Cancer Cluster Investigations: The New Mexico Experience

New Mexico Cancer Concerns Workgroup (Angela Meisner, M.P.H.)

NAACCR Annual Conference Pittsburgh, PA June 14, 2018
Cancer Surveillance in New Mexico
New Mexico Tumor Registry

- Population-based
- Established in 1966
- Area of Coverage:
  - New Mexico Statewide
  - Arizona Native Americans
    ...in collaboration with the Arizona Cancer Registry
- Founding member of the National Cancer Institute’s SEER Program (1973)
Public Health Surveillance
Reportable Diseases and Conditions

Reportable Diseases and Conditions are:
• Considered a risk to the public health
• Monitored to assist in prevention and control
• Designated and enforced by state government
• Funded and administered by local, state, and federal agencies

Cancer is a Reportable Disease in New Mexico

NMTR is the NM Department of Health’s Designee for conducting Public Health Surveillance for Cancer
Population of New Mexico

- 5th largest state in land mass
- 5th least densely populated
- Population = 2,085,109
- 43% live in the Albuquerque metro area
- 36% of counties are rural or mostly rural
- 47% Hispanic, 40% Non-Hispanic White, 10% Native American, 3% Other

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Public’s Concern about Cancer Clusters in New Mexico

- Uranium mining
- National defense laboratories
- Nuclear test sites
- Oil and gas production
- Industrial waste
- “Sick buildings”
Establishment of the CCW Membership

New Mexico Department of Health
Libby Bruggeman, Ph.D.
Susan Baum, M.D.
Heidi Krapfl, M.S.
Barbara Toth, Ph.D.
Deyonne Sandoval, M.S.
Sandy Lam, M.P.H.
Brooke Doman, M.P.H.

New Mexico Tumor Registry
Chuck Wiggins, Ph.D.
Angela Meisner, M.P.H.

Centers for Disease Control and Prevention
Stephanie Melkonian, Ph.D.
Establishment of the CCW
Organized Response

• Named the group

• Developed a protocol using national guidelines/toolkits and cancer cluster definition using standard methodologies

• Standardized response templates
  • Initial response
  • County level report
  • Census tract level report
Establishment of the CCW
Organized Response

Protocol

Step 1. Initial contact, response, and basic assessment

Step 2. Assessment of whether an excess of cancer cases exists

Step 3. Determine if an epidemiologic study is warranted and feasible

Step 4. Conduct an epidemiologic study to assess association between cancers and environmental causes
In order to best assess how to proceed, the type of call (residential or occupational) should be determined first, then the category:

**Call or e-mail from concerned citizen comes to Cancer Concerns Workgroup (CCW)**

**RESIDENTIAL**

1. Rare cancers &/or multiple cases of the same type of cancer?
2. Specific carcinogen exposure(s)?
3. Plausible latency?

*“No” to all

Category A

STOP at Step 1

“Yes” to any

Category B

GO to Step 2

**OCCUPATIONAL**

(can be both)

1. Rare cancers &/or multiple cases of the same type of cancer?
2. Known carcinogen exposure in the workplace?

   [http://www.cdc.gov/niosh/topics/cancer/nptocca.html](http://www.cdc.gov/niosh/topics/cancer/nptocca.html)
3. Plausible latency and work history?

*“No” to all

Category A

STOP at Step 2

“Yes” to any

Category B

GO to Step 2

*Notes: 1) There may be occasions when a CCW member feels that the call should go from Step 1 to Step 2 even if all of the conditions aren’t met. The CCW member may consult the entire CCW if there are questions. 2) Some cancers are highly associated with specific exposures. Please see Appendix D.*
CCW receives call or e-mail from concerned citizen

RESIDENTIAL

OCCUPATIONAL

(can be both)

1. Rare cancer and/or multiple cases of the same type of cancer?
2. Specific carcinogen exposure(s)?
3. Plausible latency?

“No” to all

Category A

STOP
at
Step 1

“Yes” to any

Category B

GO to
Step 2
CCW receives call or e-mail from concerned citizen

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2. Known carcinogen in the workplace?
3. Plausible latency and work history?

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OCCUPATIONAL

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STOP at Step 1

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Establishment of the CCW
Organized Response

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Establishment of the CCW Organized Response

• Monthly meetings in Albuquerque

• Centralized phone and email account

• Advertisement
  • Website with FAQ’s
  • Presentations with other public health professionals
  • Meetings with tribal government and community groups
Establishment of the CCW
Organized Response

• Created a database with an alert system

• Proactive approach
  • Produce yearly report
  • Re-analyze previous cancer concerns

• Future plans
  • SaTScan and other tools
  • Improve reference files
Common Challenges

- Cancer is common
- Latency problem
- Geographic clusters
- Small numbers
- Unknown causes
New Mexico’s Challenges

- Small numbers
- Geocoding issues
- Public health law, multiple government agencies and sovereign tribal nations
- Diverse cultures and communities
New Mexico’s Successes

• Developed streamlined approach to increase efficiency and timeliness of responses
• Important opportunities for:
  – Professional collaboration
  – Engagement with local communities, advocacy groups, tribal governments
• Reports provide cancer education and resources for prevention
• Proactive approach
• Quality control of cancer surveillance data
Summary
Any Questions?
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Thank you!

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