

Alaska Participation in a Vaccine Effectiveness Study of the Pfizer-BioNTech and Moderna COVID-19 Vaccines among Healthcare Personnel



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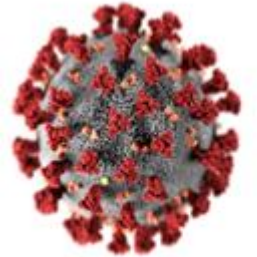
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Investigators and Research Coordinators: Timothy Thomas MD, Amy Swango Wilson PhD RN, Wendy Petersen RN ANTHC; Denise Dillard PhD, Donna Galbreath MD, Matt Hirschfeld MD – SCF, Joseph Klejka MD, Brian Lefferts MPH, Jennifer Dobson MPH, Christine Desnoyers MBA – YKHC; Marc Fischer MD – Arctic Investigations Program-CDC

The COVID-19 Pandemic

- The worldwide COVID-19 pandemic caused by the SARS-CoV-2 virus has lasted 12 months and cost 500,000 American lives.
- American Indian/Alaska Native people have had some of the highest rates of COVID-19 illness in the country.
- In Alaska, the Yukon Kuskokwim Delta had one of the highest rates of COVID-19 illness.





COVID-19 mRNA Vaccines

- Two COVID-19 mRNA vaccines, Pfizer and Moderna were authorized for use in December 2020.
- Phase 3 studies involving over 30,000 adults for each vaccine, showed that each vaccine were ~95% effective in preventing COVID-19 illness.
- Now that COVID vaccines are in general use, it is critical to evaluate their effectiveness in multiple populations.
- Healthcare workers were among the first groups to be vaccinated.
- ANTHC and SCF employees on ANMC campus, and YKHC employees started receiving SARS-CoV-2 vaccine around December 16th.



Healthcare Personnel Vaccine Effectiveness Study



- In October 2020, the Centers for Disease Control (CDC) approached ANTHC, SCF and YKHC to participate in a national study to evaluate the effectiveness of COVID-19 mRNA vaccines in preventing symptomatic COVID.
- ANMC (ANTHC/SCF) & YKHC participation in this 33-site multi-site study started on January 1, 2021
- Who are eligible? Healthcare workers who were tested for COVID-19 at ANMC or YKHC.
 - Healthcare workers (HCP) are eligible if they had direct or indirect contact with patients or infectious material
 - ANTHC, SCF, YKHC employees are asked if they can be contacted about participating in a COVID study.
 - In this test-negative design, HCP who test positive for SARS-CoV-2 are eligible as cases; three HCPS who test negative are enrolled as controls for each case.
- What does the study involve?
 - Phone or electronic informed consent.
 - An interview and review of medical records to confirm COVID testing, COVID vaccines, medical conditions and COVID symptoms.
 - No blood or other specimens are taken.

Recruitment Posters

COVID-19 STUDY FOR HEALTH CARE WORKERS



The Yukon Kuskokwim Health Corporation is assisting efforts to understand how to prevent COVID-19 disease.

We are inviting participants for a COVID-19 study

Are you a health care worker in the YK Delta?

Health care workers include all employees who interact with patients

YKHC Dietary
Maintenance
Med Techs
Unit Clerks
Office Assistants

Health Aides
Providers
Nurses Assistants
Travel
Cafeteria workers

Security
EMTs
EMS
Registration

Are you being tested for COVID-19?

If so, you may have the opportunity to participate in a research study.

When you go to the YKHC COVID-19 Testing Tent or other sites and are filling out your testing form, check "Yes" to agree to be contacted about a COVID-19 study.

No specimens are required for this study, just a 30-minute phone interview.

Participants will receive a \$25 gift card as a thank you for their time.

If you have questions, please call 907- 543-6095 or email COVID_Study@ykhc.org



COVID-19 study for health care workers

The Alaska Native Health Campus is assisting efforts to understand how to prevent COVID-19 disease.

- Do you work on the Alaska Native Health Campus?
- Are you getting tested for COVID-19?

Health care workers include all employees who interact with patients:

Dietary staff
Maintenance staff
Medical technicians
Unit clerks
Office assistants

Health aides
Providers
Nurses
Nurse's assistants
Travel staff

Security staff
Registration staff
Dentists
Dental assistants
Cafeteria staff

When you go to the ANMC COVID-19 Testing Site and are filling out your testing form, check "Yes" to agree to be contacted about a COVID-19 study.

No specimens are required for this study, just a 30-minute phone interview.

**Participants will be offered a \$25 gift card as a thank you for their time.
If you have questions, please call (907) 729-3418.**

How many ANTHC/SCF and YKHC employees were involved in the study?

Employees: 2,785 (ANTHC) + 2,400 (SCF) + 1351 YKHC =

6,536 employees

Contacts: 2152 ANTHC/SCF + 844 YKHC =

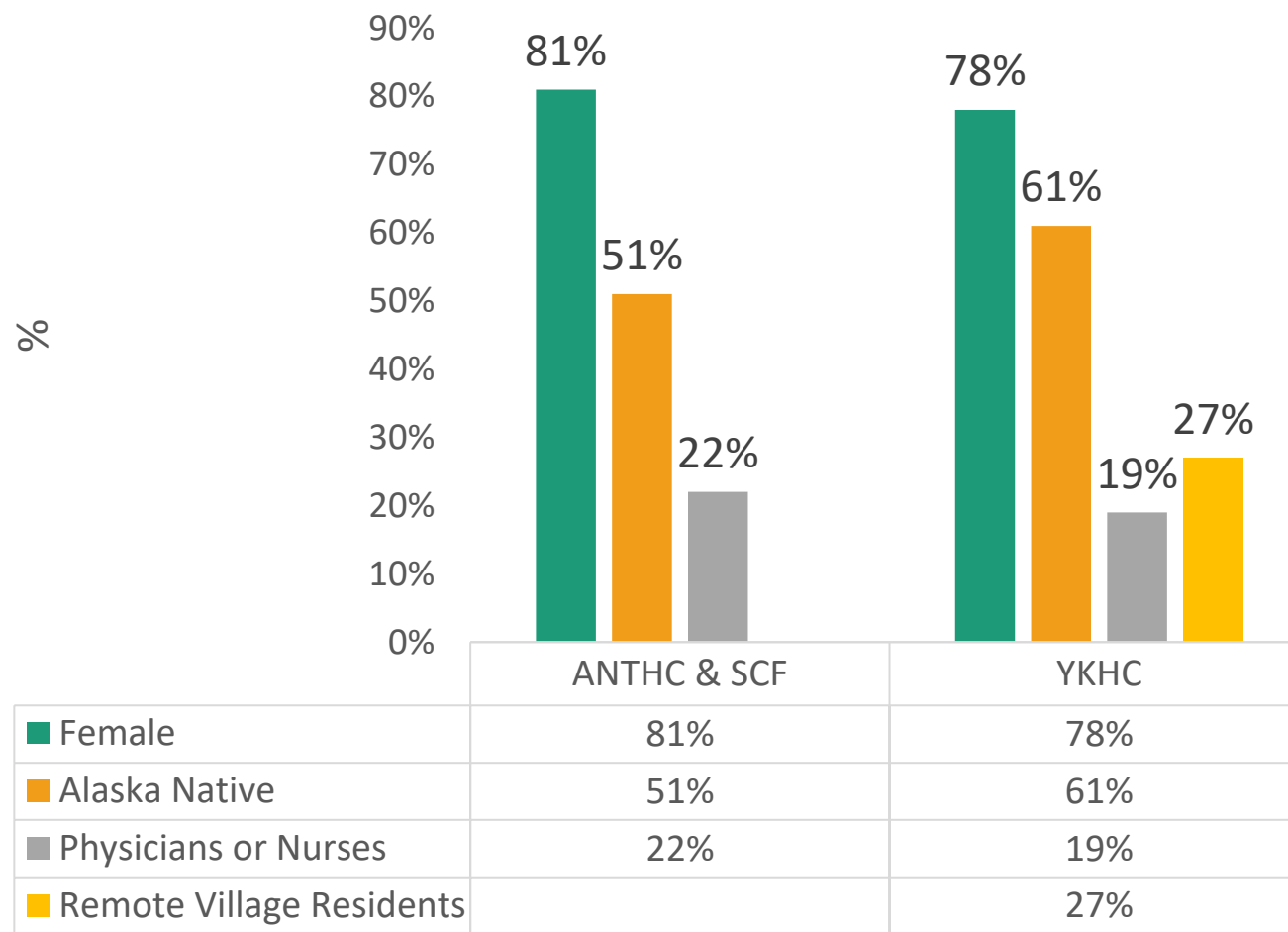
2,996 contacts

35 cases + 102 controls =

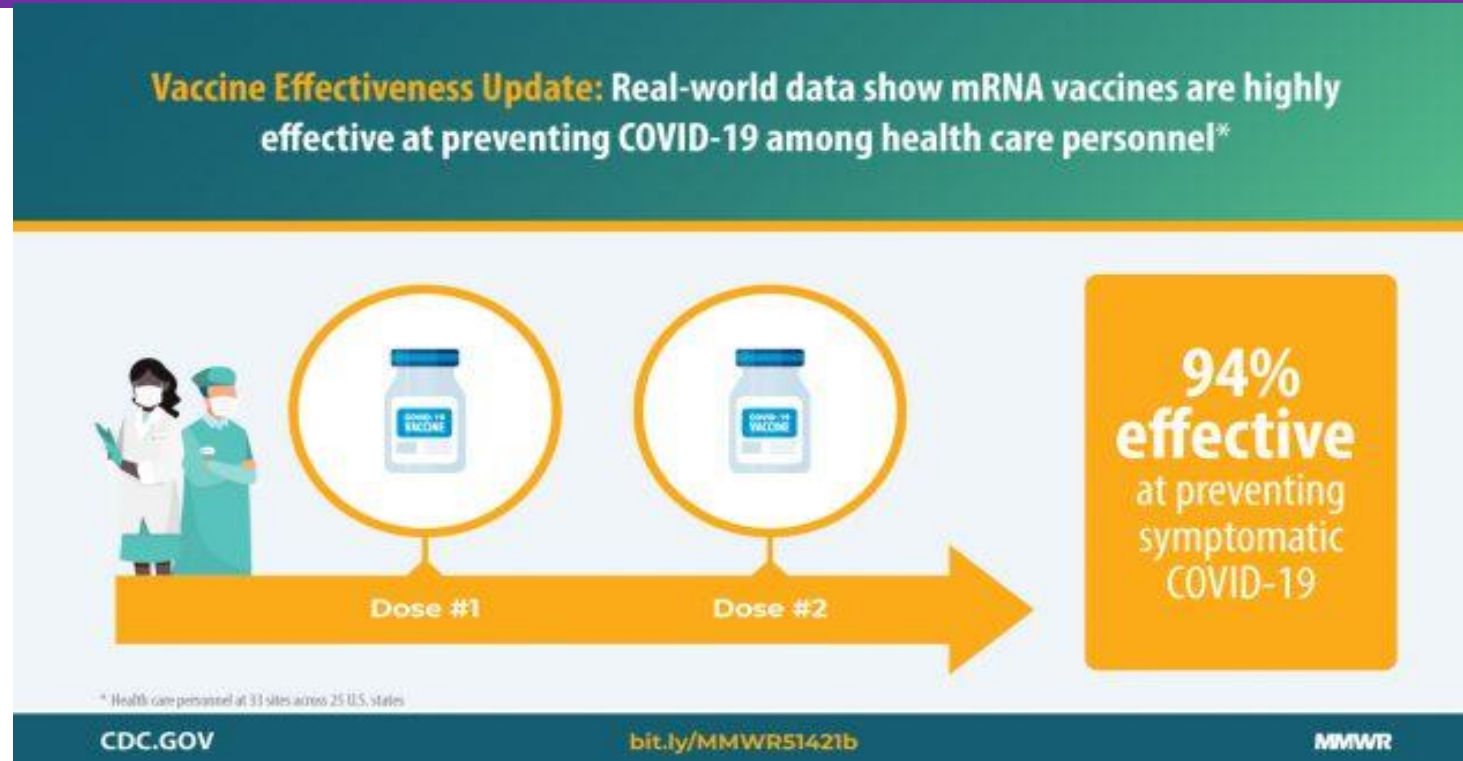
137 participants

Alaska Recruitment

- As of April 15, 2021,
 - YKHC enrolled 21 cases and 61 controls;
 - ANMC enrolled 14 cases and 41 controls.
- Among YKHC participants, 27% were from remote villages, 78% female, 61% Alaska Native, 19% physicians or nurses.
- Among ANMC participants 72% were from Anchorage, 81% female, 51% Alaska Native, 22% physicians or nurses.



Interim Study Results reported in MMWR



The study found two doses of mRNA COVID-19 vaccines to be 94% effective in preventing symptomatic COVID-19 among healthcare workers under “real world” conditions.

An interim analysis was published May 14, 2021 in CDC’s Morbidity and Mortality Weekly Report (MMWR):

https://www.cdc.gov/mmwr/volumes/70/wr/mm7020e2.htm?s_cid=mm7020e2_e&ACSTrackingID=USCDC_921-DM57416&ACSTrackingLabel=MMWR%20Early%20Release%20-%20Vol.%2070%2C%20May%2014%2C%202021&deliveryName=USCDC_921-DM57416

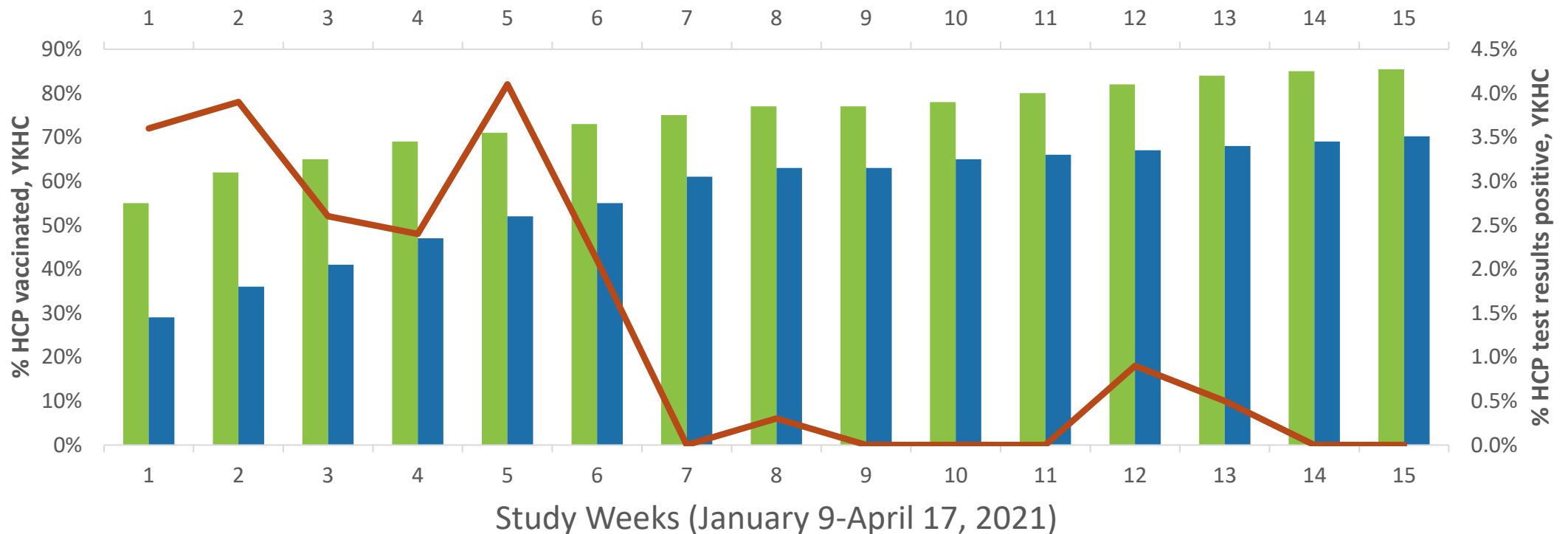


Other Overall Study Results



- One-dose vaccine effectiveness = **82%**
- Characteristics of overall study population:
 - 623 case HCPs/1,220 control HCPs
 - 75% cases/76% controls were **19-49 years**
 - 60% cases/64% controls had substantial **direct patient contact**
 - 84% cases/82% controls were **female**
 - 64% cases/70% controls were **non-Hispanic White**
 - 77% cases/75% controls had **underlying conditions**
- Cases had more **fever** (40% vs 23%), **cough** (56% vs 23%), **shortness of breath** (26% vs 7%) than controls

Percent (%) of HCP vaccinated & percent COVID-19 test positive, by study week, YKHC, Jan 9-April 17, 2021



■ YKHC % HCPs vaccinated dose 1 ■ YKHC % HCPs vaccinated dose 2 — YKHC % HCP tests returned positive



Benefits of participating in COVID-19 vaccine studies

- We're represented!
- We're part of this!
- We're doing something!

Quote from YKHC research coordinator:

One of the biggest things this did for me and others at YKHC – it gave us something worthwhile to pursue during a pandemic where we all felt powerless....our leadership/board were interested in pursuing anything that would get us information about responding to the pandemic.

ANTHC, SCF and YKHC employees and participants!



Thank You!

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