# Atlas of Palliative Care in the Eastern Mediterranean Region

Hibah Osman, Alaa Rihan, Eduardo Garralda, John Y. Rhee, Juan José Pons, Liliana de Lima, Arafat Tfayli, Carlos Centeno



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ics
Universidad de Navarra
Institute for Culture and Society

International Association for Hospice & Palliative Care

Atlas of Palliative Care in the Eastern Mediterranean Region

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# 1. Introduction

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# National Collaborators

On behalf of the project team and their supporting institutions, we would like to express our gratitude to the organizations, institutions, associations, and professionals who have made this project possible by contributing their valuable time to providing information, feedback, and support.

The following persons have either completed the questionnaire and/or participated in the in-depth interviews to provide the necessary information about the development of palliative care in their respective countries.

| COUNTRY | NAME | INSTITUTIONAL AFFILIATION |
|---|---|---|
| **Egypt** | Mohamad El Shamy | Children Cancer Hospital Egypt |
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| **Tunisia** | Henda Rais | Tunis Institut Salah Azaiez |
| **UAE** | CONFIDENTIAL** | CONFIDENTIAL |

*Leaders were identified in Yemen, Bahrain, and Libya but no responses were obtained. No leaders could be identified in the following countries: Afghanistan, Djibouti, Syrian Arab Republic and Somalia. These countries are not represented in the Atlas.

**CONFIDENTIAL is used when the country collaborator requested his/her identity not to be disclosed.

# Institutions

The Atlas of Palliative Care in the Eastern Mediterranean Region is a joint project between the Lebanese Center for Palliative Care – Balsam and the ATLANTES Research Program at the Institute for Culture and Society, University of Navarra, Spain. The World Health Organization (WHO EMRO) contributed to the project offering financial support for the printed version of this Atlas. The International Association for Hospice and Palliative Care (IAHPC) provided funding for design and printing.

## LEBANESE CENTER FOR PALLIATIVE CARE – BALSAM

The Lebanese Center for Palliative Care – Balsam is a non-governmental organization that works to relieve suffering and improve quality of life among people with life-threatening or life-limiting illnesses through patient care, advocacy, capacity building, and research. Balsam's vision is to ensure that palliative care is available and accessible to all people in Lebanon. Balsam believes in providing the best quality of life for as long as life lasts, supporting life, not hastening death, and respecting patients' wishes, values, and beliefs. We are committed to developing palliative care in Lebanon and ensuring that it becomes integrated into our healthcare system.

For further information on the Lebanese Center for Palliative Care – Balsam visit http://www.balsam-lb.org/

## ATLANTES RESEARCH PROGRAM, INSTITUTE FOR CULTURE AND SOCIETY

The ATLANTES program aims to disseminate the essential and highly human value of palliative care in society and among professionals. ATLANTES' vision is to improve the understanding towards patients with non-curable illnesses both in the medical field and in society, from a dignity-based perspective, including accompaniment and respect for the natural course of the disease and its emotional and spiritual dimensions.

ATLANTES is a multi-disciplinary team based in Pamplona, within the Institute for Culture and Society (University of Navarra). We combine several disciplines to enrich research with the diverse social sciences approaches. In addition, we count on a wide network of collaborators from different countries to contribute to a more comprehensive and diverse view of palliative care.

We work on four strategic lines: the intangible aspects of palliative care, the message of palliative care, education of professionals and the public, and finally, the international development of palliative care disciplines. Monitoring palliative care development in the Eastern Mediterranean region fits within our fourth strategic line, as do other regional Atlases.

Further information on the ATLANTES program is available at: http://www.unav.edu/web/instituto-cultura-y-sociedad/proyecto-atlantes

## INTERNATIONAL ASSOCIATION FOR HOSPICE AND PALLIATIVE CARE

The International Association for Hospice and Palliative Care (IAHPC) works with UN agencies, governments, associations, and individuals to increase access to essential medicines for palliative care, foster opportunities in palliative care education, research and training, and increase service provision around the globe. IAHPC works at the international, regional, and national levels to promote appropriate policies and regulations to ensure access to palliative care.

The vision of IAHPC is for universal access to palliative care integrated in a continuum of care with disease prevention and treatment.

The mission of IAHPC is to improve the quality of life of adults and children with life-threatening conditions and their families. IAHPC works with governments, agencies, and individuals, to improve knowledge and foster opportunities in education, research, and training around the globe.

Further information on IAHPC at: http://www.hospicecare.com/home/

***The Lebanese Center for Palliative Care – Balsam is a non-governmental organization that works to relieve patient suffering and improve quality of life among people with life-threatening or life-limiting illnesses through patient care, advocacy, capacity building, and research.***

# Preface

The incidence of chronic diseases is increasing worldwide, and this is especially problematic in low-to-middle-income countries where cancer incidence is high and patients tend to be diagnosed at more advanced stages. Therefore, palliative care has become even more relevant due to a growing number of persons needing symptom management for terminal conditions, especially in countries where curative treatments may be limited in terms of accessibility or availability.

Information on the state of palliative care in the Eastern Mediterranean, to date, has been limited. Data on services, educational programs, policies, and national or regional initiatives is scant. However, dedicated advocates on the ground have been pushing for palliative care development across the region, and, as this Atlas reflects, there is budding palliative care activity across the region.

This book represents the first effort at a systematic assessment of the resources, activities, and needs for palliative care in the region. It provides a clear and comparative picture of the current state of palliative care development and highlights successes and gaps that need to be addressed. This information is valuable for planning next steps and resource allocation for the region. It serves as a baseline against which progress can be measured as we move forward.

The Atlas projects, including the current Atlas, the EAPC Atlas of Palliative Care in Europe, the ALCP Atlas of Palliative Care in Latin America, and the APCA Atlas of Palliative Care in Africa, have all been accomplished through partnerships with local and international organizations with scientific advice and coordination from the Institute and Culture and Society (ICS) at the University of Navarra. It has always been the vision of the Atlantes Research Program at ICS to provide assistance to advocates on the ground through the production and dissemination of the Atlases. I hope that the current Atlas will also be a valuable advocacy tool to continue pushing for palliative care development across the region.

I would like to thank Dr. Hibah Osman for her leadership in bringing to fruition this first Atlas describing the state of palliative care in the Eastern Mediterranean region. Without information on the current status of palliative care development, it is difficult to set goals for the future and measure past progress. The Atlas provides information for key stakeholders, including health professionals, ministries of health, and nongovernmental organizations, to continue advocating for increased palliative care access throughout the region.

I would like to end by thanking the team for all the hard work and dedication given to making this Atlas a reality. I would especially like to thank Liliana de Lima from the International Association for Hospice and Palliative Care for her constant guidance, expertise, and mentorship. I would also like to thank all of the experts who have given their time in responding to the surveys and participating through interviews.



**Professor Carlos Centeno, MD PhD**
Principal Investigator, Atlantes Research Program
Institute for Culture and Society
University of Navarra

# Note from the Authors

The seed for this project was initially planted in June 2013 at the 13th World Congress of the European Association for Palliative Care in Prague. Carlos Centeno presented the second edition of the EAPC Atlas of Palliative Care in Europe in a plenary session. The presentation inspired me to conduct a similar study in our region to gain a better understanding of the current state and needs for the development of palliative care.

Alaa Rihan was a senior resident in Family Medicine at the American University of Beirut (AUB) at that time, and she had expressed interest in conducting her final research project on a topic related to palliative care. On my return to Beirut, we discussed adapting the methodology used for the European Atlas to conduct a similar study in the Eastern Mediterranean. Arafat Tfayli recognized the value of such an initiative and agreed to join me in supervising Dr. Rihan in this project.

We established our first contact with Dr. Centeno and the ATLANTES Research Program at the Institute for Culture and Society, University of Navarra (Spain) in January 2014. When we explained our interest in studying the development of palliative care in our region, he was very encouraging and offered to support the project by contributing the expertise and experience of his team in Spain. This was the beginning of a collaboration that eventually grew to include Carlos Centeno, Eduardo Garralda, John Rhee, and Juan José Pons in Spain and Alaa Rihan, Arafat Tfayli, Rana Salem, and myself in Beirut.

The work initially involved sharing data collection tools and frequent communication as the tools were refined and adapted to the regional context. The team at the University of Navarra provided expertise, guidance, and support in methodology. Institutional Review Board (IRB) approval was obtained from the American University of Beirut. The teams on both sides of the Mediterranean collaborated at all stages of the research process: data collection, data clarification, cleaning, systematization, analysis, writing, and editing. John Rhee later joined to contribute to analysis, writing, and guiding the scoping review. Rana Salem conducted the data extraction of the scoping review, and Juan José Pons contributed to the cartography.

The University of Navarra provided partial funding for the production and printing of this book, as well as in-kind contributions from the university. The Lebanese Center for Palliative Care - Balsam, the International Association for Hospice and Palliative Care (IAHPC), and the World Health Organization (WHO EMRO) contributed to funding, printing, and dissemination of the Atlas.

There are definite drawbacks to informant-based data collection. Although we recognize that it provides "estimates", the value of this study is that it provides reliable information on palliative care development at a national level; it covers a large number of countries from the region, and it utilizes a methodology and tool that have been used and refined in both Europe and Latin America.

This document is not only a picture of a regional situation, but also an illustration of the strength of a network of professionals interested in pushing palliative care development forward. This data will help policymakers gain a better understanding of the reality of palliative care development in their countries and how it relates to other countries in the region. The comparative approach should provide opportunities for collaboration and growth and encourage countries to reach out to regional partners.

The publication of this book is freely available in a variety of formats, repositories, and platforms, ready to be used, shared, and disseminated.

**Hibah Osman, MD, PhD**
Lebanese Center for Palliative Care - Balsam

# Abstract


## BACKGROUND

Information on the state of palliative care development in Eastern Mediterranean countries is scant. This study is the first of its kind in conducting a systematic descriptive analysis of palliative care development in the region.

## AIMS

To describe the current status of palliative care in the Eastern Mediterranean Region according to the World Health Organization (WHO) public health strategy for integrating palliative care: policies, opioid accessibility, services availability, and educational programs plus palliative care professional activity.

## METHODS

Surveys were sent by email to two leaders of palliative care in each country. A follow-up telephone interview was conducted with one leader from each available country. A scoping review of the state of palliative care in Eastern Mediterranean countries using the WHO palliative care public health strategy was conducted using PubMed, CINAHL, Embase, and Google Scholar.

***Palliative care remains underdeveloped in most countries. Efforts and resources should be mobilized to address the gaps identified to ensure that palliative care becomes accessible across the region.***

## RESULTS

Sixty eight percent (15/22) of countries in the EMRO region responded to the survey. Of the fifteen participating countries, Saudi Arabia had the highest number of total palliative care programs across the Eastern Mediterranean region, followed by Egypt and Jordan, while Iraq and the Occupied Palestinian Territories reported no palliative care programs. Saudi Arabia, Iran, and Lebanon have official licensing programs in palliative care for physicians, and a further four countries (Egypt, Jordan, Oman, and Qatar) have developed other advanced training programs (such as Masters or Diploma). In terms of education, Jordan, Oman, and Lebanon report having at least one medical school teaching palliative care as an independent subject, though four additional countries (Egypt, Kuwait, Pakistan, and Tunisia) report teaching palliative care integrated into other subjects. There are no nursing schools in the region that teach palliative care as an independent course. In terms of policies, only Tunisia has a stand-alone national palliative care plan. However, 73% (11/15) of participating countries reported having a section for palliative care within their national cancer plan/strategy. In terms of medicine availability, Saudi Arabia reported the highest opioid consumption in morphine equivalence, excluding methadone, at 33.55 mg/capita/year in 2015, with the next highest being Kuwait at 5.59 mg/capita/year. Finally, in terms of professional activity, Morocco, Tunisia, Lebanon, Jordan, Saudi Arabia, Kuwait, and Iran reported having national palliative care associations, though not all are currently active.

## CONCLUSION

Palliative care remains underdeveloped in most countries. Efforts and resources should be mobilized to address the gaps identified to ensure that palliative care becomes accessible across the region.

# Value of the Book

## WHAT IS ALREADY KNOWN ABOUT PALLIATIVE CARE DEVELOPMENT IN THE EASTERN MEDITERRANEAN REGION?

We know very little about the status of palliative care in the countries of the Eastern Mediterranean region. There have been no reports or publications providing a cross-comparative overview of palliative care development across the region. Daher M., et al. published a paper in 2011 on the state of palliative care in the Middle East. It stated that cancer is an increasing problem in Middle Eastern countries and tends to be diagnosed in advanced stages. The paper argued that there is an important need for palliative care services in these countries. The planning and development of palliative care services would benefit from a proper needs assessment and an understanding of the current state of palliative care in the region.

## WHAT IS THIS BOOK ADDING?

This book aims to fill the gap in knowledge on the status of palliative care development in the Eastern Mediterranean region. It presents the most relevant information on palliative care development in a way that is clear, accessible, and easy to interpret for professionals, policymakers, and the general public. We explore the existence and availability of specialized palliative care services; the existence of a licensing process for physicians in the form of a specialty or sub-specialty; and the existence of educational initiatives within the field of palliative care in medical schools, nursing schools, or other settings.

We also document the number of professors engaged in teaching palliative care in various disciplines; the existence of a policy umbrella insuring the proper implementation of palliative care services, such as a national law on palliative care, a national palliative care plan or strategy, or a concrete reference to palliative care in a national cancer control program; the existence of funding and coverage for palliative care; and the presence of evidence-based documents such as guidelines, recommendations, or clinical pathways.

Data on the availability of strong opioids, as well as general data on consumption of opioids expressed in morphine equivalence are presented. Finally, existence of national palliative care organizations, and of individuals or larger groups devoted to research in palliative care are listed, as these are indications of vitality in the field that would not be captured in the previously mentioned areas of the public health strategy dimensions.

All data are presented graphically with maps, figures, images, tables, and text to present findings in a manner that is simple, clear, and easy to interpret.

## IMPLICATIONS FOR THEORY, PRACTICE AND POLICY

This Atlas presents the state of development of palliative care in several countries of the EMRO Region, using indicators that may be applicable in other countries of the Region. The Atlas presents opportunities, gaps and areas in need of improvement. Findings can guide governments as well as national and international agencies to develop agendas and set priorities based on current identified needs and available resources.

***This Atlas presents the most relevant information to palliative care development in a way that is clear, accessible, and easy to interpret for professionals, policymakers, and the general public.***

# Aims and Objectives

The objective of this comparative study is to present the status of development of PC in the Eastern Mediterranean region, using reliable facts and figures.

In this study, we aim to:

1. Describe the current status of palliative care development in countries in the Eastern Mediterranean region including national initiatives and policies, service availability, educational programs, and professional activities.

Secondary objectives are to:

1. Describe successful programs and activities established, to date, in various Eastern Mediterranean countries.
2. Describe obstacles or areas for improvement in the development of palliative care in the region.

***The objective of this comparative study is to present the status of development of PC in the Eastern Mediterranean region, using reliable facts and figures.***

# Methods

## CONCEPT OF "PALLIATIVE CARE DEVELOPMENT"

The World Health Organization (WHO) has defined palliative care as an approach that "improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual".

In this context, we understand palliative care development as the processes, structures, policies, resources, and services that support the delivery of palliative care.

## WHO FRAMEWORK

In order to effectively develop and integrate palliative care into a society with existing health care systems, the WHO launched a public health model. This model provides guidelines to governments for the implementation of palliative care on the national level based on four components:

**1.** Appropriate policies
**2.** Adequate medicine availability
**3.** Education of health care workers and the public
**4.** Implementation of palliative care services at all levels of society.

This process is always applied within the cultural context taking into account disease demographics, socioeconomics, and the health care system of the country.

**Figure 1. Detailed WHO Public Health Model for Palliative Care Integration (modified by Stjernswärd, 2007)**

**Policy**
› Palliative care part of national health plan, policies, related regulations
› Funding service delivery methods support palliative care delivery
› Essential medicines
(Policy makers, regulators, WHO, NGOs)

**Access to Medicines**
› Opioids, essential medicines
› National estimates
› Cost
› Prescribing
› Distribution
› Dispensing
› Administration
(Pharmacists, drug regulators, law enforcement agents)



**Education**
› Media & public advocacy
› Curricula and courses—professionals, trainees
› Expert training
› Family caregiver training & support
(Media & public healthcare providers & trainees palliative care experts, family caregivers)

**Implementation**
› Opinion leaders
› Trained manpower
› Strategic & business plans—resources, infrastructure
› Standards, guidelines, measures
(Community & clinical leaders, administrators)

# Methods

## GROUP OF RESEARCHERS

The project team consists of eight members from different countries and backgrounds, bringing a wide-range of experiences.

**Table 1. Background and experiences of project team members for the current study on development of palliative care in Eastern Mediterranean region.**

| Researcher | Country | Background | Title |
|---|---|---|---|
| **Hibah Osman** | Beirut, Lebanon | Family Medicine and Palliative Medicine | Executive Director and Medical Director of the Balsam-Lebanese Center for Palliative Care |
| **Alaa Rihan** | Beirut, Lebanon | Family Medicine and Public Health | Family Physician |
| **Eduardo Garralda** | Pamplona, Spain | History | Research Assistant at ATLANTES Research Program, ICS, University of Navarra |
| **John Yohan Rhee** | New York, USA | Medicine and Public Health | Academic Collaborator at ATLANTES Research Program, ICS, University of Navarra<br>Medical Student at the Icahn School of Medicine at Mount Sinai |
| **Juan José Pons** | Pamplona, Spain | Geography | Associate Professor of Geography at University of Navarra |
| **Liliana de Lima** | Houston, USA | Clinical psychology and Healthcare Administration | Executive Director of the International Association for Hospice and Palliative Care |
| **Arafat Tfayli** | Beirut, Lebanon | Oncology | Professor of Clinical Medicine at the American University of Beirut |
| **Rana Salem** | Beirut, Lebanon | Oncology | Fellow in Oncology at the American University of Beirut |
| **Carlos Centeno** | Pamplona, Spain | Oncology and Palliative Medicine | Physician at the Clínica Universidad de Navarra<br>Associate Professor of Palliative Medicine<br>Principal Investigator, ATLANTES Research Program, ICS, University of Navarra |

We are very grateful with Martha Maurer, Policy Program Manager & Researcher at the Pain and Policy Studies Group (http://www.painpolicy.wisc.edu/), a WHO collaborating Centre at the University of Wisconsin, who kindly provided the latest available data on opioid consumption for the countries in the Eastern Mediterranean Region. These data have been used in the thematic map on medicines, as well as in every country report and represent opioid consumption in morphine equivalence (mg/capita/year), excluding methadone, reported to the INCB.

## STUDY DESIGN

Our study is cross-sectional and includes both quantitative and qualitative data collected between 2014 and 2017. We adapted the tool and methodology used by the European Association for Palliative Care (EAPC) in their mapping study on palliative care in the European region (Centeno C, et al., 2013).

## IDENTIFICATION OF PALLIATIVE CARE NATIONAL LEADERS

Leaders in palliative care were defined as educators or heads of palliative care societies or organizations who spend at least 50% of their time in the practice of palliative medicine. They were identified through a variety of resources including the following:

1. Existing databases from regional and international meetings, workshops, and conferences
2. Contacts of international leaders working in palliative care
3. Authorship of published articles through a comprehensive review of the literature using Medline and the following key words: palliative care, end of life care, Arab countries, Middle East.

Additional leaders from each country were identified through snowballing technique until two leaders were identified, when possible.

A letter of introduction and consent form were sent to all identified leaders inviting them to participate in the study. Once consent was obtained, the survey was sent by email to all consenting physicians. They were asked to complete and return the questionnaire to one of the co-authors on the team.

## QUANTITATIVE INFORMATION: SURVEY

Surveys on palliative care development included a variety of questions. These questions covered the number of palliative care programs or services in the country, existence of official recognition of palliative care as a specialty for physicians, number of medical and nursing schools teaching palliative care at the undergraduate level, number and rank of palliative care teachers, existence of national plans/strategies for palliative care, inclusion of a section on palliative care in the National Cancer Control Strategy, availability of opioids, and existence of a national palliative care association. Data were entered into a Microsoft Excel spreadsheet and analyzed by the research team.

Out of the 22 countries in the Eastern Mediterranean region, 15 responded the survey (68%). Of those 15 countries, five included two informants, namely Egypt, Jordan, Morocco, Lebanon, and Sudan. Only one informant was identified in the remaining ten countries. Participants who indicated their willingness to participate in a follow-up interview were later contacted for the qualitative portion of the study.

## QUALITATIVE INFORMATION: TELEPHONE INTERVIEWS

In-depth interviews were conducted in person, when possible, or via Skype or telephone calls, depending on the preference of the participants. The purpose of the in-depth interview was to gain a deeper understanding of the responses of the expert, and to clarify and explore their perceptions. The qualitative interviews included questions about:

- Most significant changes in the palliative care sector over the past ten years
- Main barriers and opportunities
- Most important legal or policy changes
- Strategies used to improve political awareness and government recognition
- Funding initiatives
- Barriers and developments relating to availability, accessibility, and affordability of essential medications
- Initiatives to change regulations restricting physician or patient access to pain relief
- Developments in training or education
- Initiatives to develop healthcare professional leadership
- Changes in public awareness or perception
- Initiatives seeking to broaden awareness and understanding
- General questions on palliative care practice
- Future of palliative care development

Leaders in 14 of the 22 countries (68%) agreed to participate in the in-depth interviews and provided data on the themes mentioned above. In-depth interviews were recorded after obtaining consent. Information was then summarized into narratives by one of the researchers. All final narratives were approved by the original informants.

## DATA REVISION AND SENSE CHECKING

Data for both the survey and the interviews were sent back to original informants for validation. In situations where two informants from the same country provided conflicting data, the main researcher communicated the conflicting information to both informants with a request for clarification of every question. Once returned, the revised data were independently reviewed by two researchers and results were discussed and finalized using the following criteria:

1. If there was agreement, it was included.
2. If there was no response by one, the provided information by the one respondent was included
3. If data were close in proximity and the informant clearly understood the question, ranges were included.
4. If data differed significantly the following principles were utilized:

    - Using the additional free-text comments provided by leaders to seek clarification
    - Giving preference to the national association if the affiliation of one of the leaders was such
    - Looking at the source of data in the database and clarification sheets
    - Seeking additional information and clarification from searches on the Internet
    - Looking at the overall responses of the informants to evaluate consistency in reporting
    - Validation with scoping review (as explained below)

# Methods

## SCOPING REVIEW

A scoping review of scientific articles in the literature on the development of palliative care in Eastern Mediterranean countries was conducted. Using the prior mentioned definition of palliative care development, we organized the search using the WHO palliative care public health strategy dimensions (implementation of services, adequate policies, medicine availability, and education) and vitality (i.e., professional activity). All 22 countries in the Eastern Mediterranean region of the World Health Organization were included in the analysis. The scoping review was based on the methodology described by Arskey and O´Malley. It provides a broad overview of the state of the literature on palliative care development in the Eastern Mediterranean region.

### Search strategy

We searched PubMed, CINAHL, Embase, and Google Scholar using a combination of the following terms by subject headings and/or MeSH terms: palliative care/medicine/nursing, hospice, hospice care/patient, cancer palliative therapy, and [country name].

### Inclusion criteria

1. Mention of at least one dimension of the WHO palliative care public health strategy (education, policy, implementation of palliative care services, medicine availability) plus vitality
2. Country-level data
3. Published from January 1, 2005 to December 31, 2016
4. Any study in English, including comparative studies, conference abstracts, and conference presentations

Two researchers [JR, EG] independently rated each article by title, abstract, and full text according to the inclusion criteria. In the case of disagreements, the researchers discussed the contents until a consensus was reached. All abstracts that passed the inclusion criteria were then independently assessed by full text [JR, EG].

### Data extraction and synthesis

Information relevant to palliative care development was extracted for each country and organized into tables, based on the WHO palliative care public health strategy plus vitality by a sole researcher, Rana Salem (RS), and then reviewed by three members of the project team (HO, JR, EG).

The information that was extracted from the literature was then used to build milestones for each Country Information Sheet, plus an additional "Further Reading" section where relevant peer-reviewed articles can be found.

***A total of 73 unique articles were included in the final scoping review. Information analyzed from the scoping review was used to develop the sub-sections on country development milestones and bibliographic references.***

### Results

A total of 73 unique articles were included in the final scoping review. Information analyzed from the scoping review was used to develop the sub-sections on country development milestones and bibliographic references. For one country, Qatar, information from the scoping review was used to build the Country Information Sheet because Qatar was the only country where a survey was completed, but an interview could not be obtained.

Below are the number of articles found per country in the scoping review. The total number of articles was 210 because some articles were cross-comparative articles including multiple countries. When excluding comparative articles, Lebanon still had the highest number of articles (n=19) followed by Iran (n=6), Jordan (n=5), and Pakistan (n=5).

**Table 2. Number of Articles Included in the Scoping Review.**

| COUNTRY | ARTICLES (N) | COUNTRY | ARTICLES (N) |
|---|---|---|---|
| Lebanon | 30 | Libya | 7 |
| Jordan | 22 | UAE | 7 |
| Egypt | 17 | Qatar | 7 |
| Morocco | 12 | Yemen | 7 |
| Saudi Arabia | 10 | Afhganistan | 6 |
| Oman | 8 | Syria | 6 |
| Sudan | 8 | Occ. Pal. Terr. | 5 |
| Tunisia | 8 | Djibouti | 4 |
| Algeria | 7 | Kuwait | 4 |
| Iraq | 7 | Somalia | 3 |

## CARTOGRAPHY

The cartography has been developed by Professor Juan José Pons in the Department of History, History of Art and Geography of the University of Navarra. The software used for map construction is the ArcGIS platform (ESRI), Program ArcMap, Version 10.3.

The digital covers 'World Countries', 'World Cities' and 'World Latitude and Longitude Grids' were obtained from the 'ArcGIS Online' web. This information was updated in 2015 and 2017. The WGS 1984 data were used and the projection is Goode Homolosine, with 30º rotation.

The scale is 1:45,000,000 for the full-page maps and 1:90,000,000 for the smaller maps. The individual maps in the country reports are of various scales (between 1:6,000,000 and 1:60,000,000), depending on the size of the country and its boundaries. These maps are not projected.

The types of maps utilized for the thematic representation are: choropleth maps (for "relative data"), symbol maps (for absolute data or to highlight the presence or absence of determined values), and bar cartodiagrams. In terms of stylistic representation, "ranges" of constant colours have been adopted and used throughout this publication: "beige to orange" for choropleths and "blue" for symbols and cartodiagrams; this was done to enhance the overall homogeneity and coherence of the cartographic version.

The socioeconomic and health data used in the country reports have been collected mainly from the World Bank databases and the United Nations reports with the criteria of finding the most accurate, updated, and reliable data for the maximum number of countries of the WHO Eastern Mediterranean Regional Office (EMRO) region.

## LIMITATIONS AND CONSTRAINTS

This study is based on the perspectives and knowledge provided by national leaders on palliative care development. Although this is a widely-accepted methodology for data collection, data are still considered estimations. Therefore, accuracy and precision of data can be difficult to verify in some occasions.

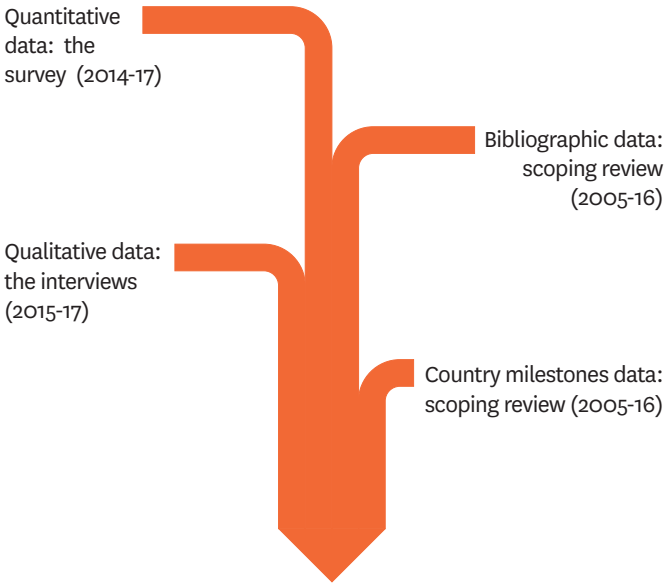
The indicators utilized in the questionnaire were adapted from a survey conducted in a different region. Therefore, they may fail to capture aspects of palliative care development that are specific to Eastern Mediterranean countries. To minimize this effect, although indicators of the EAPC European Atlas were used, a combined effort by both the Balsam and ATLANTES teams provided insight to adapt methodology to the context and issues of local relevance. The ATLANTES team, based in Spain, provided experience and expertise in international Atlas studies. The Balsam and American University of Beirut Medical Center team provided knowledge and insight of the region.

Given that palliative care activity is minimal or absent in most of the countries of the Eastern Mediterranean, there are few experts in palliative care in the region. This led to a relatively small ratio of countries represented in the Atlas (15/22), leaving seven countries without data: Afghanistan, Djibouti, Syrian Arab Republic, Somalia, Yemen, Bahrain, and Libya.

Data collection was conducted over a span of two years. At a time when palliative care is under active development, there may be significant change in activity during a two-year time period. In some situations, informants had limited knowledge of their own settings and left questions unanswered or responded with "don´t know". This Atlas, therefore, presents a summary of the most available and relevant information given those limitations. However, as the first effort to systematically map palliative care activity using information from country level experts, it provides valuable information on palliative care for the region as a whole.

To our knowledge, no other study has attempted to systematically document data on palliative care development at a national level in the region. A major challenge for the future is capturing palliative care provided by non-specialist physicians.

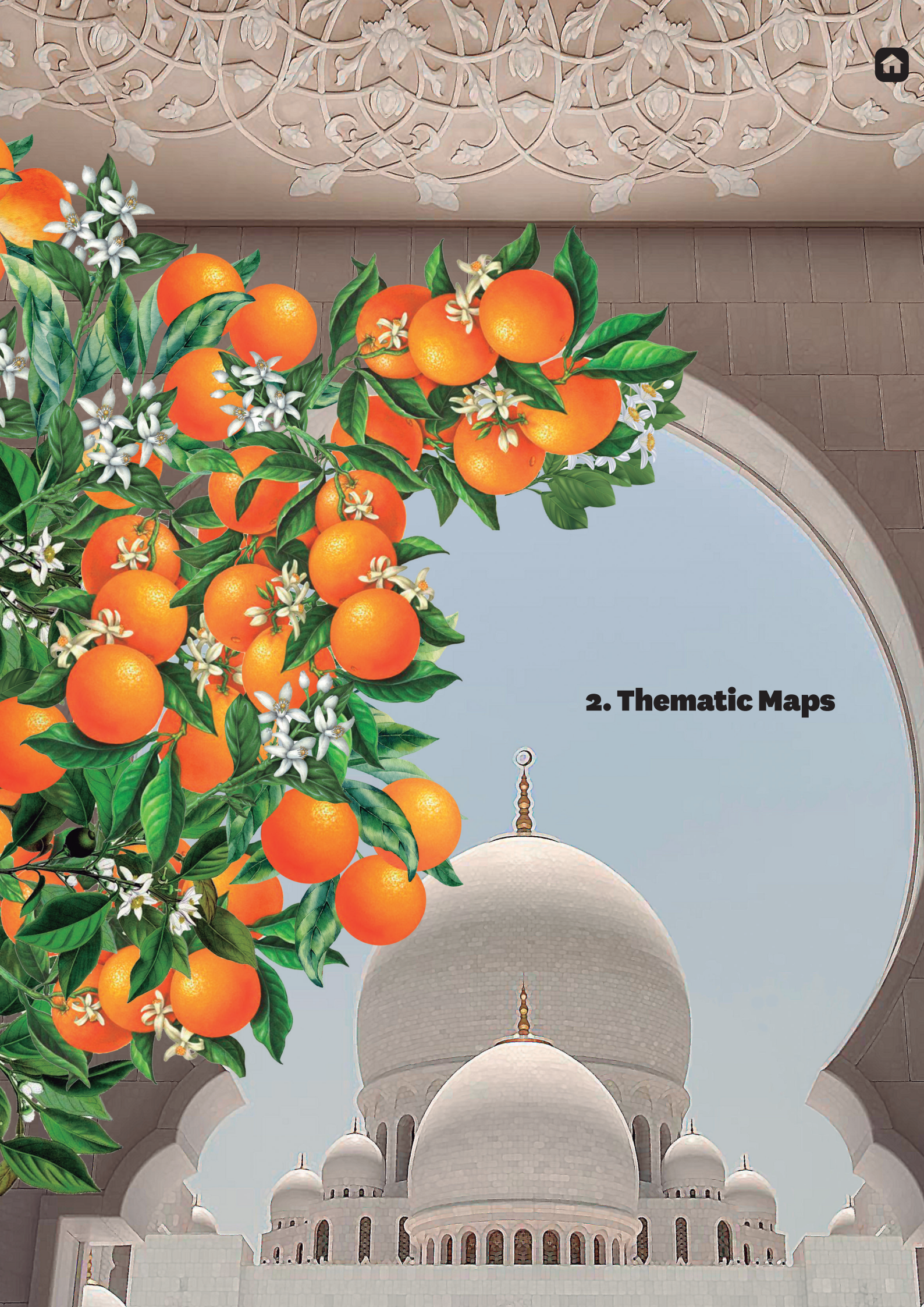
## SUMMARY OF METHODS




**Information on PC development for 15/22 countries**
-14/22 countries with factual and qualitative data, bibliographic information, and country milestones
-3/22 countries with factual, bibliographic, and milestones data

## ABBREVIATIONS

EMRO: Eastern Mediterranean Regional Office
MOH: Ministry of Health
ME: Morphine Equivalence
N/A: Not applicable/available/known/missing
Occ.Pall.Terr: Occupied Palestinian Territories
PC: Palliative Care



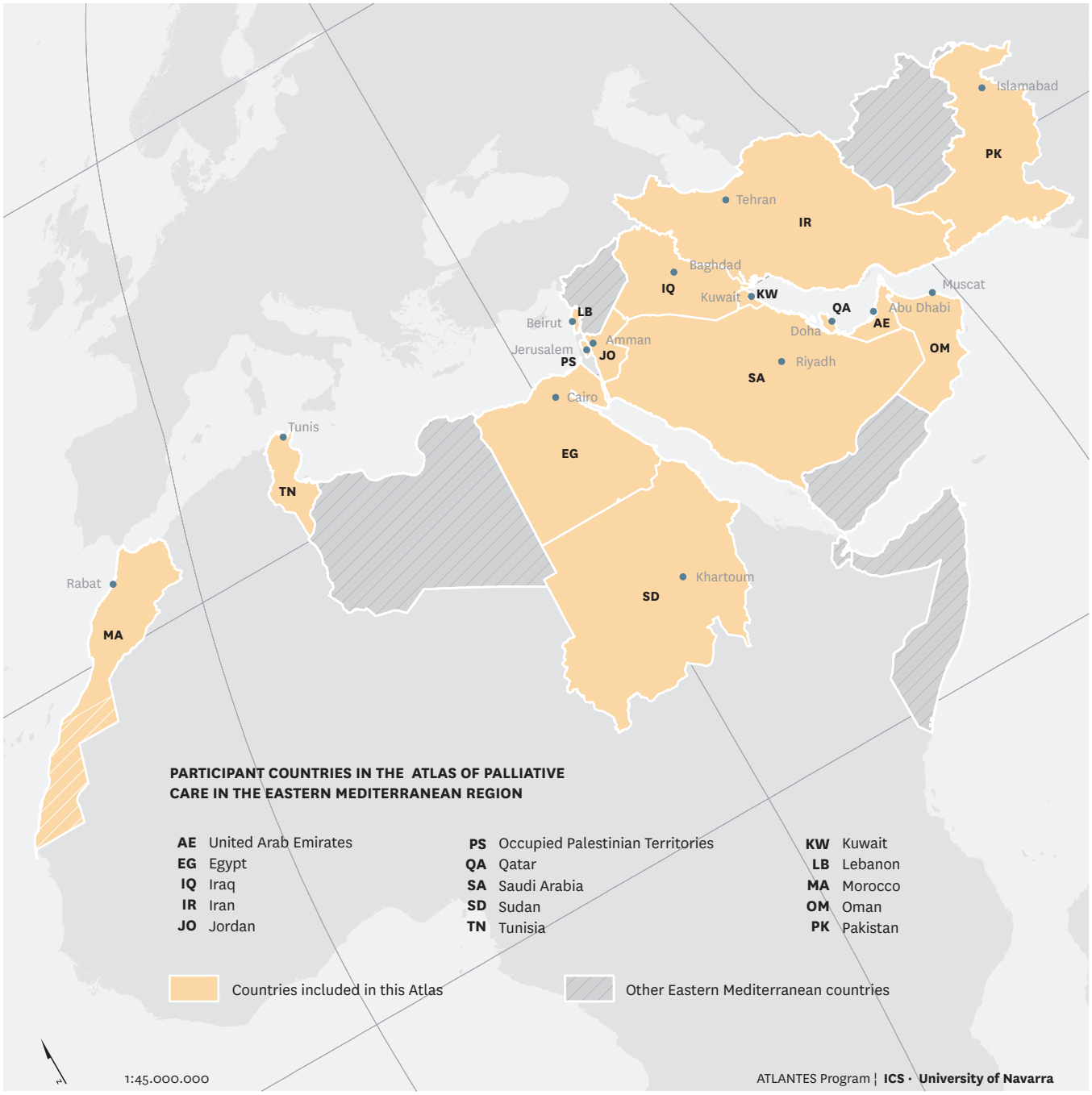
# 2. Thematic Maps

# Map 1. Geopolitical map

The Atlas focuses on the status of palliative care development in the 22 countries classified as the Eastern Mediterranean region by the World Health Organization. This region is comprised by the following countries:

Afghanistan
Bahrain
Djibouti
Egypt
Iran, Islamic Republic of
Iraq
Jordan
Kuwait
Lebanon
Libya
Morocco
Occupied Palestinian Territories
Oman
Pakistan
Qatar
Saudi Arabia
Somalia
Sudan
Syrian Arab Republic
Tunisia
United Arab Emirates
Yemen

Seven of the countries in the region, namely Afghanistan, Bahrain, Djibouti, Libya, Somalia, Syrian Arab Republic, and Yemen are not included in the study. This is either because a key informant could not be identified or the identified informant failed to respond to our invitation to participate in the study. The map on the right indicates the countries represented in this Atlas.


Islamabad
PK
Tehran
IR
Baghdad
IQ
Kuwait
KW
Muscat
QA
Abu Dhabi
AE
LB
Beirut
Doha
Amman
Jerusalem
PS
JO
OM
Riyadh
SA
Cairo
Tunis
EG
TN
Rabat
MA
Khartoum
SD
PARTICIPANT COUNTRIES IN THE ATLAS OF PALLIATIVE CARE IN THE EASTERN MEDITERRANEAN REGION
AE United Arab Emirates
EG Egypt
IQ Iraq
IR Iran
JO Jordan
PS Occupied Palestinian Territories
QA Qatar
SA Saudi Arabia
SD Sudan
TN Tunisia
KW Kuwait
LB Lebanon
MA Morocco
OM Oman
PK Pakistan
Countries included in this Atlas
Other Eastern Mediterranean countries
1:45.000.000
ATLANTES Program | ICS · University of Navarra

# Map 2. Socioeconomic Context

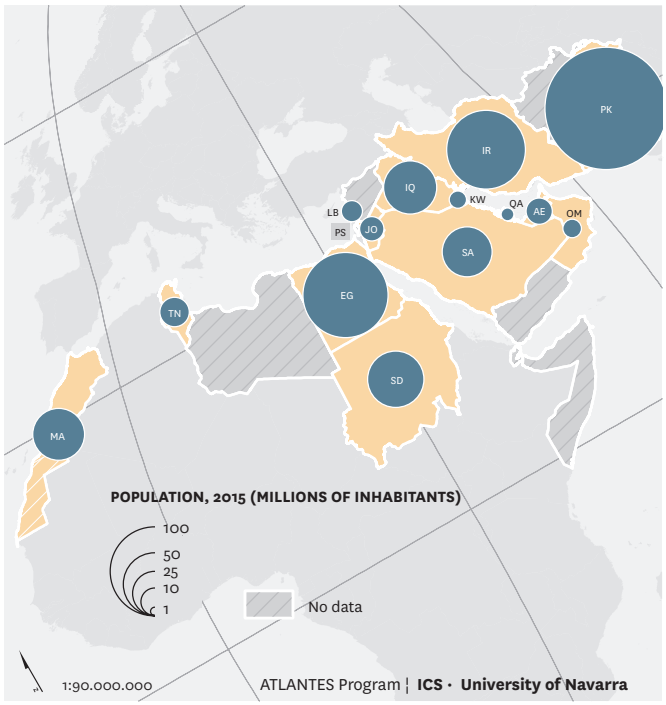
The Eastern Mediterranean region as defined by the World Health Organization, includes 22 countries that extend from Pakistan in the east to Morocco in the west. These countries have significant variability in population, size, income, Human Development Index (HDI), health outcomes, and health expenditure. Below is a table summarizing basic population and health statistics for the countries represented in this Atlas.

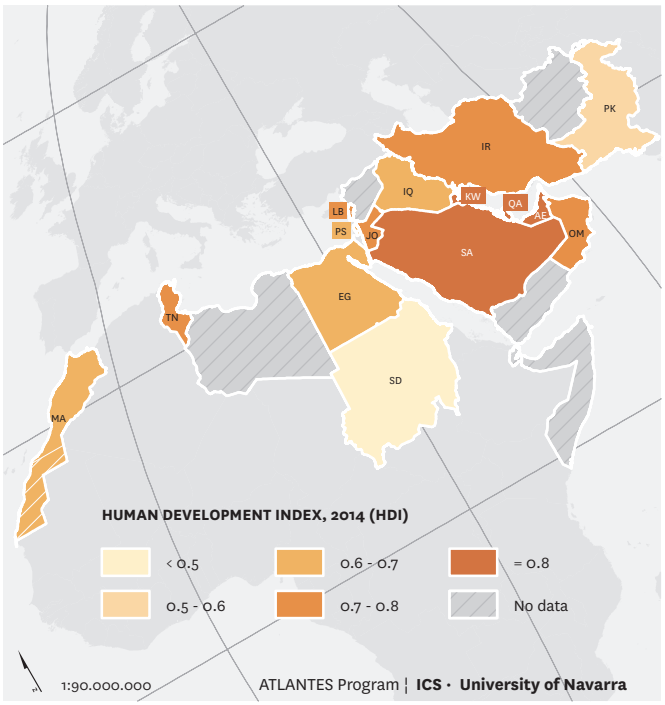
There does not appear to be any correlation between socioeconomic development and the level of palliative care development. Although higher income countries like Saudi Arabia have more advanced palliative care, other high–income countries of the Gulf Cooperation Council (GCC) are at the very early stages of development in palliative care. Similarly, some countries in lower income levels, like Egypt, Pakistan, and Sudan report substantial palliative care activity.

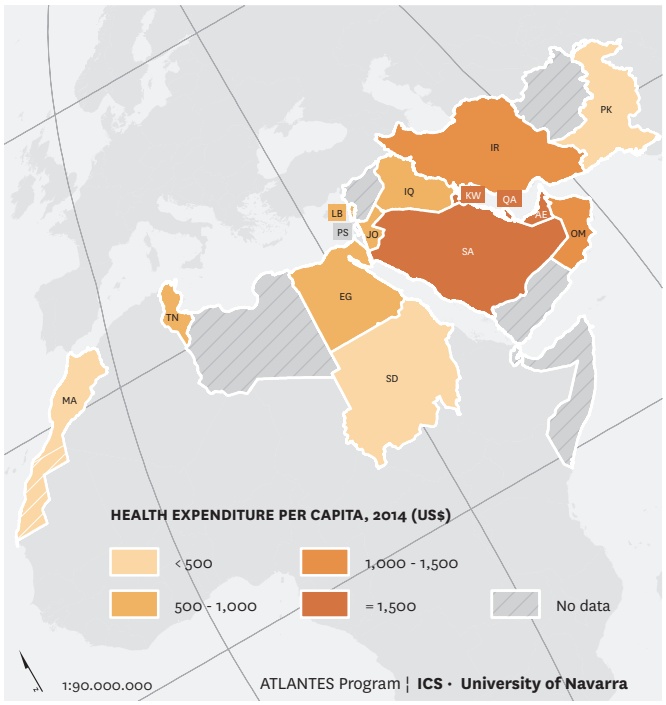
**Table 3. Health and Socioeconomic Data**

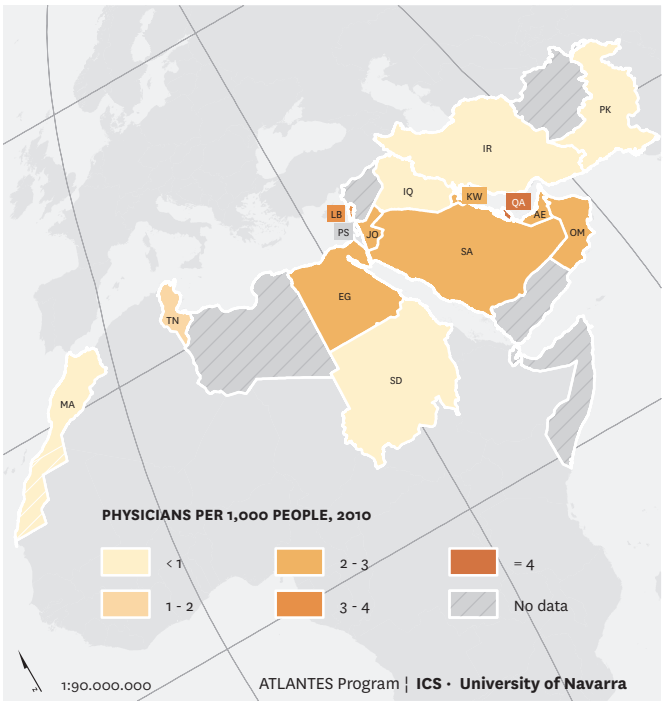
| COUNTRY | POPULATION DENSITY[1] | POPULATION, TOTAL | SURFACE AREA[2] | GDP PER CAPITA[3] | HEALTH EXPENDIT. (% GDP) [4] | HEALTH EXPENDIT. PER CAPITA[5] | LIFE EXPECTANCY AT BIRTH[6] | HDI | HDI RANK |
|---|---|---|---|---|---|---|---|---|---|
| **Egypt** | 91.9 | 91,508,084 | 1,001,450 | 3,615 | 5.6 | 594 | 71.3 | 0.69 | 108 |
| **Iran** | 48.6 | 79,109,272 | 1,745,150 | 5,443[7] | 6.9 | 1,082 | 75.6 | 0.77 | 69 |
| **Iraq** | 83.9 | 36,423,395 | 435,050 | 4,944 | 5.5 | 667 | 69.6 | 0.65 | 121 |
| **Jordan** | 85.5 | 7,594,547 | 89,320 | 4,940 | 7.5 | 798 | 74.2 | 0.75 | 80 |
| **Kuwait** | 218.4 | 3,892,115 | 17,820 | 29,301 | 3.0 | 2,320 | 74.7 | 0.82 | 48 |
| **Lebanon** | 571.9 | 5,850,743 | 10,450 | 8,048 | 6.4 | 987 | 79.6 | 0.77 | 67 |
| **Morocco** | 77.0 | 34,377,511 | 446,550 | 2,878 | 5.9 | 447 | 74.3 | 0.63 | 126 |
| **Oman** | 14.5 | 4,490,541 | 309,500 | 15,551 | 3.6 | 1,442 | 77.3 | 0.79 | 52 |
| **Pakistan** | 245.1 | 188,924,874 | 796,100 | 1,435 | 2.6 | 129 | 66.4 | 0.54 | 147 |
| **Occ. Pal. Terr.**[10] | 4.5 | 4,500,000 | 6,020 | 2,783[8] | 10.9[9] | 304 | N/A | 0.68 | 113 |
| **Qatar** | 192.5 | 2,235,355 | 11,610 | 1,435 | 2.2 | 3,071 | 78.8 | 0.85 | 32 |
| **Saudi Arabia** | 14.7 | 31,540,372 | 2,149,690 | 20,482 | 4.7 | 2,466 | 74.5 | 0.84 | 39 |
| **Sudan** | 22.1 | 40,234,882 | 1,879,358 | 2,415 | 8.4 | 282 | 63.7 | 0.48 | 167 |
| **Tunisia** | 72.4 | 11,107,800 | 163,610 | 3,873 | 7.0 | 785 | 75.0 | 0.72 | 96 |
| **UAE** | 109.5 | 9,156,963 | 83,600 | 40,439 | 4.0 | 2,405 | 72.5 | 0.84 | 41 |

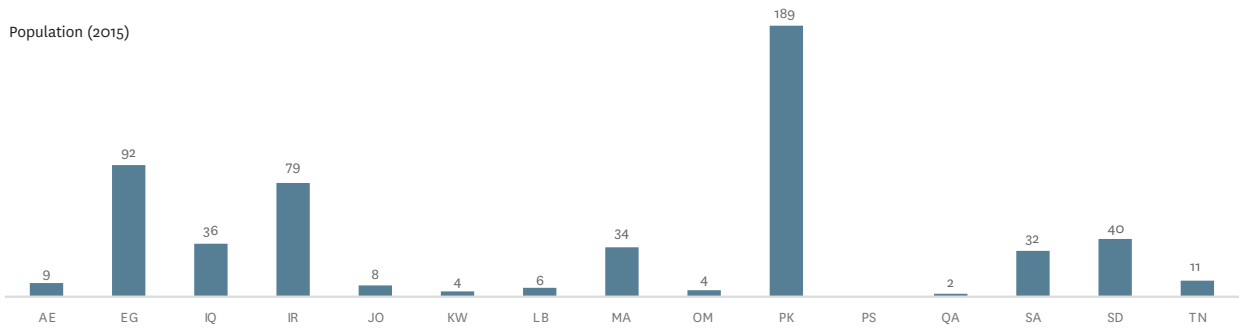
[1] People per square kilometer.
[2] Square kilometers.
[3] Current US$ 2015.
[4] % of GDP.
[5] PPP Constant, 2011. International $.
[6] 2015.
[7] 2014.
[8] 2012.
[9] 2013.
[10] Data for Occupied Palestinian Territories can be accessed at: http://applications.emro.who.int/dsaf/EMROPUB_2016_EN_18926.pdf?ua=1


PK
IR
IQ
KW
QA
AE
OM
LB
PS
JO
SA
EG
TN
SD
MA
POPULATION, 2015 (MILLIONS OF INHABITANTS)
100
50
25
10
1
No data
1:90.000.000
ATLANTES Program ¦ ICS · University of Navarra


PK
IR
IQ
KW
QA
AE
OM
LB
PS
JO
SA
EG
TN
SD
MA
HUMAN DEVELOPMENT INDEX, 2014 (HDI)
< 0.5
0.5 - 0.6
0.6 - 0.7
0.7 - 0.8
= 0.8
No data
1:90.000.000
ATLANTES Program ¦ ICS · University of Navarra


PK
IR
IQ
KW
QA
AE
OM
LB
PS
JO
SA
EG
TN
SD
MA
HEALTH EXPENDITURE PER CAPITA, 2014 (US$)
< 500
500 - 1,000
1,000 - 1,500
= 1,500
No data
1:90.000.000
ATLANTES Program ¦ ICS · University of Navarra


PK
IR
IQ
KW
QA
AE
OM
LB
PS
JO
SA
EG
TN
SD
MA
PHYSICIANS PER 1,000 PEOPLE, 2010
< 1
1 - 2
2 - 3
3 - 4
= 4
No data
1:90.000.000
ATLANTES Program ¦ ICS · University of Navarra

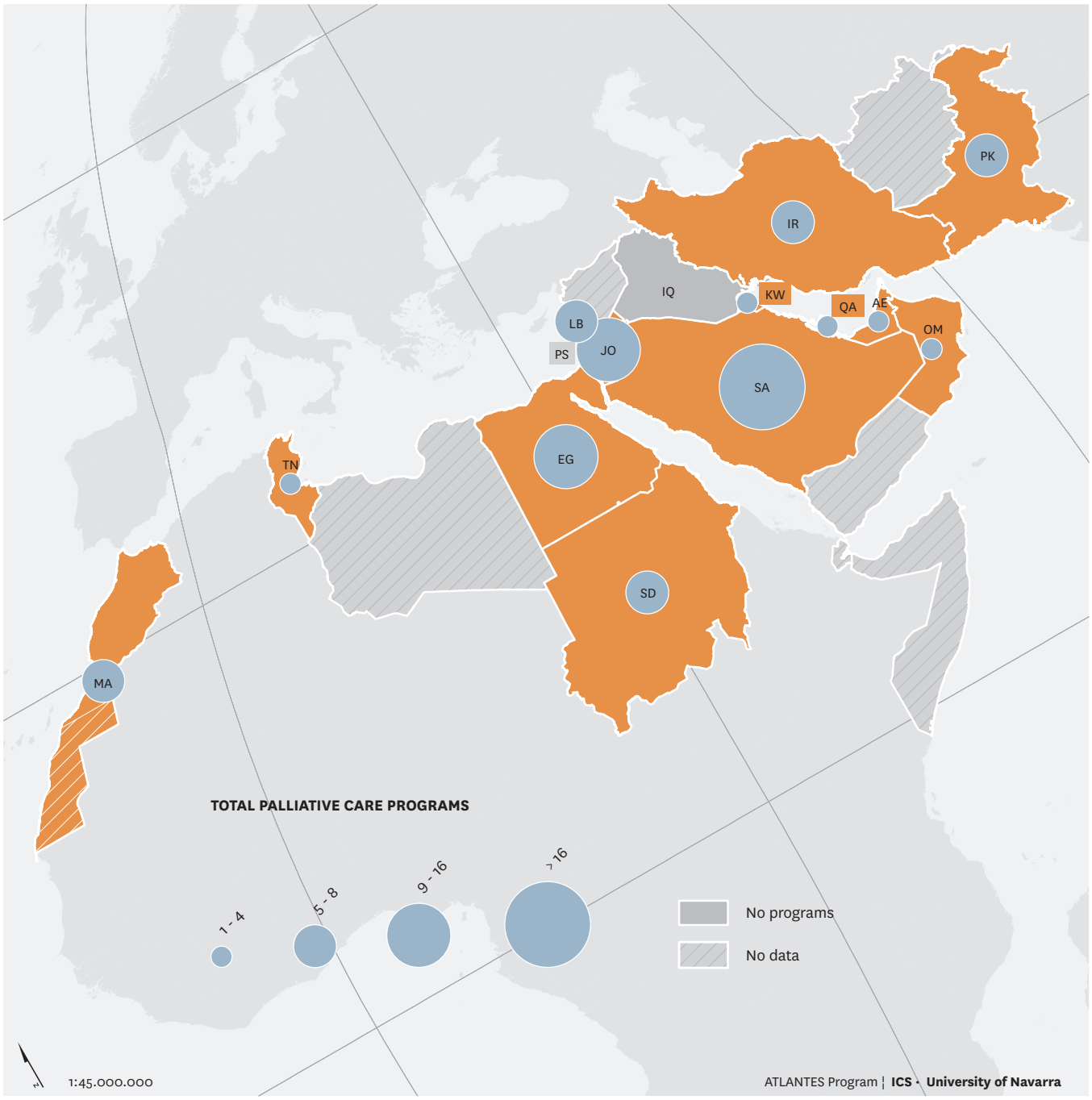

Population (2015)
9
92
36
79
8
4
6
34
4
189
2
32
40
11
AE
EG
IQ
IR
JO
KW
LB
MA
OM
PK
PS
QA
SA
SD
TN

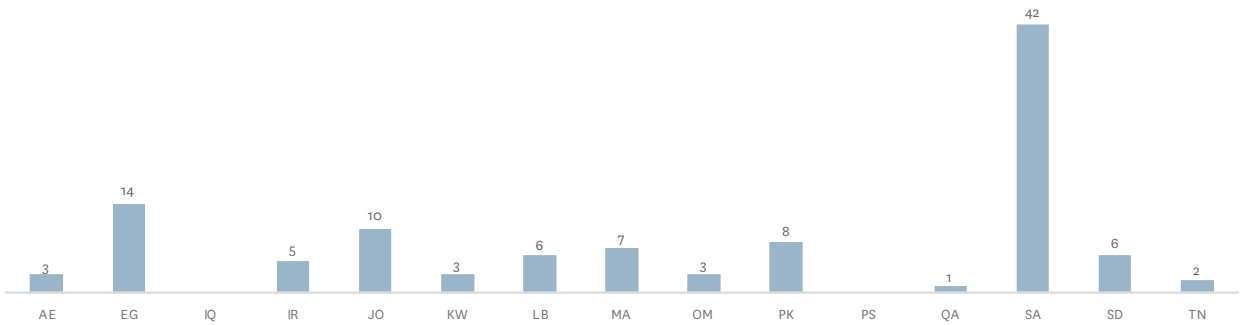
# Map 3. Palliative Care Programs

**Table 4. Conceptual Framework of Palliative Care Programs**[1]

| PLACE OF DELIVERY | SERVICE DELIVERED | DEFINITION |
|---|---|---|
| **Hospital** | Outpatient clinics | Offers palliative care services either as a brief consultation or as a concurrent care model in collaboration with the patient's primary treating physician. |
| | Inpatient units | Hospital palliative care units that aim at providing symptom management in an acute care setting or end–of–life care for patients in a way that allows for possible discharge or transfer to another care setting. |
| | Inpatient consult services | Hospital palliative care support team providing specialist palliative care advice and support to other clinical staff, patients, and their families and caregivers in the hospital environment. |
| | Mixed services | Palliative care team operating in both the hospital and community setting. |
| **Home or residences** | Nursing home-based programs | Palliative care consultations or teams providing care to nursing home residents. |
| | Community-based programs | Home-based palliative care programs provided by NGOs, hospices or hospital-based systems - public or private. |
| | Day care centers | Receive palliative patients during daytime and are designed to promote recreational and therapeutic activities among patients. Patients do not reside in the facility. |
| | Inpatient units | Admits patients in their last phase of life or provides acute care services, when treatment in a hospital is not necessary and care at home or in a nursing home is not possible. |

[1] It is important to note that we are counting palliative care programs and not services. A service may deliver more than one program. For instance, if a palliative care unit in a hospital operates both an inpatient palliative care unit and a consultation team, this would be counted as two programs.


PK
IR
IQ
KW
QA
AE
OM
LB
PS
JO
SA
EG
TN
SD
MA
TOTAL PALLIATIVE CARE PROGRAMS
1 - 4
5 - 8
9 - 16
> 16
No programs
No data
1:45.000.000
ATLANTES Program ¦ ICS · University of Navarra


3
14
5
10
3
6
7
3
8
1
42
6
2
AE
EG
IQ
IR
JO
KW
LB
MA
OM
PK
PS
QA
SA
SD
TN

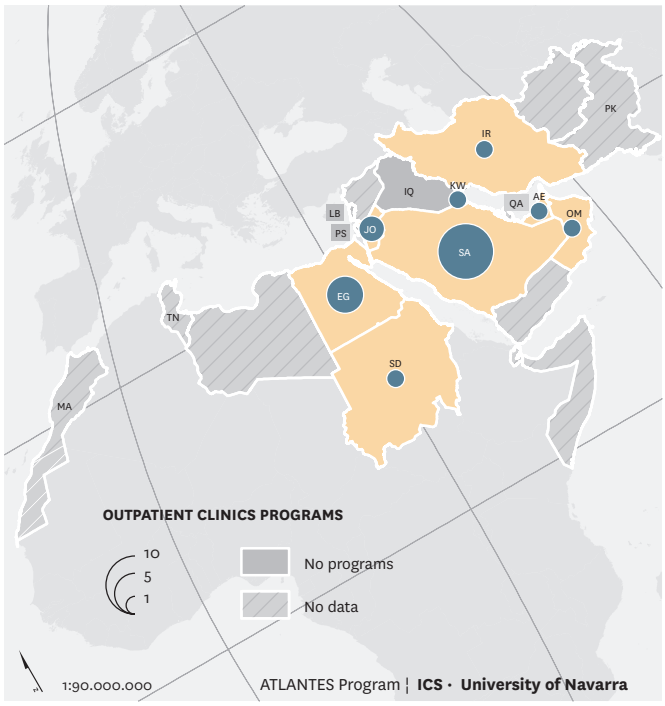
# Map 4. Hospital-based Palliative Care Programs

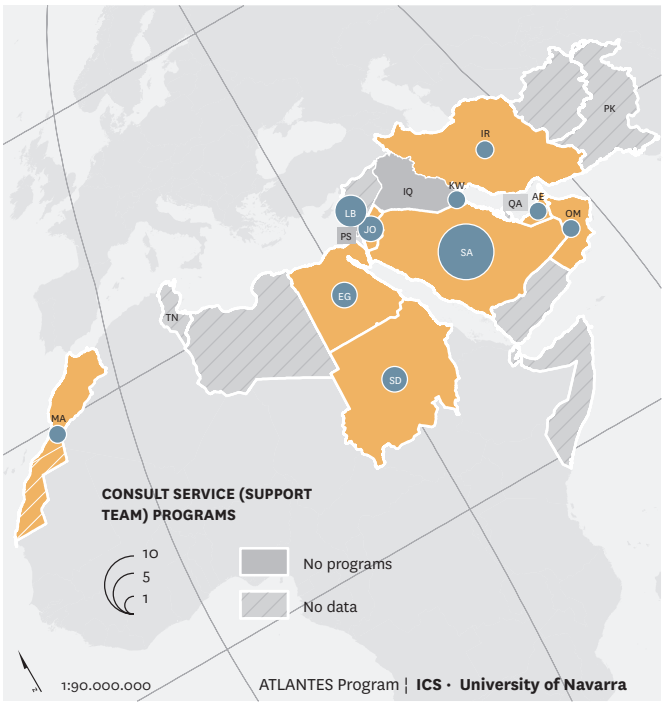
**Table 5.** Palliative Care Programs Provided within Hospitals

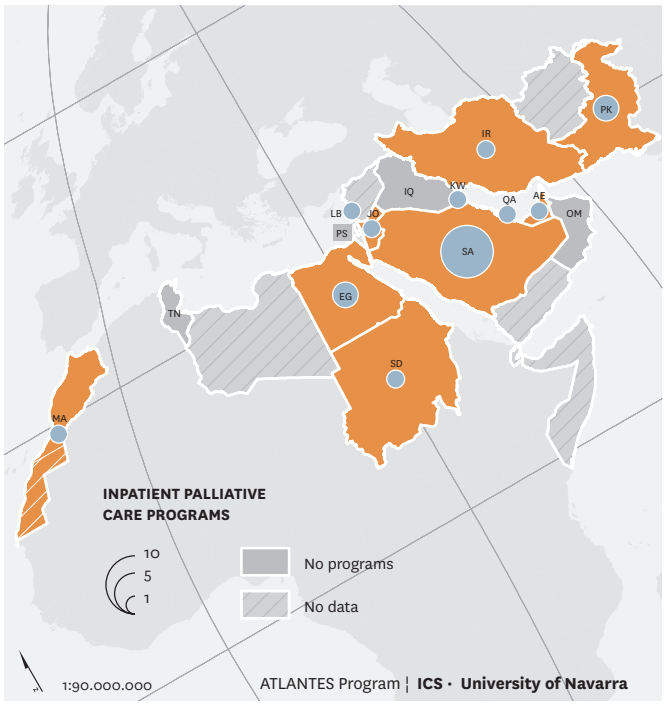
| COUNTRY | OUTPATIENT CLINICS | CONSULT SERVICE[1] | HOSPITAL PC UNIT[2] | MIXED PROGRAMS[3] | POPULATION, TOTAL |
|---|---|---|---|---|---|
| **Saudi Arabia** | 9 | 9 | 8 | 8 | 31,540,372 |
| **Jordan** | 2 | 2 | 1 | 1 | 7,594,547 |
| **Lebanon** | 0 | 3 | 1 | 0 | 5,850,743 |
| **Kuwait** | 1 | 1 | 1 | N/A | 3,892,115 |
| **Oman** | 1 | 1 | 0 | 0 | 4,490,541 |
| **Qatar** | N/A | N/A | 1 | N/A | 2,235,355 |
| **UAE** | 1 | 1 | 1 | N/A | 9,156,963 |
| **Morocco** | N/A | 1 | 1 | 1 | 34,377,511 |
| **Tunisia** | N/A | N/A | 2 | N/A | 11,107,800 |
| **Egypt** | 4 | 2 | 2 | N/A | 91,508,084 |
| **Sudan** | 1 | 2 | 1 | 2 | 40,234,882 |
| **Iran** | 1 | 1 | 1 | 0 | 79,109,272 |
| **Pakistan** | N/A | N/A | 2 | N/A | 188,924,874 |
| **Iraq** | 0 | 0 | 0 | 0 | 36,423,395 |
| **Occ. Pal. Terr.** | 0 | 0 | 0 | 0 | 4,500,000 |

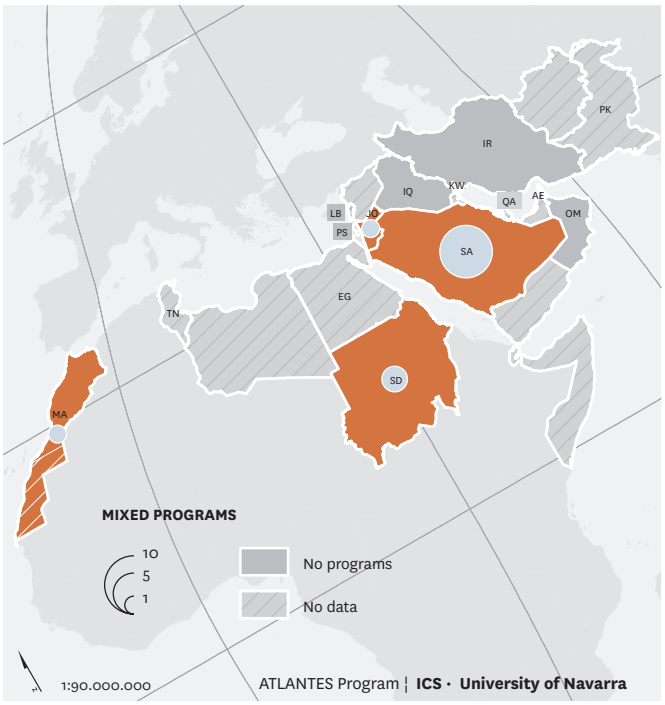
[1] Hospital support team.
[2] Inpatient.
[3] Community and hospital.

N/A means that data are either not available, applicable, or known by the country informant regarding the requested indicator.


PK
IR
IQ
KW
QA
AE
OM
LB
PS
JO
SA
EG
TN
SD
MA
OUTPATIENT CLINICS PROGRAMS
10
5
1
No programs
No data
1:90.000.000
ATLANTES Program ¦ ICS · University of Navarra


PK
IR
IQ
KW
QA
AE
OM
LB
PS
JO
SA
EG
TN
SD
MA
CONSULT SERVICE (SUPPORT TEAM) PROGRAMS
10
5
1
No programs
No data
1:90.000.000
ATLANTES Program ¦ ICS · University of Navarra


PK
IR
IQ
KW
QA
AE
OM
LB
PS
JO
SA
EG
TN
SD
MA
INPATIENT PALLIATIVE CARE PROGRAMS
10
5
1
No programs
No data
1:90.000.000
ATLANTES Program ¦ ICS · University of Navarra


PK
IR
IQ
KW
QA
AE
OM
LB
PS
JO
SA
EG
TN
SD
MA
MIXED PROGRAMS
10
5
1
No programs
No data
1:90.000.000
ATLANTES Program ¦ ICS · University of Navarra

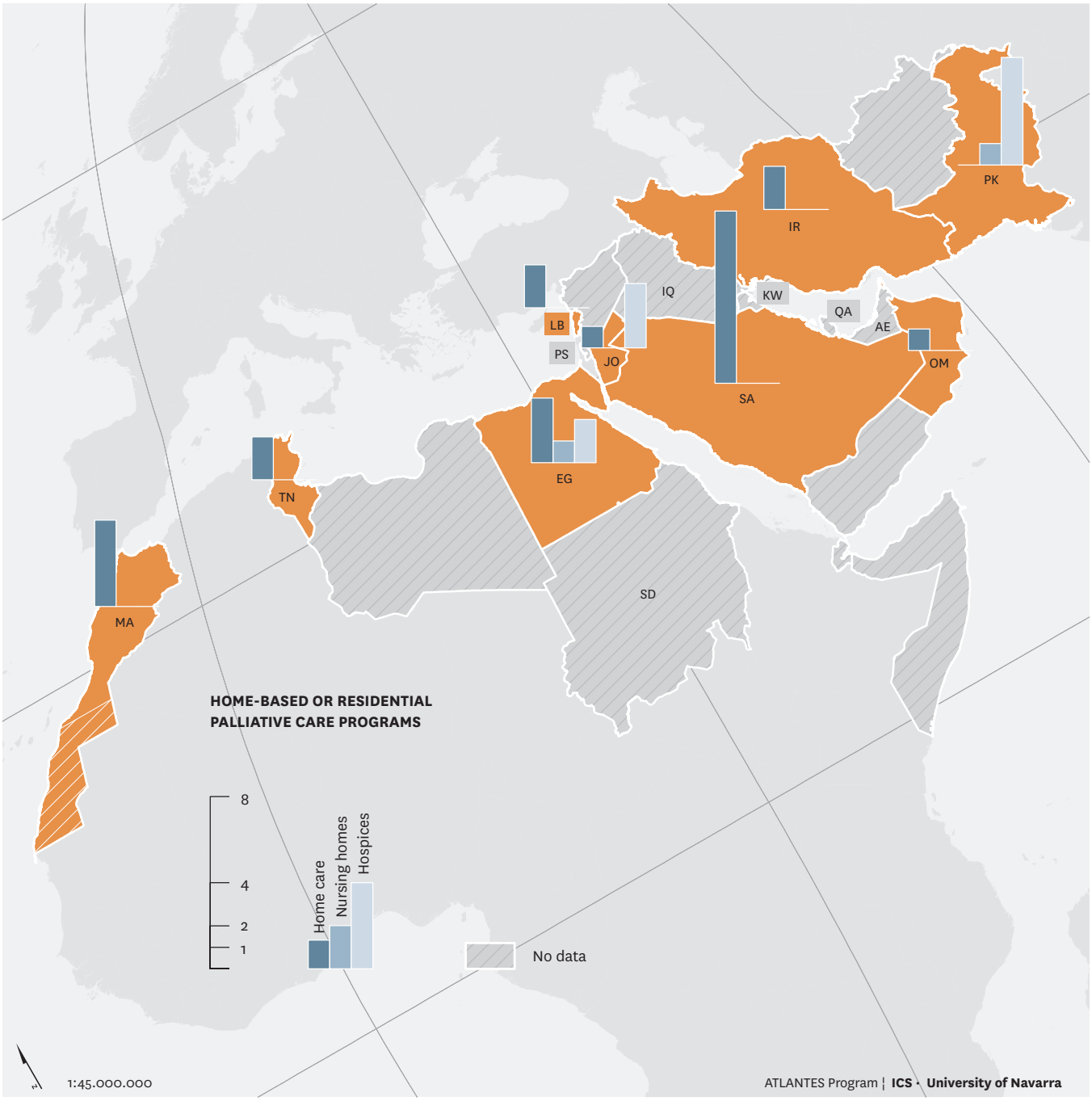
# Map 5. Home-based or Residential Palliative Care Programs

**Table 6.** Palliative Care Programs Provided at Home or Long-term Care Facilities

| COUNTRY | COMMUNITY-BASED PROGRAMS | NURSING HOME-BASED PROGRAMS | STAND–ALONE HOSPICE | | POPULATION, TOTAL |
|---|---|---|---|---|---|
| | Home care teams | Residences | Day Care Center | Hospices[1] | |
| **Saudi Arabia** | 8 | 0 | 0 | 0 | 31,540,372 |
| **Jordan** | 1 | 0 | 0 | 3 | 7,594,547 |
| **Lebanon** | 2 | 0 | 0 | 0 | 5,850,743 |
| **Kuwait** | N/A | N/A | N/A | N/A | 3,892,115 |
| **Oman** | 1 | 0 | N/A | N/A | 4,490,541 |
| **Qatar** | N/A | N/A | N/A | N/A | 2,235,355 |
| **UAE** | N/A | N/A | N/A | N/A | 9,156,963 |
| **Morocco** | 4 | N/A | N/A | N/A | 34,377,511 |
| **Tunisia** | 2 | 0 | 0 | 0 | 11,107,800 |
| **Egypt** | 3 | 1 | 0 | 2 | 91,508,084 |
| **Sudan** | 0 | 0 | 0 | 0 | 40,234,882 |
| **Iran** | 2 | 0 | 0 | 0 | 79,109,272 |
| **Pakistan** | N/A | 1 | N/A | 5 | 188,924,874 |
| **Iraq** | 0 | 0 | 0 | 0 | 36,423,395 |
| **Occ. Pal. Terr.** | 0 | 0 | 0 | 0 | 4,500,000 |

[1] Stand–alone inpatient unit.

N/A means that data are either not available, applicable, or known by the country informant regarding the requested indicator.


PK
IR
IQ
KW
QA
AE
LB
PS
JO
OM
SA
EG
TN
MA
SD
HOME-BASED OR RESIDENTIAL
PALLIATIVE CARE PROGRAMS
8
4
2
1
Home care
Nursing homes
Hospices
No data
1:45.000.000
ATLANTES Program ¦ ICS · University of Navarra

# Map 6. Licensing and Training for Palliative Care Physicians

This section shows licensing programs as well as other training programs, presented in two separate tables. Table 7 includes credentialing processes leading to a government recognized license. Table 8 includes other training programs which do not lead to an academic title but provide an official certificate or diploma.

**Table 7. Licensing Programs for PC Physicians**

| COUNTRY | YEAR | OFFICIAL NAME | LICENSING AUTHORITY | TRAINING REQUIREMENTS | Nº OF LICENSED PHYSICIANS |
|---|---|---|---|---|---|
| **Iran** | 2009 | Fellowship of Palliative Medicine | University | Concrete clincial specialty | 5 |
| **Saudi Arabia** | 2012 | Sub-specialty in Palliative Medicine | Saudi Commission for Health Specialties | Concrete clincial specialty | 4 |
| **Lebanon** | 2013 | Specialty in Palliative Medicine | Ministry of Public Health | Other requirements* | 4 |

Tunisia and Kuwait report to have started the process to implement an official licensing program for Palliative Care Physicians.

**Table 8. Other Training Programs for PC Physicians**

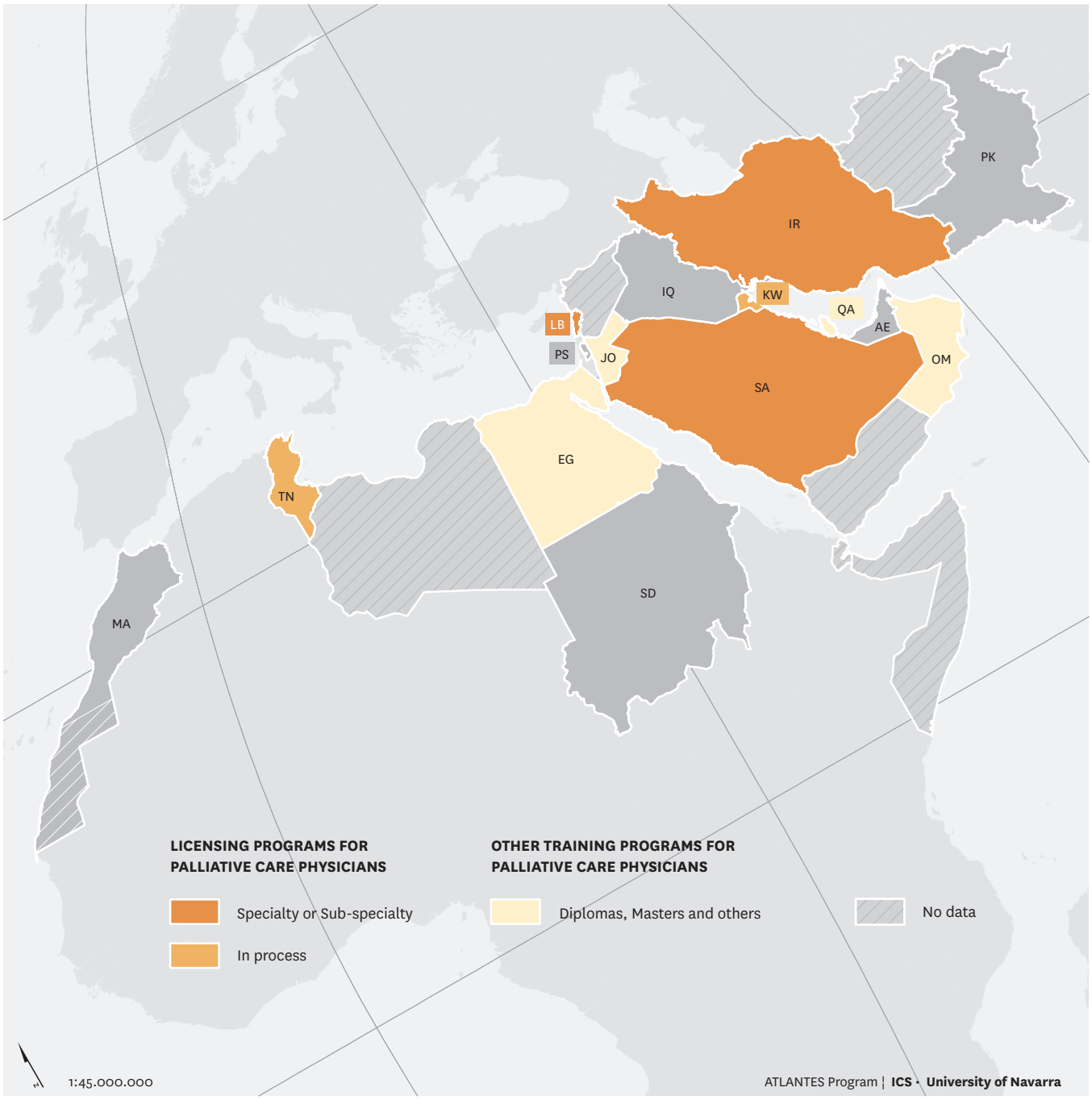
| COUNTRY | YEAR | OFFICIAL NAME | CERTIFYING AUTHORITY | TRAINING REQUIREMENTS | Nº OF CERTIFIED PHYSICIANS |
|---|---|---|---|---|---|
| **Qatar** | 2008 | Supportive and Palliative Care program | Ministry of Health | University degree | 2 |
| **Jordan** | 2013 | Diploma in Palliative Care | Jordan University of Applied Sciences | N/A | 50 |
| **Egypt** | 2014 | Supportive and Palliative Care Diploma | Ministry of Higher Education | Oncologist | N/A |
| **Oman** | 2015 | Pain and Palliative Care department | Ministry of Health | Concrete clinical specialty | 3 |

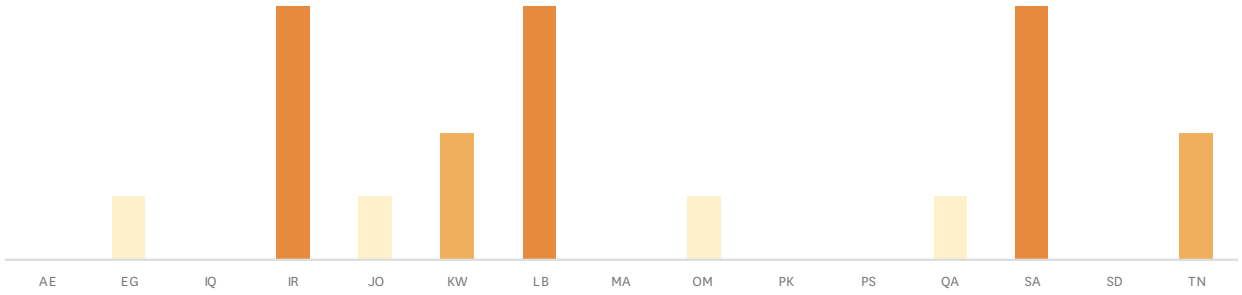
***The Case of Lebanon**

The Ministry of Public Health approved Decree # 1/1048 on July 28th, 2013, after which Palliative Medicine became a recognized specialty in Lebanon. According to the Decree, to become a specialist, "the candidate must complete a one-year fellowship training program in palliative medicine or a two-year post-graduate training period in a recognized and certified program."

This decree was the result of a collaborative effort between the Lebanese Center for Palliative Care – Balsam and the National Committee of Pain Control and Palliative Care. The initiative involved a petition by Balsam's Medical Director, Hibah Osman, to the Medical Specialties Committee requesting the recognition of the specialty. Balsam then mobilized other Lebanese palliative care physicians living and practicing abroad to petition the Committee with the same request to obtain the required number of requests. These requests, along with the support of the Director General of the Ministry of Public Health, Dr. Walid Ammar, were the triggers to include Palliative Medicine as an officially recognized specialty in the country.

N/A means that data are either not available, applicable or known by the country informant regarding the requested indicator.


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LICENSING PROGRAMS FOR PALLIATIVE CARE PHYSICIANS
Specialty or Sub-specialty
In process
OTHER TRAINING PROGRAMS FOR PALLIATIVE CARE PHYSICIANS
Diplomas, Masters and others
No data
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ATLANTES Program ¦ ICS · University of Navarra


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# Map 7. Palliative Care Education

This section includes Medical and Nursing Schools teaching palliative care both as a separate subject or integrated within other disciplines. In the country information sheets, only where palliative care is taught separately or where it is not integrated is reported.

Only four countries (Oman, Lebanon, Jordan, and Pakistan) report having Medical Schools teaching palliative care as a separate subject. There are, to our knowledge, no nursing schools teaching palliative care separately.

**Table 9. Palliative Care Training and Education for Physicians and Nurses**

| COUNTRY | MEDICAL SCHOOLS THAT HAVE INTEGRATED PC EDUCATION INTO OTHER DISCIPLINES | | | NURSING SCHOOLS THAT HAVE INTEGRATED PC INTO OTHER DISCIPLINES | | | PC POSTGRAD. COURSES FOR DOCTORS AND NURSES | PHYSICIANS TEACHING PC | | NURSES TEACHING PC | | PC TEACHERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Teaching | Total | % | Teaching | Total | % | | Full | Others | Full | Others | Total |
| **Jordan** | 5 | 5 | 100 | 5 | 12 | 42 | 1 | 0 | 1 | 0 | 4 | 5 |
| **Lebanon** | 2 | 7 | 29 | 17 | 17 | 100 | 2 | 0 | 2 | 0 | 1 | 3 |
| **Oman** | 1 | 3 | 33 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 4 | 7 |
| **Egypt**[1] | 1 | 20 | 5 | 0 | 42 | 0 | 1 | 1 | 2 | 0 | 0 | 3 |
| **Pakistan** | 5 | 101 | 5 | 0 | N/A | N/A | 1 | N/A | N/A | N/A | N/A | 2 |
| **Kuwait** | 1 | 1 | 100 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Tunisia** | 0 | 4 | 0 | 1 | 3 | 33 | 0 | 1 | 0 | 0 | 1 | 1 |
| **Saudi Arabia**[5] | 0 | 15 | 0 | N/A | N/A | N/A | 0 | 0 | 1 | N/A | 1 | 2 |
| **Qatar**[4] | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 2 | 2 |
| **Sudan** | 0 | 30 | 0 | 0 | 23 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Morocco**[3] | 0 | 5 | 0 | 0 | 7 | 0 | 1 | 1 | 4 | 0 | 0 | 5 |
| **Iran**[2] | 0 | 41 | 0 | 0 | 29 | 0 | 1 | 0 | 1 | 0 | 3 | 4 |

[1]Egypt has three medical school professors that teach palliative care in other disciplines, such as oncology.

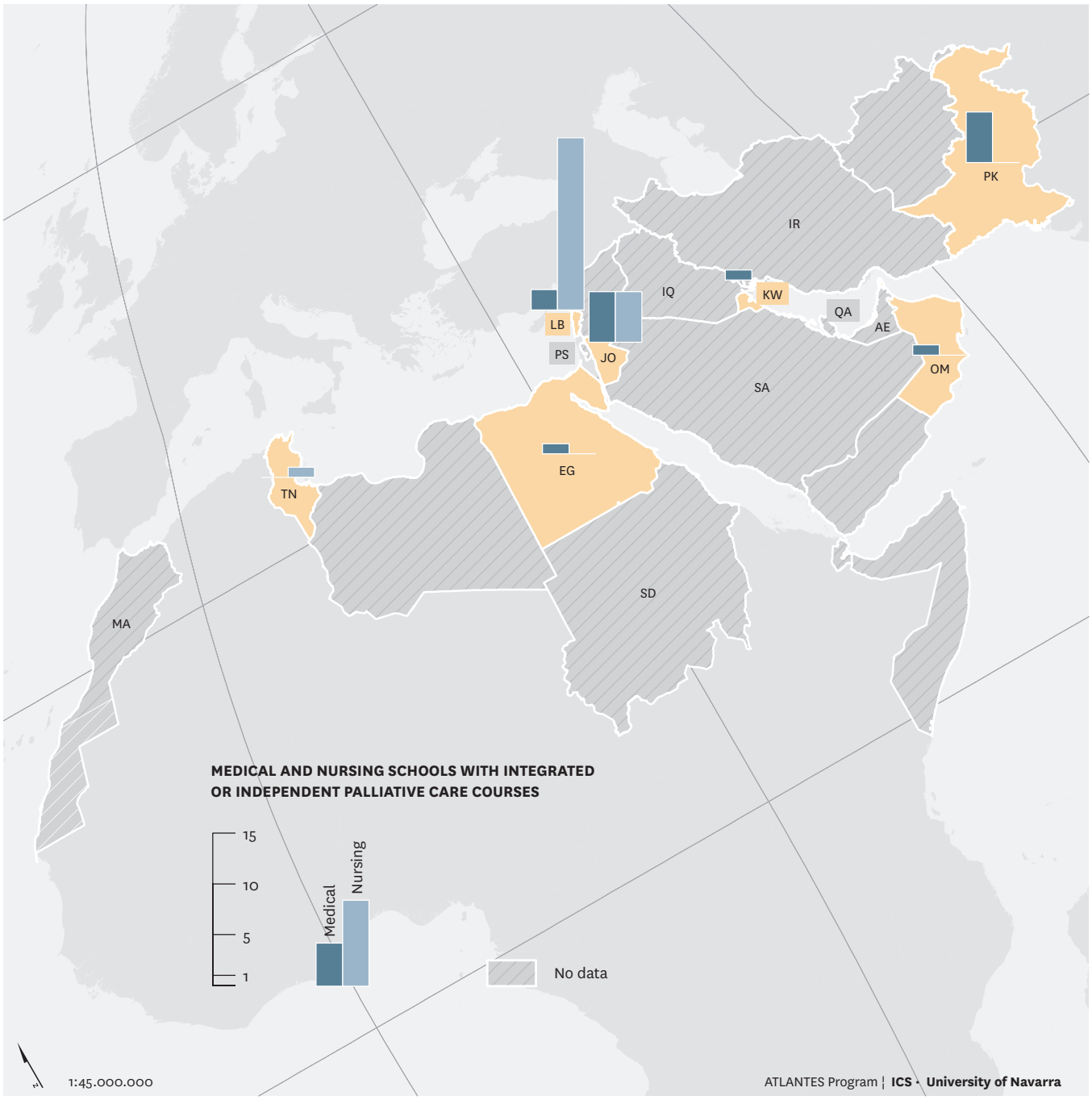
[2]Iran has graduate courses in palliative care for nursing.

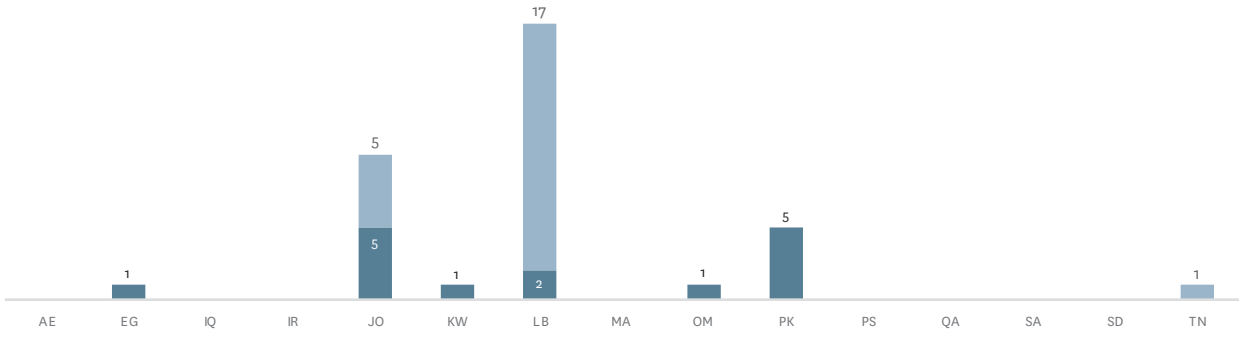
[3]Morocco has an Inter-university Diploma in Pain Management that has been developed and is now available in a few cities across the country.

[4]Qatar has palliative care integrated into fellowship programs.

[5]Saudi Arabia has developed palliative care education into residency and fellowship programs.

N/A means that data are either not available, applicable, or known by the country informant regarding the requested indicator.


MEDICAL AND NURSING SCHOOLS WITH INTEGRATED
OR INDEPENDENT PALLIATIVE CARE COURSES
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10
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Medical
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# Map 8. Palliative Care Professional Activity

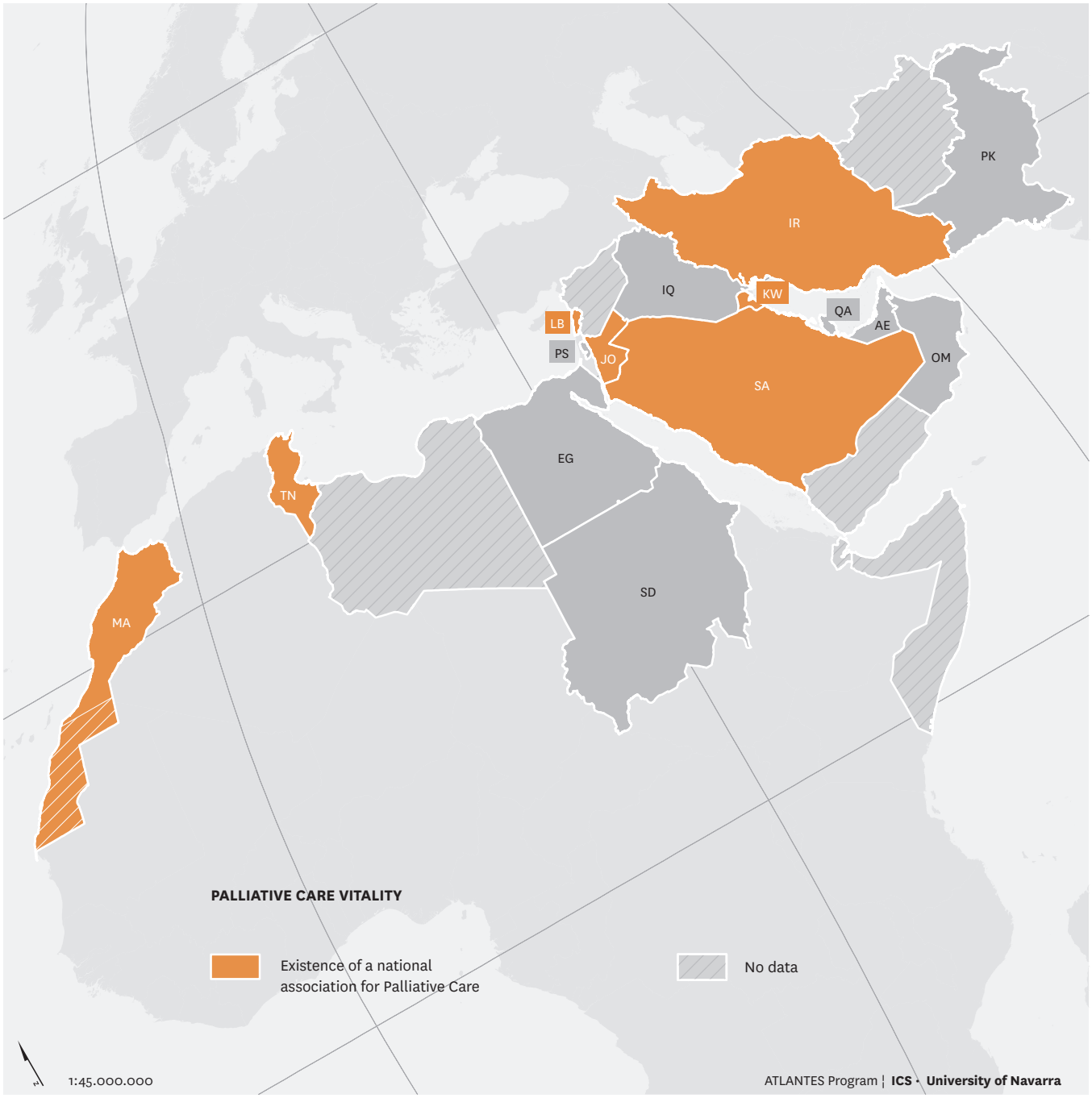
**Table 10.** National Palliative Care Associations

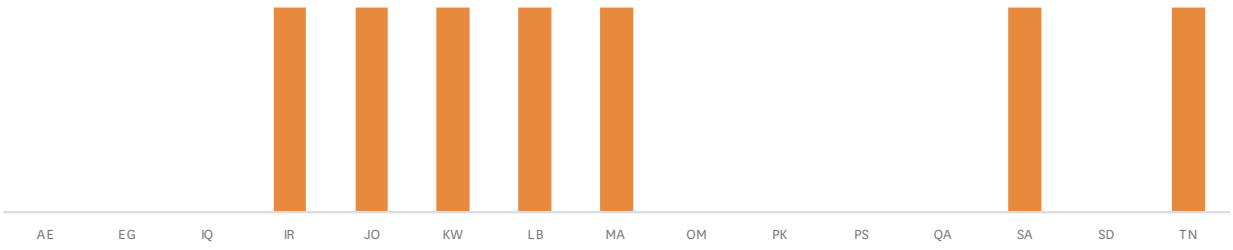
| COUNTRY | NAME OF ASSOCIATION | YEAR | WEBSITE |
|---|---|---|---|
| **Morocco** | Moroccan Society of Pain Management and Palliative Care | 1995 | N/A |
| **Jordan** | Jordan Palliative Care & Pain Management Society | 2008 | http://www.jopcs.org (not updated) |
| | Jordan Palliative Care Society | 2010 | http://www.civilsociety-jo.net/en/organization/250/ ordan-palliative-care-society |
| **Kuwait** | Kuwait Palliative Care Association | 2012 | http://www.kma.org.kw/en-Us/AssociationsDetails.aspx?id=7 |
| **Lebanon** | Pain and Palliative Care Working Group – Lebanese Cancer Society[1] | 2010 | N/A |
| **Saudi Arabia** | Saudi Society for Palliative Care | 2013 | N/A |
| **Tunisia** | Association Tunisienne de promotion des soins palliatifs averroes | N/A | http://www.uicc.org/ |
| **Iran** | Palliative Care Association of Iran | N/A | N/A |

[1] Currently inactive

**Table 11.** Palliative Care Research

| COUNTRY | INDIVIDUALS OR INSTITUTIONS ENGAGED IN PC RESEARCH WITH AT LEAST ONE PUBLICATION |
|---|---|
| **Oman** | National Oncology Center |
| | Oman Cancer Association |
| **Pakistan** | Dr. Haroon Hafeez |
| **Iran** | Cancer Institute |
| | Mamak Tahmasebi |
| **Kuwait** | Dr. Khaled ALSaleh |
| | Dr. Najla Suliman |
| **Sudan** | Dr. Nahla Gafer |
| **Saudi Arabia** | Dr. Mohammad Zafir Al-Shahri |
| **Egypt** | Children Cancer Hospital Egypt 573572 |
| | Dr. Sami Al-Sirafy |
| **Lebanon** | Dr. Hibah Osman |
| | Dr. Michael Daher |
| | Dr. Huda Huijer |
| **Occ. Pal. Terr.** | Dr. M Hawawra |
| | Dr. D al Khleif |
| **Qatar** | Dr. GF Abu Zeinah |
| | Dr. SG Al-Kindi |
| | Dr. AA Hassan |
| **Morocco** | Pr. Mati Nejmi |
| | Lalla Salma Foundation Against Cancer |
| | Moroccan Society of Pain |
| **Tunisia** | Dr. Henda Rais |


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PALLIATIVE CARE VITALITY
Existence of a national association for Palliative Care
No data
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# Map 9. Palliative Care Policies

**Table 12.** National Palliative Care Policies

| COUNTRY | NATIONAL PC LAW | STAND-ALONE NATIONAL PC PLAN | NATIONAL CANCER CONTROL STRATEGY | NATIONAL CANCER STRATEGY WITH REFERENCE OF PC | PC STANDARDS AND NORMS | PATIENTS HAVE TO PAY FOR PC SERVICES |
|---|---|---|---|---|---|---|
| **Egypt** | No | In process | Yes | Yes | No | No |
| **Iran** | In process | In process | Yes | Yes | In process | Yes |
| **Iraq** | No | No | Yes | No | No | No |
| **Jordan** | No | In process | Yes | N/A | Yes | Yes |
| **Kuwait** | No | In process | Yes | Yes | No | No |
| **Lebanon** | In process | In process | Yes | Yes | Yes | Yes |
| **Morocco** | No | No | Yes | Yes | Yes | No |
| **Oman** | In process | In process | Yes | Yes | In process | No |
| **Pakistan** | No | No | Yes | Yes | No | Yes |
| **Occ. Pal. Terr.** | No | No | No | N/A | No | No |
| **Qatar** | No | No | Yes | Yes | Yes | No |
| **Saudi Arabia** | No | No | N/A | N/A | No | No |
| **Sudan** | No | No | Yes | Yes | No | No |
| **Tunisia** | No | Yes | Yes | Yes | No | Yes |
| **UAE** | No | No | Yes | Yes | No | No |

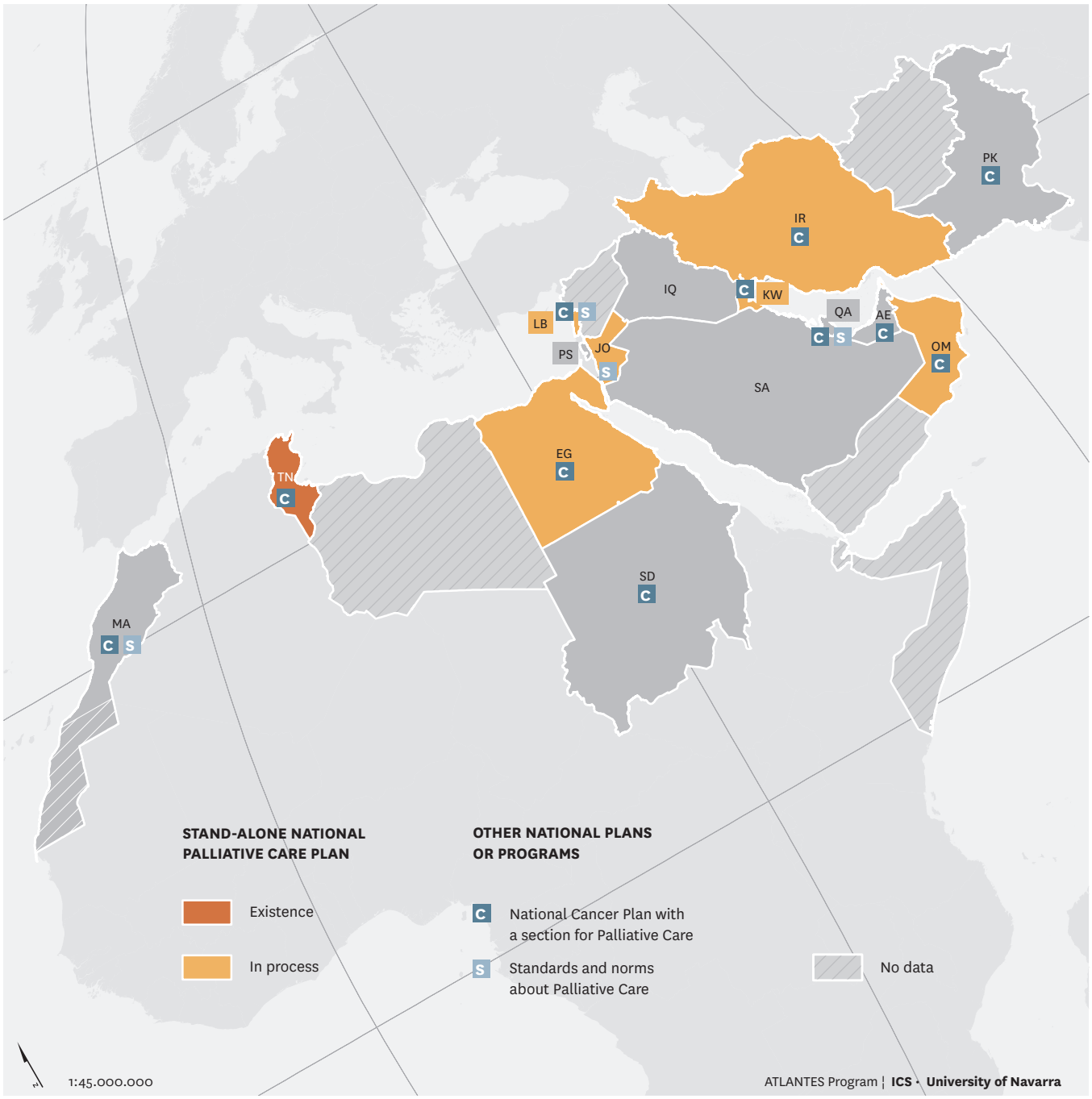
N/A means that data are either not available, applicable, or known by the country informant regarding the requested indicator.

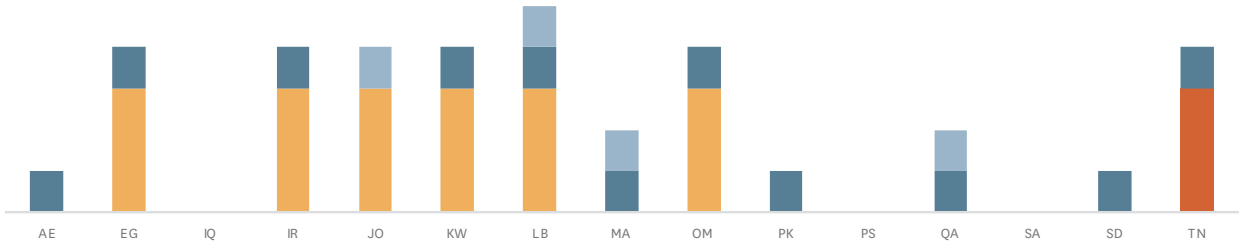
Of the fifteen countries that provided information on palliative care policies, only three (Iran, Lebanon, and Oman) reported that a law was in the process of being developed.

The development of national palliative care plans or strategies is already available in Tunisia, and it is being developed in six additional countries (Egypt, Iran, Jordan, Kuwait, Lebanon and Oman). All 15 of the countries represented in the study report the existence of a national cancer control strategy and 11 of those include an explicit reference to or section on palliative care.

Some countries, like Jordan, Lebanon, Morocco, and Qatar, have developed and published national documents relating to standards, norms, guidelines, or recommendations for the provision of palliative care services. Qatar has developed standards in the form of pathways. Qatar has guidelines for pain management, nausea and vomiting, constipation, neuropathic pain management, and indications for referral of patients to palliative care.

Qatar and Morocco have national documents on standards and norms for the delivery of palliative care, and have included palliative care within their national cancer control strategies (the National Cancer Strategic Plan of Qatar 2011-2016; and the National Plan for Cure and Cancer Care, Foundation Lalla Slama, respectively).


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STAND-ALONE NATIONAL PALLIATIVE CARE PLAN
Existence
In process
OTHER NATIONAL PLANS OR PROGRAMS
C
National Cancer Plan with a section for Palliative Care
S
Standards and norms about Palliative Care
No data
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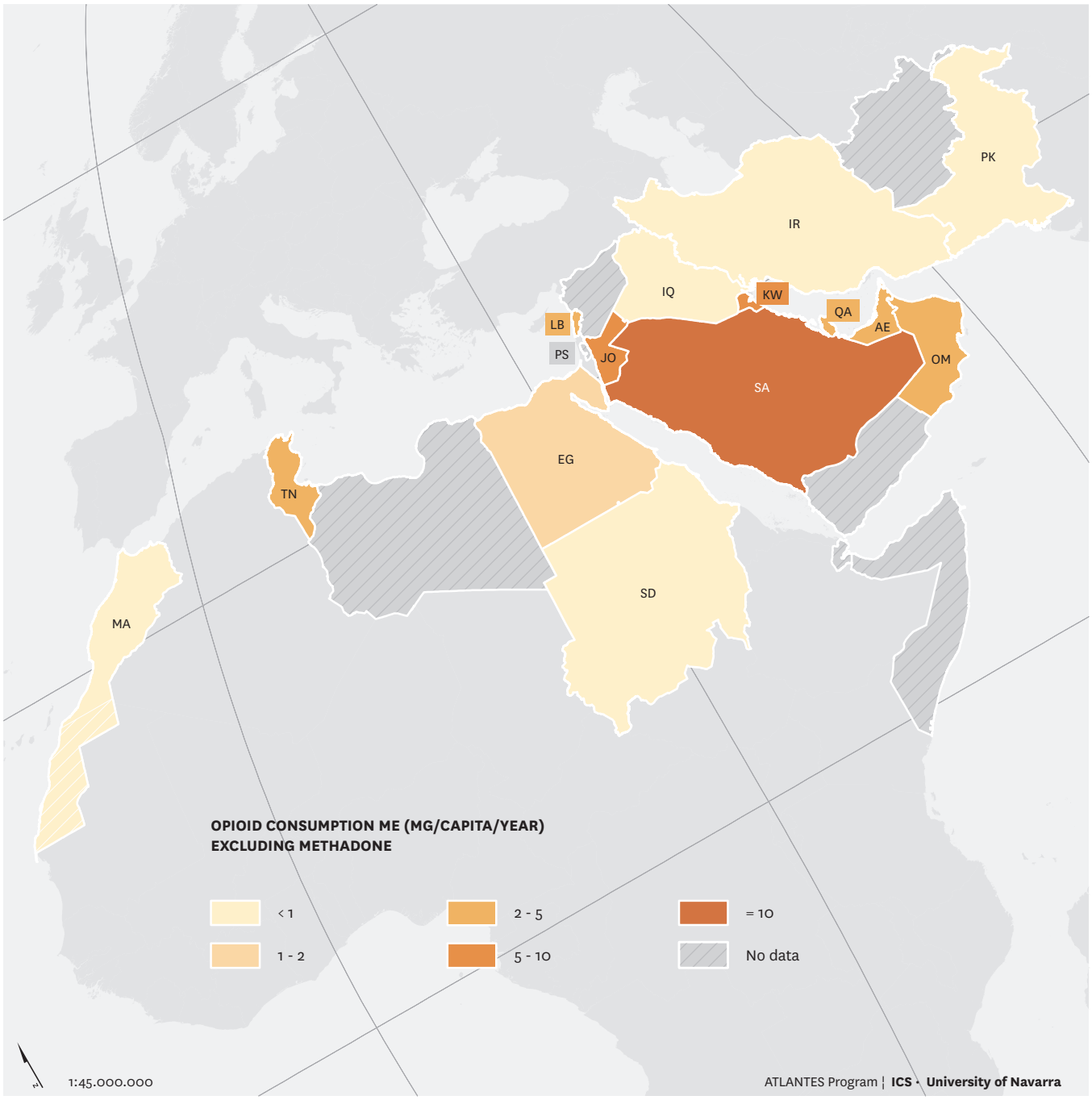
# Map 10. Medicines

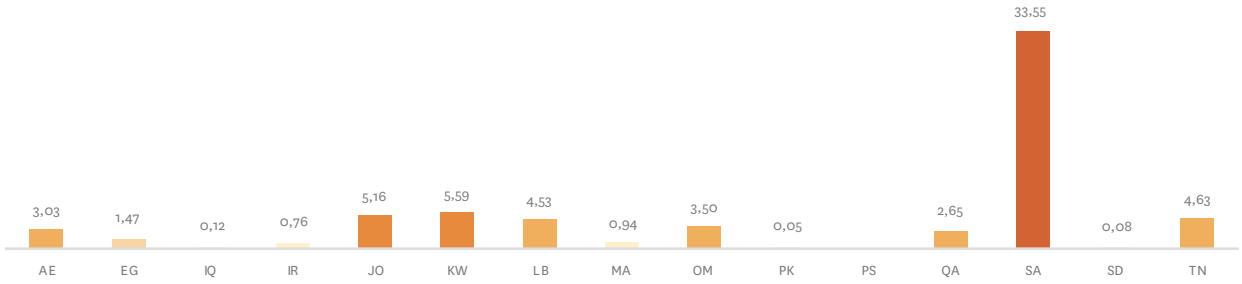
**Table 13. Barriers to Opioid Prescription**

| COUNTRY | DESCRIPTION | RESTRICTIONS ON OPIOID PRESCRIPTIONS | SPECIALTIES THAT CAN PRESCRIBE OPIOIDS |
|---|---|---|---|
| **Egypt** | Narcotic law on prescription and acquisition; and special forms | Specialist physicians, special process prescription forms, fixed quotas; and maximum dosage limits of 420mg for oral morphine and 60mg for intravenous morphine | Any specialty can prescribe (according to the Egyptian Narcotics control law), though in some institutions, prescriptions are limited to pain specialists as an internal institutional regulation |
| **Iran** | Special university-related centers deliver opioids | Only for cancer patients, with limited number of prescriptions and up to one month of medications | Different specialties within the cancer field |
| **Iraq** | N/A | Only prescribed by doctors in governmental hospitals | Only prescribed by doctors in governmental hospitals |
| **Jordan** | Controlled prescription: special prescription form | Three days for non-cancer patients and 10 days maximum, by specific specialties and specific pharmacies | Any specialty, including: neurologists, anesthesiologists, pain and palliative care specialists |
| **Kuwait** | Controlled prescription: Special forms to be filled by the physicians locked in narcotic cabinet obtained by staff nurse | No vials allowed for outpatient or patients at home | Any specialty in the hospital, and primary care only in emergencies |
| **Lebanon** | Controlled prescription: special form obtained through Ministry of Public Health | 30 day supply | Anesthesiologists, oncologists, and palliative care specialists |
| **Morocco** | Special prescription, 28 days for oral and seven for injectable | Prescription of opioids for 28 days or more if necessary | All physicians in possession of the "carnet d'ordonnances a souches" (Stem order book) |
| **Oman** | Approved opioid medications are purchased by the MOH. Special narcotics prescriptions are available in the hospital, allowed to write narcotics for 7 days in most MOH hospitals except at National Oncology Center | Prescribed only in public regional hospitals, not in health centers (not private) (30 days given) | All specialties in regional hospitals |
| **Pakistan** | Approval of 4 different ministries/ governmental departments is required, also each opioid license is valid for 1 specific hospital. If a branch hospital is in another city, a different license is needed | Restrictions on dispensing and procurement | Any specialty |
| **Palestine** | Controlled prescription: Special narcotic forms | Only prescribed in hospitals | Any specialty |
| **Qatar** | Opioids are renewed daily and reviewed weekly | No restrictions | Oncologists, anesthesiologists and palliative care specialists |
| **Saudi Arabia** | Opioid prescription regulated by the Saudi Food and Drug Authority (SFDA) | Special authorization required in outpatient clinics and hospices. Max. days of opioid supply is 30 days | Oncologists and surgeons can always prescribe but family doctors need a special permit or authorization |
| **Sudan** | Controlled prescription: Special form to be filled | Only prescribed in hospitals and special forms | Physicians medical officer |
| **Tunisia** | According to the law and the WHO recommendations | Oral medications can be prescribed for 28 days and injectable for 14 days | Oncologists |
| **UAE** | Federal law, narcotic prescription | 10 days for non-cancer patient and 30 days for cancer patients | Any specialty |

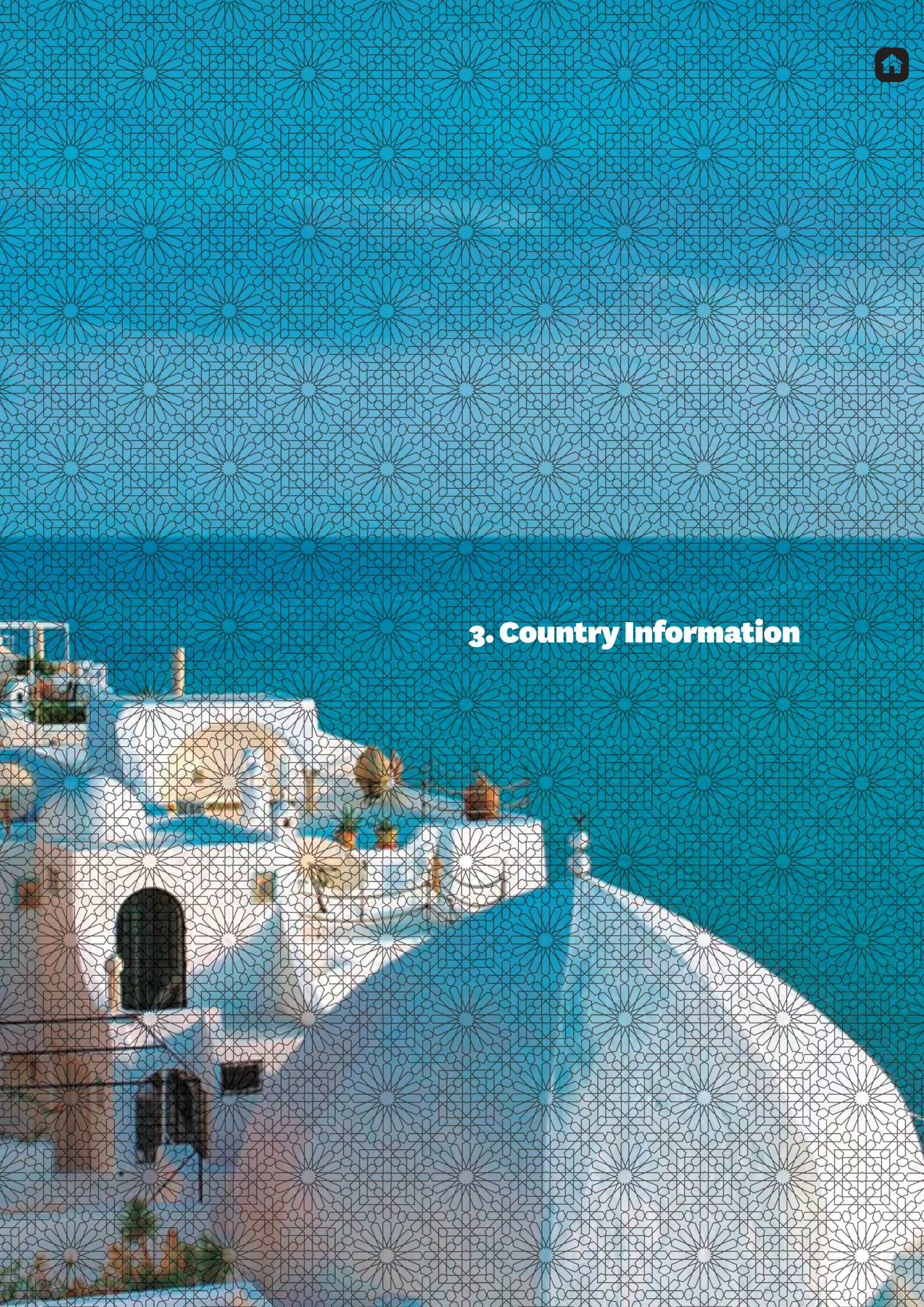
Data on opioid consumption is obtained from the latest available reported consumption to the International Narcotics Control Board (INCB), based on data provided by the Pain and Policy Studies Group (PPSG), University of Wisconsin. Opioid consumption are presented in morphine equivalence (ME) excluding methadone—per capita as reported to the INCB (year).

In the Country Reports section, the data for median opioid consumption in the Eastern Mediterranean region is calculated solely from the data available in 2015. The latest figure on consumption for certain countries may not be from 2015, but we felt that this was the best way to do comparisons and draw conclusions from the data.


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EXCLUDING METHADONE
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= 10
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# 3. Country Information



# Egypt

## OVERVIEW

The main changes over the past 10 years in Egypt relate to the opening of one palliative medicine (PM) unit in Cairo University and one nongovernmental organization (NGO) called JOSAAB providing home-based palliative care services. JOSAAB is in the process of planning the opening of a stand-alone hospice. El-Qabbary Hospital in Alexandria has opened an inpatient palliative care (PC) unit though services are still restricted to cancer patients. Alexandria University also provides a Diploma in Palliative and Supportive Care. These initiatives were primarily the result of individual efforts rather than efforts by the government.

The main barriers have been the lack of awareness at the public, professional, and governmental levels, as well as a lack of opioid availability and the absence of a national plan for PC development.

Funding exists mainly through NGOs. There is no dedicated official budget for PC from the Ministry of Health except for oncology services. The only policy change that occurred over the past 10 years was the recognition of PC as a part of the National Cancer Care Control Plan in Egypt. This policy had an impact on practice because oncology patients receiving PC can now receive reimbursement for these services from the government. This change is the result of individual efforts from doctors practicing PC, contributing to oncology conferences, and lobbying at the level of the Egyptian Cancer Society. There is now a PC committee in the MOH, though it only addresses the needs of oncology patients.

In general, the availability of pain medications in Egypt is poor. Opioids are not widely available, and they are limited to slow–release oral morphine (30mg/tablet) which has been in shortage for more than one year. There is a need for stronger opioids. New expensive opioids like transdermal fentanyl patches (and soon trans-mucosal fentanyl as well) are being registered while cheap opioids like immediate–release oral morphine are not available and have a complicated process to access. In the outpatient setting, opioids are only prescribed for cancer patients and are only available in hospitals with oncology services and in government pharmacies. Patients have to get special prescription forms to receive opioid analgesics as outpatients, and the doctors have to apply for these forms at the Ministry of Health.

Palliative care education is still scant in Egypt. Alexandria University received approval for the Supportive and PC Diploma from the Ministry of Higher Education. But this Diploma is only provided for oncologists. The level of public awareness is hard to assess, but at least at the professional level, cancer-care providers are now more aware of PC. JOSAAB foundation is organizing campaigns to increase the level of public awareness through the media.

In the Egyptian setting, due to limited resources and a lack of cancer treatments (chemotherapy), oncology patients are being referred early in the course of their illness to the PC service, not necessarily due to a developed PC service. The service is mainly for adults but there is a recent initiative to start a pediatric service in the children's cancer hospital in Cairo.

There is a need for more formal education in PC and this training needs to be made more attractive to health care professionals. In Cairo University, there is a plan to increase awareness at all levels and to start a diploma program that is not restricted to oncologists. Lack of resources, bureaucracy, and resistance to change appear to be the main problems in the future. PC will need to be recognized as a specialty by authorities and the problem of a lack of opioids will need to be addressed. The medical syndicate in Cairo is reluctant to recognize PC as a specialty because they believe it has to be initiated within universities before being recognized professionally.

## MILESTONES

**2001** Hospice and palliative care developments began

**2008** Palliative Medicine unit opens in Cairo University and the NGO JOSAAB founded a hospice

**2014** Alexandria University granted the approval from the Ministry of Higher Education for the Supportive and PC Diploma

## REFERENCES

**Clark D. et al.** Hospice and palliative care development in Africa: a multi-method review of services and experiences. J Pain Symptom Manage, 2007. 33(6): p. 698-710.

**Silbermann M. et al.** Palliative cancer care in Middle Eastern countries: accomplishments and challenges. Ann Oncol, 2012. 23 Suppl 3: p. 15-28

**Dalal S. and Bruera E.** Access to opioid analgesics and pain relief for patients with cancer. Nat Rev Clin Oncol, 2013. 10(2): p. 108-16.

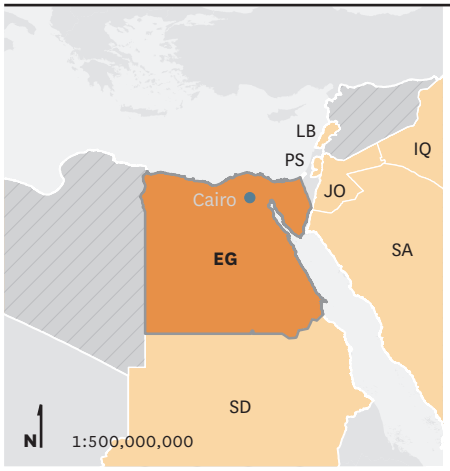
## KEY INFORMANT

Dr. Sami Al-Sirafy (Interviewed on 20.01.2016) and Dr. Mohamad El Shamy

## NATIONAL ASSOCIATION OR INSTITUTION

Palliative Medicine Unit, Kasr Al-Ainy Center of Clinical Oncology & Nuclear Medicine, Kasr Al-Ainy School of Medicine, Cairo University; and Children Cancer Hospital Egypt 57357, respectively.

# Egypt




| | | |
|---|---|---|
| 91,508,084<br>Population, 2015 | US$3,615<br>Gross Domestic Product per capita, 2015 | US$594<br>Health Expenditure per capita, PPP, 2014 |
| 1,001,450<br>Surface, km² | 2.83<br>Physicians per 1000 inhabitants, 2010 | 0.69<br>Human Development Index, 2014 |
| 91.9<br>Density, 2015 inh/km² | 5.6%<br>Health Expenditure total , 2014 (% of gross) | 108<br>Human Development Index Ranking position, 2014 |

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| 4<br>**Outpatient clinics** (inpatient) | N/A<br>**Mixed programs** (community and hospital) | 2<br>**Consultation services** (hospital support teams) | 2<br>**Hospital PC units** (inpatient) |
| 2<br>**Hospices** (stand-alone inpatient units) | 3<br>**Community-based programs** (home care) | 1<br>**Nursing home-based programs** | 14<br>**Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / **NO** |
| Patients have to pay for PC medications? | YES / **NO** |
| Health system | Private, Public& universal |

## POLICIES

| | |
|---|---|
| National PC Law | YES / **NO** |
| National plan or strategy for PC | IN PROCESS |
| National cancer plan/strategy with a section for PC | **YES** / NO |
| National standards and norms for PC | YES / **NO** |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / **NO** |
| Initiatives promoting PC | YES / **NO** |
| PC research | **YES** / NO |

## EDUCATION

- Medical schools with PC education at the undergraduate level — **0/20**
- Nursing schools with PC education at the undergraduate level — **0/42**
- PC integrated into any fellowship program — **NO**
- Post-graduate course for nurses available — **NO**

| **Teachers of PC** | | **3** |
|---|---|---|
| Full professor | Medicine | 1 |
| | Nursing | 0 |
| Other professors | Medicine | 2 |
| | Nursing | 0 |

**Official recognition as a licensing or advanced training program** — YES / NO

## AVAILABILITY OF MEDICINES




**Opioid Consumption per capita in ME, excl. methadone 2015**



# Iran

## OVERVIEW

Until 2009, there was only one PC specialist working in Iran. Three years later, the Ministry of Health approved a fellowship program in PC. The program graduates one to two PC specialists each year. Most of the fellows are anesthesiologists and radiotherapists. PC also became a mandatory component of any oncology conference in the country. It is a slow–growing field but fortunately, there is a committee in the Ministry of Health, under the Cancer Control Committee, that specifically works on PC, and there is a plan to spread the service all over Iran.

Most of the barriers in recent years are related to governmental policies, health care education, and opioid availability. Only injectable morphine, methadone, and limited amounts of oxycodone and buprenorphine are available. Oncologists are reluctant to refer patients to the PC service in Iran except in very late stages of the disease. However, at the Cancer Institute University Hospital, because physicians know the PC specialist personally, doctors refer earlier. This hospital only caters to adults. There is another big center in Tehran specialized in children's cancer with some pain specialists. PC is restricted to cancer patients and no advanced care planning is practiced in Iran yet.

There is a governmental plan for PC in its pilot phase, and it is expected to be applied next year. The most important legal policy change over the past 10 years was the approval of the fellowship program. However, that has had limited impact because the service remains localized, the number of specialists is still small, and it is concentrated in Tehran and major cities such as Mashhad and Isfahan. It is still not available in rural areas. Opioid availability is limited and dispensing is restricted. It is limited to 10 ampoules of morphine or 10 pills of methadone per day. Currently, there is no oral morphine and fentanyl patches are not available. One issue is patients' fear of abuse due to a lack of access to oncologists or PC physicians. This fear of addiction at the government, physician, and patient level explains the lack of real plans for improving patient access to opioids.

The Ministry of Health is working on some crucial steps. Educating all general practitioners (GP) and family physicians on the basics of PC is expected to be implemented next year. There are also efforts to increase political awareness about PC. Cancer Control Week is celebrated each year and media programs discuss different aspects of cancer control focusing on PC. Some awareness campaigns targeting GPs through short courses have been implemented.

Education is limited to the fellowship program and some short courses targeting GPs and nurses. In terms of communications, no big changes have occurred except for some books, publications, and TV and radio interviews explaining the use of opioids and proper pain management. The lack of specialists still impedes increasing public awareness.

Concerning the future of the specialty, a big opportunity will be developing new policies in the MOH on integrating PC in both medical and nursing schools and providing all GPs with the basics of PC. This will increase access to PC, especially in patients with advanced cancer. Some issues will be faced in the coming years such as the lack of awareness of PC by healthcare professionals, and possibly financial issues. However, support from the Ministry of Health and some NGOs for education and medications is expected. Another concern is limited opioid availability and accessibility. Most of the pharmaceutical companies are not interested in producing opioid medications due to their cheap prices and low profit margins as producing chemotherapy is more lucrative. The Ministry of Health should encourage these companies to increase the production of opioid medications.

## MILESTONES

**2007** First NCCP was developed in Iran

**2011** Start of compiling the Comprehensive National Program for Providing Palliative and Supportive Care for Cancer

**2012** Recommendations of the impact review team for improvement of the cancer control status in Iran regarding PC

## REFERENCES

**Silbermann M. et al.** Palliative cancer care in Middle Eastern countries: accomplishments and challenges. Ann Oncol, 2012. 23 Suppl 3: p. 15-28.

**Rassouli M. and Sajjadi M.** Palliative Care in Iran: Moving Toward the Development of Palliative Care for Cancer. Am J Hosp Palliat Care, 2016. 33(3): p. 240-4.

**Rouhollahi M.R. et al.** Situation analysis of the National Comprehensive Cancer Control Program (2013) in the I. R. of Iran; assessment and recommendations based on the IAEA imPACT mission. Arch Iran Med, 2014. 17(4): p. 222-31.

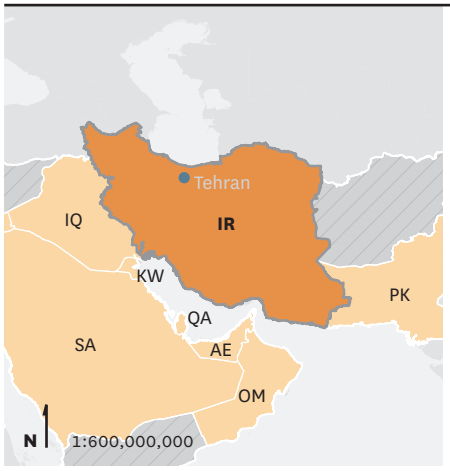
## KEY INFORMANT

Dr. Mamak Tahmasebi
(Interviewed on 24.01.2017)

## NATIONAL ASSOCIATION OR INSTITUTION

Tehran University of Medical Sciences (TUMS), Cancer Institute, Palliative Medicine Unit.

# Iran




**79,109,272**
Population, 2015

**US$5,443**
Gross Domestic Product per capita, 2014

**US$1,082**
Health Expenditure per capita, PPP, 2014

**1,745,150**
Surface, km²

**0.89**
Physicians per 1000 inhabitants, 2010

**0.77**
Human Development Index, 2014

**48.6**
Density, 2015 inh/km²

**6.9%**
Health Expenditure total (% of gross), 2014

**69**
Human Development Index Ranking position, 2014

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| **1** | **0** | **1** | **1** |
| **Outpatient clinics** (inpatient) | **Mixed programs** (community and hospital) | **Consultation services** (hospital support teams) | **Hospital PC units** (inpatient) |
| **0** | **2** | **0** | **5** |
| **Hospices** (stand-alone inpatient units) | **Community-based programs** (home care) | **Nursing home-based programs** | **Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / NO |
| Patients have to pay for PC medications? | YES / NO |
| Health system | Private, Public& Universal |

## POLICIES

| | |
|---|---|
| National PC Law | IN PROCESS |
| National plan or strategy for PC | IN PROCESS |
| National cancer plan/strategy with a section for PC | YES / NO |
| National standards and norms for PC | IN PROCESS |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / NO |
| Initiatives promoting PC | N/A |
| PC research | YES / NO |

## EDUCATION

- Medical schools with PC education at the undergraduate level **0/41**
- Nursing schools with PC education at the undergraduate level **0/29**
- PC integrated into any fellowship program **YES**
- Post-graduate course for nurses available **NO**

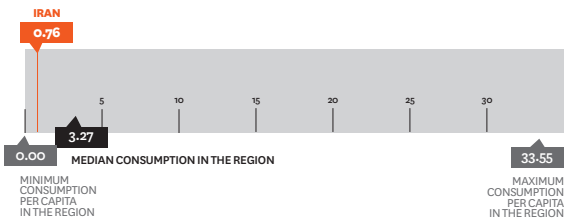
| **Teachers of PC** | | **4** |
|---|---|---|
| Full professor | Medicine | 0 |
| | Nursing | 0 |
| Other professors | Medicine | 1 |
| | Nursing | 3 |

**Official recognition as a licensing or advanced training program** YES / NO

## AVAILABILITY OF MEDICINES




**Opioid Consumption per capita in ME, excl. methadone, 2015**



# Iraq

## OVERVIEW

Palliative care is a relatively new concept in Iraq. The first contact with PC dates back to 2011 at the Middle Eastern Cancer Consortium (MECC) Advanced Workshop on Pain Medicine & Palliative Care for Children in Larnaca, Cyprus. The meeting was hosted by Michael Silbermann (MECC Executive Director). Dr. Salma Al-Hadad (Head of the Pediatric Oncology Unit) gave a presentation about PC and discussed the possibility of recognizing PC as specialty with oncologists and fellows. These pioneers, along with Dr. Mazin Al-Jadiry, later published a textbook chapter on PC in Iraq.

Since 2011, some physicians and nurses have attended basic and advanced PC workshops such as the Middle East Symposium on PC held in Muscat and Turkey.

PC practice is primarily housed in the field of pain management. PC is not yet established as a separate specialty and work remains driven by individuals. Teams do not have social workers, psychotherapists, or pharmacists. The oncologist serves as the psychotherapist and pain control provider. There are no dedicated PC units yet. The main contributors to introducing PC to Iraq are NGOs and MECC through Prof. Michael Silbermann.

The most important barriers hindering the development of PC are the lack of public awareness, the lack of education and training programs, inadequate opioid availability, and the failure to recognize PC as a specialty. No real policy changes have occurred in the past 10 years, but in the past 6 years some new opioids were introduced, and there have been efforts within the Ministry of Health (MOH) to have fentanyl patches and more oral morphine.

Negotiations with the Director of the Pediatric Teaching Hospital to establish a PC service are ongoing for the future. Discussion with the Minister of Public Health might occur, though financial obstacles in thev MOH are an issue and so far, there is no official agreement. Funding exists for oncology but not for PC. However, some individual funders have expressed interest in providing support for oral morphine if approved by the MOH.

There are no real policy changes around opioid analgesics. Opioids were never allowed for outpatients and are not accessible by any means. A major restriction is that only doctors in governmental hospitals can prescribe and that some units are only allowed to prescribe transdermal patches for outpatients. Opioids are available in very limited centers and only doctors working in these centers can prescribe them. There is no immediate–release morphine and no sustained–release morphine. There is only codeine and injectable morphine. Transdermal fentanyl patches became available in 2013. These medications are provided for free. The availability of opioids is an area for improvement. An NGO from the USA showed willingness to provide new drugs but persuading the MOH to accept this donation remains necessary.

To date, the main barrier in the development of PC is the lack of public awareness which is noticeable when it comes to educating patients about the severity of their illnesses in late stages. The political situation and insecurity in the country play major roles in delaying public awareness. Moreover, most pediatric health care providers believe that PC is a nice way to say that more cannot be done. Most patients lack knowledge of the importance of the role of PC, and some regard PC as a luxury when facing disability and cancer.

There is a general lack of governmental policies to recognize PC as an essential component of the health care system, and there is no training for both health care professionals and the general public about PC. In the future, it is hoped to have nurses trained, to open outpatient PC clinics for pain management, and to get more medications. Psychotherapists, social workers, spiritual counselors, and volunteers trained as social workers are needed, as well as help from the MOH, and perhaps some help from national and international NGOs to establish PC units. Work for recognizing PC as a specialty is another aim.

## MILESTONES

**2011** First contacts with PC

**2012** Iraq had the lowest consumption estimates of narcotic drugs

**2013** Transdermal fentanyl patch became available

## REFERENCES

**Cleary J. et al.** Formulary availability and regulatory barriers to accessibility of opioids for cancer pain in the Middle East: a report from the Global Opioid Policy Initiative (GOPI). Ann Oncol, 2013. 24 Suppl 11: p. xi51-9.

**Silbermann M. et al.** Palliative cancer care in Middle Eastern countries: accomplishments and challenges. Ann Oncol, 2012. 23 Suppl 3: p. 15-28.

**Caruso Brown A.E. et al.** Reported availability and gaps of pediatric palliative care in low- and middle-income countries: a systematic review of published data. J Palliat Med, 2014. 17(12): p. 1369-83.

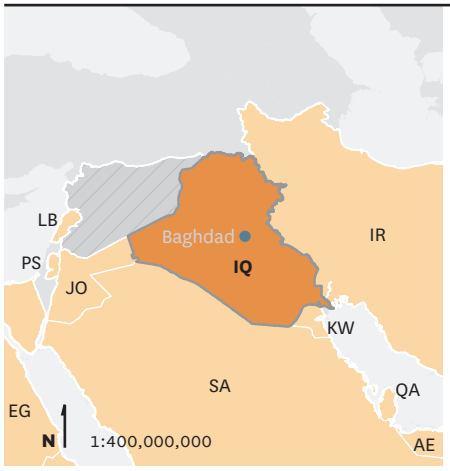
## KEY INFORMANT

Dr. Samaher AL-Masoodi (Interviewed on 28.01.2016)

## NATIONAL ASSOCIATION OR INSTITUTION

Baghdad / Medical City-Children Welfare Teaching Hospital

# Iraq




**36,423,395**
Population, 2015

**US$4,944**
Gross Domestic Product per capita, 2015

**US$667**
Health Expenditure per capita, PPP, 2014

**435,050**
Surface, km²

**0.61**
Physicians per 1000 inhabitants, 2010

**0.65**
Human Development Index, 2014

**83.9**
Density, 2015 inh/km²

**5.5%**
Health Expenditure total (% of gross), 2014

**121**
Human Development Index Ranking position, 2014

## PALLIATIVE CARE PROGRAMS

**Outpatient clinics** (inpatient)

**Mixed programs** (community and hospital)

**Consultation services** (hospital support teams)

**Hospital PC units** (inpatient)

**Hospices** (stand-alone inpatient units)

**Community-based programs** (home care)

**Nursing home-based programs**

**Total**

### Payment for PC programs

| | |
|---|---|
| Patients have to pay for PC? | YES / **NO** |
| Patients have to pay for PC medications? | YES / **NO** |
| Health system | Private, Public& universal |

## POLICIES

| | |
|---|---|
| National PC Law | YES / **NO** |
| National plan or strategy for PC | YES / **NO** |
| National cancer plan/strategy with a section for PC | YES / **NO** |
| National standards and norms for PC | YES / **NO** |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / **NO** |
| Initiatives promoting PC | YES / **NO** |
| PC research | YES / **NO** |

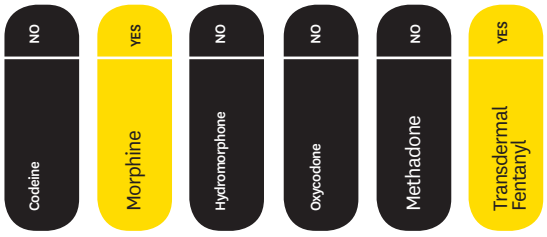
## EDUCATION

- Medical schools with PC education at the undergraduate level **0/22**
- Nursing schools with PC education at the undergraduate level **0/22**
- PC integrated into any fellowship program **NO**
- Post-graduate course for nurses available **NO**

| **Teachers of PC** | | **0** |
|---|---|---|
| Full professor | Medicine | 0 |
| | Nursing | 0 |
| Other professors | Medicine | 0 |
| | Nursing | 0 |

**Official recognition as a licensing or advanced training program** YES / **NO**

## AVAILABILITY OF MEDICINES




### Opioid Consumption per capita in ME, excl. methadone, 2011



# Jordan

## OVERVIEW

The history of PC in Jordan started back in 2003 with the WHO Palliative Care Demonstration Project aiming to establish a professional model of PC in the country and to which 70 candidates were invited for the workshop on "Principles of PC".

Following that project, a PC program started at King Hussein Cancer Center (KHCC) with Mohamad al Bushnaq being the first physician specialized in PC through a PC fellowship program in San Diego. PC services were limited to KHCC patients and many others in need had no access to the service. This is why the Jordanian PC Society was launched in 2010 with the vision of making PC available to all patients. The second landmark was through working on building capacity for PC in Jordan. An 8-hour-workshop on PC was given to more than 1000 healthcare workers. Fifty candidates received a diploma in PC. The third landmark began in July 2015 with a grant from USAID for developing four projects in PC.

The first project was to train 40 healthcare workers to complete the diploma in PC to help spread PC through hospitals and universities in faculties of medicine, pharmacy, and nursing with the aim of starting undergraduate PC education, as well as creating a nucleus for PC programs in most of the major hospitals in Jordan. The second project was developing a four-hour workshop to increase awareness of PC among professionals. The third aimed at increasing public awareness in PC by inviting patients with chronic illnesses to awareness sessions about the concept of PC. The fourth was to establish a group therapy program for people with chronic illnesses.

As is the case for many other countries, Jordan has faced some barriers in the development of PC. These barriers were mainly the low level of awareness at both professional and public levels, including the hesitancy in cooperation at the official level, the lack of financial support, and shortage of staff.

Regarding the policy changes in Jordan, the first legislation in 2003 changed some policies related to morphine use, where morphine prescription duration in cancer patients was extended from 3 to 10 days. To improve political awareness, the MOH was approached on a regular basis, and the staff at Al Bashir Hospital (the biggest governmental hospital in Jordan) were trained. The Minister of Health and important decision–makers in the government were invited to join celebrations on World PC Day on a yearly basis. Despite this, the main funds came from USAID and other smaller funds by donors with no funds from the Jordanian government.

Regarding pain medications, barriers exist due to opiophobia among professionals and misconception about opioid abuse and their harmful side effects as well as reluctance among pharmacies in making them available. Opioids are easily accessible in KHCC. Although opioid access is improving, opioids are still not always accessible in governmental hospitals, and despite the increase in morphine consumption in Jordan, consumption is below the global average.

PC education is improving in Jordan, where there are three levels of training: 1) Diploma in PC in affiliation with Jordan University of Applied Sciences, designed to create future leaders in PC, with 50 graduates currently and 40 leaders training this year; 2) Four-hour-workshops on a monthly basis for professionals; and 3) short one-hour courses delivered on a monthly basis mainly to healthcare workers.

On the communications level, there is progress in the level of awareness in PC thanks to social media initiatives like Youtube (50 clips on PC in Arabic), three books published about PC in Arabic, and a conference for the public. In the future, there is the potential to create a model for PC at global level, ideally developed through a combination of high PC standards customized to Jordanian culture, history, and beliefs.

## MILESTONES

**2001** Palliative care nursing started in Jordan with the launching of Jordan Palliative Care Initiative

**2004** A pain management and palliative care program was launched in KHCC

**2005** Jordan Palliative Care Initiative resulted in a new home care hospice and a hospital-based team in the KHCC (main cancer hospital)

## REFERENCES

**Stjernsward J. et al.** Jordan palliative care initiative: a WHO Demonstration Project. J Pain Symptom Manage, 2007. 33(5): p. 628-33.

**Bushnaq M.** Palliative care in Jordan: culturally sensitive practice. J Palliat Med, 2008. 11(10): p. 1292-3.

**Bingley A. and Clark D.** A comparative review of palliative care development in six countries represented by the Middle East Cancer Consortium (MECC). J Pain Symptom Manage, 2009. 37(3): p. 287-96.

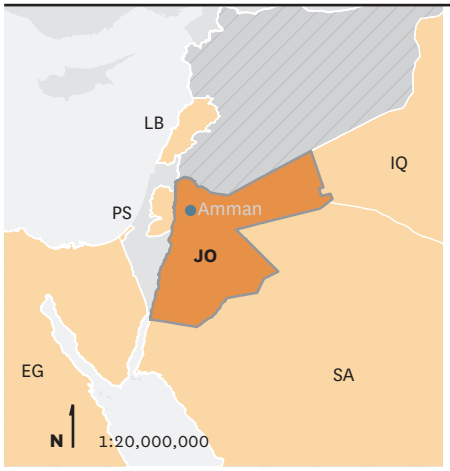
## KEY INFORMANT

Dr.Mohammad Bushnaq (Interviewed on 01.12.2014) and Dr. Anwar Al Nassan

## NATIONAL ASSOCIATION OR INSTITUTION

Bushnaq Palliative Care Clinic and the KHCC, respectively.

# Jordan




| | |
|---|---|
| 7,594,547 | Population, 2015 |
| US$4,940 | Gross Domestic Product per capita, 2015 |
| US$798 | Health Expenditure per capita, PPP, 2014 |
| 89,320 | Surface, km² |
| 2.56 | Physicians per 1000 inhabitants, 2010 |
| 0.75 | Human Development Index, 2014 |
| 85.5 | Density, 2015 inh/km² |
| 7.5% | Health Expenditure total (% of gross), 2014 |
| 80 | Human Development Index Ranking position, 2014 |

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| 2 | 1 | 2 | 1 |
| **Outpatient clinics** (inpatient) | **Mixed programs** (community and hospital) | **Consultation services** (hospital support teams) | **Hospital PC units** (inpatient) |
| 3 | 1 | 0 | 10 |
| **Hospices** (stand-alone inpatient units) | **Community-based programs** (home care) | **Nursing home-based programs** | **Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / NO |
| Patients have to pay for PC medications? | YES / NO |
| Health system | Private, Public& universal |

## POLICIES

| | |
|---|---|
| National PC Law | YES / NO |
| National plan or strategy for PC | IN PROCESS |
| National cancer plan/strategy with a section for PC | N/A |
| National standards and norms for PC | YES / NO |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / NO |
| Initiatives promoting PC | YES / NO |
| PC research | UNKNOWN |

## EDUCATION

- Medical schools with PC education at the undergraduate level **1/5**
- Nursing schools with PC education at the undergraduate level **0/12**
- PC integrated into any fellowship program **NO**
- Post-graduate course for nurses available **YES**

| **Teachers of PC** | | **5** |
|---|---|---|
| Full professor | Medicine | 0 |
| | Nursing | 0 |
| Other professors | Medicine | 1 |
| | Nursing | 4 |

**Official recognition as a licensing or advanced training program** YES / NO

## AVAILABILITY OF MEDICINES




IN P.: In Process

**Opioid Consumption per capita in ME, excl. methadone, 2015**



# Kuwait

## OVERVIEW

Before 2010, there was no official PC service in Kuwait and it was only offered through the Kuwait Cancer Control Center. In 2010, the first PC center was launched, located near the Kuwait Cancer Center. Since then, PC became more formalized in Kuwait. The Center provides free PC services including inpatient hospitalizations with 92 beds, an outpatient department, a day visit department, and outreach consultants. Patients are referred to this Center from all over the country and, when possible, consultants are sent to see patients admitted to other hospitals.

The main contributors to this development were an NGO called Kuwait Society for Smoking and Cancer Prevention and the International Islamic Charity Organization. Both of these organizations launched the Center and then handed it over to the Ministry of Health of Kuwait, which is currently in charge of it.

The main barrier for PC development is understanding the concept itself. The misunderstanding of the goals of palliative care among the general public and the difficulties convincing doctors that PC is a separate specialty in medicine and an essential part of the treatment of the patient are barriers to the delivery of PC.

PC services are part of chronic disease management, and there is currently a budget allocated to it by the Ministry of Health. This is helping PC to be officially recognized as a specialty in Kuwait and encouraged the establishment of criteria for licensing of palliative specialists. It took some time to establish this social and political awareness, but thanks to awareness campaigns with advocacy organizations such as the Cancer Awareness Nation organization (C.A.N), there has been increased visibility of palliative care in the media. Campaigns were held through different mediums (media, TV interviews, newspapers interviews, advertisements on bill boards, workshops, and conferences). A training center to train primary care doctors and palliative specialists was also created. Approximately 712 doctors had received training in this Center by June 2015.

PC was initially funded by personal donations, but now the Ministry of Health is covering all of the needs. Sometimes, the Kuwait Society for Smoking and Cancer Prevention helps in providing some funding to cover PC needs.

Many opioids are available in Kuwait, and all of them are provided free of charge. The PC Center also has a pain clinic that provides all types of procedures for pain management including nerve blocks, injections, and palliative radio and chemotherapy. There are some restrictions on opioid prescription to avoid misuse. Opioids must be prescribed by specialist doctors and administered under supervision, and only oral opioids can be prescribed at home. Otherwise, a nurse has to go to the patient's house to ensure the patient is taking the injection. Currently, there are no initiatives to change restrictions as these are deemed as safety measures.

Regarding education in Kuwait, the training center at the PC Center has an electronic library that can be accessed by trainees. In the last five years, the WHO Eastern Mediterranean Regional Office recognized the PC Center as a referral center for education, and training in PC is conducted there on an annual basis for the Eastern Mediterranean region. Kuwait does not have a fellowship program for doctors as it needs additional manpower. However, there is an agreement with King Faisal Hospital in Saudi Arabia. Physicians are sent there for a one-year fellowship. Some doctors in Kuwait have already completed the fellowship.

For the future, plans include expanding capability of managing a vast array of symptoms. Two more centers will be launched in the coming ten years and the main barrier expected for this expansion in the future is funding.

## MILESTONES

**2010** The first PC center was launched

**2012** Kuwait had the highest estimates of consumption of narcotic drugs

**2015** 712 doctors have been trained in the PC Center in Kuwait

## REFERENCES

**Lynch T., Connor S., and Clark D.** Mapping levels of palliative care development: a global update. J Pain Symptom Manage, 2013. 45(6): p. 1094-106.

**Cleary J. et al.** Formulary availability and regulatory barriers to accessibility of opioids for cancer pain in the Middle East: a report from the Global Opioid Policy Initiative (GOPI). Ann Oncol, 2013. 24 Suppl 11: p. xi51-9.

**Connor S.R., Downing J., and Marston J.** Estimating the Global Need for Palliative Care for Children: A Cross-sectional Analysis. J Pain Symptom Manage, 2017. 53(2): p. 171-177.

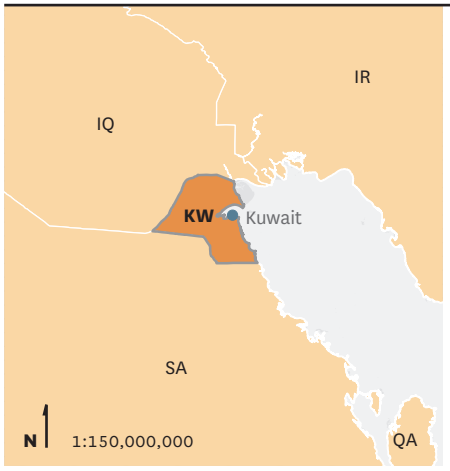
## KEY INFORMANT

Dr Khaled ALSaleh (interviewed on 24.11.2015) and Najla Suliman

## NATIONAL ASSOCIATION OR INSTITUTION

Kuwait Palliative Care Center.

# Kuwait




| | | |
|---|---|---|
| 3,892,115<br>Population, 2015 | US$29,301<br>Gross Domestic Product per capita, 2015 | US$2,320<br>Health Expenditure per capita, PPP, 2014 |
| 17,820<br>Surface, km² | 2.7<br>Physicians per 1000 inhabitants, 2012 | 0.82<br>Human Development Index, 2014 |
| 218.4<br>Density, 2015 inh/km² | 3.0%<br>Health Expenditure total (% of gross), 2014 | 48<br>Human Development Index Ranking position, 2014 |

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| 1<br>**Outpatient clinics** (inpatient) | N/A<br>**Mixed programs** (community and hospital) | 1<br>**Consultation services** (hospital support teams) | 1<br>**Hospital PC units** (inpatient) |
| N/A<br>**Hospices** (stand-alone inpatient units) | N/A<br>**Community-based programs** (home care) | N/A<br>**Nursing home-based programs** | 3<br>**Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / **NO** |
| Patients have to pay for PC medications? | YES / **NO** |
| Health system | Mixed |

## POLICIES

| | |
|---|---|
| National PC Law | YES / **NO** |
| National plan or strategy for PC | **IN PROCESS** |
| National cancer plan/strategy with a section for PC | **YES** / NO |
| National standards and norms for PC | YES / **NO** |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | **YES** / NO |
| Initiatives promoting PC | **N/A** |
| PC research | **YES** / NO |

## EDUCATION

| | |
|---|---|
| → Medical schools with PC education at the undergraduate level | **0/1** |
| → Nursing schools with PC education at the undergraduate level | **0/2** |
| → PC integrated into any fellowship program | **NO** |
| → Post-graduate course for nurses available | **NO** |

| **Teachers of PC** | | **0** |
|---|---|---|
| Full professor | Medicine | 0 |
| | Nursing | 0 |
| Other professors | Medicine | 0 |
| | Nursing | 0 |

**Official recognition as a licensing or advanced training program** — **IN PROCESS**

## AVAILABILITY OF MEDICINES




**Opioid Consumption per capita in ME, excl. methadone, 2015**



# Lebanon

## OVERVIEW

There has been significant advancement in the state of PC in Lebanon over the past 10 years from no PC service providers in 2009 to 2 NGOs providing home-based PC and PC programs at various stages of development in four hospitals. There is also a National Committee for Pain Control and PC in the Ministry of Public Health, and PC has become recognized as a specialty in the country.

Though PC primarily targets cancer patients (80-90%) and most are elderly, more patients are receiving PC, including those with non-oncologic conditions such as advanced lung disease (e.g., COPD) and advanced neurologic illnesses. Children are less likely to receive PC. Generally, patients are referred to PC once curative treatment is no longer an option, so patients usually present late. Patients still feel that PC is "giving up" and physicians still believe that PC is an option to resort to only when there are no treatment options. However, there has been some progress as most patients are no longer referred to PC in in their final days.

Advance directives are non-existent and living wills are not legally binding. Patients can legally designate a health care proxy but most people do not know that they have this option. So, even if a patient has verbalized their wishes, the family can choose to ignore them. Many patients still don't know their diagnoses. Therefore, family members often have to make choices on behalf of the patient and the patient can be left completely out of the discussion. Sometimes, patients know their diagnoses but are not willing to discuss it with their families so as not to burden them. In addition, advance care planning is not culturally or socially accepted.

Advances have resulted from the efforts of a few committed individuals with the backing of a very supportive Ministry of Public Health. The main barrier has been funding, i.e., the lack of a health financing infrastructure that would encourage the development of PC, and limited knowledge and high-level of misconceptions about PC both among healthcare professionals as well as in the community and general public. There are also cultural barriers and taboos associated with discussing death and tackling topics related to death. There is no organized effort to increase social awareness, but with the increased activity of groups working in PC in a country as small as Lebanon, the dialogue around palliative and end-of-life care is changing very quickly, and the conversation about PC as well as death and dying has progressed.

The establishment of a National Committee for Pain Relief and PC has played an important role in making positive change. Through this Committee, a national strategy for the development of PC is being developed. Recognition of PC as a specialty occurred quickly with the support of the Committee. The Committee also worked to approve and facilitate the availability of several opioid analgesics. Five years ago, we only had long-acting oral morphine, fentanyl patches, and injectable morphine and fentanyl on the market. There were no immediate-release oral opioids and patients were crushing long-acting morphine as an alternative. In the past year, we have obtained oxycodone and sublingual fentanyl. Hydrocodone and immediate-release morphine have been approved but are not yet available on the market, and methadone is now available for substitution therapy but is not yet accessible for pain management. Fentanyl and oxycodone are costly but reimbursable for patients who are covered by the National Social Security Fund. Prescribing is still restricted to oncologists, pain specialist, and PC providers. A subcommittee is now studying the best approaches to improve access while maintaining safe practice and minimizing diversion.

Several of Lebanon's seven medical schools are integrating some PC lectures or modules into their undergraduate and graduate medical education curricula. However, there are no formal fellowships or residency training programs for physicians in PC yet. Several of the nursing schools have courses or lectures in PC, and the Lebanese University enrolled its first cohort of nurses in a Diploma in PC nursing in 2016. The American University of Beirut Hariri School of Nursing has had a number of graduate students specializing in pain management and PC both for adults and children.

## MILESTONES

**2006** Research palliative care programs became a priority at American University of Beirut School of Nursing

**2010** NGOs start providing home-based PC

**2011** National Committee on Pain Control and PC established

**2013** The American University of Beirut Medical Center launched the first hospital-based PC service

**2013** PC was officially recognized as a specialty

## REFERENCES

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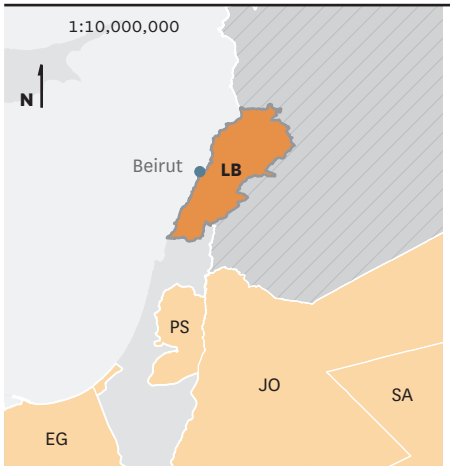
## KEY INFORMANT

Dr. Hibah Osman, Dr. Michel Daher, and Dr. Huda Abu-Saad Huijer

## NATIONAL ASSOCIATION OR INSTITUTION

Balsam, Lebanese center for PC, Saint Georges Hospital- UMC-Beirut- Lebanon; and Hariri School of Nursing American University of Beirut.

# Lebanon




**5,850,743**
Population, 2015

**US$8,048**
Gross Domestic Product per capita, 2015

**US$987**
Health Expenditure per capita, PPP, 2014

**10,450**
Surface, km²

**3.2**
Physicians per 1000 inhabitants, 2011

**0.77**
Human Development Index, 2014

**571.9**
Density, 2015 inh/km²

**6.4%**
Health Expenditure total (% of gross), 2014

**67**
Human Development Index Ranking position, 2014

## PALLIATIVE CARE PROGRAMS

**0** **Outpatient clinics** (inpatient)

**0** **Mixed programs** (community and hospital)

**3** **Consultation services** (hospital support teams)

**1** **Hospital PC units** (inpatient)

**0** **Hospices** (stand-alone inpatient units)

**2** **Community-based programs** (home care)

**0** **Nursing home-based programs**

**6** **Total**

### Payment for PC programs

| | |
|---|---|
| Patients have to pay for PC? | YES / NO |
| Patients have to pay for PC medications? | YES / NO |
| Health system | Mixed |

## POLICIES

| | |
|---|---|
| National PC Law | IN PROCESS |
| National plan or strategy for PC | IN PROCESS |
| National cancer plan/strategy with a section for PC | YES / NO |
| National standards and norms for PC | YES / NO |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / NO |
| Initiatives promoting PC | YES / NO |
| PC research | YES / NO |

## EDUCATION

- Medical schools with PC education at the undergraduate level **2/7**
- Nursing schools with PC education at the undergraduate level **0/17**
- PC integrated into any fellowship program **NO**
- Post-graduate course for nurses available **YES**

| Teachers of PC | | 3 |
|---|---|---|
| Full professor | Medicine | 0 |
| | Nursing | 0 |
| Other professors | Medicine | 2 |
| | Nursing | 1 |

**Official recognition as a licensing or advanced training program** YES / NO

## AVAILABILITY OF MEDICINES




### Opioid Consumption per capita in ME, excl. methadone, 2015



# Morocco

## OVERVIEW

Over the past 10 years, Morocco has seen an increase in the number of conferences and courses offered to medical oncologists in pain management and PC. The focus on pain management has been more prominent, but PC has also started to emerge as a concept that oncologists would like to incorporate into their practices. This was most likely triggered by the exposure that medical oncologists had when traveling for training abroad. Many oncologists travel to Europe, and more commonly to France, at some point during their training, and these experiences have exposed physicians to the concept of comprehensive cancer care that includes PC. Many physicians returned to Morocco inspired by this approach and the interest in developing PC in Morocco has grown as a result.

Development of PC has been hindered by the lack of resources. The Lalla Salma Foundation was established for advancement of cancer care, and it has included PC development as part of its plan and strategy. This should have a significant impact on the advancement of PC in Morocco. The plan is to establish PC centers all over the country over the next 10 years, which will facilitate the incorporation of PC in cancer treatment.

There have been no significant legal or policy changes in Morocco that would have an impact on PC in the past 10 years. Current health-related policies are general, and at this stage there are no proposed policies related to PC or end-of-life care specifically, and there have not been any organized efforts in the health community to improve political awareness regarding PC.

Opioid availability has been a challenge in Morocco, but there have been improvements over the past 10 years. A few years ago, morphine was only available in oral form. Now, injectable morphine is accessible although it is still not widely available. In some hospitals, injectable morphine is still not available. Patients sometimes have to buy it from pharmacies or obtain it from abroad (primarily from Spain). But patient-controlled analgesia is now available in certain hospitals when in the recent past, it had not been available. Transdermal fentanyl is also available though not easily accessible. Patients can buy it from pharmacies but only if they can afford it because it is expensive. There are initiatives by individual physicians who are trying to improve the current state of opioid availability in the country (e.g., writing to the Ministry of Health), but there are no formally organized activities in terms of opioid advocacy.

In terms of PC education, there is an increasing number of physicians seeking training in PC abroad and returning with their newly acquired knowledge. An Inter-University Diploma in Pain Management has been developed and is now available in a few cities in the country. This was developed in the past few years. However, there are no certification programs in PC yet.

There have not been any initiatives to broaden public awareness of PC. PC as a concept is not being discussed in the media, and advanced care planning still does not exist in Morocco. The medical system is still quite paternalistic. Basically, physicians make their recommendations and patients and their families follow. The concept of patient choice is not developed in Morocco.

To date, when PC is being provided, it is provided by the oncology team as part of the routine care being delivered. This includes physicians, nurses, and other specialists. "Reanimation" specialists are also involved when interventional pain management is required. PC has mostly been restricted to cancer patients. There is no PC team per se, so the concept of early versus late referral to PC does not apply in Morocco.

In terms of education, training doctors and passing the message to public health policy makers about the importance of PC might help in creating centers. Even if the population is not very aware, it is better to start with educating doctors. This, of course, will require resources. The future of PC in Morocco is very promising. The Lalla Salma Foundation launched a national program with the goal of covering 100% of patients needing PC by 2019. The Foundation has already set up a pilot program (the first of its kind in Morocco) in the Rabat Prefecture and Grand Casablanca.

## MILESTONES

**1996** The Moroccan Society of Pain and Palliative Care opened

**2005** First PC unit opened in Rabat linked to the National Oncology Institute

**2010** Separate national health policies laid out a vision for the development of PC

## REFERENCES

**Silbermann M. et al.** Palliative cancer care in Middle Eastern countries: accomplishments and challenges. Ann Oncol, 2012. 23 Suppl 3: p. 15-28.

Morocco's long road to comprehensive palliative care. Lancet, 2016. 387(10019): p. 620.

**Tazi I.** Palliative care for patients with hematologic malignancies in Morocco: a real challenge. J Palliat Med, 2011. 14(3): p. 270.

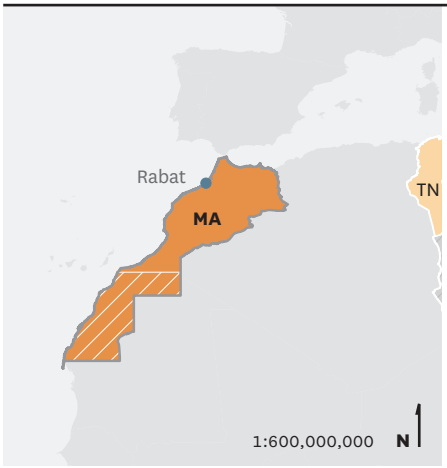
## KEY INFORMANT

Dr. Mati Nejmi, Dr. Belkhadir Zakaria Houssain (interviewed on 31.08.2015) and Dr. Zineb Benbrahim (interviewed on August 2015)

## NATIONAL ASSOCIATION OR INSTITUTION

National Center of Pain and Palliative Care, National Institute Of Oncology – Rabat - Morocco, and University Hospital Center Hassan II, Fez.

# Morocco




| | | |
|---|---|---|
| 34,377,511 Population, 2015 | US$2,878 Gross Domestic Product per capita, 2015 | US$447 Health Expenditure per capita, PPP, 2014 |
| 446,550 Surface, km² | 0.62 Physicians per 1000 inhabitants, 2010 | 0.63 Human Development Index, 2014 |
| 77.0 Density, 2015 inh/km² | 5.9% Health Expenditure total (% of gross), 2014 | 126 Human Development Index Ranking position, 2014 |

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| N/A **Outpatient clinics** (inpatient) | 1 **Mixed programs** (community and hospital) | 1 **Consultation services** (hospital support teams) | 1 **Hospital PC units** (inpatient) |
| N/A **Hospices** (stand-alone inpatient units) | 4 **Community-based programs** (home care) | N/A **Nursing home-based programs** | 7 **Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES **NO** |
| Patients have to pay for PC medications? | YES **NO** |
| Health system | Private, Public& universal |

## POLICIES

| | |
|---|---|
| National PC Law | YES **NO** |
| National plan or strategy for PC | YES **NO** |
| National cancer plan/strategy with a section for PC | **YES** NO |
| National standards and norms for PC | **YES** NO |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | **YES** NO |
| Initiatives promoting PC | **YES** NO |
| PC research | **YES** NO |

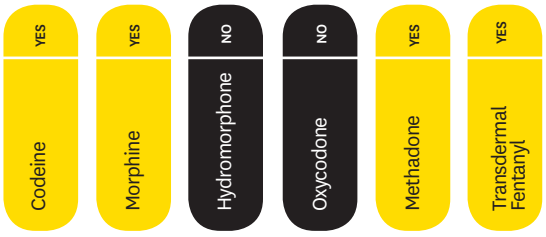
## EDUCATION

- Medical schools with PC education at the undergraduate level — **0/5**
- Nursing schools with PC education at the undergraduate level — **0/7**
- PC integrated into any fellowship program — **NO**
- Post-graduate course for nurses available — **NO**

| **Teachers of PC** | | **5** |
|---|---|---|
| Full professor | Medicine | 1 |
| | Nursing | 0 |
| Other professors | Medicine | 4 |
| | Nursing | 0 |

**Official recognition as a licensing or advanced training program** — YES **NO**

## AVAILABILITY OF MEDICINES




**Opioid Consumption per capita in ME, excl. methadone, 2015**



# Oman

## OVERVIEW

The work of establishing PC in Oman began in 2004 with the inauguration of the National Oncology Center. Within a couple of years, PC services were being delivered within the Medical Oncology division. Now, there is a separate PC team that is still closely linked to Medical Oncology. The team includes a dedicated nurse, two physicians, and a social worker. The nurse has received training in the US. One physician is a radiation oncologist who received PC training in Canada, and the other is a Registrar who has received training in PC both locally and abroad. The hospital dietician also contributes to the team, and there are plans to hire a clinical psychologist. At the moment, psychological support is provided through a volunteer physician who comes to see patients on a referral basis. There is a mosque next to the hospital and the imam provides spiritual support, when needed. Spiritual therapy is a new field being explored by the Center in collaboration with Ministry of Endowment and NGOs, namely the Oman Cancer Association. The first spiritual therapy workshop will be conducted in early 2017 with an advanced course in the last quarter of 2017. Patient support groups and survivorship groups are active in supporting the PC team. There are no pediatric palliative care services in Oman at this time. The center received ESMO (European Society of Medical Oncology) certification in 2013 as a Center of Excellence for integrating PC with oncology. The center was reaccredited in 2016.

Patients are generally referred to PC if they have failed third-line chemotherapy, if they have a high symptom burden, or for pain management. Patients and families are gradually becoming more accepting of the concept of PC. Patient educational materials have been developed to help increase awareness about palliative care and its potential benefits to patients. Medical services and medications are free to Omani nationals but not to expatriates . Only about 10% of the patient load is expatriates, and social workers can support them if they are unable to afford their care.

PC has not been integrated into the curricula of medical or nursing schools. At the Bachelor of Science in Nursing (BSN) level, the Oman Specialized Nursing Institute (OSNI) has integrated a PC module in partnership with Cardiff University as part of its curriculum. There are plans to expand this in the future to include all medical and nursing schools. Current efforts have focused on training practicing physicians and nurses in PC. Over the past three years, 150 nurses from primary, secondary, and tertiary care have received training in PC. This initiative was organized by NGOs in collaboration with ASCO and OSNI and funded by the Oman Cancer Association and Petroleum Development Organization. There have also been isolated courses in pain management and PC for practicing oncologists in secondary hospitals, and oncology conferences always include sessions on PC. Most recently, a PC manual has been developed locally and will be made available to all hospitals.

The National Oncology Center plays a very active role in advocacy and policy development. The 9th five-year plan of the Ministry of Health includes steps to further develop PC. The National Oncology Center has been well-represented in the Noncommunicable Diseases Committees of the Ministry aiming to reduce the burden of cancer. One particular aspect of this Committee is to drive PC initiatives forward. Most recently, a national policy of "Do Not Resuscitate" was proposed and approved in October/November 2016. There is no national strategy for PC, but that is under development. There are also efforts to change current policies on the prescription and dispensing of opioid analgesics and expansion of the medications available on the market. Current opioid prescription is limited to three days in the private setting and seven days in health centers. Physicians in the cancer center can write prescriptions for a one-month supply of pain medications. Data shows an increase in morphine consumption in Oman in recent years.

Oman is a big country with a population of 4.5 million. Large distances are a challenge, and it is not easy for patients to travel to the cancer center to receive care. Physicians in the community hospitals are not trained in PC and pain management. However many of the nurses at these centers have received training. In addition, many community nurses providing home-based care have been trained in both theory and practice of PC. The beauty of the PC initiatives in Oman is that the efforts are aimed at a nationally-integrated plan to serve the population as a whole.

## MILESTONES

**2004** National Oncology Center was opened

**2006** PC services were being delivered within the Medical Oncology division

**2012** MECC organized an introductory course in PC for hospital and community nurses in the Sultanate of Oman

## REFERENCES

**Zeinah G.F., Al-Kindi S.G., and Hassan A.A.** Middle East experience in palliative care. Am J Hosp Palliat Care, 2013. 30(1): p. 94-9

**Hajjar R.R. et al.** International palliative care: Middle East experience as a model for global palliative care. Clin Geriatr Med, 2015. 31(2): p. 281-94.

**Silbermann M. et al.** Palliative cancer care in Middle Eastern countries: accomplishments and challenges. Ann Oncol, 2012. 23 Suppl 3: p. 15-28.

## KEY INFORMANT

Dr. Bassim al Bahrani
(interviewed on 28.11.2016)

## NATIONAL ASSOCIATION OR INSTITUTION

National Oncology Center –
Royal Hospital Oman

# Oman




| | | |
|---|---|---|
| 4,490,541<br>Population, 2015 | US$15,551<br>Gross Domestic Product per capita, 2015 | US$1,442<br>Health Expenditure per capita, PPP, 2014 |
| 309,500<br>Surface, km² | 2.43<br>Physicians per 1000 inhabitants, 2012 | 0.79<br>Human Development Index, 2014 |
| 14.5<br>Density, 2015 inh/km² | 3.6%<br>Health Expenditure total (% of gross), 2014 | 52<br>Human Development Index Ranking position, 2014 |

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| 1<br>**Outpatient clinics** (inpatient) | 0<br>**Mixed programs** (community and hospital) | 1<br>**Consultation services** (hospital support teams) | 0<br>**Hospital PC units** (inpatient) |
| 0<br>**Hospices** (stand-alone inpatient units) | 1<br>**Community-based programs** (home care) | 0<br>**Nursing home-based programs** | 3<br>**Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / **NO** |
| Patients have to pay for PC medications? | YES / **NO** |
| Health system | Public & universal |

## POLICIES

| | |
|---|---|
| National PC Law | IN PROCESS |
| National plan or strategy for PC | IN PROCESS |
| National cancer plan/strategy with a section for PC | **YES** / NO |
| National standards and norms for PC | IN PROCESS |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / **NO** |
| Initiatives promoting PC | **YES** / NO |
| PC research | **YES** / NO |

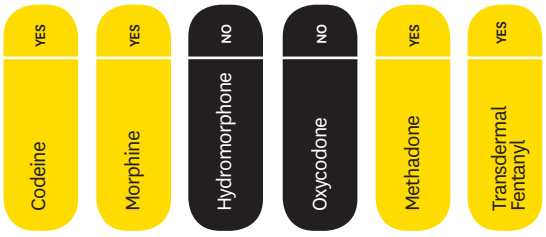
## EDUCATION

| | |
|---|---|
| → Medical schools with PC education at the undergraduate level | **0/3** |
| → Nursing schools with PC education at the undergraduate level | **0/2** |
| → PC integrated into any fellowship program | **NO** |
| → Post-graduate course for nurses available | **NO** |

| **Teachers of PC** | | **7** |
|---|---|---|
| Full professor | Medicine | 1 |
| | Nursing | 0 |
| Other professors | Medicine | 2 |
| | Nursing | 4 |

**Official recognition as a licensing or advanced training program** — YES / **NO**

## AVAILABILITY OF MEDICINES




**Opioid Consumption per capita in ME, excl. methadone, 2015**



# Occupied Palestine Territories

## OVERVIEW

The concept of PC was recently introduced into universities and medical colleges in Gaza as general information, but it has not yet been applied in the medical field. Sadly, healthcare is not a priority in Gaza. There are three main hospitals treating cancer patients in the Gaza Strip: El Sheffa Hospital, El Rantissy Pediatric Hospital, and the European Gaza Hospital. All three hospitals treat cancer patients and none of them have PC services. They lack trained personnel to provide this kind of care. The only part of PC which is applied is pain control and even that is not applied well.

In 2014, a French group came to Gaza with the aim of developing PC. The main barriers for the development of PC in Gaza are the following: war and political instability, limited resources available from our Ministry of Health, and the lack of NGOs that deal with PC in Gaza. Most international NGOs are focused on treating war injuries, especially in the field of surgery. There is no funding for palliative care.

There have been no policy initiatives around PC in Gaza. However, the Middle East Cancer Consortium (MECC) has introduced short courses in PC targeting Palestinian physicians. MECC was the first to introduce PC into the country. They offered international courses and conferences inside and outside the Palestinian territory in countries like Turkey and Cyprus. They invited professors from the USA and other international speakers to deliver lectures to doctors and nurses. Unfortunately, because of the political situation and the repetitive closure of borders, only a few courses have been delivered successfully.

Medications are limited to morphine, pethidine, tramadol, and codeine in oral, injectable, and transcutaneous formulations. Opioids are only dispensed in government hospitals and not in private centers, and prescriptions are given only from oncologists, hematologists and pediatric hemato-oncology doctors. The availability of medications is affected by the closure of borders, but when medications are available, they are provided free of charge to patients in the Gaza strip.

The population in Gaza have misconceptions regarding narcotics. They often refuse them even when they are in severe pain because they believe opioids will shorten their lives, and they are afraid of becoming dependent. Side effects of these drugs are sometimes difficult to manage as well.

There have been no significant legal or policy changes in Gaza that would have an impact on patient access to medication. Knowledge about opioid analgesics in the Directory of Pharmacy and the General Directory of Hospitals in MOH needs education regarding PC and opioids. They need to increase the quantities of narcotics available and make medications that treat narcotics side effects available as well.

The main source of PC education are the short courses offered through MECC. However, although these courses are generally offered at no cost, they are usually offered outside of Gaza and closure of borders impedes attendance. There is no real public awareness in this field in Gaza, as people are mostly concerned about surviving the war and not any other life-threatening condition.

Media has played the biggest role in introducing the concept of PC to the country to both the public and healthcare professionals. We have arranged many visits to the MOH to highlight the importance of PC. However, the priority in the Ministry is treatment of war injuries. In 2013, a physician had a radio interview about this issue after coming from the USA for raising public awareness and trained nurses in oncology units in Gaza to introduce the concept of PC. These lectures covered medication use, applying PC, and the importance of social and psychological support in the care of patients.

The most significant issue in Gaza is the political instability. This makes it difficult to introduce PC services as a priority to our Ministry of Health.

## MILESTONES

**N/A** Short courses in PC through the Middle East Cancer Consortium (MECC) were introduced

**2013** A physician had a radio interview about this issue after coming from USA for raising public awareness

**2014** A French group came to Gaza with the aim of developing palliative care

## REFERENCES

**Hawawra M. and Khleif A.D.** Palliative Care Situation in Palestinian Authority. Journal of Pediatric Hematology Oncology, 2011. 33: p. S64-S67.

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**Shamieh O., Jazieh A.R., and M.C.P.C.R.G. Committee.** Modification and implementation of NCCN Guidelines on palliative care in the Middle East and North Africa region. J Natl Compr Canc Netw, 2010. 8 Suppl 3: p. S41-7.

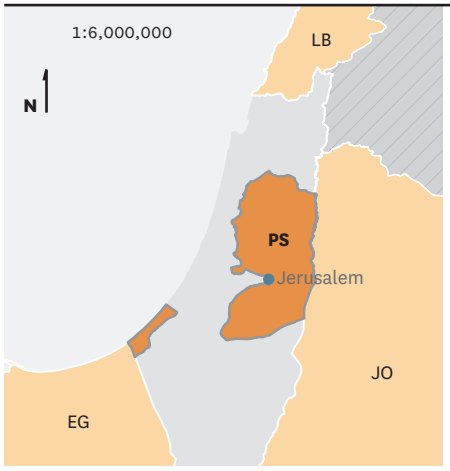
## KEY INFORMANT

Dr. Hani Ayyash (interviewed in 10.12.2015)

## NATIONAL ASSOCIATION OR INSTITUTION

Palliative Medicine Unit, European Gaza Hospital

# Occupied Palestine Territories




**4,500,000**
Population, 2015

**US$2,733**
Gross Domestic Product per capita, 2012

**US$304**
Health Expenditure per capita, PPP, 2014

**6,020**
Surface, km²

**2.2**
Physicians per 1000 inhabitants, 2010

**0.68**
Human Development Index, 2014

**N/A**
Density, 2015 inh/km²

**10.9%**
Health Expenditure total (% of gross), 2013

**113**
Human Development Index Ranking position, 2014

## PALLIATIVE CARE PROGRAMS

**Outpatient clinics** (inpatient)

**Mixed programs** (community and hospital)

**Consultation services** (hospital support teams)

**Hospital PC units** (inpatient)

**Hospices** (stand-alone inpatient units)

**Community-based programs** (home care)

**Nursing home-based programs**

**Total**

### Payment for PC programs

| | |
|---|---|
| Patients have to pay for PC? | YES / **NO** |
| Patients have to pay for PC medications? | YES / **NO** |
| Health system | Private, public non-universal |

## POLICIES

| | |
|---|---|
| National PC Law | YES / **NO** |
| National plan or strategy for PC | YES / **NO** |
| National cancer plan/strategy with a section for PC | YES / **NO** |
| National standards and norms for PC | YES / **NO** |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / **NO** |
| Initiatives promoting PC | YES / **NO** |
| PC research | **YES** / NO |

## EDUCATION

- Medical schools with PC education at the undergraduate level — **0/3**
- Nursing schools with PC education at the undergraduate level — **0/4**
- PC integrated into any fellowship program — **NO**
- Post-graduate course for nurses available — **NO**

| **Teachers of PC** | | **0** |
|---|---|---|
| Full professor | Medicine | 0 |
| | Nursing | 0 |
| Other professors | Medicine | 0 |
| | Nursing | 0 |

**Official recognition as a licensing or advanced training program** — YES / **NO**

## AVAILABILITY OF MEDICINES

| | |
|---|---|
| Codeine | YES |
| Morphine | YES |
| Hydromorphone | YES |
| Oxycodone | YES |
| Methadone | NO |
| Transdermal Fentanyl | NO |

### Opioid Consumption per capita in ME, excl. methadone, N/A



# Pakistan

## OVERVIEW

Over the past 10 years, there were no major changes in the PC sector in Pakistan. There were no big steps taken at the national level, though the national society has started palliative care educational initiatives. Shaukat Khanum Memorial Cancer Hospital & Research Centre (SKMCH&RC) has invested a lot in PC and some other hospitals are now trying to develop a PC section as well. However, the efforts are not enough to meet the needs of a large country like Pakistan.

SKMCH&RC provides a comprehensive cancer service, and to that end the administration supported the development of a PC service. In general, the hospital treats all age groups but most patients are referred late in the course of their illnesses and sometimes hours before death. The service remains limited to cancer patients.

The main barriers to the development of PC are limited access to opioids and limited funding for the specialty. Most doctors are therefore not willing to choose it as their career. Palliative care is not yet integrated in undergraduate or postgraduate medical education, and there are not enough people trained in PC.

Over the past few years, there was not much change in laws or policies related to PC. There are efforts to have PC recognized as a specialty as well as efforts to develop PC in the cancer association.

SKMCH&RC is a charity hospital and has allocated a certain portion of its budget for the development of PC. However, there is no major funding for PC by the government.

Opioids are not widely available. Regulations regarding opioid prescriptions are very restrictive. Affordability is not really an issue, however, the lack of technical knowledge on prescribing opioids is an important challenge. There have been some isolated efforts to change prescribing regulations that may restrict patient access to pain relief, but there are no organized efforts at the national level.

At the public awareness level, there have been efforts to educate medical and non-medical personnel about PC through the media, but awareness remains in its early infancy. Annual initiatives on World Hospice and Palliative Care Day include published reports on digital, printed, and social media to increase awareness about PC.

PC should be a more established specialty in 5 to 10 years, and it is expected that many hospitals will have it as a service. However, opioid availability, limited education of PC, and recognizing PC as a medical specialty will probably remain as challenges.

## MILESTONES

**2007** The first PC Workshop was held in Karachi

**2008** The PC unit at Children's Hospital Lahore was established by a grant awarded by 'My Child Matters'

**2009** The Liverpool Care Pathway for the Dying Patient (LCP) was introduced in the SKMCHRC

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## KEY INFORMANT

Dr. Haroon Hafeez (interviewed on 21.01.2017)

## NATIONAL ASSOCIATION OR INSTITUTION

Shaukat Khanum Memorial Cancer Hospital & Research Centre (SKMCH & RC)

# Pakistan




| | | |
|---|---|---|
| 188,924,874<br>Population, 2015 | US$1,435<br>Gross Domestic Product per capita, 2015 | US$129<br>Health Expenditure per capita, PPP, 2014 |
| 796,100<br>Surface, km² | 0.83<br>Physicians per 1000 inhabitants, 2010 | 0.54<br>Human Development Index, 2014 |
| 245.1<br>Density, 2015 inh/km² | 2.6%<br>Health Expenditure total (% of gross), 2014 | 147<br>Human Development Index Ranking position, 2014 |

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| 0<br>**Outpatient clinics** (inpatient) | 0<br>**Mixed programs** (community and hospital) | 0<br>**Consultation services** (hospital support teams) | 2<br>**Hospital PC units** (inpatient) |
| 5<br>**Hospices** (stand-alone inpatient units) | 0<br>**Community-based programs** (home care) | 1<br>**Nursing home-based programs** | 8<br>**Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / NO |
| Patients have to pay for PC medications? | YES / NO |
| Health system | Private, public non-universal |

## POLICIES

| | |
|---|---|
| National PC Law | NO |
| National plan or strategy for PC | NO |
| National cancer plan/strategy with a section for PC | YES |
| National standards and norms for PC | NO |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | NO |
| Initiatives promoting PC | YES |
| PC research | YES |

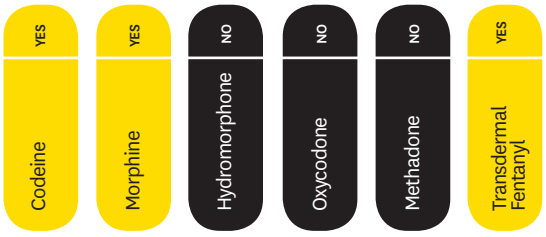
## EDUCATION

| | |
|---|---|
| Medical schools with PC education at the undergraduate level | 5/101 |
| Nursing schools with PC education at the undergraduate level | N/A |
| PC integrated into any fellowship program | YES |
| Post-graduate course for nurses available | YES |

| Teachers of PC | | 2 |
|---|---|---|
| Full professor | Medicine | N/A |
| | Nursing | N/A |
| Other professors | Medicine | N/A |
| | Nursing | N/A |

**Official recognition as a licensing or advanced training program** — NO

## AVAILABILITY OF MEDICINES




**Opioid Consumption per capita in ME, excl. methadone, 2015**



# Qatar

## OVERVIEW

The first and only PC unit in Qatar is a 10-bed unit that was established in 2008 to serve adult patients with cancer. This unit is at Al Amal Hospital which was established by the National Center for Cancer Care and Research (NCCCR) and is the only advanced cancer center in Qatar. Qatar currently has no specialized hospice and home PC services.

Qatar has recently launched plans to address several gaps in the health system, notably, medication and patient safety issues. The current Qatar National Health Strategy has outlined the need to educate health professionals regarding appropriate use of narcotics. This is in response to inadequate pain management approaches that have restricted opioid administration almost exclusively to inpatient settings[1].

At the postgraduate level, the University of Calgary–Qatar (UCQ) recently introduced a Master of Nursing with a focus on oncology and PC in line with the national cancer strategy to promote oncology services in the country. These educational programs offer hands-on experiences and rotations in PC. The curricula also emphasize multidisciplinary care of patients and families[2]. Formal training in PC is now a part of residency and fellowship training programs in hematology/oncology and internal medicine specialties at Hamad Medical Corporation[3,2]. However, of medical oncologists currently in practice in Qatar, only 37% have received formal training in PC.

Although 70% of oncologists at the National Center for Cancer and Research in Qatar reported awareness of guidelines for pain relief, only 60% indicated that they applied them in their practices[4]. Among nurses in the same hospital, just over half were aware of the WHO Three-Step Ladder on Cancer Pain Relief[3,4]. Al Amal hospital service also works in the field of education and research, promoting PC issues and initiatives worldwide through activities with different PC working groups[5].

Qatar has all seven essential opioid formulations available (codeine, immediate release oral morphine, controlled–release oral morphine; injectable morphine; oral immediate release oxycodone, oral methadone, and transdermal fentanyl). However, there are major restrictions to prescribing opioids[4] including limitations of which specialists can prescribe opioids and a limit of 14 days for a prescription[4]. Furthermore, patients require a permit or need to be registered to receive opioids either in an inpatient or an outpatient setting[4].

In terms of consumption, the anticipated Adequacy of Consumption Measure (ACM) for opioids decreased from 7.1% in 2006 to 4.24% in 2010 and the S-DDD (defined daily dose per million persons per day) increased from 110 in 1997-1999 to 160 in 2007-2009[4]. In 2007, opioid consumption was 1kg[6]. More recently, it was reported that Qatar had average estimates of 250 defined daily doses per million inhabitants per day[1].

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[5] Zeinah, G.F., S.G. Al-Kindi, and A.A. Hassan, Middle East experience in palliative care. Am J Hosp Palliat Care, 2013. 30(1): p. 94-9.
[6] Shamieh, O., A.R. Jazieh, and M.C.P.C.R.G. Committee, Modification and implementation of NCCN Guidelines on palliative care in the Middle East and North Africa region. J Natl Compr Canc Netw, 2010. 8 Suppl 3: p. S41-7.

## MILESTONES

**2008** The first and only PC unit in Qatar was established

**2014** The University of Calgary–Qatar (UCQ) introduced a Master of Nursing, with focus on oncology and PC

**2016** Qatar National Health Strategy has outlined the need to educate health professionals regarding appropriate use of narcotics

## REFERENCES

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## KEY INFORMANT

Dr. Ayman Allam

## NATIONAL ASSOCIATION OR INSTITUTION

NCCCR, HMC, Doha, Qatar

# Qatar




| | | |
|---|---|---|
| 2,235,355<br>Population, 2015 | US$14.35<br>Gross Domestic Product per capita, 2015 | US$3,071<br>Health Expenditure per capita, PPP, 2014 |
| 11,610<br>Surface, km² | 7.74<br>Physicians per 1000 inhabitants, 2010 | 0.85<br>Human Development Index, 2014 |
| 192.5<br>Density, 2015 inh/km² | 2.2%<br>Health Expenditure total (% of gross), 2014 | 32<br>Human Development Index Ranking position, 2014 |

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| 0<br>**Outpatient clinics** (inpatient) | 0<br>**Mixed programs** (community and hospital) | 0<br>**Consultation services** (hospital support teams) | 1<br>**Hospital PC units** (inpatient) |
| 0<br>**Hospices** (stand-alone inpatient units) | 0<br>**Community-based programs** (home care) | 0<br>**Nursing home-based programs** | 1<br>**Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / **NO** |
| Patients have to pay for PC medications? | YES / **NO** |
| Health system | Public & universal |

## POLICIES

| | |
|---|---|
| National PC Law | N/A |
| National plan or strategy for PC | YES / **NO** |
| National cancer plan/strategy with a section for PC | **YES** / NO |
| National standards and norms for PC | **YES** / NO |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / **NO** |
| Initiatives promoting PC | **YES** / NO |
| PC research | **YES** / NO |

## EDUCATION

| | |
|---|---|
| → Medical schools with PC education at the undergraduate level | **0/1** |
| → Nursing schools with PC education at the undergraduate level | **0/1** |
| → PC integrated into any fellowship program | **YES** |
| → Post-graduate course for nurses available | **YES** |

| **Teachers of PC** | | **4** |
|---|---|---|
| Full professor | Medicine | 2 |
| | Nursing | 0 |
| Other professors | Medicine | 0 |
| | Nursing | 2 |

**Official recognition as a licensing or advanced training program** — **YES** / NO

## AVAILABILITY OF MEDICINES

| | | | | | |
|---|---|---|---|---|---|
| YES | YES | NO | NO | YES | YES |
| Codeine | Morphine | Hydromorphone | Oxycodone | Methadone | Transdermal Fentanyl |

**Opioid Consumption per capita in ME, excl. methadone, 2015**



# Saudi Arabia

## OVERVIEW

The first PC program in Saudi Arabia started at the King Faisal Hospital in the early 1990s. Over the past ten years, there has been an increase in the number of PC services to 20 institutes and an increase in the number of specialized Saudi trainers whereas before, it was run by experts. The factors behind this have been the increase in the number of training centers and the accreditation of training programs by official certification bodies.

The main barrier has been the way policy makers prioritize PC. They do not consider it as important, although constant visits to the Minister of Public Health about the importance of listing PC in his agenda have been made. These efforts have not succeeded, and there is still a lot of work to be done to convince policy makers about this necessity.

The most important policy change over the past 10 years was the accreditation of training programs that give graduates the status of sub-specialists. No other changes have happened in this field. To improve political awareness, approaching policy makers was the major initiative resulting in a positive response and continued negotiations. A nationwide PC program and a committee were formed. They use to meet on a monthly basis for the first two years. But then, meetings stopped as PC was not considered a priority. Health coverage is provided by the government in Saudi Arabia. There are no other sources of funding , such as donors or NGOs.

Concerning essential pain medications, there are no availability-related problems. Almost all opioids are listed on the MOH list of coded drugs. So, in principal, these medications are available in all hospitals. The problem is that physicians and pharmacists are hesitant to prescribe and ask for such medications. Patients would have easy access to medications if the health care professionals prescribed them more freely.

PC Fellowship programs started in 2000. However, they were not accredited until 2013 when the accrediting bodies approved the programs. At the sociocultural level, the community has been engaged over the past few years, through mass media, radio, TV, and awareness campaigns; resulting in a change. Ten years ago only a few people had heard of PC. The number has increased and more people are aware of PC.

In general, referring patients to PC services is later than it should be. However, physicians are becoming more aware of the importance of early referrals – especially after some published articles on the topic. Nowadays, patients are referred even when they have a good functional status and symptoms are not severe. However, this is not the common practice. PC admits patients from all age groups. Most are cancer patients (about 95%), but patients with cardiac, pulmonary, neurological and renal disease are also admitted. There is no advance care planning yet.

The future of PC development in Saudi Arabia is in additional specialized personnel, not only among physicians but also among nurses, social workers, and pharmacists. Young physicians, especially family physicians and internists, are showing greater interest in this sub-specialty after it was accredited. Before accreditation it was difficult to convince doctors to enter the program.

Another promising index is the development of professional organizations such as the "Saudi Associates for Palliative Care", launched three years ago with a major role in the country. Regionally, the Arab group of Palliative Medicine was developed, and this will nurture the development of PC in the region. The main issue for the future will consist of convincing policy makers to consider PC with the allocation of additional efforts and resources.

## MILESTONES

**1991** PC services in Saudi Arabia started at the King Faisal Specialist Hospital and Research Centre (KFSH&RC) in Riyadh

**2000** The first fellowship training program in palliative medicine in Arabic countries was established at KFSHRC

**2010** Existence of more than 15 comprehensive cancer centers in Saudi Arabia and well-established PC units with integrated home-based care

**2013** Accrediting bodies approved the fellowship program

## REFERENCES

**Zeinah, G.F., Al-Kindi S.G., and Hassan A.A.** Middle East experience in palliative care. Am J Hosp Palliat Care, 2013. 30(1): p. 94-9

**Al-Shahri M.Z.** Cancer pain: progress and ongoing issues in Saudi Arabia. Pain Res Manag, 2009. 14(5): p. 359-60.

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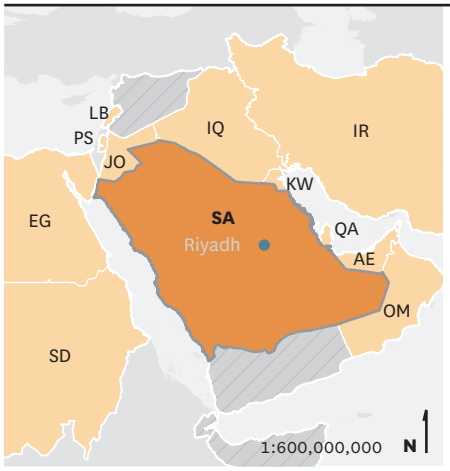
## KEY INFORMANT

Dr. Mohammad Z. Al-Shahri (interviewed on 24.10.2016)

## NATIONAL ASSOCIATION OR INSTITUTION

King Faisal Specialist Hospital and Research Center for Shahri.

# Saudi Arabia




| | | |
|---|---|---|
| 31,540,372<br>Population, 2015 | US$20,482<br>Gross Domestic Product per capita, 2015 | US$2,466<br>Health Expenditure per capita, PPP, 2014 |
| 2,149,690<br>Surface, km² | 2.49<br>Physicians per 1000 inhabitants, 2012 | 0.84<br>Human Development Index, 2014 |
| 14.7<br>Density, 2015 inh/km² | 4.7%<br>Health Expenditure total (% of gross), 2014 | 39<br>Human Development Index Ranking position, 2014 |

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| 9<br>**Outpatient clinics** (inpatient) | 8<br>**Mixed programs** (community and hospital) | 9<br>**Consultation services** (hospital support teams) | 8<br>**Hospital PC units** (inpatient) |
| 0<br>**Hospices** (stand-alone inpatient units) | 8<br>**Community-based programs** (home care) | 0<br>**Nursing home-based programs** | 42<br>**Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / **NO** |
| Patients have to pay for PC medications? | YES / **NO** |
| Health system | Mixed |

## POLICIES

| | |
|---|---|
| National PC Law | YES / **NO** |
| National plan or strategy for PC | YES / **NO** |
| National cancer plan/strategy with a section for PC | N/A |
| National standards and norms for PC | YES / **NO** |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | **YES** / NO |
| Initiatives promoting PC | **YES** / NO |
| PC research | **YES** / NO |

## EDUCATION

| | |
|---|---|
| Medical schools with PC education at the undergraduate level | **N/A** |
| Nursing schools with PC education at the undergraduate level | **N/A** |
| PC integrated into any fellowship program* | **YES** |
| Post-graduate course for nurses available | **NO** |

| **Teachers of PC** | | **2** |
|---|---|---|
| Full professor | Medicine | 0 |
| | Nursing | 0 |
| Other professors | Medicine | 1 |
| | Nursing | 1 |

**Official recognition as a licensing or advanced training program** — **YES** / NO

(*) Saudi Arabia is the only country with a stand-alone fellowship program

## AVAILABILITY OF MEDICINES

| | | | | | |
|---|---|---|---|---|---|
| YES<br>Codeine | YES<br>Morphine | YES<br>Hydromorphone | YES<br>Oxycodone | YES<br>Methadone | YES<br>Transdermal Fentanyl |

**Opioid Consumption per capita in ME, excl. methadone, 2015**



# Sudan

## OVERVIEW

Before 2009, PC activities in Sudan were restricted to occasional lectures or training initiatives provided by Sudanese professors working in PC abroad. They would provide educational sessions during their visits to Sudan. In 2009, Esther Walker, a PC nurse from the UK who came to live in Khartoum for three years, volunteered her time to give lectures to nurses in PC and began working to help two hospitals in Khartoum to develop PC services. Through this process, she identified two individuals (a physician and a nurse), and she arranged for them to go to Uganda for PC training for five weeks. After this training, the development of proper PC services began in Sudan in 2010. There are currently several centers providing PC in Sudan (see details of these in the appendix 1).

One of the main barriers to providing PC in Sudan is the limited access to oral morphine. Oral morphine is not available in stand-alone pharmacies and can only be obtained from hospital pharmacies. The process to obtain oral morphine was logistically complicated, but with changes in legislation in 2014, this process has been facilitated. However, patients still have to come back to the hospital every two weeks to one month to get their supply of morphine. Pharmacies do not stock morphine because it is under-prescribed. So, they have no incentive to stock it. The reason physicians are not prescribing morphine is primarily lack of education. There is still a problem with poor understanding of pain management and many misconceptions about the use of morphine. In an attempt to fix this, a training course in pain management was launched in January 2015, which was attended by 100 health professionals. However, these training initiatives are targeting health professionals working in and around Khartoum.

Another important barrier is that hospitals and the Ministry of Health have not allocated budgets for PC. This may be starting to change. But so far, PC has been funded primarily by private donors (like banks) and international organizations such as the African Palliative Care Association (APCA) and the International Association of Hospice and Palliative Care (IAHPC). Funding has been primarily in the form of scholarships to train health care providers in PC. Hospice Africa Uganda has been a great training opportunity. They provide a five-week training course, and they have been training one-to-two people every year from Sudan. So far, they have trained three doctors and four nurses.

PC does not carry the stigma among patients as in other countries. It is still a new term and a new concept. So, in Sudan, healthcare providers do not face the same resistance from patients and families when they refer them to PC. There is also a lot of interest in PC in the health community. Many health professionals are providing PC services free of charge. They are making themselves accessible to patients by providing their personal phone numbers. There is clear evidence that physicians want to play that role for their patients even when they are not being paid to do it. This is an opportunity that can be built on.

The non-communicable disease section at the Ministry of Health has been working on policy changes since 2014. This has focused on PC and opioid availability. These initiatives were encouraged by the African Pain and Policy Fellowship and supported by PC advocates such as Dr. Gafer and Dr. Alia Al-Mahdi (a clinical pharmacist). There are also ongoing discussions to establish a national PC association in collaboration with RICK, the National Cancer Institute at Medani, and the Ministry of Health. Hopefully this will come to fruition by 2016. There have not been any real initiatives to raise awareness in the community about PC due to multiple cultural and religious barriers. But now that many families have experienced PC during the illness of a relative, there are plans to encourage them to become advocates and play a role in educating the community about PC.

There is no advance care planning in Sudan. Patients still depend on their physicians to make decisions on their behalf. Patients are generally not given options. Choices regarding care depend on the availability of resources and what the doctor believes is in the best interest of patients.

In the future, ideally, the MOH should work on developing PC services in the 10 regional hospitals across the country, and recognize PC as a specialty.

## MILESTONES

**2010** Proper PC services began in Sudan

**2014** Changes in legislation favouring oral morphine obtaining happened

**2015** Training course in pain management was launched

## REFERENCES

**Weaver M.S. et al.** The prioritisation of paediatrics and palliative care in cancer control plans in Africa. Br J Cancer, 2015. 112(12): p. 1845-56.

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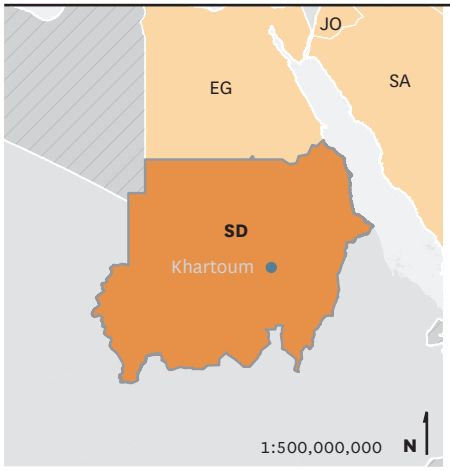
## KEY INFORMANT

Dr. Nahla Gafer and Halima Soary

## NATIONAL ASSOCIATION OR INSTITUTION

Radiation & Isotope Center, Khartoum; and National Cancer Institute – University of Gazira.

# Sudan




**40,234,882**
Population, 2015

**US$2,415**
Gross Domestic Product per capita, 2015

**US$282**
Health Expenditure per capita, PPP, 2014

**1,879,358**
Surface, km²

**0.28**
Physicians per 1000 inhabitants, 2010

**0.48**
Human Development Index, 2014

**22.1**
Density, 2015 inh/km²

**8.4%**
Health Expenditure total (% of gross), 2014

**167**
Human Development Index Ranking position, 2014

## PALLIATIVE CARE PROGRAMS

| 1 | 2 | 2 | 1 |
|---|---|---|---|
| **Outpatient clinics** (inpatient) | **Mixed programs** (community and hospital) | **Consultation services** (hospital support teams) | **Hospital PC units** (inpatient) |
| 0 | 0 | 0 | 6 |
| **Hospices** (stand-alone inpatient units) | **Community-based programs** (home care) | **Nursing home-based programs** | **Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / NO |
| Patients have to pay for PC medications? | YES / NO |
| Health system | Private and public non-universal |

## POLICIES

| | |
|---|---|
| National PC Law | YES / NO |
| National plan or strategy for PC | YES / NO |
| National cancer plan/strategy with a section for PC | YES / NO |
| National standards and norms for PC | YES / NO |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / NO |
| Initiatives promoting PC | YES / NO |
| PC research | YES / NO |

## EDUCATION

- Medical schools with PC education at the undergraduate level — **0/30**
- Nursing schools with PC education at the undergraduate level — **0/23**
- PC integrated into any fellowship program — NO
- Post-graduate course for nurses available — YES

| **Teachers of PC** | | **0** |
|---|---|---|
| Full professor | Medicine | 0 |
| | Nursing | 0 |
| Other professors | Medicine | 0 |
| | Nursing | 0 |

**Official recognition as a licensing or advanced training program** — YES / NO

## AVAILABILITY OF MEDICINES

| Codeine | Morphine | Hydromorphone | Oxycodone | Methadone | Transdermal Fentanyl |
|---|---|---|---|---|---|
| NO | YES | NO | NO | NO | YES |

**Opioid Consumption per capita in ME, excl. methadone, 2008**



# Tunisia

## OVERVIEW

Although Tunisia was one of the first countries to introduce PC in the region (PC outpatient services in 1992 by Dr. Henda Rais), progress in development of PC has been slow. There are very few providers of PC and the services provided are not well organized. PC is restricted to patients with cancer. The PC Association was started by Dr. Ben Ayed Farhat in 2001. The group consists of about 10 members and volunteers who provide PC in the eight-bed PC unit in the oncology center (Salah Azaiez Institut in Tunis). They include a GP, a psychiatrist, a pharmacist, and UK-trained nurses who provide care in the PC unit in the cancer center. They do not deliver care at home, but once they have managed patients' symptoms in the unit, they discharge them home with a protocol and continue managing them by telephone. Patients receive PC from the time of diagnosis in the oncology center. However, patients coming for PC from other centers usually come at advanced stages with uncontrolled symptoms.

There are also PC beds in central Tunisia (Sous) and in the south (Svaks). A British physician and his wife, who is a nurse, have been working on developing community–PC in the south for the past five years. They have established a chapter of the PC Association in the south. They have volunteer physicians and nurses reaching out to patients with PC needs in the community and in hospitals. In the north, developing PC services has been more challenging. Dr. Susanne Amara, a GP trained in PC, is working with teams of nurses to provide home–based PC but not in a structured or organized manner.

There is little interest in the medical community in PC. It is not a recognized specialty, and there have been no efforts to having it recognized at this stage. There have been some initiatives to train GPs and oncologists in pain management and PC. They started many years ago with a French team from Institut Gustave Roussy that provided training three times per year in different cities. They continued this process for about five years. Later, a British team started training programs. Physicians can now obtain a Diploma on Pain Management, PC (sousse), and in Onco-Psychiatry. There are plans for a diploma in PC in Tunisia. But these are only targeting physicians, not other healthcare professionals. Trainings usually target GPs who are identified from a list provided by the Ministry of Health. They are encouraged to participate by the Ministry, but there is little interest. To date, about 40 – 50 GPs have been trained. Medical schools have integrated pain management and communication into their curricula. There are sessions on "breaking bad news" and "how to communicate death" that are provided by psychiatrists.

There have also been efforts to increase community awareness since 2001. Each year, there is a day dedicated to increasing awareness with a program targeting the community. In 2017, for example, the topic will be "Pain and Gender". These sessions are usually covered by the media. However, there is little interest, and they are not very well attended. There is large variability in people's acceptance of PC and most still find it difficult to talk about death.

The Tunisian Ministry of Health (Mr. Mondher Zenaidi) included PC in the National Cancer Plan in 2006 along with prevention, treatment, and research. This was a breakthrough. However, the political turmoil has restricted progress in terms of policy change. Mental health, including depression and suicide, has been a major public health issue and has received most of the attention at the Ministry of Health making PC less of a priority. Since the revolution, there has also been significant turnover as ministries are changed, and this has hindered progress on all fronts.

Opioid prescribing laws were changed in 2008, making pain medications much more accessible to patients who need them. Codeine, tramadol, fentanyl patches, and morphine in both injectable and oral formulations (immediate– and sustained–release) are available. Oxycodone and hydromorphone are expected to be approved this year. Methadone is not available. Oral opioids can be prescribed for 28 days and the injectable formulations for 14 days. Oncologists and GPs trained in pain management can prescribe opioid analgesics. However, only the very poor have access to these medications free of charge and insurance only reimburses partially. Approximately 70% of the population pay for their own medications. These are some of the barriers to the PC development at the policy level.

## MILESTONES

**1992** Tunisia introduced the first outpatient PC unit

**2001** The PC Association was started by Dr. Ben Ayed Farhat

**2006** The Tunisian Ministry of Health (Mr. Mondher Zenaidi) included PC in the National Cancer Plan

## REFERENCES

**Cleary J. et al.** Formulary availability and regulatory barriers to accessibility of opioids for cancer pain in the Middle East: a report from the Global Opioid Policy Initiative (GOPI). Ann Oncol, 2013. 24 Suppl 11: p. xi51-9.

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## KEY INFORMANT

Dr. Henda Rais (interviewed on 16.01.2017)

## NATIONAL ASSOCIATION OR INSTITUTION

Tunis Institut Salah Azaiez.

# Tunisia




| | | |
|---|---|---|
| 11,107,800<br>Population, 2015 | US$3,873<br>Gross Domestic Product per capita, 2015 | US$785<br>Health Expenditure per capita, PPP, 2014 |
| 163,610<br>Surface, km² | 1.22<br>Physicians per 1000 inhabitants, 2010 | 0.72<br>Human Development Index, 2014 |
| 72.4<br>Density, 2015 inh/km² | 7.0%<br>Health Expenditure total (% of gross), 2014 | 96<br>Human Development Index Ranking position, 2014 |

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| 0<br>**Outpatient clinics** (inpatient) | 0<br>**Mixed programs** (community and hospital) | 0<br>**Consultation services** (hospital support teams) | 0<br>**Hospital PC units** (inpatient) |
| 0<br>**Hospices** (stand-alone inpatient units) | 2<br>**Community-based programs** (home care) | 0<br>**Nursing home-based programs** | 2<br>**Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / NO |
| Patients have to pay for PC medications? | YES / NO |
| Health system | Private, Public& universal |

## POLICIES

| | |
|---|---|
| National PC Law | YES / NO |
| National plan or strategy for PC | YES / NO |
| National cancer plan/strategy with a section for PC | YES / NO |
| National standards and norms for PC | YES / NO |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / NO |
| Initiatives promoting PC | YES / NO |
| PC research | YES / NO |

## EDUCATION

- Medical schools with PC education at the undergraduate level — **0/4**
- Nursing schools with PC education at the undergraduate level — **0/3**
- PC integrated into any fellowship program — **NO**
- Post-graduate course for nurses available — **NO**

| **Teachers of PC** | | **2** |
|---|---|---|
| Full professor | Medicine | 1 |
| | Nursing | 0 |
| Other professors | Medicine | 0 |
| | Nursing | 1 |

**Official recognition as a licensing or advanced training program** — IN PROCESS

## AVAILABILITY OF MEDICINES




IN P.: In Process

**Opioid Consumption per capita in ME, excl. methadone, 2015**



# United Arab Emirates

## OVERVIEW

PC is relatively new in the UAE. It started approximately in 2007/8 in the oncology department of Al Tawam Hospital in Al Ain. The service developed gradually. First, it started as an inpatient consultation service, followed by a dedicated inpatient PC unit, and finally, an outpatient PC clinic. So far, Al Tawam Hospital is the only service in UAE that provides PC services to oncology patients through an organized team. The center covers adult patients only, and patients are usually referred in their mid-to-late disease stages to the PC unit. Unless they have intractable pain, patients are not referred for PC early in the course of their illness.

The main contribution for the success of PC at Al Tawam Hospital is its affiliation to Johns Hopkins. It recognized the need for a PC service in developing a comprehensive oncology center. Therefore, resources were provided by the Department of Oncology, and the service was established. The program started as a small service and had to prove its value in order to be able to expand. Awareness campaigns for healthcare professionals in the unit were also used as the department was established. The plan is to grow and move to a bigger unit.

In addition to the physician at Al Tawam, there are two physicians working in private practice who provide palliative care - one in Dubai and another in Abu Dhabi. There are also opportunities for the development of new PC services in different parts of the country.

When the service at Al Tawam started, there were limited options of opioids (mainly morphine). Now, almost all kinds of opioids are available including morphine, hydromorphone, fentanyl, oxycodone, and tramadol. Patients rarely have to pay to cover their medications as it is usually covered by their health insurance or by hospital/health services. Although opioids are available at Al Tawam Hospital, this is not the case in other parts of the country. Patients, therefore, have to drive long distances to come back to refill their medication prescriptions.

The main barrier to the development of PC in the UAE is the lack awareness both among the public as well as among healthcare professionals.

To date, there are no real policy changes in this field. There are no policies on advanced care planning. However, there is currently a plan for the development of end-of-life care policies. Without these policies, it is tough to convince patients and families to seek comfort and supportive care. The healthcare authorities are starting to recognize the need for PC on the state level. Hopefully within the coming 5-to-10 years, PC services will become more widespread in the country. Work on legislation and end-of-life policies is highly necessary.

There is no organized educational system for PC in the country. There are occasionally sessions or workshops on PC during oncology conferences. On the sociocultural level, there are no noticeable changes.

## MILESTONES

**1996** The Middle East Cancer Consortium (MECC) was established and UAE actively participated in training programs

**2007** Abu-Dhabi-based Tawam hospital started the first organized PC unit in the country

**2011** Opioid Consumption in UAE was 3.419 mg/capita (Total morphine equivalence)

## REFERENCES

**Shamieh O., Jazieh A.R., and M.C.P.C.R.G. Committee.** Modification and implementation of NCCN Guidelines on palliative care in the Middle East and North Africa region. J Natl Compr Canc Netw, 2010. 8 Suppl 3: p. S41-7.

**Zeinah G.F., Al-Kindi S.G., and Hassan A.A.** Middle East experience in palliative care. Am J Hosp Palliat Care, 2013. 30(1): p. 94-9.

**Silbermann M. et al.** Evaluating palliative care needs in Middle Eastern countries. J Palliat Med, 2015. 18(1): p. 18-25.

## KEY INFORMANT

Confidential informant (interviewed 30.03.2016)

## NATIONAL ASSOCIATION OR INSTITUTION

Not specified.

# United Arab Emirates




| | | |
|---|---|---|
| 9,156,963 Population, 2015 | US$40.44 Gross Domestic Product per capita, 2015 | US$2,405 Health Expenditure per capita, PPP, 2014 |
| 83,600 Surface, km² | 2.5 Physicians per 1000 inhabitants, 2010 | 0.84 Human Development Index, 2014 |
| 109.5 Density, 2015 inh/km² | 4% Health Expenditure total (% of gross), 2014 | 41 Human Development Index Ranking position, 2014 |

## PALLIATIVE CARE PROGRAMS

| | | | |
|---|---|---|---|
| 1 **Outpatient clinics** (inpatient) | N/A **Mixed programs** (community and hospital) | 1 **Consultation services** (hospital support teams) | 1 **Hospital PC units** (inpatient) |
| N/A **Hospices** (stand-alone inpatient units) | N/A **Community-based programs** (home care) | N/A **Nursing home-based programs** | 3 **Total** |

**Payment for PC programs**

| | |
|---|---|
| Patients have to pay for PC? | YES / **NO** |
| Patients have to pay for PC medications? | YES / **NO** |
| Health system | Mixed |

## POLICIES

| | |
|---|---|
| National PC Law | YES / **NO** |
| National plan or strategy for PC | YES / **NO** |
| National cancer plan/strategy with a section for PC | **YES** / NO |
| National standards and norms for PC | YES / **NO** |

## PROFESSIONAL ACTIVITY

| | |
|---|---|
| National PC association | YES / **NO** |
| Initiatives promoting PC | **YES** / NO |
| PC research | UNKNOWN |

## EDUCATION

| | |
|---|---|
| → Medical schools with PC education at the undergraduate level | **N/A** |
| → Nursing schools with PC education at the undergraduate level | **N/A** |
| → PC integrated into any fellowship program | N/A |
| → Post-graduate course for nurses available | N/A |

| **Teachers of PC** | | **0** |
|---|---|---|
| Full professor | Medicine | 0 |
| | Nursing | 0 |
| Other professors | Medicine | 0 |
| | Nursing | 0 |

**Official recognition as a licensing or advanced training program** — YES / **NO**

## AVAILABILITY OF MEDICINES

| | | | | | |
|---|---|---|---|---|---|
| YES Codeine | YES Morphine | YES Hydromorphone | YES Oxycodone | YES Methadone | YES Transdermal Fentanyl |

**Opioid Consumption per capita in ME, excl. methadone, 2015**



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