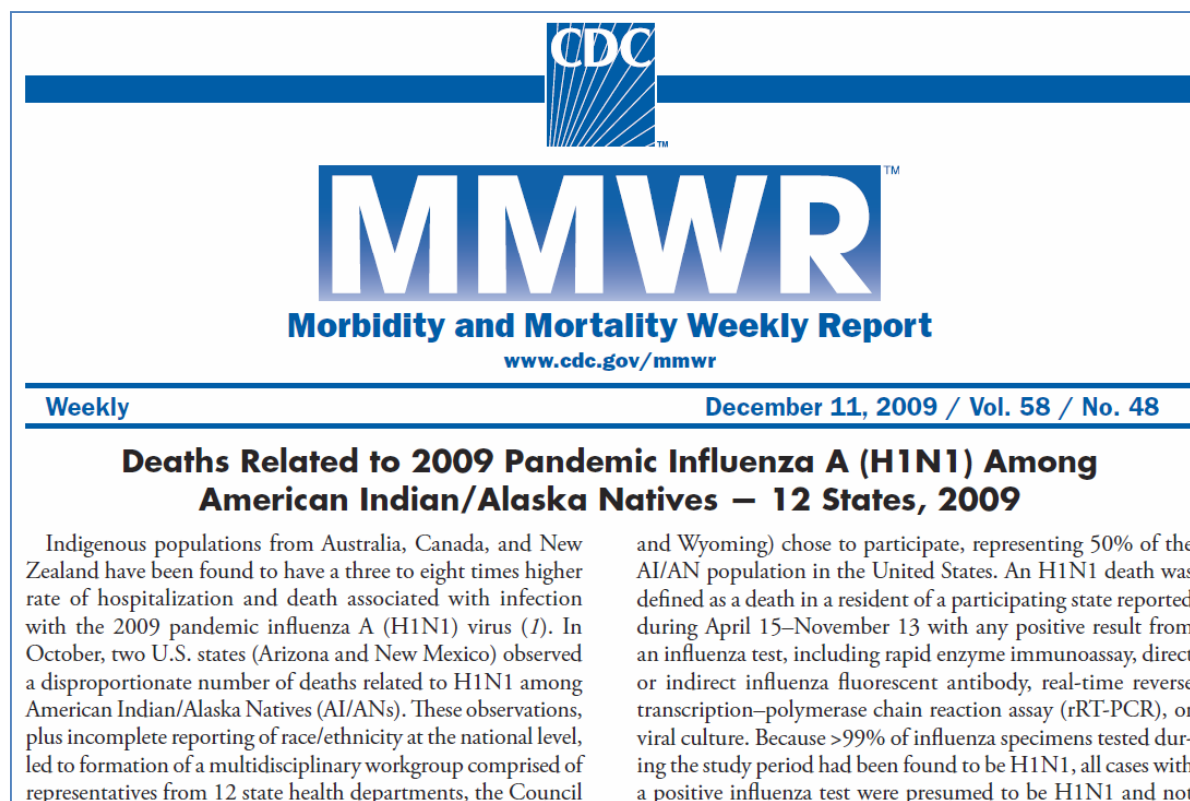


Multi-state Investigation of Deaths Related to 2009 H1N1 Influenza

Centers for Disease Control and
Prevention

Why this Investigation?

- In 12 states, American Indians and Alaskan Natives were 4 times more likely to die from 2009 H1N1 influenza than all other races combined¹



¹CDC MMWR 12,11,2009 58(48):1341-5

Purpose of the Investigation

Provide answers to the following questions:

- What are the risk factors for 2009 H1N1 influenza death in American Indians and Alaska Native (AI/AN) persons?
- Do these risk factors vary between AI/AN persons and persons of other races?
- What are the demographic and clinical characteristics of pandemic influenza illness and deaths in people?

Which Agencies Are Involved?

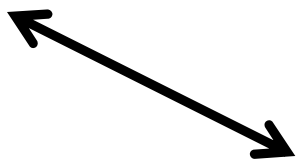
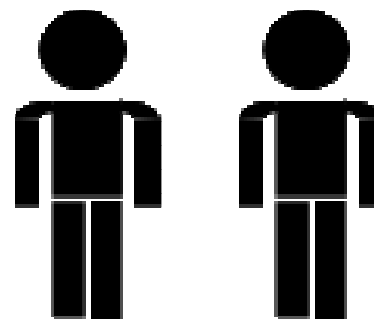
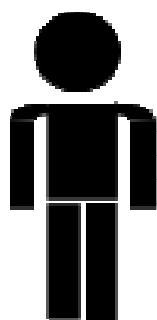
- **Alaska** Department of Health & Social Services
- **Arizona** Department of Health Services
- **New Mexico** Department of Health
- **Oklahoma** State Department of Health
- **Wyoming** Department of Health
- CDC Arctic Investigations Program
- Council of State & Territorial Epidemiologists
- Indian Health Service

How Will We Conduct the Study?

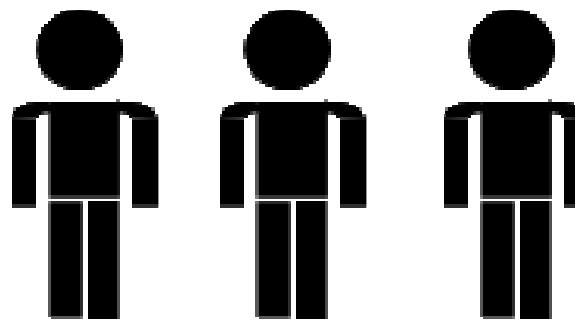
Matched Case-Control Study design

Cases = ~207 H1N1 deaths

1st Control set = ~414* outpatients



2nd Control set = ~621* hospitalized patients



*Selected randomly from confirmed H1N1 reports

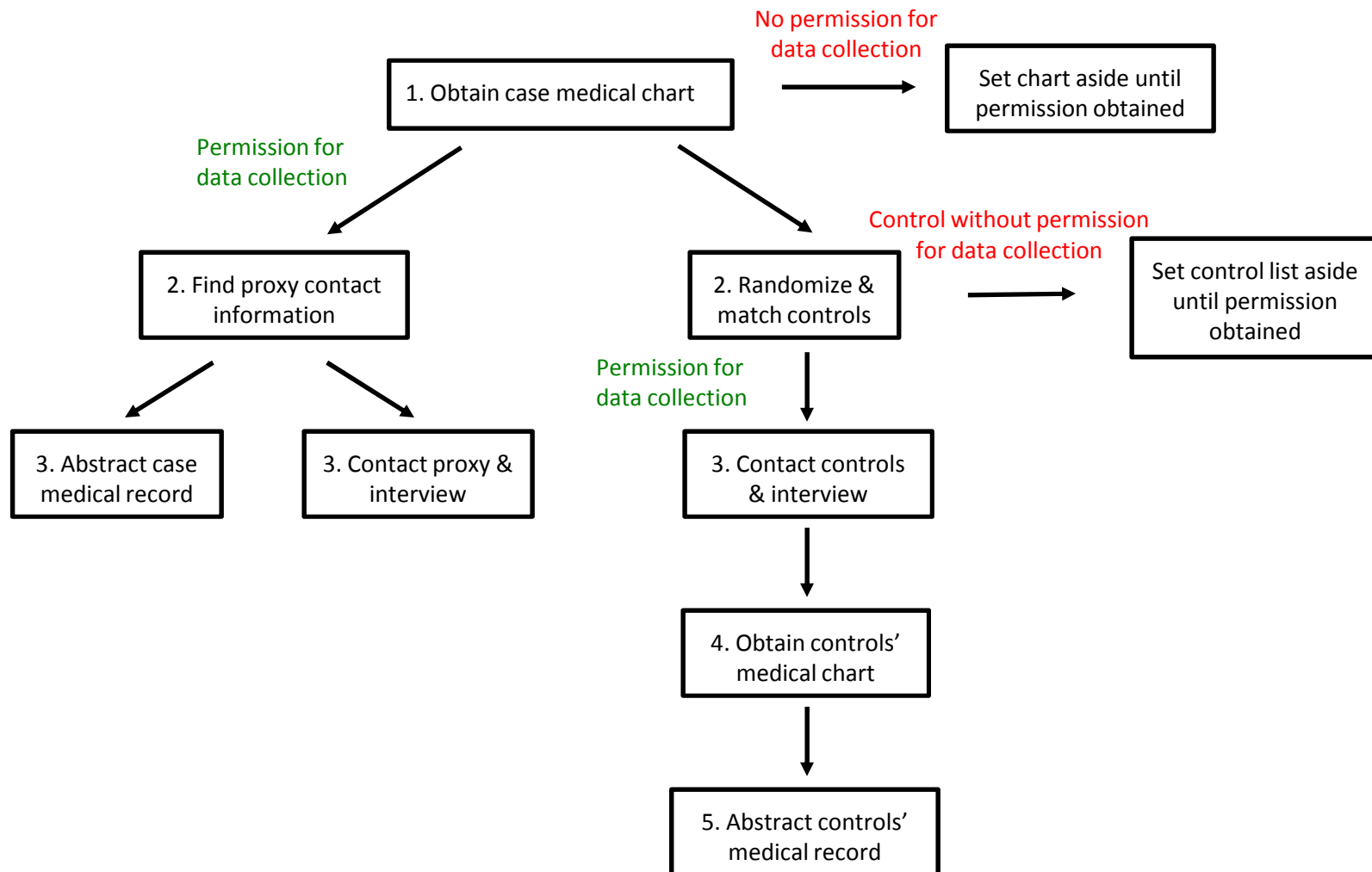
Who Are the Study Participants?

- For all participants:
 - laboratory confirmed influenza from specimen collected between April 15th and December 31st, 2009
 - Resident of participating 5 states
- **Cases:** Deaths attributed to influenza
 - Out of hospital deaths with no health system contact excluded
 - Interviews of “proxies”
- **Controls:** Non-hospitalized patients diagnosed with influenza
 - Randomly selected from state reports
 - Matched to cases by date of testing

How Do We Collect Data?

1. Review medical record
 - Demographics
 - Illness severity & underlying diseases
 - Treatment received & complications
2. Interview the ill person or a relative of a deceased case
 - Access to health care
 - Health behaviors
 - Home living environment

Flow & Timing of Data Collection



Data Analysis

- Participating States send data abstraction forms to Arctic Investigations Program, CDC
- CDC enters information into database
- Collaborative statistical analysis



Anticipated Study Benefits

- A better understanding of risks associated with dying from influenza among American Indians and Alaskan Natives (AI/AN)
 - Leading to:
- Better strategies to prevent severe influenza disease and death in AI/AN persons
 - Leading to:
- Fewer deaths from influenza among AI/AN persons

Where Are We Now?

- ✓ Study protocol/data collection forms created
- ✓ Funding acquired
- ✓ IRB approval received from:
 - ✓ CDC
 - ✓ IHS
 - ✓ States
 - ☐ Tribal entities
- ✓ Cases & controls identified
- ✓ Staff hired
- ☐ Data collected

Acknowledgements

- Sassa Kitka, CDC
- Ken Komatsu, AZ