Analysis Method Notice

The percentage of children who have received 2 doses of the MMR vaccine by age 5

This notice describes an Analysis Method that has been developed for use in the production of published national outcome indicators, performance measures and/or currencies, which are derived directly from NHS Wales data.

The Analysis Method has been reviewed by the Analysis Methodologies Group and its output submitted to the Welsh Information Standards Board (WISB) for potential accreditation.

*It should be noted that, where the data flow on which the analysis is being undertaken has not been reviewed by WISB (see 'Status of WISB Data Standards Assurance' below), accreditation of the analysis method **cannot** be interpreted as an approval of the underlying data standards or the quality of the data used.*

It is recognised that formal review and/or assurance of the data flow may have been undertaken by other bodies, where those data are being formally published; for example, as Official Statistics'. In such circumstances, users of this method are advised to contact the relevant organisations should they require further information on the underlying quality of the specified data source.

For further details about the group, including Terms of Reference and membership, please visit the following website:

http://howis.wales.nhs.uk/sites3/page.cfm?orgid=742&pid=56696

WISB Reference: ISRN 2018 / 002

Please address enquiries about this Analysis Method the NHS Wales Informatics Service Data Standards Team.

E-mail: data.standards@wales.nhs.uk / Tel: 029 2050 2539

WISB Analysis Method Appraisal Assessment	**Accredited** This Analysis Method has been appraised by WISB and is felt to: • Meet the specified indicator requirement, in that it is suitable for its calculation / derivation; • Is reproducible by organisations, where appropriate.
WISB Analysis Method Appraisal Outcome(s)	

Status of Data Standards Assurance	**WISB Reviewed** The data used in this Analysis Method are based on data item standards that have been through the Information Standards Assurance Process.
WISB Decision	**Approved**
Data Standards Assurance Outcome(s)	

Indicator
The percentage of children who received 2 doses of the MMR vaccine by age 5.

Target:
95%.

Rationale / Context
Disease prevention is key to public health. It is always better to prevent a disease than to treat it. Vaccines can protect both the people who receive them and those with whom they come in contact. Vaccines are responsible for the control of many infectious diseases that were once common in this country and around the world.

Newborn babies are immune to many diseases because they have antibodies they got from their mothers. However, this immunity goes away during the first year of life. Also, young children do not have this "maternal immunity" against some diseases, such as whooping cough.

If an unvaccinated child is exposed to a disease germ, the child's body may not be strong enough to fight the disease. Before vaccines, many children died from diseases that vaccines now prevent, such as whooping cough, measles, and polio. Those same germs exist today, but because babies are now protected by vaccines, we do not see these diseases nearly as often.

Immunizing individual children also helps to protect the health of our community, especially those people who cannot be immunized. These include children who are too young to be vaccinated (for example, children less than a year old cannot receive the measles vaccine but can be infected by the measles virus), those who cannot be vaccinated for medical reasons (for example, children with leukaemia), and those who cannot make an adequate response to vaccination

Data Source(s)

National Community Child Health Database (NCCHD), which is maintained by the NHS Wales Informatics Service (NWIS).

Definitions:

Definitional Guidance:

Data Items:

n/a

Terms:

n/a

Detailed Specification

The diseases covered by the MMR vaccine are:
- Measles
- Mumps; and
- Rubella

-

The first does should be given at 13 months and the second dose at 3 years and 4 months of age.

The data relates to children reaching their fifth birthday during the reporting quarter and are resident in relevant LHB at the time the data is extracted. This will include children who are living in the relevant LHB but who may be registered with GPs in neighbouring LHBs.

Data from the local child health databases is extracted by NWIS every quarter. A grouping process is then applied to the dataset by utilising valid anonymised NHS numbers so that records related to the same child can be identified. From this the NCCHD database is built with the aim of obtaining maximum record completeness.

NCCHD is refreshed quarterly. If reports are run from subsequent versions of the database, counts will differ from published figures. Historical data is not revised unless errors are discovered.

The NCCHD contains data extracted from around 13 different local operational systems. It is likely that there are local differences in the quality of data collected in these systems and that this may impact on the quality of analyses.

Calculation:

Numerator
Number of children resident in the HB who have received 2 doses of the MMR vaccine and who have reached age 5 during the reporting quarter.

Denominator
Total number of children resident in the HB who reached age 5 during the reporting quarter.

Reporting Format / Frequency

Reporting Frequency	Quarterly
Time Delay of Reported Data?	Approx. 2 months after quarter end

Discussion Points / Areas for Future Development

This section details any areas the Analysis Methodologies Group felt needed further consideration / review by the 'owner' of the method.

It is noted that the HB where the child is resident during the quarter they reach their fifth birthday will be held accountable for performance for the delivery of all 2 doses of the MMR vaccine, irrespective of whether the child was resident in another HB prior to this quarter.

Appendix A – Additional Information

n/a

Appendix B – SQL Code (where applicable)

n/a