

Desirable properties for our indicators

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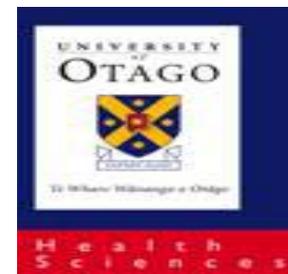
New Zealand

ICE Business Meeting, Merida, 22 March 2008

Cryer and Langley Document

- Indicators of injury incidence
 - Theoretical underpinnings
 - Issues
 - Validation
 - Proposed “all injury” indicators
 - Deaths
 - Hospital inpatient
 - Hospital ED
 - Survey
- Appendix supplied by Maria Segui-Gomez

Developing injury indicators that can be used to monitor global, regional and local trends: Face validity criteria



Cryer C, Langley J
Injury Prevention Research Unit, University of Otago, New Zealand;

1. Numerator-related

- a) Case definition of injury based on diagnosis – on anatomical or physiological damage (ICE)*
- b) Consistent case definition over time or between place
- c) Focus on serious injury (ICE)
- d) Unbiased case ascertainment (ICE)
- e) Derived from data representative of the target population (ICE)

2. Denominator-related (for risk or rate estimates)

- a) Reflect the exposure of the population to relevant injury hazards

3. Overall indicator-related

- a) Measurement that is practicable
- b) Reflects a well-defined information objective
- c) Able to measure change over time or between place
- d) Be fully specified (ICE)
- e) Timeliness
- f) Readily comprehensible

4. Data-related

- a) Be based on existing data systems (or it should be practical to develop new data systems) (ICE)
- b) Robust to potential or known changes/differences in coding frames or coding practice between places or over time.

* Cryer C et al. Injury outcome indicators: the development of a validation tool. *Injury Prevention* 2005; **11**: 53-57

1. Numerator-related

- a) Case definition of injury based on diagnosis – on anatomical or physiological damage (ICE)*
- b) Consistent case definition over time or between place
- c) Focus on serious injury (ICE)
- d) Unbiased case ascertainment (ICE)
- e) Derived from data representative of the target population (ICE)

2. Denominator-related

a) Reflect the exposure of the population to relevant injury hazards.

– Options

- No denominator
- Average population at risk
 - Census population, age-standardised
- Other
 - Eg. MVTC
 - » Rate per 10,000 people
 - » Rate per 100,000 vehicles
 - » Rate per 1,000,000 kms driven

3. Overall indicator-related

- a) Measurement that is practicable
- b) Reflects a well-defined information objective
- c) Able to accurately reflect change over time or differences between place
- d) Be fully specified (ICE)
- e) Timeliness
- f) Readily comprehensible

4. Data-related

- a) Be based on existing data systems
 - (or it should be practicable to develop new data systems)

(ICE)
- b) Robust to potential or known changes / differences in coding frames or coding practice between places and over time.
- c) Data source accurately captures key data
 - Eg. diagnosis, external cause, age, sex, ethnic group.

Properties to bear in mind (particularly) when identifying indicators

- Data source accurately captures key data
- Focus on injury that is serious / consequential
- Unbiased case ascertainment
- Reflect the exposure of the population to relevant injury hazards
- Able to accurately reflect change over time or differences between place.