Purpose

To characterize the use of and need for different types of asthma data among New Mexico’s communities, decision-makers, and health professionals.

Background

The New Mexico Asthma Control Program (NMACP) collects and shares a variety of asthma surveillance data (ASD) with its partners and the public: through its website and other online resources, such as New Mexico’s Indicator-Based Information System for public health (NM-IBIS); through a variety of written materials (reports such as The Burden of Asthma in New Mexico, brochures, factsheets); through presentations and interviews; and through responses to individual requests for data.

Through the ASD Users Survey, the NMACP seeks to answer the following questions:

- Who is using asthma surveillance data in New Mexico?
- How are surveillance findings being used?
- What kinds of surveillance data and other information do stakeholders need for their work?
- How should ASD be disseminated in order to maximize its usefulness to various audiences and stakeholder groups?

As the pool of potential data users and stakeholders has changed since the first ASD Users Survey was done in the spring of 2012, it was decided that a second survey would help establish a new baseline of ASD use around the state and help the NMACP plan surveillance and communication activities in coming years.
Methodology

The 2014 ASD Users Survey was created using Survey Monkey, a provider of web-based survey services. E-mails briefly explaining the survey with a link to the site were sent via e-mail. Initial contact with groups outside of the New Mexico Department of Health (NMDOH) and New Mexico Council on Asthma (NMCOA) was typically made by phone. The organization administrator or group leader sent survey message e-mails and links to their members. A single follow-up e-mail was sent to most groups. The survey opened June 25 and remained open until August 15.

Recruitment of Respondents

The majority of the survey pool was contacted collectively, using invitation messages tailored to their professional or community group and to their likely experience with asthma and using asthma data. Some individual survey invitations were sent to program contacts and to persons who had requested data from the NMACP epidemiologist in 2013-2014.

Invitations were sent to contact lists within NMDOH for programs which have partnered with the NMACP or share common interests including Children’s Medical Services (CMS), Chronic Disease Prevention and Control, and the Office of School and Adolescent Health (OSAH). All NMDOH epidemiologists were invited to participate, as were all health promotion staff.

Organizations who shared member or staff lists, or made it possible to send an invitation message and link to their members, include the NMCOA, the Association of Asthma Educators, the NM Chronic Disease Prevention Council, the NM Alliance of Health Councils, the NM Academy of Family Physicians, the NM Alliance for School-Based Health Care, the NM Nurse Practitioner Council, the NM Pediatric Council, the NM Pediatric Society, and the NM School Nurses Association. Additional invitations were sent to all NM public school superintendents and to a contact at the Public Education Department.

Survey Findings

Over 3,000 individuals were invited to participate, and 214 responses were received. Members of health councils and public school superintendents were encouraged to forward the link to colleagues, so the overall response rate (about 5 to 7.5 percent) is approximate.

Profile of Respondents: Occupation

The occupational categories listed in Table 1 illustrate the range of survey respondents, sorted by count from largest (nurse) to smallest (researcher or “principal or teacher”). Occupations which were not a survey choice but which were mentioned by two or more respondents under “other” are included in separate rows, marked with an asterisk (*).

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1 A copy of the 2014 survey form, as well as the 2012 ASDU survey form on which it was based, can be found in the appendices to the full ASD Users Survey report, available from the NMACP by request.

2 This is low but typical for online surveys.
Table 1. Survey Respondents by Profession

<table>
<thead>
<tr>
<th>Profession</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse</td>
<td>62</td>
<td>29.0</td>
</tr>
<tr>
<td>Administrator/Director/Superintendent</td>
<td>38</td>
<td>17.8</td>
</tr>
<tr>
<td>Epidemiologist</td>
<td>23</td>
<td>10.7</td>
</tr>
<tr>
<td>Physician</td>
<td>16</td>
<td>7.5</td>
</tr>
<tr>
<td>Health Educator</td>
<td>12</td>
<td>5.6</td>
</tr>
<tr>
<td>Respiratory Therapist</td>
<td>10</td>
<td>4.7</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>8</td>
<td>3.7</td>
</tr>
<tr>
<td>Other [not otherwise classified]</td>
<td>8</td>
<td>3.7</td>
</tr>
<tr>
<td>Social Worker or Case Manager*</td>
<td>5</td>
<td>2.3</td>
</tr>
<tr>
<td>Faculty</td>
<td>4</td>
<td>1.9</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>4</td>
<td>1.9</td>
</tr>
<tr>
<td>Program or Project Coordinator*</td>
<td>4</td>
<td>1.9</td>
</tr>
<tr>
<td>Health Promotion Specialist*</td>
<td>4</td>
<td>1.9</td>
</tr>
<tr>
<td>Advocate</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td>Community Health Council member*</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td>Nutritionist or Dietician*</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Community Health Worker*</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Quality Specialist or Quality Improvement*</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Researcher</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Principal or Teacher</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>214</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The “other” category (originally 40 responses) was a varied group including social workers, nutritionists, retirees, consultants, and community members. “Other” respondents whose answers identified them as a part of a named group (e.g., epidemiologist) were reassigned to the appropriate category.

Profile of Respondents: Organization Type

The most commonly-reported organizational categories were public school (n=63) or health department (n=54), with over 25 percent of respondents in each (Figure 1). Nearly 14 percent of respondents reported working in a clinical or laboratory setting. The remaining respondents (31.8%) represent a wide range of organizations, including many current or potential NMACP partners: community health organizations, Indian Health Services (IHS), and medical and health professional organizations.

Among those selecting “other” to describe their organization (n=15), three work for the government (federal, state, and not specified), two work in a Christian or private school; two wrote “None” or “Retired.” There was one response for each of the following: Child and Adult Care Food Program (CACFP), NMED Air Quality Bureau, NM Public Education Department (PED), State Education Agency, Tobacco Use Prevention and Control (TUPAC), “Energy & environmental consulting & remediation,” and “non-profit diabetes, related co-morbidity.”

2014 ASD Users Survey Brief Report
Profile of Respondents: Geographic Area of Work

Responses were received from every region of the state, including the geographically large but sparsely populated northwest region, which encompasses three counties and large sections of the Navajo Nation.

Figure 2. Geographic Areas Where Respondents Work

Survey responses loosely parallel the proportion of state population in each region. While the city of Albuquerque contains over a quarter of the state’s population, the four counties (Bernalillo, Sandoval, Torrance, and Valencia) used to define the Metro region for this survey contain over 40 percent of it.

Some respondents listed multiple locations and many indicated multiple geographic foci for their work, as many professionals working for the NMDOH, UNM, IHS, or non-profit organizations split their time between Albuquerque and Santa Fe or another part of the state. Others travel wherever needed.

As seen in Table 2, the parallel between work location and work focus was clear for Metro and Statewide respondents. There was widespread interest in county-level data, while interest in public

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3 Six respondents reported that they work in more than one area (2 chose 3 locations), and 2 respondents skipped this question, so in Figure 2, n=220 rather than n=214.
4 The estimated 2013 population of Albuquerque was 556,495 or about 27% of the total state population.
school district level data was primarily among those working in a specific region or in Albuquerque. Interest in IHS area data was most common in northern and central areas of the state where the majority of tribal lands and pueblos are located.

Table 2. Location and Geographic Focus of Survey Respondents Cross-tabulated

<table>
<thead>
<tr>
<th>Location Focus</th>
<th>Metro (n=67)</th>
<th>NE (n=30)</th>
<th>NW (n=18)</th>
<th>SE (n=30)</th>
<th>SW (n=28)</th>
<th>Statewide (n=39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City (n=78)</td>
<td>33</td>
<td>9</td>
<td>6</td>
<td>14</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>County (n=73)</td>
<td>12</td>
<td>12</td>
<td>7</td>
<td>16</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Indian Health Service Area (n=18)</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Public Health Region (n=31)</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Public School District (n=74)</td>
<td>31</td>
<td>11</td>
<td>5</td>
<td>12</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>State (n=49)</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>29</td>
</tr>
<tr>
<td>Other (n=20)</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Totals for focus areas</td>
<td>99</td>
<td>47</td>
<td>32</td>
<td>53</td>
<td>36</td>
<td>77</td>
</tr>
</tbody>
</table>

Among the “other” responses, four respondents mentioned NMDOH Small Areas and three mentioned tribal data (“tribal”, “tribal, Navajo”, “tribal boundaries”). Four “other” responses could be fit into a general category or provided more information about a general category they also chose (e.g., “NE Region” or “Southwest Region”).

Use and Usefulness of ASD
Among the 214 survey respondents, 74 (34.6%) stated that they had used ASD in the past year, while 140 (65.4%) reported that they had not. All participants were asked to rate the usefulness of different types of ASD to them in their work (Table 3).

Overall, the types of asthma data most often ranked “very useful” were risk factors for asthma, emergency room visits, and hospitalizations, which were highly valued by nearly half the survey respondents. The types of data most often ranked “not useful” were costs associated with asthma and prescription use information, but these negative votes represent a small proportion of the whole (around 8 percent) and appear to be linked to occupation.

Data on risk factors had the broadest support, including not only the highest “very useful” and lowest “not useful” counts, but also the largest number of survey respondents expressing an opinion.

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5 The two highest response counts for each column are in boldface.
6 NMDOH Small Areas were developed to improve reporting of health data. They are based on population size and meaningful community boundaries. See https://ibis.health.state.nm.us/resources/SmallAreaMethods.html
7 Additional “other” responses related to specific institutions or types of institutions: Community college; Clinic based in regions; School Based Health Centers (SBHCs). Other geographic categories listed were North Central New Mexico; census tract and “Small Areas, Census Tract, Elementary School Areas;” and “Depends... all levels including the national level and occasionally international comparisons.”
8 As seen in Table 3, all data categories received some negative votes, the others ranging from 3-5%.
Table 3. Utility of Different Types of Surveillance Data as Ranked by All Respondents

<table>
<thead>
<tr>
<th>Types of Surveillance Data</th>
<th>Very Useful (%)</th>
<th>Useful</th>
<th>Somewhat Useful</th>
<th>Not Useful</th>
<th>No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors for Asthma</td>
<td>101 (48%)</td>
<td>66</td>
<td>20</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>Emergency Room Visits</td>
<td>96 (47%)</td>
<td>58</td>
<td>20</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Hospital Visits</td>
<td>94 (47%)</td>
<td>56</td>
<td>23</td>
<td>7</td>
<td>22</td>
</tr>
<tr>
<td>Prescription Use Information</td>
<td>80 (39%)</td>
<td>63</td>
<td>23</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Morbidity/Prevalence</td>
<td>79 (39%)</td>
<td>68</td>
<td>25</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Mortality</td>
<td>73 (36%)</td>
<td>63</td>
<td>36</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Costs Associated with Asthma</td>
<td>65 (32%)</td>
<td>56</td>
<td>45</td>
<td>16</td>
<td>23</td>
</tr>
</tbody>
</table>

Preferred Source or Method and Format for ASD

When asked where they would prefer to find the ASD they need (Q13), a majority of survey respondents (57.3%) chose the NMACP website. More than 10 percent also chose data requests to the ACP epidemiologist or NM-IBIS as preferred methods.

Figure 3. Preferred Source for Finding ASD by Percentage of Survey Respondents

The “other” responses included requests for e-mailed or paper factsheets or reports (n=4). A few “other” responses indicate participants were unaware of what is available electronically. Other sites or organizations mentioned were county health councils, the NMCOA, and NMTacking.org.

When asked which format would be most useful to them (Q12), nearly half of survey respondents (n=101, 48.6%) chose a short, summary format (factsheet, brochure, or newsletter). Presentations, webinars, and “other” were selected by more than 10 percent of respondents,10 and “written report,” “data workshop/roundtable,” and media options (newspaper, radio, PSA) by less than 10 percent.

Questions for Data Users

Survey respondents who reported using ASD during the past year were asked a short series of questions (Q7-10) about the data they had used. Question 7 asked how they had found the data, and multiple responses were allowed (totaling 149 responses from 72 respondents).

9 Rows do not add up to 214, as not all participants answered all survey questions (n ranges from 202 to 209).
10 Those who chose “other” requested alternatives ranging from conversations and community presentations to raw data.
Respondents were also asked how they had used the ASD (Q8) and how useful they had found it to be (Q9). The most commonly-reported use of ASD was “to understand the scope of the health problem or community need” (64.4%). Roughly one-third of respondents used ASD “to create or update educational materials” (34.2%) or “to program priorities and plan activities” (31.5%). One quarter of respondents used ASD for advocacy, either “to advocate for or justify program resources needed” or “to advocate for policy change or policy development” (24.7% each). A relatively small percentage (16.4%) reported using it to write grant applications. Other uses reported included “analysis of environmental attributes and asthma and other outcomes,” “to develop asthma action plan for school nurses,” “linkage analysis with air quality data,” “to educate stakeholders,” and “to create explorable maps of sub-county areas.”

Among survey respondents who had used ASD during the past year (n=74), a strong majority (83.1%) reported finding it “useful” or “very useful.” A minority found it “somewhat useful” and no respondents (0.0%) rated it “not useful” (Figure 5).

Finally, recent users were asked how ASD could be more useful to them (Q10, open-ended) and 24 out of 74 respondents (32.4%) provided suggestions. Responses fell into five general areas: the need to include tribal/Native American population data, the need for improved data quality and timeliness, the usefulness of pairing asthma data with other types of data, the need for more specific data (n=8, two of whom noted difficulty finding specific data), and detailed suggestions for

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11 Their responses were also used to generate the WordCloud on the first page of this report. A listing of all responses to open-ended survey questions is available as an appendix to the full 2014 ASD Users Survey report, available upon request.
improving *The Burden of Asthma in NM* report, including the addition of qualitative data and translation of the executive summary into Spanish.

<table>
<thead>
<tr>
<th>Suggestions for Specific Data Needed</th>
<th>Suggestions for Linking or Pairing Asthma Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>• By occupation and industry</td>
<td>• With areas where control or preventive measures are in place (n=2)</td>
</tr>
<tr>
<td>• Targeted to public schools, school districts (n=2)</td>
<td>• With areas having provider shortages and high healthcare utilization</td>
</tr>
<tr>
<td>• On children visiting local emergency departments (ED)s</td>
<td>• With priorities, resources, and current actions conducted by public health partners</td>
</tr>
<tr>
<td>• Community specific</td>
<td>• With environmental contaminants that affect health or potential asthma triggers due to local activities such as agriculture, mining, oil and gas production, vehicular traffic, etc. (n=2)</td>
</tr>
<tr>
<td>• For smaller areas within counties</td>
<td></td>
</tr>
<tr>
<td>• By DOH Small Area: Hospitalization and ED data</td>
<td></td>
</tr>
</tbody>
</table>

Data quality and timeliness comments included requests for updated data on ED rates for children under age 15, data that include smaller hospitals, data collected by school nurses on student days missed due to asthma, more data including geographic variables (Hospital Inpatient Discharge Data, HIDD), and more current data (“this week, not last quarter,” “monthly reports”).

**A Question for Non-Users**
Survey respondents who said they had not used any ASD during the past year were asked one additional question (Q6): Why not? They were provided with a range of response options, including “other” (writing their own).12

**Figure 6. Reasons Given for Not Using ASD during the Previous Year**
All 140 survey respondents who indicated they had not used ASD recently chose one response (Figure 7). Those who reported being unsure how to access information about asthma or unsure how to use ASD (50.0%, n=70) were more likely to be nurses or nurse practitioners, physicians, administrators, or respiratory therapists.

**Comparison between Respondents Based on Use of ASD**
Overall responses to shared survey questions were fairly consistent between users and non-users, although respondents from some occupations and types of organizations were more likely to report recent ASD use. Between one-third to one-half of respondents who work for academic/research

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12 “Other” responses which indicated that they did not need to use ASD have been added to the count for the “do not need” category.
organizations, community health organizations, health departments, or the NM public schools reported using ASD recently. Less than 25 percent of respondents who worked in other types of organizations did: clinics, hospitals, doctor’s offices, or labs; medical/health professional organizations; or for IHS.\textsuperscript{13}

Among occupational categories, epidemiologists were the most likely to report having used ASD (56.5%). Managers (administrator/director/superintendent) and health educators also showed a higher percentage of users of ASD than the survey population as a whole.

There were also differences between geographic regions, which may be linked to occupation. Those who work statewide (including many epidemiologists and managers) reported using ASD more and those working in the Albuquerque metro area (including many clinical care providers) using it less. Respondents located in the four quadrants of the state (NE, NW, SE, SW) reported using or not using ASD in roughly equal proportions.

In many cases the differences between data users and non-users are not substantial.\textsuperscript{14} However, there are some suggestive differences between the two groups in their responses to question 11, which asked them to rate the usefulness of different types of data (see Table 3 for types of data). Among those who have used ASD recently, the highest number of “very useful” responses (over 65%) were for ED and hospital visits. Among those who have not used ASD recently, the data type most often ranked “very useful” was risk factors for asthma.\textsuperscript{15}

Differences in Data Usage and Perceived Utility among Major Occupational Groups Responding

Analysis by occupational category supports anecdotal knowledge that occupational groups use and value surveillance data and related health information differently. The five largest categories were nurse (n=62), manager (administrator/director/superintendent, n=38), epidemiologist (n=23), physician (n=16) and health educator/health promotion specialist (combined, n=16).\textsuperscript{16}

Comparison of group responses suggests differing patterns of ASD access and use. The proportion reporting recent ASD usage was higher for epidemiologists (56.5%), health educators/promotion specialists (43.8%) and managerial occupations (42.1%), followed by nurses (30.6%). Physicians had the lowest reported usage (25.0%). Among those who had not used ASD recently, respondents in epidemiology, health education/promotion, or management were mostly likely to report not needing it, while nurses most often reported being unsure how to access information.

Other key differences appear in responses to the demographic questions and to the question about their preferred method for accessing ASD (Table 4).

\textsuperscript{13} Very small numbers of responders in other specific categories (such as Faith-Based Organization) make percentages and comparisons with these groups unsound.

\textsuperscript{14} Confirmed by calculating indices of dissimilarity (I\textsubscript{D}) between responses by users and non-users. The I\textsubscript{D} (range 0 to 100) is one-half the sum of the absolute difference between the percentages in each category of the two comparison populations. Results for survey questions 1-4 and 12-13 range from 14.6 to 24.0. Scores were >20 for occupation and geographic focus.

\textsuperscript{15} Those who had not used ASD recently were also more likely to choose “no opinion,” but this was true across all categories.

\textsuperscript{16} “Other” was also a major category, but since it was not homogenous, it was not used for this comparison. Responses from participants in major categories (e.g., epidemiologist) who misclassified themselves as “other” are included.
Table 4. Most Common Responses (Mode) for Selected Questions among Top Five Occupation Types

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Organization Type</th>
<th>Geographic Area of Work</th>
<th>Geographic Focus of Work</th>
<th>Preferred Method to Find ASD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator/ Director/ Superintendent</td>
<td>Health Dept. (34%)</td>
<td>Statewide (39%)</td>
<td>State (39%)</td>
<td>NMACP website (59%)</td>
</tr>
<tr>
<td>Epidemiologist</td>
<td>Health Dept. (83%)</td>
<td>Statewide (70%)</td>
<td>State (65%)</td>
<td>NM-IBIS (41%)</td>
</tr>
<tr>
<td>Health Educator/ Health Promotion Specialist</td>
<td>Health Dept. (88%)</td>
<td>Northeast (38%)</td>
<td>County (75%)</td>
<td>Data request to ACP epidemiologist (44%)</td>
</tr>
<tr>
<td>Nurse</td>
<td>Public School (90%)</td>
<td>ABQ Metro (55%)</td>
<td>Public School District (81%)</td>
<td>NMACP website (70%)</td>
</tr>
<tr>
<td>Physician</td>
<td>Hospital, Clinic, Office, or Lab (50%)</td>
<td>ABQ Metro (44%)</td>
<td>ABQ Metro (75%)</td>
<td>NMACP website (67%)</td>
</tr>
</tbody>
</table>

Among the management-level respondents there was more variety in organization type, geographic area and focus of work than among epidemiologists and nurses, who either work for health departments (usually the NMDOH) and have a statewide focus, or work for the NM public schools and focus predominately on their school district.

As might be expected, epidemiologists were most likely to want to use NM-IBIS (40.9%), and to make requests directly to the NMACP epidemiologist (31.8%). The health education/promotion group also preferred making data requests (43.8%) and using IBIS (37.5%) much more frequently than other occupational groups (response range 3-16%).

Differences are also apparent in group rankings of the utility of different types of ASD. All respondents in the management and health education/promotion groups considered cost data at least somewhat useful (Figure 7) and many of them considered it “very useful,” but some epidemiologists, nurses, and physicians (range 8-19%) did not agree. Health educators and health promotion specialists ranked it “very useful” most often.

Figure 7. Usefulness of Asthma Cost Data Ranked by Top Five Occupational Groups
There was consensus across all five occupational groups that ED data are important (Figure 8), and the results for hospitalizations are virtually identical to ED visits.

**Figure 8. Usefulness of Emergency Department Data Ranked by Top Five Occupational Groups**

Similarly, a majority of managers, epidemiologists, health educators, and nurses found morbidity data “very useful,” with a small minority labeling it “not useful.” Mortality data were split fairly evenly between “very useful” and “useful,” with epidemiologists and physicians more likely to find it only “useful.”

However, responses diverge when it comes to prescription use. Rankings of prescription use data suggest different occupational priorities: while over a quarter of the epidemiologists (6 out of 23) rated it “not useful,” only one healthcare provider (nurses and physicians combined, n=78) did. Respondents in health education/promotion also rated prescription use data highly. However, managers were more likely to rate it “useful” than “very useful.”

Risk factors were heavily favored by respondents overall, however this is due in part to the large number of nurses who emphasized them (Figure 9).

**Figure 9. Usefulness of Risk Factor Data Ranked by Top Five Occupational Groups**
Management and health education/promotion respondents also favored risk factor data while epidemiologists split between “useful” and “very useful.” Few physicians ranked risk factor data as “very useful,” giving much more emphasis to other types of data more closely related to clinical care.

The contrast between occupational types can be summed up in the most useful type of data typically selected by each, as determined by the highest number of votes (mode) in the “very useful” category.

- Administrator/Director/Superintendent: ED Visits
- Epidemiologist: Morbidity
- Health Educator/Health Promotion Specialist: ED Visits, Risk Factors (tie)
- Nurse: Risk Factors
- Physician: ED Visits, Hospital Visits, and Prescription Use (three-way tie)

When presenting ASD to different audiences, designing ASD publications, and developing partnerships with groups with different occupational bases, it is worth keeping these distinctions in mind: What are they typically most interested in? Where do they see value?

Suggestions from Survey Respondents
About one-third of respondents (n=69) provided an answer to the final open-ended question, which asked how the NMACP could help them use ASD in their work. Responses fell into the following general categories, reflecting respondents’ need for:

- Information better suited to lay people and the general public ("People-friendly"): to increase awareness of information/resources by public, patients, and families, healthcare providers (especially school nurses)
- Information for specific stakeholder groups: parents (English and Spanish, especially the difference between rescue versus maintenance medications), policy makers, school districts
- Information about specific age groups: children, adolescents including hospitalizations and severity level
- Information about specific areas and populations: regions, counties, Native American/Tribal areas and populations, communities and schools (compare with state levels)
- More information about asthma and health behaviors (like smoking), and about links between asthma and causes/sources affecting air quality (pollen, smoke, coal-burning power plants)
- More information on asthma medication: costs and usage (use/misuse)
- Information useful for grant-writing, staffing and budgeting, including new/upcoming program activities & evaluations (NMACP & partners)
- Additional data: geocoded datasets, datasets addressing multiple chronic conditions, slides showing disparities in healthcare utilization by region (etc.), urgent care visits, asthma by occupational status
- Data integrated with patient care: use with electronic health records, way to track patients transported to other facilities especially across state lines; how to avoid readmissions, "continuing education program detailing data summary and how to use this effectively in medical practice"
- Trainings/presentations: for nurses in non-Metro Counties (Lincoln, specifically), on how to use IBIS & the Asthma website, at monthly nurses' meeting, parents' groups
Respondents also had requests regarding timeliness, including regular updates to data and regular reports (newsletters, e-mails, links) at the local or regional level.

Discussion and Recommendations

The broad utilization of ASD reported among 2014 survey respondents is an encouraging finding. However, the relatively low reported use of ASD to support grant applications, combined with comments from survey respondents who had difficulty finding suitable ASD for their needs, suggests that the NMACP should investigate ways to productively share its data with more organizations seeking grants related to asthma, chronic diseases, environmental health, and other community initiatives.

Although there is doubtless some respondent bias effect, given that the survey was disseminated by and for the NMACP, responses to Question 7 “How did you find the asthma surveillance data that you used?” suggest that the NMACP’s activities to promote use of ASD in NM have been reasonably successful (see Figure 4). The two options selected most often were the Asthma Control Program website (33, or 45.8% of respondents who used data in the past year) and the Burden of Asthma in New Mexico report (22, 30.6%). However, the relatively large number of potential data users who responded that they were unaware of NMACP data resources (or of the program itself) indicate that there is more education and outreach to be done.

The recommendations which follow are drawn from the survey findings.

- The ACP should continue updating and linking asthma data through NM-IBIS and NMTracking, and expand the variety of data available (e.g. out-of-state hospitalization data)
- The ACP should continue responding to data requests, log these efforts, and work more collaboratively with stakeholders around NM to provide support for grant applications related to asthma
- The ACP should create brief data reports on specialized topics of interest, such as prescription use, on a quarterly basis
- The ACP should increase the number and timeliness of factsheets it makes available through its website, particularly factsheets targeting specific audiences with different data and information needs and levels of understanding
- The ACP should work with partners in ERD and in NMCOA to help train non-epidemiologists to find and use suitable data in NM-IBIS, NMTracking, and on the ACP website
- The ACP should continue to support asthma management training for HCPs, especially school nurses, which includes awareness of and skills needed to access and use ASD
- The ACP should continue to present ASD to partner groups, including NMCOA, and consider expanding presentations to additional groups at the regional and local level
- The ACP should make additional use of media options for communicating significant updates to ASD

Although the numbers are small, evidence suggests that members of Community Health groups (including faith-based organizations) have surveillance and information needs which are only being partially met. Of the 15 respondents in these two organizational categories, the majority (8) of whom work in the Southwest region, five reported using ASD recently and three of the five found it only “somewhat useful.” Their suggestions included more information about how high utilization rates are
paired with provider shortages and “data that shows where in smaller areas within counties ‘clusters’ of asthma are found,” in order to better target “limited resources for parent health education and risk reduction.”

In response to the final question, “How else could the Asthma Control Program help you use ASD in your work?” respondents from community health and faith-based organizations suggested: applying for grants; helping keep the public informed about services available and educated about how best to live with asthma; information on coal power plants and smoking; and “make slides available to share in presentations with citations, e.g. disparities in utilization by region...”.17

Several people raised general concerns in their responses to the open-ended questions; responses which although not directly related to surveillance data are important reminders of challenges affecting asthma care and people with asthma around the state. These include the cost of asthma medications, and the effects of geographic dispersal, resulting in a scarcity of resources (both clinical and educational) outside of the metropolitan area.

**Conclusion**

Since the spring of 2012, the NMACP has successfully shared its surveillance data with a range of stakeholders throughout New Mexico: through its website, publication of the 2014 Burden of Asthma report, and numerous presentations. However, the 2014 survey results suggest that there are still a significant number of members of key stakeholder groups who are either unaware of NMACP data, uncertain how to either access or use it, or find that the data currently provided by the program does not meet all of their needs.

As the NMACP continues its work to address the burden of asthma in New Mexico, the development of additional surveillance data resources and the expansion of program efforts involving outreach, training, and education in collaboration with program partners will enable it to support more effective asthma control efforts throughout the state.18

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17 These responses have been lightly edited.
18 Thanks are due to current and former NMACP staff (Adam Resnick, Geri Jaramillo, and Heidi Krapfl) for their assistance in implementing and reporting on the 2014 ASD Users Survey.