

BIRTH DEFECTS SURVEILLANCE SYSTEMS

NBDPN DATA QUALITY ASSESSMENT REPORT SUMMARY

2019

Data Quality Assessment for Population-based Birth Defects Surveillance Systems

Performance standards for birth defects surveillance are intended to improve and standardize operations, outcomes and surveillance functions across state programs, thereby making data more consistent and useful for a variety of purposes at the state, multi-state and national levels. The eleven measures reflecting data quality (DQ) were developed around completeness, timeliness and accuracy attributes (see Appendix 1). Three performance levels were associated with each measure:

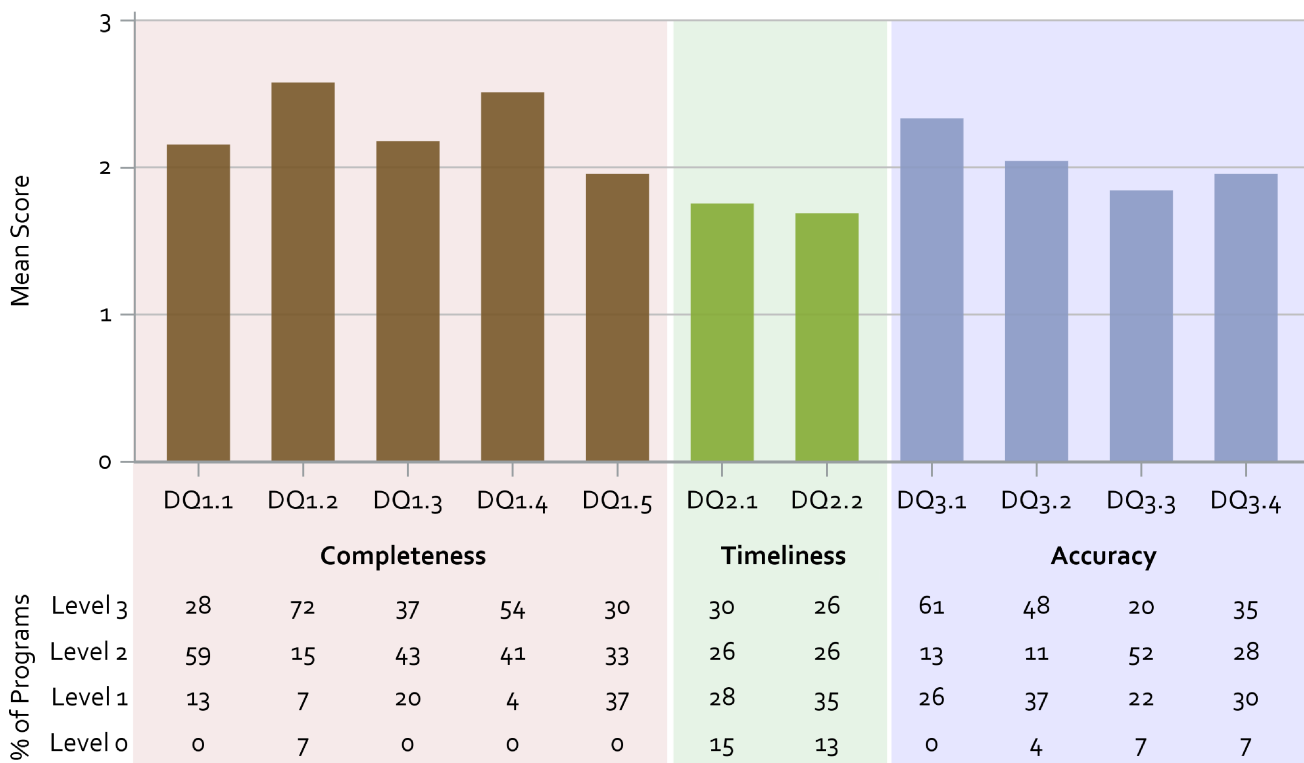
- Level 1: Rudimentary level of performance by a surveillance program
- Level 2: Essential level of performance by a surveillance program
- Level 3: Optimal level of performance by a surveillance program

The expectation is that the majority of programs would be able to achieve a Level 2 on all measures.

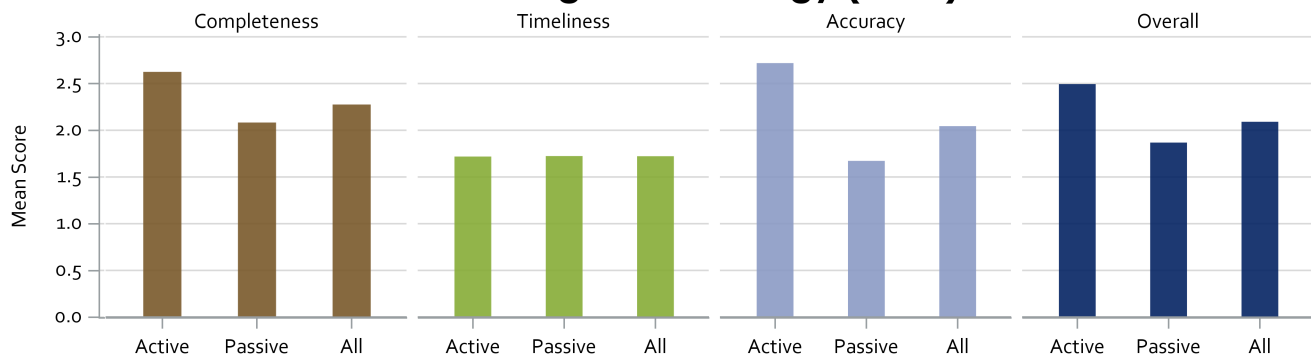
Performance Measure Scores

The mean values for each measure's performance level, with comparative national percentages, are shown in the figure below. These results reflect the responses NBDPN received from state programs' completion of the 2019 Data Quality Self-Assessment Tool. The percent of programs by performance level is calculated for all programs in the U.S. that submitted forms in the current year, that met a level 1 for DQ1.1 and achieved an overall mean score of 1 for all measures (n=46).

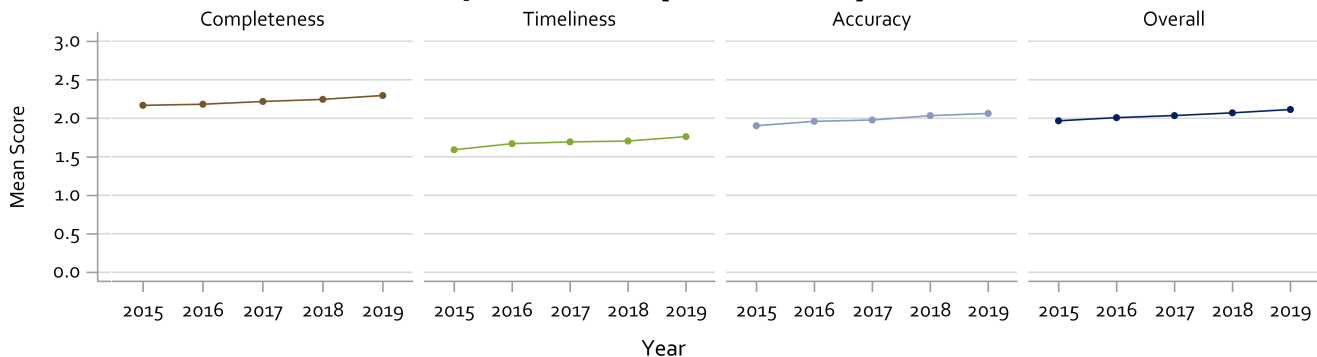
Summary Performance on Data Quality Measures (2019)



National Performance on Data Quality Measures, by Attribute and Case-finding Methodology (2019)



Temporal Changes in National Performance on Data Quality Measures, by Attribute (2015-2019)*



*Figure includes programs that consistently submitted forms in the five most recent years regardless of inclusion criteria (n=44).

Next Steps

1. State Programs

- Put processes in place to ensure programs have the support necessary to achieve national standards
- Serve as champions who raise awareness about the value of national standards for data quality
- Identify and convey your program’s need for resources to achieve national standards

2. NBDPN

- Provide program-specific and overall summary reports
- Assess how well the current tool measures program data quality
- Develop Data Utility Standards
- Incorporate Standards into the Birth Defects Surveillance Manual
- Facilitate trainings to improve programs’ ability to evaluate and enhance data quality

Appendix 1: Data Quality Measures

Completeness

DQ1.1: Types of data sources used systematically and routinely to identify potential cases at a population-based level

DQ1.2: Birth defects included using standard NBDPN case definitions

DQ1.3: Pregnancy outcomes included

DQ1.4: Systematic and routine identification of cases during ascertainment period (age of diagnosis)

DQ1.5: Data elements collected

Timeliness

DQ2.1: Time of case data completion for NBDPN *core* list

DQ2.2: Time of case data completion for NBDPN *recommended* list

Accuracy

DQ3.1: Data quality procedures for verification of cases diagnosis

DQ3.2: Scope of birth defects verified

DQ3.3: Level of expertise for individuals who perform case diagnosis verification

DQ3.4: Database quality assurance process



For questions about **NBDPN standards**, e-mail standards@nbdpn.org.