes/beliefs

Research Collaborators

- Shannon MacDonald PhD RN, Post-Doctoral Fellow
– University of Calgary, Department of Paediatrics

- Kimberley Simmonds MSc, Manager Infectious Disease Surveillance
– Alberta Ministry of Health, Epidemiology & Surveillance

This research was conducted as a practicum student with the University of Alberta



Questions?

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