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Homes: Application of a Typology of Implementation

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Abstract: Background

The provision of institutional long term care for older people varies across Europe reflecting different models of health care delivery. Care for dying residents requires integration of palliative care into current care work, but little is known internationally of the different ways in which palliative care is being implemented in the care home setting.

Objectives

To identify and classify, using a new typology, the variety of different strategic, operational and organisational activities related to palliative care implementation in care homes across Europe.

Design and methods

We undertook a mapping exercise in 29 European countries, using two methods of data collection: (1) a survey of country informants and (2) a review of data from publically available secondary data sources and published research. Through a descriptive and thematic analysis of the survey data we identified factors that contribute to the development and implementation of palliative care into care homes at different structural levels. From this data a typology of palliative care implementation for the care home sector was developed and applied to the countries surveyed.

Results

We identified three levels of palliative care implementation in care homes: macro (national/regional policy, legislation, financial and regulatory drivers), meso (implementation activities such as education, tools/frameworks, service models and research) and micro (palliative care service delivery). This typology was applied to data collected from 29 European countries and demonstrates the diversity of palliative care implementation activity across Europe with respect to the scope, type of development and means of provision. We found that macro and meso factors at two levels shape palliative care implementation and provision in care homes at the micro organisational level.

Conclusions

Implementation at the meso and micro level is supported by macro level engagement, but can happen with limited macro strategic drivers. Ensuring the delivery of consistent and high quality palliative care in care homes is supported by implementation activity at these three levels. Understanding where each country is in terms of activity at these three levels (macro, meso and micro) will allow strategic focus on future implementation work in each country.



Dr John Morley Editor –in-Chief, JAMDA Saint Louis University Medical Center, Division of Geriatric Medicine, 1402 S. Grand Boulevard, Room M238, St. Louis, MO 63104

21 February 2017

Dear Professor Morley,

Re: Palliative Care Development in European Care Homes and Nursing Homes: Application of a Typology of Implementation

The submitted manuscript describes the findings of a study undertaken as part of a large EU-funded FP7 project, PACE (Palliative care for Older People) in six EU countries (Belgium, Finland, Italy, the Netherlands, Poland and the United Kingdom). PACE aims to describe and compare how residents in care or nursing homes are dying in different countries and what the quality and costs of the provided care are, as well as relate palliative care systems and structures to these outcomes. The first study in this programme of research looked at palliative care development and provision in care homes across 29 European countries and findings frm this study are reported in this submitted paper.

The research leading to these results has received funding from the European Union's Seventh Framework Programme (FP7/ 2007- 2013) under Grant Agreement No. 603111 (PACE project Palliative Care for Older People) after extensive international peer review. The funders had no role in study design, collection, analysis or interpretation of the data, in writing or in the decision to submit this article for publication. Proof of funding can be sent to the editorial office.

We submit the paper as an original report. It has not been submitted elsewhere. The manuscript has been read and approved by all the authors. The corresponding author for the article is mentioned in the manuscript and below in this letter. For all authors, there are no conflicts of interest.

Author's contributions: the first author conceived the study and all authors have made substantial contributions to conception and design, or acquisition of data. The first author drafted the manuscript and all authors have been involved in revising it critically for intellectual content. All authors read and approved the final version of the manuscript to be published and agree to be accountable for all aspects of the work.

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I look forward to hearing from you following peer review of the paper.

Yours sincerely

Katheria

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Palliative Care Development in European Care Homes and Nursing Homes: Application of a Typology of Implementation

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Palliative Care Development in European Care Homes and Nursing Homes: Application of a Typology of Implementation

Abstract

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Key Words:

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2

Palliative Care Development in European Care Homes and Nursing Homes: Application of a Typology of Implementation

Introduction

Changes in population demography across Europe are leading to an increased proportion of older people needing to access higher levels of care and support services. For some older people living with multiple complex health conditions, a decision will be made to move into a care home, when they are no longer able to live independently in their own homes. Across Europe there is diversity in the national policy, funding and regulatory structures within which care homes operate. As residents in care homes become more frail they may require palliative and end of life care within these facilities. Health and social care staff working within, and external to, the organisation can provide this care.

The implementation of palliative care in care homes has received increased international attention over the last ten years. In 2013, A European Association of Palliative Care (EAPC) Taskforce: *Palliative Care in Long-Term Care Settings for Older People*, reported on how palliative care was being developed in care homes in 13 European countries. This Taskforce identified that different initiatives and interventions were being developed and implemented.^{3,4} The PACE (*Comparing the effectiveness of palliative care for older people in long term care facilities in Europe*) research programme⁵, extends this work in a second EAPC Taskforce: *Mapping Palliative Care Systems in Long-Term Care Facilities in Europe*. This considers the development of palliative care provision in care homes across a larger number of European countries affiliated to the EAPC.

In the context of this study, the term 'care home' is used to refer to a collective institutional setting where care is provided to older people onsite 24 hours a day, seven days a week, including facilities with on-site and offsite nurses and medical staff.³ This term includes a range of facility types offering different levels of social and health care.⁵The term care home is concerned with long term care facilities based in the community, and does not include rehabilitation or sub-acute facilities, as included in a recent nursing home definition.⁶

Within palliative care, the mapping of palliative care provision is well established in Europe.⁷⁻⁹ The focus of such work is upon the provision of specialist palliative care in a range of settings, but limited attention has

been paid to specialist and generalist palliative care provision in care home environments.⁷⁻⁹ The mapping work to date has been cross-sectional, and the underlying methodology and reliability of data sources used questioned.¹⁰ This static approach, also, does not capture implementation activity that would promote the ongoing development of palliative care into care home practice. Whilst implementation strategies across palliative care more widely have been identified, using education process mapping, feedback, multi-disciplinary meetings and multi-faceted approaches¹¹, they lack a clear underlying rationale. There is therefore a need to underpin the current interest in palliative care provision in care homes with an empirically derived typology for implementation that can be used internationally, nationally and organisationally to monitor and compare future activity by service providers, regulators and policy makers.

Aims and Objectives

The aim of the study is to map and classify different structures, organizational models, and policies related to palliative care provision in care homes in Europe. We report in this paper on the following specific objectives:

- To describe existing formal palliative care structures or services, organizations and policies at local, regional, national level that support the development and provision of palliative care in care homes;
- 2. To develop a typology for palliative care implementation in care homes.

Methods

We collected data from 29 European countries: Albania, Austria, Belgium, Croatia-Hrvatska, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, The Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, Turkey and the United Kingdom (UK). We used two methods of data collection: i) country mapping survey and ii) documentary review.

i) country mapping survey

In the country mapping survey, we sought to describe the broader context for palliative care in care homes in each country, alongside the identification of examples of initiatives undertaken to develop palliative care in care homes. We aimed to identify country informants in as many European countries as possible. These were individuals with expertise in palliative care in care homes with relevant practice, research and/or education

experience, and links to other experts and specialist contacts within their respective countries. We identified the informants through their involvement in a previous study² and partner organisations (the EAPC, AGE Platform Europe, Alzheimer Europe and the European Forum for Primary Care). Informants were identified for 25 countries; no contacts were found for four countries (Albania, Croatia, Latvia, Romania). Country informants received a survey questionnaire, developed by the research team, based on previous work². Data on the country context was collected, between 2014 and 2015, about the following domains in each country: organisation of care in care homes; care homes as a place of death; types of care homes and terminology; resident populations in care homes; funding status of care home providers (public, not-for-profit, private); funding of resident care; regulation of care homes; and key drivers for change in care homes at national and regional levels. Initiatives that promoted the provision of palliative care in care homes were identified as exemplars of good practice, alongside any perceived barriers to change.

ii) documentary review

Data on the care home context and palliative care provision in this setting were also sought from publically available international statistics from the OECD, research studies focused on mapping long–term care¹² and palliative care⁸ and national reports and country level statistics. This provided contextual data to supplement the data provided by country informants and some data for the four countries for which surveys were not received.

The data collected from the mapping survey and documentary review were collated by country and domain, and then compared across countries by the domains of interest. We used an adapted typology of organisational change³ based on work by Ferlie and Shortell¹³ to classify the drivers for change and initiatives being undertaken to develop palliative care in care homes. We focus here on three levels of implementation activity that support the development of palliative care in care homes in a country: macro, meso and micro level activity (Table 1). We scored each country for each of the three levels based on evidence identified from the survey and secondary data sources.

INSERT TABLE 1 HERE Table 1: Definition and scoring of three levels of implementation activity

Findings

The long-term care context in each country and the specific examples on international, national and

organisational initiatives are described elsewhere. ¹⁴ Here we consider the development and implementation of

palliative care provision and related activities in care homes across countries.

Macro – national and regional level

The macro level drivers for the implementation of palliative care in care homes at a national and regional level

(eg province, state, canton), reflect the different ways in which health and social care legislation and policies

are enacted in individual countries. We classified the drivers into four main types: policy, legislation, financial

and regulatory (Table 2). Through this classification it is possible to see the extent to which there is specific

attention paid to palliative care provision in care homes at a national/regional level (Figure 1; Supplementary

Data 1).

INSERT TABLE 2 HERE: Examples of domains of macro level activity

INSERT FIGURE 1 HERE Figure 1: No. of Macro Domains Engaged with across 20 European countries

Only 7% (n=2) countries addressed palliative care provision in care homes at a national or regional level either

in four (Belgium) or three (UK) domains (Figure 1). More than half of the countries surveyed (55%; n=16)

(Albania, Croatia, Cyprus, Czech Republic, Denmark, Finland, Greece, Hungary, Iceland, Israel, Latvia, Lithuania,

Luxembourg, Portugal, Romania, Turkey) had no evidence of any activity in any national/regional domain.

Eight countries addressed palliative care provision in care homes in policy documents (Austria, Belgium, Italy,

Netherlands, Spain, Sweden, Switzerland, UK) and seven countries had addressed this through regulatory

processes (Austria, Belgium, Germany, Ireland, Poland, Switzerland, UK).

Meso level implementation activities

At a meso level, implementation of palliative care was promoted by development activities that were provided

by a range of bodies (non-governmental organisations, palliative care providers, care home providers) and

were delivered across more than one facility. Four types of implementation activity were identified, building

upon the work of van Riet Paap et al. 11 We classified meso-level activities as: education and training, use of

6

tools/frameworks, service models supporting care homes, and service development projects or research into

palliative care practice (Table 3). These activities could be undertaken nationally or regionally or even within

organisations. Based on the data provided we rated each country, according to the evidence available, for the

presence of each type of implementation activity (Figure 2; Supplementary Data 2).

INSERT FIGURE 2 HERE: Extent of meso level activity by country

In 28% (n=8) countries (Austria, Belgium, Denmark, Germany, Ireland, Netherlands, Switzerland, UK) there was

evidence of all four types of implementation activities. In just under half the countries there was no evidence

of any activity type (Albania, Cyprus, Latvia, Lithuania, Portugal, Romania, Spain, Turkey) (28%; n=8) or only 1

type of activity (Croatia, Finland, Greece, Hungary, Israel, Italy)(21%; n=6). The most frequent activities present

were the use of service provision models (62%; n=18) and education activity (59%; n=17). However, there is no

consistent data on the educational programmes in terms of their length or the level of curriculum. Within

countries, activity could also vary by facility type. For example, in Poland staff education is a requirement for

staff working in nursing homes, but service provision through hospice at home services can only be delivered

in social care facilities.

Micro level of engagement

The micro level refers to the proportion of care homes in each country that are directly engaged in providing

palliative care for their residents. There are no central registries of care home engagement in palliative care

provision, so the assessments are necessarily crude (Figure 3; Supplemental data 3). There is currently no

evidence of palliative care provision in care homes in 17% (n=5) of countries (Albania, Latvia, Lithuania,

Romania, Turkey), minimal activity in 42% (n=12) of countries (Croatia, Cyprus, Czech Republic, Finland,

Greece, Hungary, Iceland, Israel, Italy, Poland, Portugal, Spain), some activity in 17% (n=5) of countries

(Denmark, France, Germany, Luxembourg, Norway) and extensive activity in 24% (n=7) of countries (Austria,

Belgium, Ireland, Netherlands, Sweden, Switzerland, UK). In no country is there evidence of palliative care

provision in all care home facilities.

INSERT FIGURE 3 HERE: Extent of micro level palliative care development activity

7

It is also possible to represent visually the level of meso and micro level activity in each country (Figure 4).

INSERT FIGURE 4 HERE Figure 4: Comparing meso and micro level activity across 29 European countries

Figure 4 shows that countries where we identified greater evidence of meso level activities also showed greater micro level engagement in palliative care delivery in care home organisations. In some countries there are a full range of implementation initiatives and a large proportion of facilities are providing palliative care (Austria, Belgium, Denmark, Switzerland, Ireland, Netherlands, UK). Some countries are engaging with these issues but not yet to the higher levels of activity (Germany, France, Luxembourg, Norway). There are many countries with no, or minimal meso and micro activity, around palliative care provision in care homes (Croatia, Cyprus, Finland, Greece, Hungary, Israel, Italy, Latvia, Lithuania, Portugal, Romania, Spain, Turkey).

Discussion

This study has provided the first international overview of palliative care provision and development in care home settings. It proposes a new typology to categorise palliative care implementation in care homes on three levels.

The implementation of palliative care into care homes depends upon many factors. Palliative care in this setting is generally not well supported at national or regional levels by enforceable mechanisms such as legislation or regulation. Legislation influences issues such as staffing levels, staff qualifications and any obligation for palliative care training and facility accreditation/licensing. Non enforcable national policy directives and guidelines on palliative care provision are often written for application in any care setting and do not necessarily pay specific attention to the context of care in care homes. Funding policy, can facilitate or hinder the implementation of palliative services in care homes. Funding models for care can create opportunities for new care models such as palliative care through funding for specialist types of care. These national/regional implementation drivers are then operationalised and implemented at an organisational (micro) level leading to further variance within countries.

The WHO Public Health Strategy for Palliative Care¹⁵ proposes that appropriate policies, availability of education and training, availability of medicine and implementation across all levels of society are required to develop palliative care at a country level. This reflects wider knowledge about approaches to change within the health care system, requiring attention at all levels of the system.¹³ This is also the case for palliative care in care homes. It has been previously identified that education and training are required to support the development of palliative care in care homes, but these are not sufficient in themselves¹⁶ so an appropriate policy framework specific to these settings is also needed. However, even with existing policy in place, this will not necessarily ensure the implementation of palliative care practices within organisations unless the policy is supported by effective implementation processes that include education, and also address how change can be facilitated in the organisation.

Overall, we identified low levels of palliative care development and delivery in care homes. The variation in palliative care development in care homes reflects the origins of palliative care and the extent to which it is still often primarily cancer-focused palliative care in some countries. The Interestingly, this low level of palliative care activity in care homes does not reflect prior findings on the global mapping of specialist palliative care development in countries commissioned by the Worldwide Palliative Care Alliance (Supplementary data 4). A number of countries which were previously classified as being at levels 4a and 4b indicating "preliminary or advanced integration of palliative care into mainstream services" are clearly not currently integrated with the care home sector. For example: Finland, Hungary, Israel, Romania, Spain whilst indicating integration of specialist palliative care into services (usually hospitals or care in the community), have little evidence of a countrywide focus on palliative care provision in care homes at either the macro, meso or micro level.

We note that, between countries, there is a great diversity in the amount and quality of data available, reflecting the status of care home organisation within and across countries; and the dynamic situation with respect to funding and ongoing organisational change within countries. The use of self-reported data from expert informants in countries has provided insight into activities in the different countries, but this does not provide a comprehensive overview of all activity in a country, as regional differences can distort patterns of service provision.

Conclusions

At a time of great demographic change and increased financial pressures, care homes are an important component of the health and social care economy especially for a significant proportion of frail older people. They are also the place where these people will experience their dying and deaths. Macro and meso factors at two levels shape palliative care development and provision in care homes at the micro organisational level. Across Europe there is generally a limited strategic engagement through macro level activity such as specific legislation, policy guidelines, regulation or funding mechanisms. Development at the meso and micro level is supported by macro level engagement, but can also happen with limited macro strategic drivers. This implementation typology offers a structure with which to review the extent of nationally led and locally supported palliative care activity and development in care homes, and through which to direct future activity.

Acknowledgements

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For all authors, there are no conflicts of interest.

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Figure 1: No. of Macro Domains Engaged with across 20 European countries

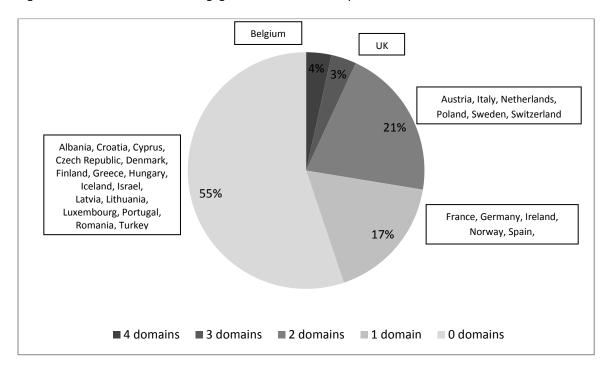


Figure 2: Extent of meso level activity by country

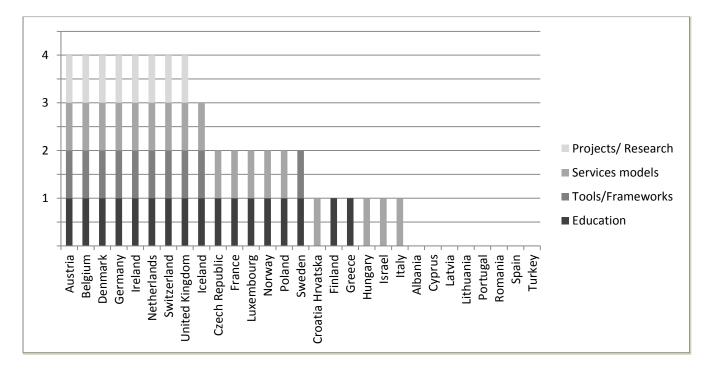
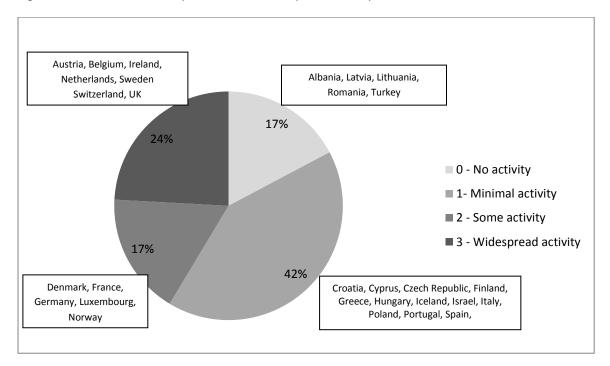


Figure 3: Extent of micro level palliative care development activity



MICRO

No engagement by and in LTCFS with palliative care

initiatives or care provision

Figure 4: Comparing meso and micro level activity across 29 European countries

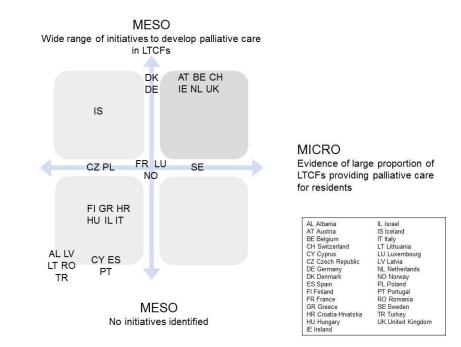


Table 1: Definition and scoring of three levels of implementation activity

Level	Definition	Domains of activity	Scoring	
Macro	National or regional drivers that support palliative care provision in care homes	 Policy directives/ documents/ strategies/guidelines Legislation Financial provision and mechanisms Regulatory processes and quality assurance processes 	1 point awarded for activity identified in any one of these four domains Range: 0-4	
Meso	Implementation activities to support the development of palliative care in care homes	 Education programmes Tools/Frameworks Services supporting LTCFs Service development projects/ research into palliative care practice 	1 point awarded for activity identified in any one of these four domains Range: 0-4	
Micro	Extent of organisational provision of palliative care in care homes	 No evidence of palliative care activity in any care homes in country Minimal activity – isolated examples of palliative care provision in care homes Some activity – examples of palliative care provision identified in some regions/ providers Widespread activity – palliative care provided in some care homes across different regions/ providers Full activity palliative care provided in all care homes in country 	Country scored on extent of palliative care provision in care home organisations No activity - 0 Minimal activity - 1 Some activity - 2 Widespread activity - 3 Full activity - 4	

Table 2: Examples of domains of macro level activity

Domain	Example
Policy directives/ documents/ strategies/guidelines	UK (England): national End of Life Care strategy published in 2008 specifically focuses on care homes as a place where people die and require palliative care provision
Legislation	France: "Patients' rights and the end of life" Act (2005) – explicit objective regarding palliative care in care homes
Financial provision and mechanisms	Poland: palliative care can be funded through care budgets in care homes depending on type of facility
Regulatory processes and quality assurance processes	Austria: Criteria for Palliative Care integrated in the "National Certificate of Quality" (NQZ) for nursing homes

Table 3: Examples of meso level implementation activities

Implementation activity	Example
Education/training	Denmark: education project in 6 facilities where palliative care
	competencies for staff addressed through multi-disciplinary
	education as part of wider staff competency development in the
	care homes setting
	Germany: Deutsche Palliative Stiftung (German Palliative Care
	Foundation) developed training manuals for care home staff
Tools/frameworks	Iceland: The Liverpool Care pathway for the last days of life was
(e.g. care pathways, checklists, quality	introduced into facilities in the metropolitan rea of Reykjavík.
assurance processes, organizational	Sweden: Use of the Palliative Care registry ensures regular review
change programmes)	of care and quality assurance processes in place
	UK: Gold Standards Framework for Care Homes – a programme
	of organizational change that provides a structured process of
	change to improve palliative care provision in care homes
Service models	Croatia: Croatian Association of Hospice friends visits nursing
(services supporting care homes to deliver	homes regularly.
palliative care)	Luxembourg: hospice at home teams support residents in care
	homes
Service development/research	Belgium: Introduction of the guideline for implementation of
(projects or research into palliative care	palliative care in care homes was led by the Federation Palliative
practice in care homes)	Care Flanders.
	Ireland: Undertaken a 'Let Me Decide' project to introduce care
	planning intervention into care homes supported by the Irish
	Hospice Foundation.

Supplementary Data 1: Macro: National/regional activity

Country	•					$\overline{}$	$\overline{}$
Albania 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			9	stion	ation	& /	
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Albania 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		/ १0	1	/ REE	/ KW	/ 500	
Belgium 1 1 1 4 Croatia Hrvatska 0 0 0 0 0 Cyprus 0 0 0 0 0 0 Czech Republic 0 0 0 0 0 0 0 Denmark 0<			0	0	0	0	
Croatia Hrvatska 0 0 0 0 Cyprus 0 0 0 0 Czech Republic 0 0 0 0 Denmark 0 0 0 0 0 Finland 0 0 0 0 0 France 0 1 0 0 1 Germany 0 0 0 0 0 Greece 0 0 0 0 0 Hungary 0 0 0 0 0 Iceland 0 0 0 0 0 Italy 0 1 0 1 1 Israel 0 0 0 0 0 Italy 0 1 0 1 2 Latvia 0 0 0 0 0 Lithuania 0 0 0 0 0 <tr< th=""><th>Austria</th><th></th><th>0</th><th>1</th><th>0</th><th></th><th></th></tr<>	Austria		0	1	0		
Cyprus 0 0 0 0 Czech Republic 0 0 0 0 Denmark 0 0 0 0 Finland 0 0 0 0 France 0 1 0 0 Germany 0 0 1 0 1 Greece 0 0 0 0 0 0 Hungary 0	Belgium			1	1		
Czech Republic 0 0 0 0 Denmark 0 0 0 0 0 Finland 0 0 0 0 0 France 0 1 0 0 1 Germany 0 0 1 0 1 Greece 0 0 0 0 0 Hungary 0 0 0 0 0 Iceland 0 0 0 0 0 Ireland 0 0 1 0 1 Israel 0 0 0 0 0 Italy 0 1 0 1 2 Latvia 0 0 0 0 0 Lithuania 0 0 0 0 0 Luxembourg 0 0 0 0 0 Norway 1 0 0 0	Croatia Hrvatska	0	0	0	0	0	
Denmark 0 0 0 0 Finland 0 0 0 0 France 0 1 0 0 Germany 0 0 1 0 1 Greece 0 0 0 0 0 0 Hungary 0 0 0 0 0 0 0 Iceland 0	Cyprus	0	0	0	0	0	
Finland 0 0 0 0 France 0 1 0 0 1 Germany 0 0 1 0 1 Greece 0 0 0 0 0 Hungary 0 0 0 0 0 Iceland 0 0 0 0 0 Ireland 0 0 1 0 1 Israel 0 0 0 0 0 Italy 0 1 0 1 2 Latvia 0 0 0 0 0 Lithuania 0 0 0 0 0 Luxembourg 0 0 0 0 0 Netherlands 1 0 0 0 1 Poland 0 0 0 0 0 Romania 0 0 0 0	Czech Republic	0	0	0	0	0	
France 0 1 0 0 1 Germany 0 0 1 0 1 Greece 0 0 0 0 0 Hungary 0 0 0 0 0 Iceland 0 0 0 0 0 Ireland 0 0 1 0 1 Israel 0 0 0 0 0 Italy 0 1 0 1 2 Latvia 0 0 0 0 0 Lithuania 0 0 0 0 0 Luxembourg 0 0 0 0 0 Netherlands 1 0 0 1 2 Norway 1 0 0 0 1 Poland 0 0 0 0 0 Romania 0 0 0	Denmark	0	0	0	0	0	
Germany 0 0 1 0 1 Greece 0 0 0 0 0 Hungary 0 0 0 0 0 Iceland 0 0 0 0 0 Ireland 0 0 1 0 1 Israel 0 0 0 0 0 Italy 0 1 0 1 2 Latvia 0 0 0 0 0 Lithuania 0 0 0 0 0 Luxembourg 0 0 0 0 0 Netherlands 1 0 0 1 2 Norway 1 0 0 0 1 2 Poland 0 0 0 0 0 0 0 Romania 0 0 0 0 0 0 0	Finland	0	0	0	0	0	
Greece 0 0 0 0 0 Hungary 0 0 0 0 0 Iceland 0 0 0 0 0 Ireland 0 0 1 0 1 Israel 0 0 0 0 0 Italy 0 1 0 1 2 Latvia 0 0 0 0 0 Lithuania 0 0 0 0 0 Luxembourg 0 0 0 0 0 Netherlands 1 0 0 1 2 Norway 1 0 0 0 1 Poland 0 0 1 1 2 Portugal 0 0 0 0 0 Romania 0 0 0 0 0 Spain 1 0 0	France	0	1	0	0	1	
Hungary 0 0 0 0 0 Iceland 0 0 0 0 0 Ireland 0 0 1 0 1 Israel 0 0 0 0 0 Italy 0 1 0 1 2 Latvia 0 0 0 0 0 0 Lithuania 0 0 0 0 0 0 0 Luxembourg 0 <t< th=""><th>Germany</th><th>0</th><th>0</th><th>1</th><th>0</th><th>1</th><th></th></t<>	Germany	0	0	1	0	1	
Iceland	Greece	0	0	0	0	0	
Ireland	Hungary	0	0	0	0	0	
Israel	Iceland	0	0	0	0	0	
Italy 0 1 0 1 2 Latvia 0 0 0 0 0 Lithuania 0 0 0 0 0 Luxembourg 0 0 0 0 0 Netherlands 1 0 0 1 2 Norway 1 0 0 0 1 2 Poland 0 0 1 1 2 Portugal 0 0 0 0 0 Romania 0 0 0 0 0 Spain 1 0 0 0 1 Sweden 1 0 0 0 1 Switzerland 1 0 0 0 0 United Kingdom 1 0 1 1 3	Ireland	0	0	1	0	1	
Latvia 0 0 0 0 Lithuania 0 0 0 0 0 Luxembourg 0 0 0 0 0 Netherlands 1 0 0 1 2 Norway 1 0 0 0 1 2 Poland 0 0 1 1 2 2 Portugal 0 0 0 0 0 0 0 Romania 0 0 0 0 0 0 0 0 0 0 1 2 Sweden 1 0	Israel	0	0	0	0	0	
Lithuania 0 0 0 0 0 Luxembourg 0 0 0 0 0 Netherlands 1 0 0 1 2 Norway 1 0 0 0 1 Poland 0 0 1 1 2 Portugal 0 0 0 0 0 Romania 0 0 0 0 0 Spain 1 0 0 0 1 Sweden 1 0 0 1 2 Switzerland 1 0 0 0 0 United Kingdom 1 0 1 1 3	Italy	0	1	0	1	2	
Luxembourg 0 0 0 0 Netherlands 1 0 0 1 2 Norway 1 0 0 0 1 1 Poland 0 0 1 1 2 2 Portugal 0	Latvia	0	0	0	0	0	
Netherlands 1 0 0 1 2 Norway 1 0 0 0 1 Poland 0 0 1 1 2 Portugal 0 0 0 0 0 Romania 0 0 0 0 0 Spain 1 0 0 0 1 Sweden 1 0 0 1 2 Switzerland 1 0 1 0 2 Turkey 0 0 0 0 0 United Kingdom 1 0 1 1 3	Lithuania	0	0	0	0	0	
Norway 1 0 0 0 1 Poland 0 0 1 1 2 Portugal 0 0 0 0 0 Romania 0 0 0 0 0 Spain 1 0 0 1 2 Sweden 1 0 1 2 Switzerland 1 0 1 0 2 Turkey 0 0 0 0 0 United Kingdom 1 0 1 1 3	Luxembourg	0	0	0	0	0	
Poland 0 0 1 1 2 Portugal 0 0 0 0 0 Romania 0 0 0 0 0 Spain 1 0 0 0 1 Sweden 1 0 0 1 2 Switzerland 1 0 1 0 2 Turkey 0 0 0 0 0 United Kingdom 1 0 1 1 3	Netherlands	1	0	0	1	2	
Portugal 0 0 0 0 0 Romania 0 0 0 0 0 0 Spain 1 0 0 0 1 2 Sweden 1 0 0 1 2 Switzerland 1 0 1 0 2 Turkey 0 0 0 0 0 United Kingdom 1 0 1 1 3	Norway	1	0	0	0	1	
Romania 0 0 0 0 0 Spain 1 0 0 0 1 Sweden 1 0 0 1 2 Switzerland 1 0 1 0 2 Turkey 0 0 0 0 0 United Kingdom 1 0 1 1 3	Poland	0	0	1	1	2	
Spain 1 0 0 0 1 Sweden 1 0 0 1 2 Switzerland 1 0 1 0 2 Turkey 0 0 0 0 0 United Kingdom 1 0 1 1 3	Portugal	0	0	0	0	0	
Sweden 1 0 0 1 2 Switzerland 1 0 1 0 2 Turkey 0 0 0 0 0 United Kingdom 1 0 1 1 3	Romania	0	0	0	0	0	
Switzerland 1 0 1 0 2 Turkey 0 0 0 0 0 United Kingdom 1 0 1 1 3	Spain	1	0	0	0	1	
Turkey 0 0 0 0 United Kingdom 1 0 1 1 3	Sweden	1	0	0	1	2	
United Kingdom 1 0 1 1 3	Switzerland	1	0	1	0	2	
<u> </u>	Turkey	0	0	0	0	0	
Total 8 3 7 6	United Kingdom	1	0	1	1	3	
	Total	8	3	7	6		

Supplementary Data 2: Meso: Implementation Activities

Country	Education	Tools/Frameworks	Service models	
Albania	0	0	0	
Austria	1	1	1	
Belgium	1	1	1	
Croatia	0	0	1	
Cyprus	0	0	0	
Czech Republic	1	0	1	
Denmark	1	1	1	
Finland	1	0	0	
France	1	0	1	
Germany	1	1	1	
Greece	1	0	0	
Hungary	0	0	1	
Iceland	1	1	1	
Ireland	1	1	1	
Israel	0	0	1	
Italy	0	0	1	
Latvia	0	0	0	
Lithuania	0	0	0	
Luxembourg	1	0	1	
Netherlands			1	
Norway	1	0	1	
Poland*	1	0	1	
Portugal	0	0	0	
Romania	0	0	0	
Spain	0	0	0	
Sweden	1	1	0	
Switzerland	1	1	1	
Turkey	0	0	0	
United Kingdom	1	1	1	

^{*} In Polish Type 1 facilities (which have on-site nurses and doctors) basic educati In Polish Type 2 facilities (which have on-site nurses) only hospice at home servi

Supplementary Data 3: Micro: Palliative care service provision in care homes

Country	score		
Albania	0		
Austria	3		
Belgium	3		
Croatia	1		
Cyprus	1		
Czech Republic	1		
Denmark	2		
Finland	1		
France	2		
Germany	2		
Greece	1		
Hungary	1		
Iceland	1		
Ireland	3		
Israel	1		
Italy	1		
Latvia	0		
Lithuania	0		
Luxembourg	2		
Netherlands	3		
Norway	2		
Poland	1		
Portugal	1		
Romania	0		
Spain	1		
Sweden	3		
Switzerland	3		
Turkey	0		
United Kingdom	3		

	MICRO – Delivery of care
0	No activity
1	Minimal activity
2	Some activity
3	Widespread activity
4	Full activity

Supplementary Data 4: World Palliative Care Association country classification (Lynch et al 2013)

		/	/	/	/
Country		。 / 。	. / .		k / is
	Macr	Mesc	Micro	S COR	t classi
Belgium	4	4	3	11	4b
United Kingdom	3	4	3	10	4b
Austria	2	4	3	9	4b
Netherlands	2	4	3	9	4a
Ireland	1	4	3	8	4b
Germany	1	4	2	7	4b
Norway	1	4	2	7	4b
Switzerland	2	2	3	7	4b
Denmark	0	4	2	6	4a
France	1	2	2	5	4b
Poland	2	2	1	5	4b
Sweden	2	0	3	5	4b
Iceland	0	3	1	4	4b
Italy	2	1	1	4	4b
Luxembourg	0	2	2	4	4a
Czech Republic	0	2	1	3	3b
Portugal	0	2	1	3	3b
Croatia Hrvatska	0	1	1	2	3b
Finland	0	1	1	2	4a
Greece	0	1	1	2	3a
Hungary	0	1	1	2	4a
Israel	0	1	1	2	4a
Spain	1	0	1	2	4a
Cyprus	0	0	1	1	3b
Albania	0	0	0	0	3b
Latvia	0	0	0	0	3a
Lithuania	0	0	0	0	3b
Romania	0	0	0	0	4b
Turkey	0	0	0	0	3b

Key	4b
	4a
	3b
	3a