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Method type	References	Strengths	Limits
<b>Least cost analysis</b>		Only requires a precise accounting of the financial costs of the compared surveillance designs. Such data are usually easily accessible.	It has to be insured that the compared surveillance options meet a given expectation (legislative criteria, threshold of desired effectiveness)
<b>Average cost-effectiveness ratio</b>		Adapted to situations when several surveillance options can be used in parallel under condition of a limited budget	Effectiveness of each surveillance option must be measured in the same metric (e.g. number of avoided cases, sensitivity ratio). It is rarely the case when comparing two different surveillance components (e.g. passive and active surveillance)
<b>Incremental cost-effectiveness ratio</b>		Adapted to situations when several surveillance options are competing for the same resources and we can choose only one (options are mutually exclusive)	Effectiveness of each surveillance option must be measured in the same metric (e.g. number of avoided cases, sensitivity ratio). Effectiveness measures need to be interpretable: to make the final choice between surveillance options, the evaluator needs to appraise the benefit generated by each additional surveillance output.
<b>Marginal cost-effectiveness ratio</b>		Adapted to situations when the decision maker needs to determine the optimal level of investment in one surveillance system/component	Requires a quantitative formulation of the relation between any marginal investment in surveillance and marginal increase in its effectiveness. Effectiveness measures need to be interpretable: to make the final choice between surveillance options, the evaluator needs to appraise the benefit generated by each additional surveillance output.

<b>Investment appraisal</b>	Hasler and Howe, 2012; Howe et al. 2012; Rushton, 2009a; Guo, 2014; Hasler et al. 2012	Allows an objective comparison of all possible surveillance options (including different surveillance components without similar effectiveness metrics). Suitable when only the public sector's perspective is considered or when the economic impact of surveillance is expected to be restrained to one specific sector and market impacts are neglectable.	Epidemiological model is often required to link effectiveness of surveillance with its benefits. Costs and benefits of surveillance and mitigation programs must be analysed altogether, including their substitutive and complementary effects, no separate analysis is possible. Only goods and services associated with a market value are usually accounted. Analysis limited to one or several sectors (usually the public sector and/or the concerned husbandry sector) leaving aside the broader societal impact of surveillance.
<b>Inclusion of direct market impacts</b>	Rushton, 2009b; Upton, 2009; Moran and Fofana, 2007	Integration of the market impact of the considered surveillance program	Assumption of limited cross-sector effects. Market data required (elasticity of supply and demand)
<b>Inclusion of multi-market impacts</b>	Rushton, 2009b; Upton, 2009	Allows integration of multi-market impact of surveillance	Heavy data requirements (inter-market economic relationships)
<b>Valuation of non-market components of the economic impact of surveillance</b>	Delabougliise et al, 2015; Moran and Fofana, 2007; Mwaura et al., 2010; Weatherly, 2009	Allows integration of non-market impacts	Each method has its own limitations. Substantial surveys/data collection are often required (e.g for contingent valuation or contingent choices) and can be time and ressource consuming

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