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Validating the accuracy of place of death in Vital Statistics of Calgary Zone residents in 2015

Fong, A¹, Cai, P¹, and Sinnarajah, A^{1,2}

¹Alberta Health Services

²University of Calgary

Introduction

Administrators and researchers of community and hospital based palliative care services have relied on Vital Statistics for place of death information without knowing the full extent of its accuracy. We sought to understand and document whether Vital Statistics' place of death is confirmed by other data sources.

Objectives and Approach

Understand the degree of confirmation of Vital Statistics' place of death with multiple data sources using a first found cascading method. The following order of cascading data sources were used: Discharge Abstract Data (DAD), National Ambulatory Care Reporting System (NACRS), Strata Health Pathways (hospice), ACCIS (LTC), and PARIS (supportive living). Hospital deaths were first confirmed using DAD. If not found, we searched the next data source NACRS (Emergency Department) followed by hospice, long term care, and supportive living. If the death was not found in these five sources, death was classified as 'Other' and the residency of home was inferred.

Results

Of 7,176 deaths recorded in Vital Statistics (VS), 4,749 were confirmed of which 78% (N=2580) of VS hospital deaths, 96.2% (N=1179) of VS home deaths, and 60.3% (N=990) of VS Nursing Home deaths were confirmed. Inferred nursing home death were recorded as Hospital (N=147), Auxiliary Hospitals (N=61), and Other (N=41). Inferred home deaths were classified as Other (256), Hospital (84), Nursing Home (33), Unknown (7), and En Route (7). Inferred en route or emergency department death were classified as hospital (360). Supportive living deaths, not a category in Vital Statistics, were classified as Other (N=81), Nursing Home (N=51), At Home (N=33). Hospice death, no longer a category in Vital Statistics since 2012, were classified as Nursing Home (N=563), Hospital (N=152), Auxiliary Hospital (N=168), Other (N=334).

Conclusion/Implications

66% of 7,176 Deaths in Vital Statistics were confirmed by other data sources. Using multiple data sources, hospital deaths would decrease by 22%, confirmed nursing home death would increase by 25%, and hospice deaths would no longer be misclassified into hospital (N=152), Aux. Hospital (N=168), and Other (N=334).