

Access to, Management and Use of Immunization Information in Three Rural Nebraska Communities

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Introduction

This study explored through semi-structured interviews how residents in rural Nebraska access, manage and use health information. In seeking participant input immunization information was utilized as one exemplar that has broad applicability across the population.

Methods

Three rural communities were identified through recommendations of an expert in the Nebraska Office of Rural Health. Each community served as a county seat and had a critical access hospital. Population of all three communities was under 5000 residents. A purposeful sample of participants included community residents, key community leaders and health care professionals. Information from Info USA as well as public information on health care providers and community institutions was used to identify initial participants. These participants recommended other residents in a snowball sampling.

Semi-structured interviews were conducted with 55 participants face-to-face, or in a few instances, via telephone. An interview guide was developed as a general framework, with follow-up probes used to explore unique descriptions of access, management and use of health information.

Digital audio recordings were made of the interviews and transcribed verbatim.

Data analysis methods included use of atlas.ti, version 6.2.27 qualitative data analysis software to aid in coding and development of content themes. For the purposes of this report, data analysis was limited to exploring themes related to immunization information.

Interview Questions

Variations of the following as indicated across interviews:

- “Who keeps the immunization records for your family?”
- “Where do you get that immunization information from...”
- “what kinds of immunization information do you keep track of...”
- “how do you use any immunization information that you obtain?”

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Results – Information Access

* **Residents rely on their local health system to provide access to their immunization information:** “I rely on the clinic” ; “I depend on my doctors file” ; “I would call and ask what those were”

* **Various health information providers mentioned referring patients on for immunization information:** “I reinforce the importance of immunizations, and directing people who to speak with here at the hospital.”; we have an immunization departmentI always will give them their name and number to ask them”

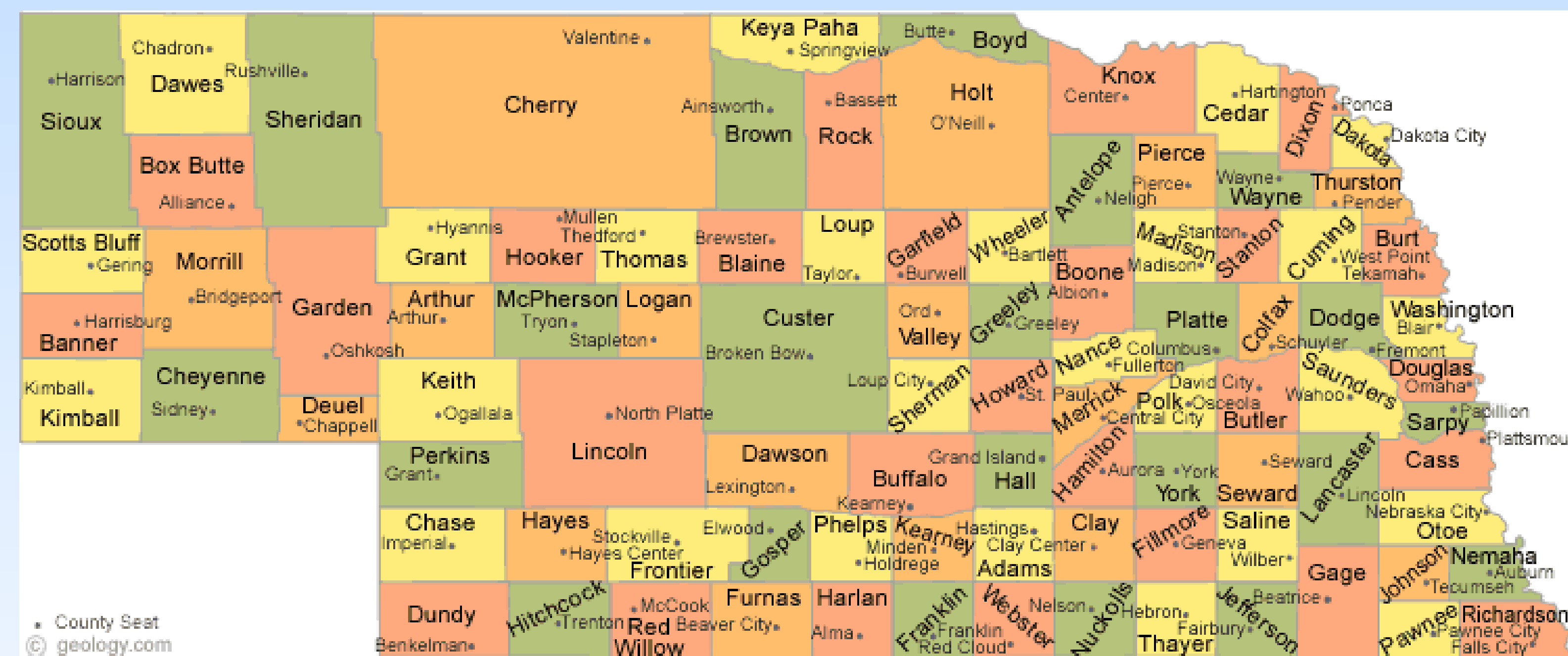
* **Immunization Information Systems were mentioned by several health information providers as a valuable resource, but they were often not clear on source of system:** “system is great for all the people and vaccines that are entered there.... Not all immunizations are there... It is not as great for you and I [adult records]”; “we have that all electronic. ... No it’s district.”;

Results – Information Management

* **Few participants reported maintaining any personal immunization records for adult vaccinations:** “I don’t have any of those immunizations on my file.”; “some of those records I could dig out of the baby book that my mother kept.”; “I suppose we should write that stuff down more.”

* **Some respondents suggested relative disinterest in immunization information:** “immunizations are something that you know you can be a hypochondriac with”; “I’ve noticed with my the kids now a days, or that next generation they are not really confident in the whole immunization process like we were.”; “I don’t think most people think about stuff like that until they need it.”

* **Health information providers indicated that parents may choose to avoid immunization for their children:** “I see parents putting in the request for religious reasons, when I know that that is not really the case.”; “we have to either exclude them or I’ll say they have to sign a waiver.”;



Results – Information Use

* **The most commonly described use of immunization information was to fulfill required record requests for children:** “Pretty much the school and then he is involved in some things in 4H and it seems like we have had to give them some records.”; “you know preparation for a student for college”

* **Influenza vaccine was the immunization most commonly identified relative to use recommendations being available and utilized in decision making:** “They have it [Flu Shot] listed in the paper when they are going to give them at the hospital out here.”; “the last several years they put a lot of information out there that everybody needs a flu shot” ; “you hear it on the radio and on the news and TV. I guess our local paper probably has a reminder.”;

* **Other vaccinations were not mentioned as being commonly advertised or promoted within the community. Other vaccines that were occasionally identified to have adult indications were pneumococcal, tetanus, and in a few cases shingles vaccination:** “tetanus is probably the only other issue that comes up as an adult that I worried much about over the years that I can recall.”; “we had an outbreak of shingles, there were several who immediately went and got shots. word of mouth.”; “a club that I belong to one of our members is a nurse and she gave lesson on the new shot that’s out for shingles”. Two respondents mentioned Pertussis: whooping cough in their infant or exposure as a health care worker, but did not mention adult vaccination against this infection.

Discussion

Those residents with school-aged children (elementary through college) typically reported accessing their child’s immunization information. They usually relied on their health care provider, local health system, or “immunization clinic” to provide this information, not placing a high priority on personally maintaining such records. This pattern was even more common relative to adult immunization records.

NESIIS (the Nebraska State Immunization Information System) was specifically identified by a few information providers (e.g., school nurses) as a valuable source for immunization records, despite mentioning limitations (incomplete records; few adult records). Most residents and health information providers did not appear aware of this specific resource, although expressing confidence that their care system could provide needed information.

Most respondents seemed to express matter-of-fact acceptance of childhood vaccination, although a few expressed personal / family member concern about need for or safety of some vaccines. Some information providers noted informing parents they could sign a waiver to bypass mandated vaccination for their children.

Other than influenza, tetanus, and occasional mention of “pneumonia” and “shingles” vaccines, there appeared to be little information exchange on other recommended adult vaccines.

Future Research

This initial qualitative pilot study informed development of a structured mail survey, which will be sent to a random sample of additional residents from the targeted communities to validate pilot study findings. A subsequent survey of a representative random sample across additional rural communities is also planned.

Immunization related information gained from this pilot qualitative study suggests potential gaps in current access, management and use of immunization information. These preliminary observations suggest opportunities for public health educators to offer improved access to information that can better support informed immunization decision making by members of rural populations, especially for adult vaccine use.

References

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