



An ICD for the digital world: what does the ICD-11 research show?

Susan H. Fenton; Mary H. Stanfill
The University of Texas Health Science Center

Kathy Giannangelo
Kathy Giannangelo Consulting, LLC





Introduction

- International Classification of Diseases, 11th revision (ICD-11)
 - May 2019: Approved by World Health Assembly for implementation starting January 2022
 - Updated for the 21st century
 - Research studies support its uniqueness



Methods

- PubMed literature review
 - 288 returned
 - 35 retrieved after title and abstract review
 - 15 selected after full-text review



Results: Design and Development

- Tenets
 - Computable
 - Flexible
 - Multi-lingual
 - Clinical core



Results: New to ICD-11

- Content
- Expanded scope
- Extension codes



Results: Comparing ICD-10 to ICD-11

- Polish study
 - Focus on mental health
 - Disorders not included in ICD-10 were found in ICD-11
- German and Italian studies
 - Focus on automated coding of causes of death
 - Translation on Iris software feasible



Results: Comparing ICD-10 to ICD-11

- United States
 - Focus on differences and similarities between ICD-10-CM and ICD-11
 - Study 1: ICD-11 had a moderate increase in the number of codes over ICD-10-CM
 - Study 2: ICD-11 MMS captured more detail for patient safety and clinical quality measurement use cases
 - Study 3: Nearly 60% of 943 ICD-10-CM codes could be fully represented in ICD-11-MMS with postcoordination and minor enhancements



Results: Implementation

- Kuwait Ministry of Health
 - Pilot tested ICD-11 MMS for morbidity using physicians
 - Nearly half of the exact diagnoses were found; 47.1% stated the ICD-11 entity was fairly easily found, in an acceptable timeframe
- Canadian researchers
 - Methodology to evaluate the impact of ICD-11 adoption
 - Categories of expected costs: retraining, productivity losses, and system changes
- WHO
 - Tools and guides to assist in implementation



Discussion

- ICD-11
 - Designed and developed from a computer science perspective
 - Able to integrate other terminologies and classifications
 - Maintains good backward comparability
 - Establishes a framework that delivers a structure that may eliminate the need for country specific modifications



Conclusion

- Kuwait Ministry of Health pilot – integration with EHRs possible
- ICD-11 – has more meaningful clinical content
- WHO's tools and guides – expected to reduce training and implementation costs
- ICD-11 adoption – needs careful planning
- Research findings – provide assistance in preparation



THANK YOU!

- Susan Fenton: Susan.H.Fenton@uth.tmc.edu
- Mary Stanfill: Mary.H.Stanfill@uth.tmc.edu
- Kathy Giannangelo: kathy.giannangelo@gmail.com