

VA Algorithms

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DATA FOR
HEALTH INITIATIVE



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THE OHIO STATE
UNIVERSITY

INSTITUTE FOR
POPULATION RESEARCH

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Background

Overall Aim of VA algorithm work:

- **Comparable, reproducible** causes of death using VA data
- Timely assignment of causes to deaths with VA
- Feasibility – cost, effort, physician availability, etc.

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This requires **standardization** and **automation**

- Standardization of VA instrument – done! (WHO)
- Standardization of VA interview – needs work
- Standardization and automation of VA cause assignment – algorithms

VA Algorithms

Operation of VA cause-coding algorithms utilizes three separable elements

- 1 The **VA data** themselves
- 2 Symptom-cause Information (**SCI**) that describes the relationship between VA symptoms and causes – sometimes the *training data*
- 3 The **logic** of the algorithm itself – mathematical, computational, statistical

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The performance of each algorithm **depends on both its logic and the SCI it uses**

SCI can be swapped in/out and updated

This means that the performance of an algorithm can evolve and be adapted to a particular population

Overview

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Will wrap up by discussing an idea for how to greatly improve the SCI available to all the algorithms

