

Additional File 3: Design and Characteristics of the Studies Identified

Table: Study Characteristics and Factors Adjusted for in the Multivariable Analyses

Author, Year Country Sample Size	Study Design Data Source Time Frame Non-Participation	Population	Sociodemographic Factors	Illness-Related Factors	Health Services Availability	Patient or Family Preference for Place of Death
Study Characteristics			Factors Adjusted for in the Multivariable Analyses			
Poulouse et al, 2013 [1] Singapore N = 842	<ul style="list-style-type: none"> Retrospective cohort Hospital database Time frame not specified Excluded due to missing data: 6% 	<ul style="list-style-type: none"> Home residents Palliative home care team recipients Referred in 2007 	<ul style="list-style-type: none"> Age Sex Marital status Ethnicity 	<ul style="list-style-type: none"> Type of disease Referral-to-death interval 	<ul style="list-style-type: none"> Restricted to patients receiving palliative home care 	Not included
Seow, 2013 [2] Canada N = 6,218	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time frame: last 2 weeks of life No information on non-participation 	<ul style="list-style-type: none"> Home residents Deaths: 2009–2011 	<ul style="list-style-type: none"> Age^a Sex^a 	<ul style="list-style-type: none"> Cancer^a Comorbidities^a 	<ul style="list-style-type: none"> Restricted to home care recipients Time in homecare^a Hospital admissions^a 	Not included
Ikegami et al, 2012 [3] Japan N = 1,158	<ul style="list-style-type: none"> Retrospective cohort Retrospective survey database Time frame not specified No information on non-participation 	<ul style="list-style-type: none"> Nursing home residents Deaths: 2009 	Not included	<ul style="list-style-type: none"> Cause of death 	<ul style="list-style-type: none"> Restricted to nursing home residents Physicians based in home care End-of-life care in facility 	<ul style="list-style-type: none"> Family preference Agreement among family members
Levy et al, 2012 [4] United States N = 7,408	<ul style="list-style-type: none"> Retrospective cohort Administrative database Time frame not specified No information on non-participation 	<ul style="list-style-type: none"> Veteran Affairs nursing home residents Deaths: 2005–2007 	Not included	<ul style="list-style-type: none"> Type of disease End stage, not hospice Length of stay Cognitive function 	<ul style="list-style-type: none"> Restricted to Veteran Affairs' nursing home residents Hospice care 	<ul style="list-style-type: none"> Advance directives
Houttekier et al, 2011 [5] Belgium N = 189,884	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time frame not specified No information on non-participation 	<ul style="list-style-type: none"> Home and nursing home residents Eligible for palliative care Deaths: 1998–2007 	<ul style="list-style-type: none"> Age Urbanization Living alone 	<ul style="list-style-type: none"> Cause of death 	<ul style="list-style-type: none"> Bed availability in hospital and care homes 	Not included
Taylor et al, 2011 [6] New Zealand N = 1,268	<ul style="list-style-type: none"> Retrospective cohort Chart review Time frame: last 12 months of life No information on non-participation 	<ul style="list-style-type: none"> Hospice care recipients Deaths: 2006–2008 	<ul style="list-style-type: none"> Age Sex Marital status Ethnicity 	<ul style="list-style-type: none"> Type of disease 	<ul style="list-style-type: none"> Restricted to recipients of hospice service in the community 	Not included
Ikezaki et al, 2011 [7] Japan N = 4,175	<ul style="list-style-type: none"> Retrospective cohort Data collected retrospectively from nurses Time frame: not specified Non-participation rate: 49% 	<ul style="list-style-type: none"> Nurse home visits recipients Deaths: 2004 	<ul style="list-style-type: none"> Age Sex 	<ul style="list-style-type: none"> Stratified by cancer/non-cancer Daily living activities 	<ul style="list-style-type: none"> Restricted to nurse home visit recipients Physician location Duration of home nursing service 	<ul style="list-style-type: none"> Patient Family Congruence patient-family

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Study Characteristics			Factors Adjusted for in the Multivariable Analyses			
Fukui et al, 2011 [8] Japan N = 568	<ul style="list-style-type: none"> Retrospective cohort Data collected retrospectively from nurses Time frame: last 6 months of life Non-participation rate: 24% 	<ul style="list-style-type: none"> Nurse palliative care home visits recipients Cancer patients < 6 months expected survival Deaths: 2008 	<ul style="list-style-type: none"> Type of caregiver 	<ul style="list-style-type: none"> Restricted to cancer Functional status Unrelieved symptoms Home treatment requirement 	<ul style="list-style-type: none"> Restricted to home palliative care recipients Nurse visits Home team affiliated with hospital 	<ul style="list-style-type: none"> Patient (home care) Family (home care)
Hong et al, 2011 [9] Singapore N = 52,120	<ul style="list-style-type: none"> Retrospective cohort Cancer registry Time frame not specified Non-participation rate: 0 	<ul style="list-style-type: none"> General end-of-life population Cancer patients Deaths: 2000–2009 	<ul style="list-style-type: none"> Age Sex Ethnicity 	<ul style="list-style-type: none"> Restricted to cancer Type of cancer Time between diagnosis and death Cause of death 	Not included	Not included
Cardenas-Turanza et al, 2011 [10] Mexico N = 473	<ul style="list-style-type: none"> Retrospective cohort Previous study database Time frame: < last 2 years of life Non-participation rate: 10% 	<ul style="list-style-type: none"> General end-of-life population Deaths: 2001–2003 	<ul style="list-style-type: none"> Age Marital status Education Size of city 	<ul style="list-style-type: none"> Cause of death Hospital stay in the last year of life 	<ul style="list-style-type: none"> Healthcare insurance coverage 	Not included
Hayashi et al, 2011 [11] Japan N = 99	<ul style="list-style-type: none"> Retrospective cohort Chart review Time frame not specified No information on non-participation 	<ul style="list-style-type: none"> Home care service recipients Deaths: 2007–2010 	Not included	<ul style="list-style-type: none"> Type of disease 	<ul style="list-style-type: none"> Restricted to home care services Home nursing visits 	Not included
Houttekier et al, 2010 [12] Belgium N=1,690	<ul style="list-style-type: none"> Retrospective cohort Previous study database Time frame: last 3 months of life No information on non-participation 	<ul style="list-style-type: none"> Home or nursing home residents Deaths: 2005–2006 	<ul style="list-style-type: none"> Age^a Sex^a Income Informal care during last 3 months of life Place of residence^a 	<ul style="list-style-type: none"> Cause of death^a 	<ul style="list-style-type: none"> Hospital bed availability Care home beds^a Family physician involvement^a Home care involvement^a Palliative home care team 	<ul style="list-style-type: none"> Patient
Houttekier et al, 2010 ^b [13] N = 56,341 (Netherlands) N = 181,238 (England)	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time frame not specified No information on non-participation 	<ul style="list-style-type: none"> General end-of-life population Deaths: 2003 	<ul style="list-style-type: none"> Age Sex Living arrangements^a Urban residence Income^a 	<ul style="list-style-type: none"> Disease type 	<ul style="list-style-type: none"> Hospital bed availability Nursing home bed availability 	Not included
Tang et al, 2010 [14] Taiwan N = 201,252	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time frame: last year of life No information on non-participation 	<ul style="list-style-type: none"> General end-of-life population Cancer patients Deaths: 2001–2006 	<ul style="list-style-type: none"> Age Sex Marital status 	<ul style="list-style-type: none"> Restricted to cancer Type of cancer Metastasis Comorbidities Diagnosis-to-death interval 	<ul style="list-style-type: none"> Hospital beds Hospice care Health services in the last month of life 	Not included

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Bell et al, 2009 [15] United States N = 1,352	<ul style="list-style-type: none"> Retrospective cohort Previous study database Time frame not specified No information on non-participation 	<ul style="list-style-type: none"> General end-of-life population Japanese-American men Deaths: 1991–1999 	<ul style="list-style-type: none"> Age^a Restricted to men Restricted to Japanese-American 	<ul style="list-style-type: none"> Cause of death Cognitive impairment^a Functional measures^a Last examination-to-death period^a 	Not included	Not included
Kwak et al, 2008 [16] United States N = 30,765	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time frame: last year of life No information on non-participation 	<ul style="list-style-type: none"> Nursing home residents Deaths: 2000–2002 	<ul style="list-style-type: none"> Age Sex Marital status Ethnicity Education Urban/rural residence 	<ul style="list-style-type: none"> Cause of death Duration of nursing home stay 	<ul style="list-style-type: none"> Restricted to Medicare /Medicaid nursing home residents Hospice use 	Not included
Takezako et al, 2007 [17] Japan N = 86	<ul style="list-style-type: none"> Retrospective cohort Chart review Time frame not specified 1% excluded due to missing data 	<ul style="list-style-type: none"> Nursing home residents Deaths: 1999–2004 	<ul style="list-style-type: none"> Age Sex Marital status Living at home before nursing home 	<ul style="list-style-type: none"> Functional status 	<ul style="list-style-type: none"> Restricted to nursing home residents Full-time physician presence 	<ul style="list-style-type: none"> Family preference for nursing home care
Lin et al, 2007 [18] Taiwan N = 697,814	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time frame not specified 8% excluded due to missing data 	<ul style="list-style-type: none"> General end-of-life population Deaths: 1995–2004 	<ul style="list-style-type: none"> Age Sex Marital status Urbanization Geographic location 	<ul style="list-style-type: none"> Type of disease Cause of death 	<ul style="list-style-type: none"> Bed availability 	Not included
Gruneir et al, 2007 [19] United States N = 1,402,167	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time frame not specified 34% excluded due to either missing data or lack of eligibility 	<ul style="list-style-type: none"> Home or nursing home residents Deaths: 1997 	<ul style="list-style-type: none"> Age Sex Marital status Ethnicity Education Income Urban residence 	<ul style="list-style-type: none"> Cause of death 	<ul style="list-style-type: none"> Nursing home bed availability Hospital bed availability 	Not included
Motiwala et al, 2006 [20] Canada N = 58,689	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time-frame: last year of life 2% excluded due to late claims 	<ul style="list-style-type: none"> General end-of-life population Deaths 2001–2002 	<ul style="list-style-type: none"> Age^a Sex^a Social deprivation Immigration status 	<ul style="list-style-type: none"> Disease type Comorbidities Acute care conditions 	<ul style="list-style-type: none"> Hospital bed availability 	Not included
Cohen et al, 2006 [21] Belgium N = 55,759	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time frame not specified No information on non-participation 	<ul style="list-style-type: none"> General end-of-life population Deaths: 2001 	<ul style="list-style-type: none"> Age Sex Education Living arrangement Urbanization 	<ul style="list-style-type: none"> Cause of death 	<ul style="list-style-type: none"> Hospital bed availability 	Not included

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Klinkenberg et al, 2005 [22] Netherlands N = 270	<ul style="list-style-type: none"> Retrospective cohort Previous study database Last 3 months of life Non-participation: 5% 	<ul style="list-style-type: none"> General end-of-life population Deaths: 1995–1999 	<ul style="list-style-type: none"> Age Sex Marital status Education Region 	<ul style="list-style-type: none"> Cause of death Cognitive decline Functional status 	<ul style="list-style-type: none"> Care arrangement 	Not included
Brazil et al, 2005 [23] Canada N = 214	<ul style="list-style-type: none"> Retrospective cohort Informal caregiver survey Time-frame: last month of life (some analyses) Non-participation: 33% 	<ul style="list-style-type: none"> Home palliative care recipient Caregivers interviewed 2000–2002 	<ul style="list-style-type: none"> Urban residence Not living alone Caregiver age Caregiver health 	<ul style="list-style-type: none"> Cancer 	<ul style="list-style-type: none"> Restricted to home palliative care Family physician visits Caregiver satisfaction with help from family physician 	<ul style="list-style-type: none"> Patient
Aabom et al, 2005 [24] Denemark N = 4,092	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time-frame: last 3 months of life No information on non-participation 	<ul style="list-style-type: none"> Home residents Cancer patients Deaths: 1996–1998 	<ul style="list-style-type: none"> Age Sex Marital status Number of children Urban residence 	<ul style="list-style-type: none"> Restricted to cancer Type of cancer Time from diagnosis until death 	<ul style="list-style-type: none"> Restricted to those living at home Family physician home visits Contact with community nurses 	Not included
Fukui et al, 2004 ^c [25] Japan N = 428	<ul style="list-style-type: none"> Home care agency survey Time frame not specified Non-participation: 26% 	<ul style="list-style-type: none"> Cancer patients Home care recipient > 2 weeks Deaths: 2002 	<ul style="list-style-type: none"> Age Caregiver's distress 	<ul style="list-style-type: none"> Restricted to cancer Functional status Daily infusions 	<ul style="list-style-type: none"> Restricted to nurse home visits Hospitalization in the event of a crisis Nursing visits 	Not included
Levy et al, 2004 [26] United States N = 152,494	<ul style="list-style-type: none"> Retrospective cohort Administrative databases Time frame not specified No information on non-participation 	<ul style="list-style-type: none"> Nursing home residents Admissions to nursing homes in 2001 	<ul style="list-style-type: none"> Age Ethnicity Rural/Urban residence 	<ul style="list-style-type: none"> Disease type Function Cognitive performance 	<ul style="list-style-type: none"> Restricted to Medicare nursing home residents Type of hospital (profit/non-profit) Size of hospital 	<ul style="list-style-type: none"> DNR order DNH order

Abbreviations: DNH, do-not-hospitalize; DNR, do-not-resuscitate.

^aVariables included in the multivariate model but ORs not provided

^bData from Belgium not included in our analysis since it may be part of another publication already included in our analyses [5].

^cOnly the variables not included in a more recent publication [8] were extracted from this study.

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