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The development of this project would not have been possible without data collected every week by staff from city-, county-, state- and federal public health departments. We would like to acknowledge their invaluable contribution to the overall body of surveillance data that were digitized during this project. Particularly, we acknowledge staff from the Council of State and Territorial Epidemiologists (CSTE) and the US Centers for Disease Control for their overall efforts in disease surveillance and their particular input in this project.

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Donald S. Burke
Contact information

The Tycho database is currently being tested and a login account will be required to use the database and website (www.tycho.pitt.edu). All State Epidemiologists, CDC partners, other federal agencies and our research collaborators will be provided with user accounts. User accounts can also be provided upon specific request. Note that the quality of the data during the testing phase cannot be guaranteed to be sufficient for publication or official use.

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Introduction

Project Tycho started in 2009 as part of the Vaccine Modeling Initiative (VMI) at the University of Pittsburgh Graduate School of Public Health, funded by the Bill & Melinda Gates foundation. This project aims to contribute to the availability of public health data for research and policy making. The vision for this project as described in the next section is a central access point for public health data of a detailed spatial and temporal scale for all countries. Currently, the Tycho database contains 10 million records that each represent a weekly report from a location for a specific disease. These records were extracted from weekly US Nationally Notifiable Disease Surveillance Reports between 1888 and 2009 (6300 reports) using double data entry (200 million keystrokes). The current database includes a total of 90 million reported cases and 4 million reported deaths due to notifiable diseases in the United States for the last 122 years.

Background

"No health department, State or local, can effectively prevent or control diseases without knowledge of when, where and under what conditions cases are occurring"

(Quote stated above weekly surveillance reports published in the Public Health Reports, 1888-1951)

This quote has accompanied weekly reports on the prevalence of notifiable diseases in the United States as long as these were published in the Public Health Reports, emphasizing the importance of data for disease control policy making. In the current day and age, this statement has lost none of its significance. On the contrary, as infectious diseases continue to pose challenges to the global public health system in an increasingly interconnected global society. The public health system has responded to this challenge by evermore sophisticated disease surveillance systems. The availability of internet and information technology has facilitated collection of detailed data on infectious disease incidence, the spread of pathogens, disease determinants, health behavior, etc. New technologies such as remote sensing and mobile reporting systems have advanced measurement of these factors in both high and low resource settings. The enormous wealth of public health information that is currently being accrued also poses its own challenges for data storage, management, preservation and dissemination. Public health agencies will need to allocate resources and develop capacity to specifically address these issues.

Although the importance of public health data collection has been widely recognized, the dissemination of data has been neglected for many reasons. The above quote does not only imply data collection but also its use and dissemination as knowledge on disease occurrence can only be derived from data after processing and analysis. Not only has disease surveillance become more sophisticated, analytical tools have changed as well and now include computational models to assess disease transmission and to evaluate disease control options. These methods have introduced the opportunity for data intensive studies of fine spatial-temporal patterns using dynamic models. Disease surveillance data at such scale are often not available for analysis for multiple reasons. First, surveillance data are not collected for research purposes but for disease monitoring and planning. Secondly, public health staff often lack time or capacity to prepare these data for analysis. Third, surveillance methodology often lacks transparency and standardization, reducing options for scientific analyses. Fourth, disease surveillance data are often
kept confidential and ownership or data use requirements are often unclear. Finally, archiving and preservation of surveillance data are often not a priority and disaggregated records may get lost, losing the opportunity to ever use these data for analysis.

The Tycho project aims at overcoming some of these challenges by providing open access to large public health datasets of great spatial-temporal detail. Open access to these data will provide great opportunities for scientific analysis and better informed policy making on disease control.

The Tycho database and website
As described in the methods section, a large heterogeneity in reporting practice was observed over the past 122 years of weekly disease surveillance and substantial efforts were made to clean and standardize these data. The current online database includes all cleaned and standardized data in a format that allows comparisons across time and space. It does not include parts of the data that require additional cleaning and research such as classification of disease subcategories.

Each record in the database provides a reported number of cases or deaths due to a specific disease for a specific location, for a certain week. The database can be searched online (www.tycho.pitt.edu) by selecting a dataset, an aggregation method and an output format. Data can be viewed in tables, graphics and maps and these can be downloaded for further use.

Data availability
The data provided by the Tycho database reflect the weekly US Nationally Notifiable Disease Surveillance System between 1888 and 2009. It includes all diseases that were reported as part of this system, but it does not yet include records from other surveillance systems such as the annual system or disease specific subsystem (such as the influenza surveillance system).

The available data also reflects changes in reporting practices over time. This explains why city or state level reports are only available for a certain time period (1888-1953 for cities and 1927-2009 for states) and why morbidity and mortality reports are available for different time periods. We are currently working on inclusion of additional data as described in the section on collaboration.

Testing and release of the Tycho database
The Tycho database is currently in a beta testing phase that will start during the 2011 annual meeting of the Council of State and Territorial Epidemiologists (CSTE) in Pittsburgh June 12-16. This phase will end with a release to the general public in the fall of 2011. During the testing phase, invited users will be provided with login accounts that will enable full use of all features of the website and database. Invited users will include all state epidemiologists, partners in the CDC and other federal agencies as well as research collaborators. During this phase, data cleaning and standardization will continue. The quality of the data will not be sufficient for publication or official use during this phase.

Future developments
After optimization of the database and website during the testing phase, the first version of the Tycho database will be released to the general public. After that, efforts to clean and standardize the data will continue and more data will be released in subsequent versions. In addition, ongoing and new collaborations for inclusion of new data will allow gradual expansion of the dataset over time and increased opportunities for data driven analysis and policy making.
Vision and goal

The vision for project Tycho is based on the value of open access to detailed, disaggregated public health data for scientific analysis and policy making. Starting with 122 years of weekly US surveillance data, it is our hope that this example will convince public health authorities worldwide of the value of this resource and will stimulate similar contributions from other countries.

In the past, data sharing and archiving have not been a priority in public health or among health sciences in general. Continuous and diligent public health data collection has led to a large pool of disaggregated data scattered over the world including the internet, ranging from paper archives to basements of local health departments. The need for open access to a central repository of public health data has been recognized and both benefits and challenges of open access to data in general have been well described. Open access to data could lead to increased accountability, transparency, innovation, collaboration, cost-effectiveness, replication of results, the development of new methods and insights, and a narrower data access gap between low- and higher income countries. Ultimately, this would result in the advancement of science and technology to the benefit of all.

Challenges to open access include inconsistent formats, lack of annotation or metadata, lack of information technology (IT) capacity, a lack of incentive, and cultural norms around data ownership. Open access to public health data in particular is confronted by decentralized archiving of disease reports, lack of time and capacity for data management, degraded physical format of records and archives, and governmental level legal constraints. Multiple principles and requirements for a central open access repository for public health data have been described and include (1) capacity building for data management in low- and middle income countries, (2) feedback loops to data contributors, (3) sustainability, (4) common standards, (5) interoperability, and (6) user-friendliness.

The ultimate goal of the Tycho project is to provide a central global public health data access point. Historical as well as current public health data are of great value if archived and accessible for research and analysis. Open access will enable the use of analytical capacity from around the globe which will lead to new discoveries of disease patterns and control policies. Furthermore, a central data access point will facilitate data archiving and preservation into the future which will be an increasing need in a data rich public health environment.
Collaboration

The application of the surveillance data from the Tycho database as well as the inclusion of new data will require a wide range of collaborations with public health offices in the US and abroad. The Tycho project has currently made the first step of digitizing 122 years of weekly US surveillance reports that had already been published. The next step will be the completion of the existing dataset as well as the inclusion of new data from unpublished sources.

This report provides an overview of data available from the Tycho database for the state of Oklahoma. This includes all data that has ever been published at state or city level for Oklahoma in the weekly US Nationally Notifiable Disease Surveillance System. As you will find, the data availability will vary greatly over time, between city and state level reports, between diseases and between morbidity vs. mortality reports.

The Tycho development team would look forward to work with state health departments in the US to:

1. Better understand the current Tycho data for each state (eg. by collecting historic documentation)
2. Provide better usability and applications of current Tycho data for each state by continued joint development of website and database features.
3. Collect and/or digitize official, confirmed data to validate the current (preliminary) weekly data.
4. For each state, collect and/or digitize new data that has not yet been included. For example all city level reports discontinued in 1953 and completion of city level data until 2009 would greatly increase opportunities for analysis of disease patterns and trends.
5. Provide support to state health offices to manage, preserve and provide access to public health data.
Summary of methods

Detailed documentation on the methods used for the Tycho database has been provided on the website (www.tycho.pitt.edu). This section describes these methods in short.

Data collection
Weekly reports that contain tables on the occurrence of nationally notifiable diseases have been published since 1888 by public health authorities at the Federal level in various journals. Table 1 provides the list of publications and the responsible agency since 1888. All weekly nationally notifiable disease reports between 1888 and 1951 could be retrieved from the PubMed Central repository of the National Library of Medicine. For 1995 to 2009, these reports could be retrieved from the MMWR digital archive on the CDC website. Most weekly reports between 1952 and 1995 could be retrieved from the HathiTrust Digital Library, but many could not be found and had to be copied from hard copies of MMWR issues in the University of Pittsburgh library.

<table>
<thead>
<tr>
<th>Time period</th>
<th>Publication title</th>
<th>Responsible federal agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1888-1889</td>
<td>Weekly Abstract of Sanitary Reports</td>
<td>US Marine Hospital Service</td>
</tr>
<tr>
<td>1890-1895</td>
<td>Abstract of Sanitary Reports</td>
<td>US Marine Hospital Service</td>
</tr>
<tr>
<td>1896-1901</td>
<td>Public Health Reports</td>
<td>US Marine Hospital Service</td>
</tr>
<tr>
<td>1902-1911</td>
<td>Public Health Reports</td>
<td>US Public Health and Marine Hospital Service</td>
</tr>
<tr>
<td>1912-1951</td>
<td>Public Health Reports</td>
<td>US Public Health Service</td>
</tr>
<tr>
<td>1961-1969</td>
<td>Morbidity and Mortality Weekly Report</td>
<td>Communicable Disease Center</td>
</tr>
</tbody>
</table>

Inclusion criteria
Weekly reports of each year were reviewed systematically to assess the diseases reported. We included all tables that provided disease specific information by week for US cities, townships, counties or states. Tables that provided summary or aggregated information by month, year or at the national level were not included. Similarly, tables that did not contain disease specific information (such as all cause mortality) were not included.

Data entry
Weekly reports were downloaded or scanned as PDF files and selected tables with notifiable disease reports were entered into computer spreadsheets in a highly standardized fashion using double data entry. During the second round of data entry, operators could not see what had been entered in the first round and could not continue if the system detected a discrepancy between the second and first entry.

2 [http://www.cdc.gov/mmwr](http://www.cdc.gov/mmwr)
3 [http://catalog.hathitrust.org/Record/003910026](http://catalog.hathitrust.org/Record/003910026)
4 [http://catalog.hathitrust.org/Record/003843660](http://catalog.hathitrust.org/Record/003843660)
for a specific value. Such discrepancies could only be resolved by checking the PDF file and try again or
discussion with the group leader and verification of a value in the source documents.

**Quality control for data entry**
The accuracy of data entry was checked at various levels. First, completeness of data was verified by
comparing the content of entered data with PDF sources files. Secondly, accuracy of data entry was
verified by multiple rounds of comparing random samples of entered files with PDF source files. Thirdly,
data formatting was verified by various checks to ensure appropriate formatting for data loading.

**Data loading and standardization**
All data was entered in Excel spreadsheets and various components of these spreadsheets were loaded
in data files. Table titles, column headers, place names and reported numbers were loaded in separate
files. These files were used to extract information on each reported number, including:

1. the disease reported
2. the disease subcategory reported
3. cases or deaths reported
4. the reporting location (name, state and type of location)
5. the time period for which a number was reported
6. the date of publication of the original weekly report associated with a reported number

**Integration**
All reported numbers and extracted information was integrated in one database with one record per
reported number and associated information.

**Post-processing quality control**
After integration of all data in one database, checks were performed to detect duplicate reports and
data inconsistencies. Duplicate records were removed and inconsistencies resolved by verification with
original PDF source files.

**Data filtering**
The digitized version of all historical weekly US nationally notifiable disease surveillance records is a very
heterogeneous dataset. It took a substantial number of data processing protocols to standardize time
and space variables as well as disease names. All standardized records have been separated from non-
standard records by a filter. All remaining heterogeneity in non-standard records is inherent to the
surveillance system and can only be standardized after further analysis will have been completed (eg.
remaining heterogeneity in reporting periods for reports before 1953 and standardization of disease
subcategories). The largest proportion of data (>4 million records) has been standardized however and
has been made available in the current testing version.

**Data visualization**
Figures in this report were made with the R system, version 2.9.2 and the maps were generated by the
GAIA platform developed at the University of Pittsburgh Graduate School of Public Health in
collaboration with the Pittsburgh Supercomputing Center (PSC). See http://midas-pitt.psc.edu/gaia for
more information.
Tycho data report for the state of Oklahoma

The current Tycho database will provide the reported number of cases or deaths reported by city or state health authorities to the federal health agency for all weeks between 1888 and 2009. Currently, only standardized, consistent data are being released for testing, according to the following criteria:

1. Only weekly reports are provided (reports for other periods such as 10 days, 2 weeks, 1 month, 1 year) are currently not included due to lack of comparability with the weekly reports.
2. Only reports that were published in the same year as the reporting period were included (this excludes updates or comparisons that were published more than a year after the original reporting period)
3. Only numbers were included for which information about the location, time period and disease could be extracted.
4. Only numbers or time periods for which no disease subcategories were reported were included.

Each of the steps described above have been described in detailed protocols that are posted in the documentation part of the Tycho website (www.tycho.pitt.edu).

Website
The Tycho website features simple and advanced searches of the data, visualizations and downloading of machine readable files. A dataset can be selected by specifying: 1) the disease of interest, 2) the location(s) of interest and 3) the time period. In a second step, the type of aggregation and length of increments can be specified and in a third step, the type of output (table, graphic or map) can be selected. After output has been generated, data can be downloaded.

As mentioned above, data availability varies largely by disease, time period and location. We aimed to restrict selection options by data availability to avoid "no results available.

Access to the most of the website will be password protected during the testing phase. For invited users after login, full functionality of the database and website will be available. During this phase however, the data quality will not be sufficient for publication or official use.
Overview of data available for the state of Oklahoma

In this section, an overview of data available for the state of Oklahoma will be provided. As described earlier, data availability depends entirely on historical reporting practices in the weekly US Nationally Notifiable Disease Surveillance System between 1888 and 2009. For this report, we only included morbidity reports (cases) to improve the format and limit the size of this report. As mentioned earlier, the analysis and standardization of has not been completed yet for all records in the database and preliminary data are provided here that may not yet be available in the online database.

This section will provide a general overview of data availability. The next sections will provide disease specific data from state and city level reports of Oklahoma. Data for a maximum of 3 major cities were provided depending on availability (city data was only reported until 1953). Some summary data will be provided at the end of this report, for a subset of diseases for which data was fragmented over time.

Table 1 lists the number of weekly state or city reports that are available for Oklahoma per each disease and subcategory.

<table>
<thead>
<tr>
<th>Disease</th>
<th>City</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aids</td>
<td>-</td>
<td>939</td>
</tr>
<tr>
<td>Anthrax</td>
<td>-</td>
<td>143</td>
</tr>
<tr>
<td>Brucellosis [undulant fever]</td>
<td>3</td>
<td>489</td>
</tr>
<tr>
<td>Chickenpox [varicella]</td>
<td>437</td>
<td>267</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>-</td>
<td>675</td>
</tr>
<tr>
<td>Cryptosporidiosis</td>
<td>-</td>
<td>492</td>
</tr>
<tr>
<td>Dengue</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>1357</td>
<td>1720</td>
</tr>
<tr>
<td>Dysentery</td>
<td>Amebic</td>
<td>-</td>
</tr>
<tr>
<td>Bacillary</td>
<td>-</td>
<td>225</td>
</tr>
<tr>
<td>Unspecified</td>
<td>-</td>
<td>214</td>
</tr>
<tr>
<td>Encephalitis</td>
<td>Lethargic</td>
<td>147</td>
</tr>
<tr>
<td>Post infectious</td>
<td>-</td>
<td>260</td>
</tr>
<tr>
<td>Primary [infectious] including unspecified</td>
<td>72</td>
<td>1115</td>
</tr>
<tr>
<td>Escherichia coli</td>
<td>EHEC O157</td>
<td>-</td>
</tr>
<tr>
<td>EHEC non-O157</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>EHEC non serogrouped</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>O157:H7 NETSS</td>
<td>-</td>
<td>248</td>
</tr>
<tr>
<td>O157:H7 PHLIS</td>
<td>-</td>
<td>207</td>
</tr>
<tr>
<td>STEC</td>
<td>-</td>
<td>184</td>
</tr>
<tr>
<td>Giardiasis</td>
<td>-</td>
<td>356</td>
</tr>
</tbody>
</table>
Table 1, Number of weekly state or city reports per disease and subcategory, continued

<table>
<thead>
<tr>
<th>Disease</th>
<th>City</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gonorrhea</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civilian</td>
<td>-</td>
<td>754</td>
</tr>
<tr>
<td>Unspecified</td>
<td>-</td>
<td>1050</td>
</tr>
<tr>
<td><strong>Haemophilus influenzae</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age &lt;5 non-serotype B</td>
<td>-</td>
<td>176</td>
</tr>
<tr>
<td>Age &lt;5 unknown serotype</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>All ages all serotypes</td>
<td>-</td>
<td>662</td>
</tr>
<tr>
<td><strong>Hepatitis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute type A</td>
<td>-</td>
<td>346</td>
</tr>
<tr>
<td>Acute type B</td>
<td>-</td>
<td>342</td>
</tr>
<tr>
<td>Acute type C</td>
<td>-</td>
<td>77</td>
</tr>
<tr>
<td>Acute type NA NB [including C]</td>
<td>-</td>
<td>21</td>
</tr>
<tr>
<td>All types, &lt;20 years</td>
<td>-</td>
<td>108</td>
</tr>
<tr>
<td>All types, &gt;=20 years</td>
<td>-</td>
<td>55</td>
</tr>
<tr>
<td>All types, all ages</td>
<td>11</td>
<td>657</td>
</tr>
<tr>
<td>Type A [infectious]</td>
<td>-</td>
<td>1675</td>
</tr>
<tr>
<td>Type B [serum]</td>
<td>-</td>
<td>1298</td>
</tr>
<tr>
<td>Type NA NB [including C]</td>
<td>-</td>
<td>756</td>
</tr>
<tr>
<td>Type unspecified</td>
<td>-</td>
<td>856</td>
</tr>
<tr>
<td><strong>Influenza</strong></td>
<td>581</td>
<td>1223</td>
</tr>
<tr>
<td><strong>Legionellosis</strong></td>
<td></td>
<td>933</td>
</tr>
<tr>
<td><strong>Leprosy</strong></td>
<td></td>
<td>155</td>
</tr>
<tr>
<td><strong>Listeriosis</strong></td>
<td></td>
<td>143</td>
</tr>
<tr>
<td><strong>Lyme disease</strong></td>
<td></td>
<td>344</td>
</tr>
<tr>
<td><strong>Malaria</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civilian</td>
<td>-</td>
<td>22</td>
</tr>
<tr>
<td>Unspecified</td>
<td>-</td>
<td>1565</td>
</tr>
<tr>
<td><strong>Measles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imported</td>
<td>-</td>
<td>142</td>
</tr>
<tr>
<td>Indigenous</td>
<td>-</td>
<td>270</td>
</tr>
<tr>
<td>Unspecified</td>
<td>1287</td>
<td>2600</td>
</tr>
<tr>
<td><strong>Meningitis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aseptic</td>
<td>-</td>
<td>1022</td>
</tr>
<tr>
<td>Meningococcus</td>
<td>312</td>
<td>1218</td>
</tr>
<tr>
<td>Unspecified</td>
<td>68</td>
<td>5</td>
</tr>
</tbody>
</table>
Table 1, Number of weekly state or city reports per disease and subcategory, continued

<table>
<thead>
<tr>
<th>Disease</th>
<th>City</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meningococcal disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All serogroups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invasive all serogroups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invasive serogroup unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other serogroup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serogroup A C Y and W-135</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serogroup B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serogroup unspecified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mumps</td>
<td>437</td>
<td>918</td>
</tr>
<tr>
<td>Pellagra</td>
<td>148</td>
<td>-</td>
</tr>
<tr>
<td>Pneumonia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lobar</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Unspecified</td>
<td>37</td>
<td>168</td>
</tr>
<tr>
<td>Poliomyelitis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non paralytic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paralytic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>417</td>
<td>1714</td>
</tr>
<tr>
<td>Psittacosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rabies in animals</td>
<td>11</td>
<td>2560</td>
</tr>
<tr>
<td>Rocky mountain spotted fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rubella</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarlet fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Including streptococcal sore throat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unspecified</td>
<td>1365</td>
<td>1273</td>
</tr>
<tr>
<td>Shigelllosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NETSS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHLIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unspecified</td>
<td>389</td>
<td></td>
</tr>
<tr>
<td>Streptococcal disease, invasive group a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streptococcal sore throat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streptococcus pneumoniae invasive disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug resistant &lt;5 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug resistant all ages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non drug resistant &lt;5 years</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1, Number of weekly state or city reports per disease and subcategory, continued

<table>
<thead>
<tr>
<th>Disease</th>
<th>City</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syphilis</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Civilian primary and secondary</em></td>
<td></td>
<td>726</td>
</tr>
<tr>
<td><em>Congenital</em></td>
<td></td>
<td>137</td>
</tr>
<tr>
<td><em>Primary and secondary</em></td>
<td></td>
<td>1081</td>
</tr>
<tr>
<td>Tetanus</td>
<td></td>
<td>296</td>
</tr>
<tr>
<td>Toxic shock syndrome</td>
<td></td>
<td>325</td>
</tr>
<tr>
<td>Trichiniasis</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Tuberculosis [phthisis pulmonalis]</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>New active</em></td>
<td></td>
<td>149</td>
</tr>
<tr>
<td><em>Unspecified</em></td>
<td>245</td>
<td>1440</td>
</tr>
<tr>
<td>Tularemia</td>
<td>1</td>
<td>1617</td>
</tr>
<tr>
<td>Typhoid fever [enteric fever]</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Including paratyphoid fever</em></td>
<td>72</td>
<td>655</td>
</tr>
<tr>
<td><em>Unspecified</em></td>
<td>1170</td>
<td>1912</td>
</tr>
<tr>
<td>Typhus fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Endemic</em></td>
<td></td>
<td>26</td>
</tr>
<tr>
<td><em>Unspecified</em></td>
<td>8</td>
<td>177</td>
</tr>
<tr>
<td>West nile disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Neuroinvasive</em></td>
<td></td>
<td>130</td>
</tr>
<tr>
<td><em>Non-neuroinvasive</em></td>
<td></td>
<td>87</td>
</tr>
<tr>
<td>Whooping cough [pertussis]</td>
<td>960</td>
<td>2129</td>
</tr>
</tbody>
</table>

The diseases included in the weekly US Nationally Notifiable Disease Surveillance System varied largely over time and reflected the historical social-political priorities of each time period. Note that the diseases in the weekly system were a subset of all diseases included in the annual Notifiable Disease Surveillance System (that was not entered as part of this project).

The number of locations reporting diseases also varied over time depending on the type of reports submitted. Figure 1 on the next page provides an overview of the weeks for which a report was available per disease at the state or city level. Colors indicate the total number of reporting locations.
For the majority of the time period between 1888 and 2009, only state level reports were available. It would be of great interest to complete the collection of city data after 1953 and we will seek collaboration with state health offices for this.

The map in figure 2 (next page) illustrates the geographical distribution of the available city data. It displays the number of weekly reports for any disease available per location that was included (and for which coordinates could be derived).

Figure 3 below provides an overview of the number of diseases for which a weekly report was included at the state state level and for individual cities. All cities for which at least 100 weekly reports were available have been listed. For most states, it shows a major drop in the number of cities after 1925 and after 1953, city reports were discontinued except for New York City, which became its own reporting jurisdiction.
Figure 2, This map displays the number of weekly reports available for any disease per city (note that city reports were only available until 1953).

Figure 3, The number of diseases (in color code) that were reported for the state and city level (state on top row) for each week between 1888 and 2009.
Disease specific data for Oklahoma

AIDS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1984-2005</td>
</tr>
<tr>
<td>Total weeks</td>
<td>939</td>
</tr>
<tr>
<td>Total cases</td>
<td>5,222</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,301</td>
</tr>
<tr>
<td>Year (max)</td>
<td>2004</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>1,158</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2004, wk 22</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>237</td>
</tr>
<tr>
<td>95%CI</td>
<td>(118-356)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>6</td>
</tr>
<tr>
<td>95%CI</td>
<td>(3-9)</td>
</tr>
</tbody>
</table>

*Figure D1*, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of “Unspecified” was assigned.

*Table D1*, Summary information for AIDS

*Figure D2*, Number of cases reported for AIDS per epidemiological week
Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Chickenpox

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
<th>Oklahoma City</th>
<th>Tulsa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total weeks</td>
<td>267</td>
<td>335</td>
<td>257</td>
</tr>
<tr>
<td>Total cases</td>
<td>6,758</td>
<td>389</td>
<td>1,795</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,797</td>
<td>83</td>
<td>453</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1976</td>
<td>1927</td>
<td>1929</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>135</td>
<td>22</td>
<td>42</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1973, wk 09</td>
<td>1930, wk 13</td>
<td>1930, wk 04</td>
</tr>
<tr>
<td>Average cases per year before 1995</td>
<td>965</td>
<td>43</td>
<td>199</td>
</tr>
<tr>
<td>95%CI</td>
<td>(364-1,566)</td>
<td>(24-62)</td>
<td>(65-333)</td>
</tr>
<tr>
<td>Average cases per week before 1995</td>
<td>25</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>95%CI</td>
<td>(22-28)</td>
<td>(1-1)</td>
<td>(6-8)</td>
</tr>
</tbody>
</table>
**Figure D2**, Number of cases reported for Chickenpox per epidemiological week
Chlamydia

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Chlamydia

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1996-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>674</td>
</tr>
<tr>
<td>Total cases</td>
<td>126,770</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>12,162</td>
</tr>
<tr>
<td>Year (max)</td>
<td>2007</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>2,737</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2009, wk 25</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>9,055</td>
</tr>
<tr>
<td>95%CI</td>
<td>(8,012-10,098)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>188</td>
</tr>
<tr>
<td>95%CI</td>
<td>(172-204)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Chlamydia per epidemiological week
Cryptosporidiosis

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Cryptosporidiosis

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1999-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>492</td>
</tr>
<tr>
<td>Total cases</td>
<td>563</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>131</td>
</tr>
<tr>
<td>Year (max)</td>
<td>2008</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>16</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2008, wk 38</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>51</td>
</tr>
<tr>
<td>95%CI</td>
<td>(18-84)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>1</td>
</tr>
<tr>
<td>95%CI</td>
<td>(1-1)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Cryptosporidiosis per epidemiological week
Diphtheria

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Diphtheria

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
<th>Oklahoma City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1927-1974</td>
<td>1907-1952</td>
</tr>
<tr>
<td>Total weeks</td>
<td>1,720</td>
<td>1,161</td>
</tr>
<tr>
<td>Total cases</td>
<td>17,046</td>
<td>2,205</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,962</td>
<td>268</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1931</td>
<td>1920</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>147</td>
<td>26</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1931, wk 43</td>
<td>1920, wk 45</td>
</tr>
<tr>
<td>Average cases per year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>before 1940</td>
<td>998</td>
<td>66</td>
</tr>
<tr>
<td>95%CI</td>
<td>(650-1,346)</td>
<td>(44-88)</td>
</tr>
<tr>
<td>after 1940</td>
<td>99</td>
<td>6</td>
</tr>
<tr>
<td>95%CI</td>
<td>(56-142)</td>
<td>(-9-21)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>before 1940</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>95%CI</td>
<td>(19-23)</td>
<td>(2-2)</td>
</tr>
<tr>
<td>after 1940</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>95%CI</td>
<td>(3-3)</td>
<td>(0-0)</td>
</tr>
</tbody>
</table>
Figure D2, Number of cases reported for Diphtheria per epidemiological week
Escherichia Coli

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Escherichia Coli (0157:H7 PHLIS, EHEC 0157, and STEC)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1996-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>546</td>
</tr>
<tr>
<td>Total cases</td>
<td>307</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>51</td>
</tr>
<tr>
<td>Year (max)</td>
<td>2008</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>19</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2008, wk 43</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>22</td>
</tr>
<tr>
<td>95%CI</td>
<td>(14-30)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>1</td>
</tr>
<tr>
<td>95%CI</td>
<td>(1-1)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Escherichia Coli per epidemiological week
Giardiasis

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Giardiasis

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>2002-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>356</td>
</tr>
<tr>
<td>Total cases</td>
<td>8,406</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>7,425</td>
</tr>
<tr>
<td>Year (max)</td>
<td>2006</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>7,322</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2006, wk 35</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>1,051</td>
</tr>
<tr>
<td>95%CI</td>
<td>(-1,102-3,204)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>24</td>
</tr>
<tr>
<td>95%CI</td>
<td>(-16-64)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Giardiasis per epidemiological week
Gonorrhea

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Gonorrhea (Unspecified and Civilian)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1972-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>1,804</td>
</tr>
<tr>
<td>Total cases</td>
<td>280,956</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>13,494</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1982</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>4,045</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2001, wk 44</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>7,394</td>
</tr>
<tr>
<td>95%CI (6,205-8,583)</td>
<td></td>
</tr>
<tr>
<td>Average cases per week</td>
<td>156</td>
</tr>
<tr>
<td>95%CI (149-163)</td>
<td></td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Gonorrhea per epidemiological week
**Haemophilus Influenzae**

*Figure D1,* Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

*Table D1,* Summary information for Haemophilus Influenzae (All ages all serotypes)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1996-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>662</td>
</tr>
<tr>
<td>Total cases</td>
<td>722</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>90</td>
</tr>
<tr>
<td>Year (max)</td>
<td>2005</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>35</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2005, wk 26</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>52</td>
</tr>
<tr>
<td>95%CI</td>
<td>(40-64)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>1</td>
</tr>
<tr>
<td>95%CI</td>
<td>(1-1)</td>
</tr>
</tbody>
</table>

*Figure D2,* Number of cases reported for Haemophilus Influenzae per epidemiological week
Hepatitis

Table D1, Summary information for Hepatitis (Type A [Infectious], Acute type A, Type B [Serum], and Acute type B)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1966-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>2,057</td>
</tr>
<tr>
<td>Total cases</td>
<td>16,291</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,718</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1970</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>1,318</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1970, wk 44</td>
</tr>
<tr>
<td>Average cases per year before 1990</td>
<td>432</td>
</tr>
<tr>
<td>95%CI</td>
<td>(302-562)</td>
</tr>
<tr>
<td>Average cases per week before 1990</td>
<td>9</td>
</tr>
<tr>
<td>95%CI</td>
<td>(7-11)</td>
</tr>
<tr>
<td>Average cases per year after 1990</td>
<td>289</td>
</tr>
<tr>
<td>95%CI</td>
<td>(116-462)</td>
</tr>
<tr>
<td>Average cases per week after 1990</td>
<td>6</td>
</tr>
<tr>
<td>95%CI</td>
<td>(5-7)</td>
</tr>
</tbody>
</table>

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of “Unspecified” was assigned.
Figure D2, Number of cases reported for Hepatitis per epidemiological week
Influenza

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Influenza

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1927-1951</td>
</tr>
<tr>
<td>Total weeks</td>
<td>1,223</td>
</tr>
<tr>
<td>Total cases</td>
<td>217,820</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>31,039</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1929</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>9,258</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1929, wk 01</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>8,713</td>
</tr>
<tr>
<td>95%CI</td>
<td>(5,646-11,780)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>178</td>
</tr>
<tr>
<td>95%CI</td>
<td>(143-213)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Influenza per epidemiological week
Legionellosis

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Legionellosis

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1982-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>933</td>
</tr>
<tr>
<td>Total cases</td>
<td>282</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>30</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1987</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>6</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2006, wk 47</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>10</td>
</tr>
<tr>
<td>95%CI</td>
<td>(7-13)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>0</td>
</tr>
<tr>
<td>95%CI</td>
<td>(0-0)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Legionellosis per epidemiological week
Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Leprosy

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1942-1945</td>
</tr>
<tr>
<td>Total weeks</td>
<td>155</td>
</tr>
<tr>
<td>Total cases</td>
<td>0</td>
</tr>
</tbody>
</table>
Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Listeriosis

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>2000-2005</td>
</tr>
<tr>
<td>Total weeks</td>
<td>143</td>
</tr>
<tr>
<td>Total cases</td>
<td>16</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>8</td>
</tr>
<tr>
<td>Year (max)</td>
<td>2002</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>2</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2002, wk 45</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>3</td>
</tr>
<tr>
<td>95%CI</td>
<td>(0-6)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>0</td>
</tr>
<tr>
<td>95%CI</td>
<td>(0-0)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Listeriosis per epidemiological week
Lyme Disease

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Lyme Disease

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total weeks</td>
<td>344</td>
</tr>
<tr>
<td>Total cases</td>
<td>266</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>74</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1994</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>8</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1997, wk 42</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>27</td>
</tr>
<tr>
<td>95%CI</td>
<td>(12-42)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>1</td>
</tr>
<tr>
<td>95%CI</td>
<td>(1-1)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Lyme Disease per epidemiological week
Malaria

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Malaria (Unspecified)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1952-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>1,565</td>
</tr>
<tr>
<td>Total cases</td>
<td>816</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>214</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1952</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>35</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1952, wk 33</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>17</td>
</tr>
<tr>
<td>95%CI</td>
<td>(7-27)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>1</td>
</tr>
<tr>
<td>95%CI</td>
<td>(1-1)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Malaria per epidemiological week
Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Measles (Unspecified)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1927-1997</td>
</tr>
<tr>
<td>Total weeks</td>
<td>2,600</td>
</tr>
<tr>
<td>Total cases</td>
<td>113,497</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>9,996</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1956</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>1,025</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1934, wk 11</td>
</tr>
<tr>
<td>Average cases per year</td>
<td></td>
</tr>
<tr>
<td>before 1970</td>
<td>2,530</td>
</tr>
<tr>
<td>95%CI</td>
<td>(1,731-3,329)</td>
</tr>
<tr>
<td>after 1970</td>
<td>168</td>
</tr>
<tr>
<td>95%CI</td>
<td>(18-318)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td></td>
</tr>
<tr>
<td>before 1970</td>
<td>54</td>
</tr>
<tr>
<td>95%CI</td>
<td>(49-59)</td>
</tr>
<tr>
<td>after 1970</td>
<td>4</td>
</tr>
<tr>
<td>95%CI</td>
<td>(3-5)</td>
</tr>
</tbody>
</table>
Figure D2, Number of cases reported for Measles per epidemiological week
Meningitis

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Meningitis (Meningococcus)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1927-1964</td>
</tr>
<tr>
<td>Total weeks</td>
<td>1,218</td>
</tr>
<tr>
<td>Total cases</td>
<td>1,879</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>197</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1936</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>35</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1935, wk 50</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>72</td>
</tr>
<tr>
<td>95%CI (51-93)</td>
<td></td>
</tr>
<tr>
<td>Average cases per week</td>
<td>2</td>
</tr>
<tr>
<td>95%CI (2-2)</td>
<td></td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Meningitis per epidemiological week
Meningococcal Disease

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Meningococcal Disease (Serogroup unspecified and Invasive all serogroups)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1951-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>2,382</td>
</tr>
<tr>
<td>Total cases</td>
<td>1,619</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>68</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1954</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>20</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1970, wk 45</td>
</tr>
<tr>
<td>Average cases per year</td>
<td></td>
</tr>
<tr>
<td>before 1980</td>
<td>29</td>
</tr>
<tr>
<td>95%CI</td>
<td>(22-36)</td>
</tr>
<tr>
<td>after 1980</td>
<td>27</td>
</tr>
<tr>
<td>95%CI</td>
<td>(23-31)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td></td>
</tr>
<tr>
<td>before 1980</td>
<td>1</td>
</tr>
<tr>
<td>95%CI</td>
<td>(1-1)</td>
</tr>
<tr>
<td>after 1980</td>
<td>1</td>
</tr>
<tr>
<td>95%CI</td>
<td>(1-1)</td>
</tr>
</tbody>
</table>
Figure D2, Number of cases reported for Meningococcal Disease per epidemiological week
Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Mumps

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
<th>Oklahoma City</th>
<th>Tulsa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total weeks</td>
<td>918</td>
<td>335</td>
<td>250</td>
</tr>
<tr>
<td>Total cases</td>
<td>7,185</td>
<td>156</td>
<td>748</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>2,403</td>
<td>61</td>
<td>375</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1970</td>
<td>1928</td>
<td>1928</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>231</td>
<td>17</td>
<td>40</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1970, wk 18</td>
<td>1924, wk 16</td>
<td>1927, wk 17</td>
</tr>
<tr>
<td>Average cases per year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>before 1980</td>
<td>595</td>
<td>17</td>
<td>83</td>
</tr>
<tr>
<td>95%CI</td>
<td>(143-1,047)</td>
<td>(1-33)</td>
<td>(-15-181)</td>
</tr>
<tr>
<td>after 1980</td>
<td>58</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>95%CI</td>
<td>(-2-118)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Average cases per week</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>before 1980</td>
<td>12</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>95%CI</td>
<td>(10-14)</td>
<td>(0-0)</td>
<td>(2-4)</td>
</tr>
<tr>
<td>after 1980</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>95%CI</td>
<td>(1-3)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Figure D2, Number of cases reported for Mumps per epidemiological week
Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Pneumonia (Unspecified)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1948-1951</td>
</tr>
<tr>
<td>Total weeks</td>
<td>168</td>
</tr>
<tr>
<td>Total cases</td>
<td>4,512</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,635</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1950</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>119</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1950, wk 11</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>1,128</td>
</tr>
<tr>
<td>95%CI</td>
<td>(141-2,115)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>27</td>
</tr>
<tr>
<td>95%CI</td>
<td>(24-30)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Pneumonia per epidemiological week
Poliomyelitis

**Figure D1**, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

**Table D1**, Summary information for Poliomyelitis (Total)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1927-1970</td>
</tr>
<tr>
<td>Total weeks</td>
<td>1,714</td>
</tr>
<tr>
<td>Total cases</td>
<td>8,304</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,323</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1949</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>96</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1949, wk 30</td>
</tr>
<tr>
<td>Average cases per year</td>
<td></td>
</tr>
<tr>
<td>before 1960</td>
<td>243</td>
</tr>
<tr>
<td>95%CI</td>
<td>(134-352)</td>
</tr>
<tr>
<td>after 1960</td>
<td>7</td>
</tr>
<tr>
<td>95%CI</td>
<td>(-2-16)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td></td>
</tr>
<tr>
<td>before 1960</td>
<td>5</td>
</tr>
<tr>
<td>95%CI</td>
<td>(4-6)</td>
</tr>
<tr>
<td>after 1960</td>
<td>0</td>
</tr>
<tr>
<td>95%CI</td>
<td>(0-0)</td>
</tr>
</tbody>
</table>
Figure D2, Number of cases reported for Poliomyelitis per epidemiological week

Oklahoma 1927-1970

Cases

Epidemiological week


0 20 60
Rabies in Animals

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Rabies in Animals

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1948-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>2,560</td>
</tr>
<tr>
<td>Total cases</td>
<td>6,756</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>361</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1967</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>141</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1991, wk 29</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>109</td>
</tr>
<tr>
<td>95%CI</td>
<td>(88-130)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>3</td>
</tr>
<tr>
<td>95%CI</td>
<td>(3-3)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Rabies in Animals per epidemiological week
Rubella

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of “Unspecified” was assigned.

Table D1, Summary information for Rubella

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1968-1994</td>
</tr>
<tr>
<td>Total weeks</td>
<td>877</td>
</tr>
<tr>
<td>Total cases</td>
<td>3,221</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,771</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1969</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>430</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1969, wk 17</td>
</tr>
<tr>
<td>Average cases per year</td>
<td></td>
</tr>
<tr>
<td>before 1970</td>
<td>859</td>
</tr>
<tr>
<td>95% CI</td>
<td>(-1,288-3,006)</td>
</tr>
<tr>
<td>after 1970</td>
<td>32</td>
</tr>
<tr>
<td>95% CI</td>
<td>(10-54)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td></td>
</tr>
<tr>
<td>before 1970</td>
<td>25</td>
</tr>
<tr>
<td>95% CI</td>
<td>(14-36)</td>
</tr>
<tr>
<td>after 1970</td>
<td>1</td>
</tr>
<tr>
<td>95% CI</td>
<td>(1-1)</td>
</tr>
</tbody>
</table>
Figure D2, Number of cases reported for Rubella per epidemiological week.
Salmonellosis

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Salmonellosis (PHLIS and Unspecified)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1999-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>509</td>
</tr>
<tr>
<td>Total cases</td>
<td>5,459</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>778</td>
</tr>
<tr>
<td>Year (max)</td>
<td>2008</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>386</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2005, wk 50</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>496</td>
</tr>
<tr>
<td>95%CI</td>
<td>(372-620)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>11</td>
</tr>
<tr>
<td>95%CI</td>
<td>(9-13)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Salmonellosis per epidemiological week
Scarlet Fever

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Scarlet Fever (Including streptococcal sore throat and Unspecified)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
<th>Oklahoma City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1927-1969</td>
<td>1907-1953</td>
</tr>
<tr>
<td>Total weeks</td>
<td>1,821</td>
<td>1,233</td>
</tr>
<tr>
<td>Total cases</td>
<td>42,127</td>
<td>3,563</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>2,798</td>
<td>305</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1967</td>
<td>1930</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>211</td>
<td>26</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1969, wk 06</td>
<td>1930, wk 16</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>1,139</td>
<td>94</td>
</tr>
<tr>
<td>95%CI</td>
<td>(945-1,333)</td>
<td>(72-116)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>23</td>
<td>3</td>
</tr>
<tr>
<td>95%CI</td>
<td>(22-24)</td>
<td>(3-3)</td>
</tr>
</tbody>
</table>
Figure D2. Number of cases reported for Scarlet Fever per epidemiological week.
Shigellosis

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Shigellosis (Unspecified and PHLIS)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1999-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>503</td>
</tr>
<tr>
<td>Total cases</td>
<td>4,030</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,240</td>
</tr>
<tr>
<td>Year (max)</td>
<td>2005</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>612</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2005, wk 50</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>366</td>
</tr>
<tr>
<td>95%CI</td>
<td>(113-619)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>8</td>
</tr>
<tr>
<td>95%CI</td>
<td>(6-10)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Shigellosis per epidemiological week

Tycho data report for the state of Oklahoma
Streptococcal Disease, Invasive Group A

**Figure D1**, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

**Table D1**, Summary information for Streptococcal Disease, Invasive Group A

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>2002-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>388</td>
</tr>
<tr>
<td>Total cases</td>
<td>719</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>134</td>
</tr>
<tr>
<td>Year (max)</td>
<td>2009</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>18</td>
</tr>
<tr>
<td>Week (max)</td>
<td>2006, wk 07</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>90</td>
</tr>
<tr>
<td>95%CI</td>
<td>(63-117)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>2</td>
</tr>
<tr>
<td>95%CI</td>
<td>(2-2)</td>
</tr>
</tbody>
</table>

**Figure D2**, Number of cases reported for Group A Streptococcal Disease per epidemiological week
Streptococcal Sore Throat

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Streptococcal Sore Throat

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1960-1961</td>
</tr>
<tr>
<td>Total weeks</td>
<td>94</td>
</tr>
<tr>
<td>Total cases</td>
<td>1,327</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>828</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1961</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>73</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1961, wk 29</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>664</td>
</tr>
<tr>
<td>95%CI</td>
<td>(-1,426-2,754)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>14</td>
</tr>
<tr>
<td>95%CI</td>
<td>(11-17)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Streptococcal Sore Throat per epidemiological week
Syphilis

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Syphilis (Primary and secondary and Civilian primary and secondary)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1972-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>1,809</td>
</tr>
<tr>
<td>Total cases</td>
<td>4,974</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>399</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1992</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>97</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1995, wk 41</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>131</td>
</tr>
<tr>
<td>95%CI</td>
<td>(104-158)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>3</td>
</tr>
<tr>
<td>95%CI</td>
<td>(3-3)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Syphilis per epidemiological week
Toxic Shock Syndrome

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Toxic Shock Syndrome

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1983-1994</td>
</tr>
<tr>
<td>Total weeks</td>
<td>325</td>
</tr>
<tr>
<td>Total cases</td>
<td>138</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>34</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1986</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>5</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1986, wk 49</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>12</td>
</tr>
<tr>
<td>95%CI (6-18)</td>
<td></td>
</tr>
<tr>
<td>Average cases per week</td>
<td>0</td>
</tr>
<tr>
<td>95%CI (0-0)</td>
<td></td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Toxic Shock Syndrome per epidemiological week
**Tuberculosis**

*Figure D1,* Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

*Table D1,* Summary information for Tuberculosis (Unspecified)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1975-2005</td>
</tr>
<tr>
<td>Total weeks</td>
<td>1,440</td>
</tr>
<tr>
<td>Total cases</td>
<td>7,918</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,155</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1991</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>1,002</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1991, wk 29</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>255</td>
</tr>
<tr>
<td>95%CI</td>
<td>(187-323)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>5</td>
</tr>
<tr>
<td>95%CI</td>
<td>(4-6)</td>
</tr>
</tbody>
</table>

*Figure D2,* Number of cases reported for Tuberculosis per epidemiological week
Tycho data report for the state of Oklahoma

Tularemia

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Tularemia

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1942-1994</td>
</tr>
<tr>
<td>Total weeks</td>
<td>1,617</td>
</tr>
<tr>
<td>Total cases</td>
<td>824</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>95</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1947</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>9</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1947, wk 20</td>
</tr>
<tr>
<td>Average cases per year</td>
<td>18</td>
</tr>
<tr>
<td>95%CI</td>
<td>(13-23)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td>1</td>
</tr>
<tr>
<td>95%CI</td>
<td>(1-1)</td>
</tr>
</tbody>
</table>

Figure D2, Number of cases reported for Tularemia per epidemiological week

Tycho data report for the state of Oklahoma
Typhoid Fever

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Typhoid Fever (Unspecified and Including paratyphoid fever)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1927-2005</td>
</tr>
<tr>
<td>Total weeks</td>
<td>2,567</td>
</tr>
<tr>
<td>Total cases</td>
<td>12,419</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,700</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1928</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>108</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1928, wk 36</td>
</tr>
<tr>
<td>Average cases per year</td>
<td></td>
</tr>
<tr>
<td>before 1950</td>
<td>492</td>
</tr>
<tr>
<td>95%CI</td>
<td>(305-679)</td>
</tr>
<tr>
<td>after 1950</td>
<td>14</td>
</tr>
<tr>
<td>95%CI</td>
<td>(8-20)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td></td>
</tr>
<tr>
<td>before 1950</td>
<td>10</td>
</tr>
<tr>
<td>95%CI</td>
<td>(9-11)</td>
</tr>
<tr>
<td>after 1950</td>
<td>0</td>
</tr>
<tr>
<td>95%CI</td>
<td>(0-0)</td>
</tr>
</tbody>
</table>
Figure D2, Number of cases reported for Typhoid Fever per epidemiological week
Whooping Cough

Figure D1, Weeks between 1888 and 2009 for which data on the disease and subcategories (if applicable) are available in the Tycho database. If no subcategory was reported, a subcategory of "Unspecified" was assigned.

Table D1, Summary information for Whooping Cough

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report period</td>
<td>1937-2009</td>
</tr>
<tr>
<td>Total weeks</td>
<td>2,129</td>
</tr>
<tr>
<td>Total cases</td>
<td>14,962</td>
</tr>
<tr>
<td>Max. cases per year</td>
<td>1,661</td>
</tr>
<tr>
<td>Year (max)</td>
<td>1938</td>
</tr>
<tr>
<td>Max. cases per week</td>
<td>340</td>
</tr>
<tr>
<td>Week (max)</td>
<td>1937, wk 45</td>
</tr>
<tr>
<td>Average cases per year</td>
<td></td>
</tr>
<tr>
<td>before 1960</td>
<td>676</td>
</tr>
<tr>
<td>95%CI</td>
<td>(487-865)</td>
</tr>
<tr>
<td>after 1960</td>
<td>61</td>
</tr>
<tr>
<td>95%CI</td>
<td>(40-82)</td>
</tr>
<tr>
<td>Average cases per week</td>
<td></td>
</tr>
<tr>
<td>before 1960</td>
<td>14</td>
</tr>
<tr>
<td>95%CI</td>
<td>(13-15)</td>
</tr>
<tr>
<td>after 1960</td>
<td>2</td>
</tr>
<tr>
<td>95%CI</td>
<td>(2-2)</td>
</tr>
</tbody>
</table>
Figure D2, Number of cases reported for Whooping Cough per epidemiological week
Diseases with fragmented data over time

For a number of diseases, only fragmented data was available for Oklahoma. This was due to the inclusion of these diseases in the weekly surveillance system for short periods or widely dispersed periods of time. Due to these wide gaps or limited data, data for these diseases were not presented in separate sections but in the table below. Work will continue to include more data in the Tycho database and complete data sets for each disease where possible. Collaborations with local, state and federal public health agencies will be made to explore data availability and opportunities to include these in the Tycho database.

### Table 2, Summary information on the occurrence of diseases with fragmented data in Oklahoma

<table>
<thead>
<tr>
<th>Disease</th>
<th>Report type</th>
<th>Report period</th>
<th>Number of reports</th>
<th>Total cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthrax</td>
<td>State</td>
<td>1942-1945</td>
<td>143</td>
<td>0</td>
</tr>
<tr>
<td>Brucellosis [undulant fever]</td>
<td>City</td>
<td>1952-1953</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Brucellosis [undulant fever]</td>
<td>State</td>
<td>1943-1982</td>
<td>489</td>
<td>1094</td>
</tr>
<tr>
<td>Dengue</td>
<td>City</td>
<td>1925-1925</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Dysentery</td>
<td>State</td>
<td>1942-1948</td>
<td>277</td>
<td>349</td>
</tr>
<tr>
<td>Encephalitis</td>
<td>City</td>
<td>1947-1953</td>
<td>72</td>
<td>8</td>
</tr>
<tr>
<td>Encephalitis</td>
<td>State</td>
<td>1942-1993</td>
<td>1115</td>
<td>916</td>
</tr>
<tr>
<td>Pellagra</td>
<td>City</td>
<td>1924-1932</td>
<td>169</td>
<td>31</td>
</tr>
<tr>
<td>Psittacosis</td>
<td>State</td>
<td>1957-1957</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Rocky mountain spotted fever</td>
<td>State</td>
<td>1942-2009</td>
<td>1709</td>
<td>2861</td>
</tr>
<tr>
<td>Streptococcus pneumoniae invasive disease</td>
<td>State</td>
<td>2003-2007</td>
<td>100</td>
<td>58</td>
</tr>
<tr>
<td>Tetanus</td>
<td>State</td>
<td>1962-1981</td>
<td>296</td>
<td>27</td>
</tr>
<tr>
<td>Trichiniasis</td>
<td>State</td>
<td>1952-1953</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Typhus fever</td>
<td>City</td>
<td>1924-1925</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Typhus fever</td>
<td>State</td>
<td>1942-1955</td>
<td>202</td>
<td>14</td>
</tr>
<tr>
<td>West nile disease</td>
<td>State</td>
<td>2003-2009</td>
<td>138</td>
<td>151</td>
</tr>
</tbody>
</table>
Project Tycho

This report provides preliminary data for the state of Oklahoma available in the Tycho database. This database is currently being beta tested and these data cannot be used for publication or other official use at this time. An open access release to the general public is planned for later in 2011.

Please visit the Tycho website for more information and to query the database at: www.tycho.pitt.edu. For further information regarding the Tycho project, contact Dr. Wilbert van Panhuis at the University of Pittsburgh Graduate School of Public Health.

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