

Appendix 1 – Criteria for NNDL assessments

Criterion	Score	Guide for use
Priority setting		
<p>1. Necessity for public health response</p>	<p>0= not important for public health to know about a case</p> <p>1= case reporting important for describing trends only</p> <p>2= case reporting important for detecting outbreaks that require investigating or contacts require routine intervention</p> <p>3= case reporting important to detect outbreaks of cases and investigate contacts that require immediate intervention to prevent fatalities or severe outcomes</p> <p>4= a single case can be considered an outbreak or having the potential to cause an outbreak and requires immediate follow-up</p>	<p>Subjectively ranked, based on the need and efficacy of a response by public health authorities to prevent other cases of the disease, e.g. case and contact management, including need for national level responses, e.g. national input to contact tracing, funding of vector control programs, funding of vaccination programs, nationally-coordinated foodborne disease investigations. Other aspects to consider are:</p> <ul style="list-style-type: none"> • For monitoring emerging diseases • For other diseases, where prevention programs or a public health response may be required if there is a significant change in epidemiology • The need for consistent longitudinal data • Alternative surveillance mechanisms
<p>2. Utility and significance of notification for prevention programs</p>	<p>0 = No national prevention program / international or national regulation</p> <p>1 = Need to establish burden of illness for monitoring or research purposes / priority setting</p> <p>2 = Notifiable to the WHO but no regional / global targets for elimination or eradication</p>	<p>Note: National prevention programs do not include vaccination here; that is covered by question 3.</p>

	<p>3 = National prevention programs in place or WHO Western Pacific Regional Office (WPRO) targets for elimination or eradication</p> <p>4 = Security sensitive biological agent (SSBA) or WHO global targets for elimination or eradication / critical for monitoring prevention programs</p>	
3. Vaccine preventability	<p>0= No vaccine available</p> <p>2= Vaccine available, but no national immunisation program</p> <p>4= Vaccine available, national immunisation program in place (including programs targeted at particular sub-groups)</p>	
4. Importance for Indigenous health	<p>0= Low</p> <p>2= Medium</p> <p>3 = High</p> <p>4 = Very high</p>	<p>Low: Disease rates in Indigenous community similar to in non-Indigenous people, not an Indigenous health priority</p> <p>Medium: Disease rates similar or somewhat higher in Indigenous and non-Indigenous people, but severity higher in Indigenous people e.g. influenza</p> <p>High: Significantly higher disease rates in Indigenous people than in non-Indigenous people e.g. shigellosis</p> <p>Very high: Almost exclusively occurs in Indigenous communities and/or identified as a priority for prevention e.g. trachoma</p>
5. Emerging or re-emerging disease	<p>0= has been stable, absent or declined in incidence over past 5 years</p> <p>2= slowly re-emerging or increasing</p>	<p>Consider whether it is a newly appeared disease or an unexpected/unusual event and the factors that could modify its clinical and/or epidemiologic characteristics. These factors might include:</p>

	<p>incidence/prevalence disease over the past 5 years</p> <p>3= risk of emergence in Australia due to ecological or epidemiological change or importation</p> <p>4= new, rapidly emerging disease in Australia</p>	<ul style="list-style-type: none"> • Changes in demographic features, • Appearance/reappearance of the disease • Accumulation of susceptible people • Environment/climate factors • Changes in the ecology of vectors (including incursions of exotic vectors that would make local transmission possible). <p>Emergence may be overall, or in certain subgroups, and there may be concerns about strain replacement for vaccine preventable diseases.</p>
<p>6. Communicability and potential for outbreaks</p>	<p>0= Not communicable or no outbreak potential</p> <p>1= Low</p> <p>2= Medium</p> <p>3= High</p> <p>4= Very high</p>	<p>None: Not communicable, or no potential to cause outbreaks</p> <p>Low: Very high infectious dose, not environmentally stable, seldom transmitted to even close (e.g. sexual) contacts, enteric organisms <i>not known</i> to be transmitted person-to-person and vectorborne diseases. Conditions for transmission do exist in Australia, or previous outbreaks known to have occurred.</p> <p>Medium: Transmissible to very close contacts (including sexual contacts) only; respiratory pathogens that require prolonged (e.g. household) contact; enteric pathogens that may be transmitted via high dose in food or water. Small infrequent outbreaks possible.</p> <p>High: Transmissible to casual contacts; respiratory pathogens that are transmitted by droplets and may be passed to persons sharing the same airspace for several hours; enteric pathogens that require a low dose to be transmitted by food OR may be passed person to person via the faecal-oral route (e.g. hepatitis A; <i>Shigella</i>). Large</p>

		<p>or frequent outbreaks possible.</p> <p>Very high: Respiratory pathogens that are transmitted through fine aerosol and are potentially transmitted to anyone sharing the same airspace with the case. Potential to cause large, widespread, ongoing, devastating outbreaks.</p>
7. Severity and socioeconomic impacts	<p>1= low severity and socioeconomic impacts</p> <p>2= medium severity and socioeconomic impacts</p> <p>3= high severity and socioeconomic impacts</p> <p>4= very high severity and socioeconomic impacts</p>	<p>Considered on a per case basis, without considering incidence or prevalence. The cost and severity of a single case, if there were one.</p> <p>Low: Short-term illness, and/or complete recovery in majority of cases, and/or case-fatality close to 0%/ low cost to community or health care system.</p> <p>Medium: Short or somewhat longer-term illness, and/or lengthy recovery in some cases, and/or case-fatality = 0% to 1%/low to medium cost to community or healthcare system.</p> <p>High: Long-term disability, and/or recovery rare, and/or death more likely, and/or case-fatality = 1% to 10% and/or medium to high cost to community or healthcare system.</p> <p>Very high: Severe illness, and/or death is most likely outcome, and/or case fatality = 10% to 100% and/or high cost to community or healthcare system.</p>
8. Preventability	<p>0= no preventive measure</p> <p>1= preventive measure available but low efficacy</p>	<p>Subjectively ranked, based on the efficacy (including risk/benefit) of available preventive measures, including, but not restricted to, vaccines. Consider the efficacy,</p>

	<p>and/or uptake or acceptability</p> <p>2= preventive measure with moderate efficacy /low acceptability or uptake</p> <p>3= preventive measure with moderate efficacy/low side effects/acceptable uptake</p> <p>4= preventive measure with high efficacy/low side effects/high acceptability and uptake</p>	<p>acceptability but also uptake of available preventive measures.</p> <p>For diseases such as hepatitis C unspecified, this can be assessed as the efficacy of preventive measures to stop incident cases from becoming chronic. Hepatitis D is directly preventable as hepatitis B vaccination prevents against hepatitis D. A disease may be rated as having no preventive measure where a vaccine is not (yet) available in Australia.</p>
9. Level of public concern and/or political interest	<p>1= no to low public concern or political interest</p> <p>2= low to medium public concern or political interest</p> <p>3= medium to high public concern or political interest</p> <p>4= high public concern/perceived “crisis” situation if cases identified</p>	<p>Subjectively ranked, based on the level of public concern and/or political interest associated with the disease, including media attention. Diseases where there is an unknown or unclear disease mechanism, immediacy of the effect of disease, fear of the unfamiliar/unknown, diseases mainly affecting mainly children, “identifiable victims” and not controllable by the public tend to be of increased concern. This is not measuring public perception of the chance of acquiring the disease.</p>
Feasibility of collection		
10. A case is definable	<p>0= Case is difficult to define, or agreement between stakeholders on definition cannot be reached</p> <p>2= A case is definable, but with complexities</p> <p>4= Case has an acceptable laboratory definition without or without a clinical definition</p>	

<p>11. Data completeness is likely to be acceptable</p>	<p>1= Data likely to be incomplete, representing only a very small fraction of community cases</p> <p>2= Data represent an proportion of community cases with a known undercount</p> <p>4= Data likely to represent a high proportion of cases, or all cases.</p>	
<p>12. Alternative surveillance mechanisms</p>	<p>0=Robust, comprehensive and continuing alternative national surveillance mechanism in place e.g. HPV</p> <p>2= Alternative surveillance mechanism in place, but not nationally co-ordinated, only sentinel sites or surveys, significant gaps or weaknesses e.g. rotavirus</p> <p>4= No alternative surveillance mechanisms in place.</p>	<p>Where a robust alternative surveillance mechanism is in place, the need for national notification may be lower so diseases that are not covered by any current system score more highly on this criterion, regardless of any public health priority consideration.</p>