



Missing/Inadequate Information for Physician
(n=100, <1%)

Non-physician Agreed Records
(n=4878, 41%)

HEAL-SL
Verbal Autopsy
(n=11,920, 100%)

Physician Assigned Records
(n=11,820, 99%)

ICD-10 Physician Agreed Records
(n=6942, 59%)

ICD-10 Not Captured by CGHR-10
(n=3, <1%)

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CGHR-10 Physician Agreed Records
(n=6939, >99%)

Adult (12 to 69 Years)
Physician Agreed Records
(n=3826, 55%)

Child (28 days to 11 Years)
Physician Agreed Records
(n=2636, 38%)

Neonatal (0 to 28 Days)
Physician Agreed Records
(n=477, 7%)

2

Input Data and Preprocessing
(n=6939, 100%)

Text Prompts from Open Narratives
(n=6939, 100%)

WHO VA 2016 v1.5.1
526 Variables
(n=6939, 100%)

OpenVA (pyCrossVA)
353 Variables
(n=6939, 100%)

3

Models and Parameters



ChatGPT-3.5
OpenAI API using Python
(gpt-3.5-turbo, top_p=0.3)



ChatGPT-4
OpenAI API using Python
(gpt-4-0613, top_p=0.3)



InterVA-5
openVA R Package
(Malaria=h, HIV=h)



InSilicoVA
openVA R Package
(Nsim=9500)

4

Output Data and Code Conversions
(n=6939, 100%)

ChatGPT-3.5
ICD-10
(n=6929, >99%)

ChatGPT-3.5
CGHR-10
(n=6892, 99%)

ChatGPT-4
ICD-10
(n=6909, >99%)

ChatGPT-4
CGHR-10
(n=6856, 99%)

InterVA-5
WHO VA 2016 v1.5.1
(n=6805, 98%)

ICD-10 Not Captured by CGHR-10
(n=37, <1%)

InSilicoVA
WHO VA 2016 v1.5.1
(n=6729, 97%)

ICD-10 Not Captured by CGHR-10
(n=53, <1%)

InterVA-5
ICD-10
(n=6805, 100%)

InterVA-5
CGHR-10
(n=6805, 100%)

InSilicoVA
ICD-10
(n=6729, 100%)

InSilicoVA
CGHR-10
(n=6729, 100%)

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Performance Evaluation
(n=6939, 100%)

ChatGPT-3.5
CGHR-10
(n=6892, 99%)

ChatGPT-4
CGHR-10
(n=6856, 99%)

Cause Specific Mortality Accuracy (CSMF Accuracy)

Overall (All Records)

By Age Group (Adult, Child, Neonatal)

InterVA-5
CGHR-10
(n=6805, 98%)

InSilicoVA
CGHR-10
(n=6729, 97%)

Partial Chance Corrected Concordance (PCCC)

By Cause of Death (COD)
(19 Adult, 10 Child, 7 Neonatal)

By 5-Year Age Ranges Per Age Group
(0 Days to 69 Years)