

A CROSS-LANGUAGE MOBILE RESOURCE FOR ACCESSING MEDLINE/PUBMED BASED ON AN OPEN-SOURCE, CROWDSOURCED CONTROLLED MEDICAL VOCABULARY FOR THE PHILIPPINES

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ABSTRACT

Using a standardized set of medical terminologies can help organize EMR content and facilitate patient care, follow-up and documentation in countries with many official languages. A controlled medical vocabulary of clinical terms from patient-provider encounters was developed from submissions of members of the medical community in the Philippines. Crowdsourcing may be useful for building standardized medical terminologies. It also increases awareness on MeSH, SNOMED CT and the UMLS.

INTRODUCTION There is a need for a standardized set of medical terminologies to avoid loss of translational integrity of the chief complaint. A controlled medical vocabulary will be useful for a country like the Philippines which has eight major languages. Using the patient's exact words of the chief complaint is crucial since it often leads to a diagnosis. This study describes the development of a cross-language tool in the Philippines using mobile devices.

METHODS We announced a call through social media for submission of translations of medical terms. Healthcare personnel could either manually enter a medical term and its translation to one of the eight languages, or provide a translation of a MeSH term after selecting one from the following categories: Disease, Signs and Symptoms, Pharmaceutical Preparations, Health Occupations, Diagnosis, Therapeutics, and Other. Experts from the University of the Philippines Center for Filipino Languages (Sentro ng Wikang Filipino) will validate the translations. If a MeSH term has multiple submitted translations, the experts choose the best one from the entries.

RESULTS AND DISCUSSION A standardized controlled medical vocabulary for the Philippines was developed using a mobile-friendly interface. To date, the database contains 2,447 translations. Filipino (29.87%), Pampangueno (13.11%) and Bicolano (13.04%) are the top three languages with the most translations. Current efforts are focused on validation and deduplication of translations. There is still a need to intensify crowdsourcing efforts to populate the database and to include translation of terms from the Core Problem List Subset of SNOMED CT.

CONCLUSION A standardized medical vocabulary will be useful for integrating to patient information in the vernacular with EMR implementations. This will be also be useful for searching knowledge databases such as MEDLINE/PubMed for retrieving of journal citations. Crowdsourcing leverages the medical community around this effort in a highly mobile phone-using population. Future directions include linking the vocabulary to a database of reference images of medical conditions to enhance its usefulness as a clinical reference.