Trends in pharmaceutical opioid consumption in the WHO Eastern Mediterranean Region, 2010–2019

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Abstract

Background Pharmaceutical opioid consumption has been increasing worldwide, but disparities in access to these medications exist. Few countries of the WHO Eastern Mediterranean Region have well defined pain management policies.

Aims This study presents trends in the consumption of pharmaceutical opioids in the 22 countries in the Eastern Mediterranean Region from 2010 to 2019, with comparative intra- and extra-regional analyses; the correlation between pharmaceutical opioid consumption and human development index rankings; and pharmaceutical opioids use in the region.

Methods We calculated the defined daily doses for statistical purposes (S-DDD) per million inhabitants per day of pharmaceutical opioids from 2010 to 2019, and used the mixed effects models to assess changes in consumption. We used regression analyses to establish the strength of associations between human development index level and consumption in the region and elsewhere.

Results Pharmaceutical opioid use has fluctuated in the region since 2010, with a mean sum of S-DDD of 2547 for 2010–2019. Consumption is relatively low in the region irrespective of the human development index. The highest-consuming country reported 369 S-DDD in 2019 and the lowest reported 1 S-DDD. The most used pharmaceutical opioids in the region were fentanyl, morphine, pethidine, oxycodone, and codeine.

Conclusion Consumption could be considered inadequate in several countries of the region. Supporting these countries to improve collection and reporting of consumption data, and providing humanitarian assistance to enhance access to pain relief, should be a priority for the international community.

Keywords: opioid, analgesia, morphine, fentanyl, human development, Eastern Mediterranean

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Introduction

Pharmaceutical opioids are indicated to treat a wide range of moderate to severe pain symptoms, including acute and cancer-related pain, chronic non-cancer pain and pain at the end of life *(1)*. Selected opioids are listed in the WHO Model List of Essential Medicines *(2)*. Ensuring adequate access to opioid analgesics is therefore important, especially as the burden of cancer is increasing rapidly globally *(3)*. Untreated pain may not only reduce a person's quality of life, it may also have physical, psychological and social impacts *(4)*. In turn, these indirect effects may hinder achievement of the Sustainable Development Goals (SDGs) related to poverty and economic growth *(5)*.

Over the past decade, pharmaceutical opioid consumption has been increasing in developed countries, yet disparities in the distribution of, and lack of access to, these medicines in developing countries continue to exist, and in some instances have increased *(6)*. In 2015, more than 80% of the 61 million individuals who experienced either serious health-related suffering or death, lived in low- and middle-income countries with limited access to palliative care and pain relief *(7)*. Furthermore, every year almost 2.5 million children globally die with serious health-related suffering *(8)*. Access to palliative care is considered a human right as outlined in article 25 of the Universal Declaration of Human Rights *(9)*. Governments around the world have responded to the call by the United Nations General Assembly in 2016 to increase the availability of opioid analgesics for pain relief *(10)*. The reality of the global divide in access to opioid analgesics for medical purposes has been clearly illustrated by the work of the Lancet Commission on Palliative Care and Pain Relief *(7)*. The Commission measured the availability of opioid analgesics for consumption, as reported by competent national authorities to the International Narcotics Control Board, against the estimated amount needed for the health conditions most associated with serious health-related suffering (an indicator developed on the basis of existing health data and statistics). In the Commission's report, an essential package of palliative medicine containing cheap, off-patent morphine (injectable and oral immediate-release) is proposed to be made universally accessible *(8)*. However, in some regions, progress has varied and some countries have seen their

levels of consumption of palliative medicines decrease. Even for substances such as morphine, which is relatively cheap and easy to procure, access can be a challenge in low-income countries. Over the past 20 years, on average, only 9.0% of the morphine available globally was used for pain management, and in 2019, 80.4% of the population in low- and middle-income countries consumed only 12.8% of this amount *(11)*.

Despite the importance of having opioid analgesic available for medical purposes, in 2015, about 71.0% of the global population lived in countries with extremely low consumption of these medicines *(6)*, indicating potential barriers to access. The Eastern Mediterranean Region was among the WHO regions that had inadequate consumption of pharmaceutical opioids, which was a defined daily doses for statistical purposes (S-DDD) of less than 200 in 2001–2003. Although pharmaceutical opioid use increased in 2011–2013, the majority of countries in the region still reported consumption of less than 200 S-DDD *(12)*. The WHO Eastern Mediterranean Region consists of several countries that have experienced social and political unrest, humanitarian crises and conflicts. Very few countries have well-defined policies on cancer management or palliative care *(13)*. Pain management in the region has been hindered by unscientific cultural beliefs, stigma and bias *(13,14)*. While economic and healthcare developments have occurred in some countries of the region in the past few years *(13,15)*, it is unclear whether these developments were accompanied by increased pharmaceutical opioid consumption. A previous study indicated that contextual factors, such as the human development index (HDI), influenced the use of pharmaceutical opioids *(12)*, but more recent studies *(16,17)* have suggested that contextual factors such as HDI may not be the only decisive factors. A study in 2013 described the trends in pharmaceutical opioid consumption specifically in the Middle East from 1980 to 2010, but it did not investigate the determinants of any changes *(13)*. No up-to-date literature currently exists on the trends in pharmaceutical opioid consumption in the Eastern Mediterranean Region. Information on such changes and associated determinants of pharmaceutical opioid consumption in this region is essential to aid the development of policies that can ensure availability of and adequate access to opioids for medical purposes.

Objectives

We aimed to present trends in the consumption of pharmaceutical opioids in countries of the WHO Eastern Mediterranean Region (Afghanistan, Bahrain, Djibouti, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates and Yemen) from 2010 to 2019, with a comparative intra- and extra-regional analysis. We analyse the correlation between pharmaceutical opioid consumption and HDI rankings, and identify the opioids used in the region.

Methods

Data sources

All countries that are parties to the Single Convention on Narcotic Drugs of 1961 are mandated to provide data to the International Narcotics Control Board on the annual consumption of controlled opioid analgesic medicines for medical and scientific purposes *(18)*. The Convention has been ratified by 186 States. All countries of the Eastern Mediterranean Region except Palestine are parties to the Convention. The Convention understands consumption as the full amount of each substance that is available for use in each country each year, thus it refers to the amount available for consumption, rather than the quantities actually dispensed to patients in each country in a given year. Countries are also mandated to submit estimates of their annual requirements of controlled substances for medical and scientific purposes, which are the basis for their annual imports and manufacture of controlled opioids. Opioids for which countries submit data and estimates are the ones scheduled under the Convention *(19)*. This information was verified by the International Narcotics Control Board using data from export and import notifications. These data are expressed in terms of the S-DDD to establish the extent of use. The S-DDD is a technical unit of measurement established and used by the International Narcotics Control Board *(20)*. This unit does not represent a recommended prescription dose. Because no internationally agreed standard doses exist for opioid analgesics, the S-DDD is used to provide a comparable measure to rank pharmaceutical opioid use across countries. S-DDD for a drug is calculated using the following formula: annual use of the pharmaceutical opioid divided by 365 days, divided by the population in millions of the country or territory during the year, divided by the defined daily dose for the opioid. Data for population to calculate the S-DDD were taken from the Human Development Reports published by the United Nations Development Programme (UNDP) for the period 2010–2019 *(21)*.

While S-DDD relate to countries and territories, when reporting on regions we used regional S-DDD (sum of annual use in all countries and territories divided by 365 days, divided by the sum of the population in all countries and territories in millions during the year, divided by the defined daily dose) or sum of all individual S-DDD for each year in all countries and territories.

We used UNDP's HDI categorical version for each country for each year rather than the HDI score. HDI categories are low, medium, high and very high. HDI data were also taken from UNDP Human Development Reports for 2010–2019 *(21)*.

The pharmaceutical opioids considered in this analysis include: codeine, dextropropoxyphene, dihydrocodeine, fentanyl, hydrocodone, hydromorphone, ketobemidone, morphine, oxycodone, pethidine, tilidine and trimeperidine. Methadone and buprenorphine were excluded from these analyses because their use for pain relief cannot be distinguished from their use in treatment

of opioid use disorder. The reported codeine use is limited to its use as a monotherapy for pain management and not for preparations containing codeine for the treatment of cough. Our analysis covered the period 2010–2019 and examined trends over this time. In particular, we examined consumption of the five most consumed pharmaceutical opioids in the region.

Statistical methods

We analysed the trends in pharmaceutical opioid consumption across the Eastern Mediterranean Region, by sum of S-DDD from 2010 to 2019. We analysed trends in pharmaceutical opioid consumption for all of the 22 countries in the region, and the five most consumed pharmaceutical opioids in the region, by S-DDD, for the same period. We analysed annual S-DDD data from 2010 to 2019 using mixed effects models to control for within-country correlations (i.e. to adjust for non-independence between the repeated observations of each country). Because the outcome data (S-DDD) were skewed and over-dispersed, we used negative binomial models. We conducted two mixed effects models. The first model compared countries of Eastern Mediterranean Region with the rest of the world, and included a three-way interaction with time and HDI category, allowing for change over time to vary based on the Eastern Mediterranean Region and HDI categories. The second model separated countries into broader geographical regions that do not correspond with the WHO regions, except for countries in the Eastern Mediterranean Region. This model included a region by time interaction. Both mixed effects models included a random slope for HDI category. The significance level was set at $P < 0.05$. We used Stata 17.0 for all analyses.

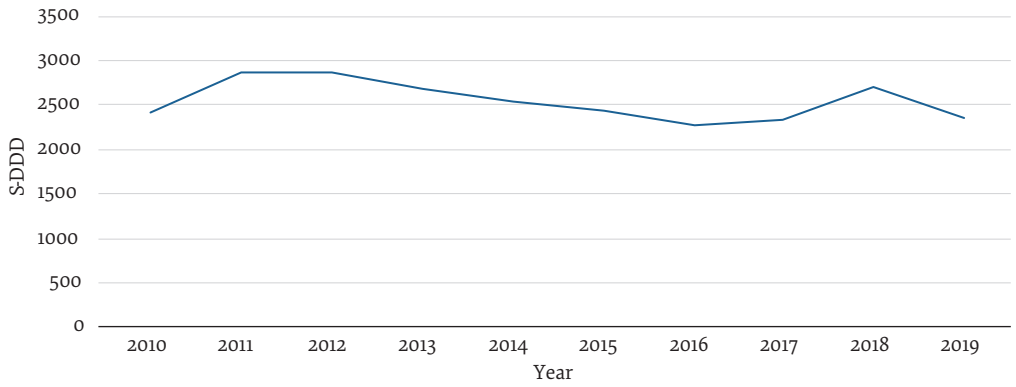
Results

Pharmaceutical opioid consumption in the Eastern Mediterranean region was low at the beginning of the period considered in this study, a total of 2419 S-DDD in 2010 (Figure 1). This regional consumption level increased in 2011, when it peaked at 2866 S-DDD. Since then, pharmaceutical opioid use in the region has somewhat decreased and in 2019, the S-DDD was 2360 for the region.

The six highest-consuming countries in the region reported S-DDD between 242 (Jordan) and 369 (Saudi Arabia) in 2019, with consumption remaining within almost the same range since 2010 (Figure 2). Bahrain, which was the highest-consuming country in the region in 2010 with 382 S-DDD, decreased its consumption level to 283 S-DDD in 2019. Qatar, which consumed 215 S-DDD in 2010, reported even lower consumption levels between 2013 and 2016, but reached 272 S-DDD in 2019, the same level as Lebanon. Lebanon has had stable levels of consumption since 2010, when it reported 225 S-DDD. Consumption in Kuwait was 335 S-DDD in 2010 and 336 S-DDD in 2019, and was the second-highest consuming country in the region in 2010 and 2019, despite relative fluctuations in consumption in-between. Consumption in these countries mainly consisted of fentanyl, morphine, pethidine and oxycodone, while some countries also consumed codeine (mostly Bahrain and Saudi Arabia) and hydromorphone (Saudi Arabia).

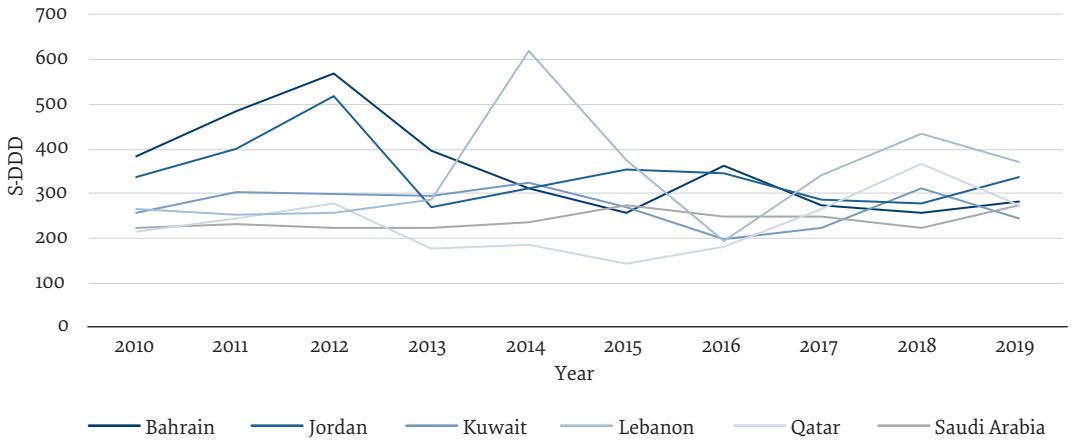
Other countries in the region reported slightly lower levels of pharmaceutical opioid consumption in 2010 than the top six countries mentioned above. These include the United Arab Emirates (195 S-DDD), Tunisia (145 S-DDD), Syrian Arab Republic (116 S-DDD), Oman (106 S-DDD) and Egypt (65 S-DDD). While Egypt reported a small increase to 75 S-DDD in 2019, the United Arab Emirates, Tunisia and Oman reported slight decreases to 163 S-DDD, 132 S-DDD and 103 S-DDD, respectively. The Syrian Arab Republic reported a large decrease to 31 S-DDD in 2019. This intermediate group of countries reported consumption of a more limited number of pharmaceutical opioids, mostly fentanyl, morphine and pethidine. In addition to those substances, consumption of oxycodone was reported by the United Arab Emirates, Syrian Arab Republic and Egypt; consumption of hydromorphone was reported by the United Arab Emirates and Egypt; and consumption of codeine was reported by Oman.

Figure 1 Trends in pharmaceutical opioid consumption in the WHO Eastern Mediterranean Region (in S-DDD), 2010–2019



S-DDD: defined daily doses for statistical purposes.
Note: S-DDD is the sum of the S-DDD of each country of the region.

Figure 2 Trends in pharmaceutical opioid consumption (in S-DDD) in the six highest consuming countries in the WHO Eastern Mediterranean Region, 2010–2019

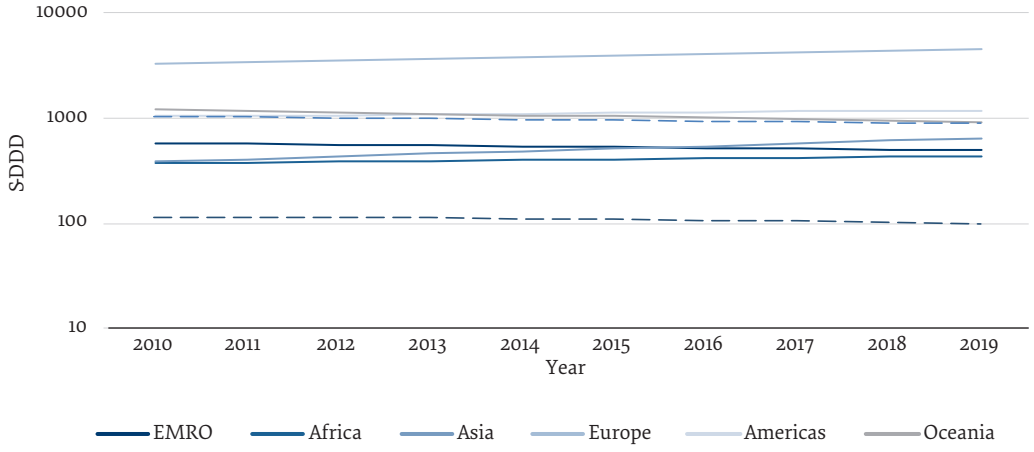


S-DDD: defined daily doses for statistical purposes.

Countries at the lowest level of consumption in the Eastern Mediterranean Region reported between 1 (Afghanistan) and 54 S-DDD (Morocco) in 2019. Morocco reported consumption of fentanyl and morphine. Although consumption increased slightly between 2015 and 2017, when it peaked at 5 S-DDDs, consumption reported by Afghan authorities in 2019 was back at 1 S-DDD, and included only morphine. A similar trend was observed for Pakistan, where consumption of fentanyl was reported in addition to morphine. The Islamic Republic of Iran reported 43 S-DDD in 2010, but this decreased to 34 S-DDD in 2019. Pharmaceutical opioids consumed in the Islamic Republic of Iran were fentanyl and pethidine. The consumption trend in Libya peaked at 49 S-DDD in 2013, but many gaps in reporting from this country existed. Libya reported consumption of three pharmaceutical opioids: fentanyl, morphine and pethidine. Iraq, Sudan and Yemen have provided minimal data for the period, and data from Djibouti and Somalia are entirely lacking. Data for Palestine are reported to International Narcotics Control Board by Israel, and the Board does not report a breakdown.

The comparative analysis of trends in the Eastern Mediterranean Region with other regions of the world is shown in Figure 3, using regional S-DDD (total consumption/total population) instead of the sum of each individual country's S-DDD. Pharmaceutical opioid consumption in the Eastern Mediterranean Region was the third lowest in the world in 2010. Consumption has remained stable at 567 S-DDD in 2019, but as Asia almost doubled its pharmaceutical opioid consumption from 354 S-DDD in 2010 to 637 S-DDD in 2019, this has resulted in the Eastern Mediterranean Region now being the second-lowest consuming region. Africa was and still is the lowest consumer of pharmaceutical opioids in the world. Higher-consuming regions include Europe, North America and Oceania.

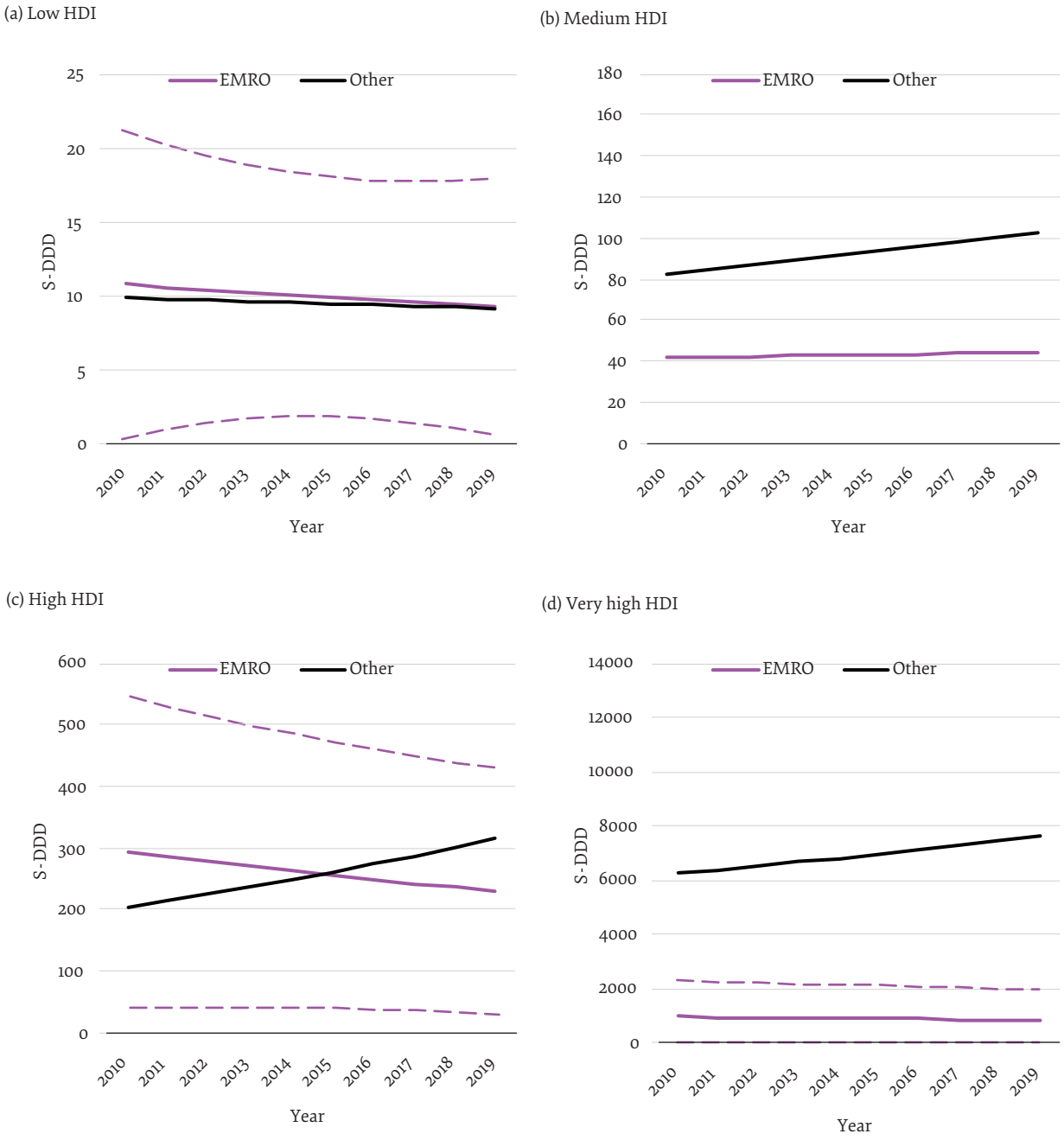
Figure 3 Mixed effects model on pharmaceutical opioid consumption trends (in S-DDD) in the WHO Eastern Mediterranean Region and other regions, 2010–2019



S-DDD: defined daily doses for statistical purposes.
Notes: Regional S-DDD = total regional consumption/total regional population. Y-axis is shown on logarithmic scale. The 95% confidence intervals of trend in key regions are shown as dashed lines.

Figure 4 shows how countries with similar HDI levels compare in consumption trends of pharmaceutical opioids. Countries of the Eastern Mediterranean Region with low HDI had slightly higher consumption than countries with low HDI in other regions (Figure 4a). However, countries with low HDI in the Eastern Mediterranean Region were also reporting a decreasing trend in consumption over the study period. Pharmaceutical opioid consumption remained stable in Eastern Mediterranean Region countries with a medium HDI, while it increased in countries from other regions (Figure 4b). In addition, the S-DDD of Eastern Mediterranean Region countries are about half of those of other countries in the medium HDI ranking. For countries with high HDIs, consumption within the Eastern Mediterranean Region decreased during the study period. Consumption was above the S-DDD levels in other regions in 2010. However, countries from other regions that are within the same high HDI ranking have increased their pharmaceutical opioid consumption

Figure 4 Trends in pharmaceutical opioid consumption (in S-DDD) in the WHO Eastern Mediterranean Region and other regions by HDI category, 2010–2019



S-DDD: defined daily doses for statistical purposes; HDI: human development index.
Note: Results are marginal predicted mean S-DDD from a negative binomial mixed effects model, including a random slope for human development index in addition to the fixed effect. The 95% confidence intervals of trend are shown as dashed lines.

considerably since then and have caught up with and exceeded the Eastern Mediterranean Region (Figure 4c). Countries in the Eastern Mediterranean Region with very high HDIs reported a stable trend in pharmaceutical opioid consumption that was substantially lower than countries within the same HDI ranking in other regions (Figure 4d).

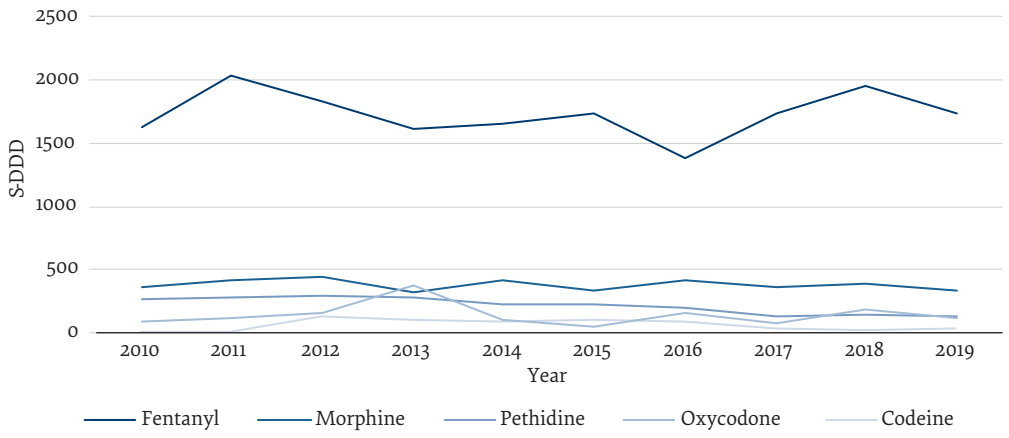
Fentanyl was the most consumed pharmaceutical opioid based on S-DDD in the Eastern Mediterranean Region (Figure 5), with an average annual consumption of 1729 S-DDD in the 2010–2019 period. Consumption of fentanyl started to decline after 2011, after it peaked at 2033 S-DDD, and reached a low of 1388 S-DDD in 2016. However, fentanyl consumption increased again to 1952 S-DDD in 2018 and remained relatively stable at 1732 S-DDD in 2019. Morphine and pethidine were the second and third most consumed pharmaceutical opioids, with annual averages of 377 S-DDD and 216 S-DDD, respectively. Consumption of morphine remained stable throughout the observed period, while pethidine consumption declined from 270 in 2010 to 131 S-DDD in 2019. Oxycodone use, on the other hand, increased from 93 in 2010 to 121 S-DDD in 2019, and the use of codeine as an analgesic remains limited in the region.

Discussion

As with most regions in the world, availability of pharmaceutical opioids varies between countries and territories of the Eastern Mediterranean Region. Overall, the regional consumption peak over the study period coincided with a peak in fentanyl consumption in 2011. The HDI is considered one of the most important determinants of country-level pharmaceutical opioid use and accounts for many of differences and changes in use between countries *(12)*. This is the case for the Eastern Mediterranean Region, although we also observed that some high and very high HDI countries had relatively low pharmaceutical opioid consumption, especially when compared with other high and very high HDI countries in other regions. A similar pattern can be seen for the level of palliative care services in Eastern Mediterranean countries as reported by the *Global atlas of palliative care*, published by the Worldwide Hospice Palliative Care Alliance and WHO. None of the countries in the region with very high HDI has palliative care services which are at an advanced stage of integration in the health system *(22)*. Instead, they offer generalized (Oman, Qatar and Saudi Arabia) or isolated (Bahrain) palliative care. Other countries considered to have an intermediate level of palliative care services include: Egypt, Islamic Republic of Iran, Jordan, Lebanon, Libya and Tunisia (high HDI); Afghanistan, Morocco and Pakistan (medium HDI); and Sudan (low HDI). The United Arab Emirates has an even lower level of palliative care service development, with only capacity-building activities, in spite of its very high HDI. All other countries in the region have no known hospice-palliative care activities ongoing. This includes Syrian Arab Republic (medium HDI), and Djibouti, Iraq, Somalia and Yemen (low HDI).

Some factors other than HDI may further explain the overall low levels of availability of pharmaceutical opioids in the Eastern Mediterranean Region. The International Narcotics Control Board has reported on the main impediments to availability of pharmaceutical opioids in the world *(20)*. The main factors globally are lack of training of health professionals, fear of addiction, problems in sourcing, fear of diversion to illicit channels, limited financial resources, trade control measures (e.g. licensing requirements, import and export permissions and fees), cultural attitudes, fear of prosecution and onerous regulations *(20)*. A regional analysis of the data used for the earlier study of the International Narcotics Control Board showed some specific features about impediments in the Eastern Mediterranean Region *(19)*. While lack of training was mentioned as an impediment by 36% of responding countries globally, this percentage in the Eastern Mediterranean Region was only 9%. At the same time, cultural and social attitudes were the impediments most mentioned by Eastern Mediterranean

Figure 5 Top five most consumed pharmaceutical opioids (in S-DDD) in the WHO Eastern Mediterranean Region, 2010–2019



S-DDD: defined daily doses for statistical purposes.

Region countries (55%), followed by problems in sourcing and international trade control measures (both 36%). In contrast, these impediments come in fifth, fourth and eight places, respectively, for responding countries globally. Also of relevance is the impediment of limited resources, which was mentioned by 32% of responding countries globally, but not mentioned by any of the responding countries in the Eastern Mediterranean Region. These differences in reported impediments could contribute to understanding the overall lower S-DDD in the region, including in all HDI groups. Countries in the Eastern Mediterranean Region have various religions, cultures and traditions that may affect how patients perceive pain, diseases and death *(23)*.

Some studies further investigated the role of the impediments suggested by the International Narcotics Control Board at the national level. A survey of physicians in Lebanon found that 45% of respondents declared that fear of adverse effects of analgesics was a barrier to effective pain control, especially respiratory depression and addiction to opioids *(23)*. About 42% of physicians reported that poor knowledge of pain management was a barrier to providing adequate pain control; mid-career physicians reported having the lowest knowledge. This lack of knowledge is likely the result of suboptimal pain education in the medical curriculum in Lebanon *(23)*. Similarly, in Morocco and Jordan, pain management and palliative care education was not available in undergraduate programmes, and only a few such education programmes existed in Pakistan *(24)*.

Other impediments to availability are a lack of health policies and onerous regulations that may lead to fear of legal sanctions. While pharmaceutical opioids are available, some countries have strict regulations on who is allowed to prescribe morphine and to whom, with prescription validity ranging from 7 to 30 days *(22–25)*, which limits accessibility. Affordability is another issue that affects countries with low HDI, which is likely to affect some of the countries that did not respond to the International Narcotics Control Board questionnaire on impediments *(20)*. Some countries lacked data, which may indicate that patients in those countries have very limited or no access to pain management and treatment.

Challenges related to armed conflicts and political and social instability in the Eastern Mediterranean Region further complicate the issue of access to pharmaceutical opioids. About half of the countries in the region have experienced armed conflicts within their territories, some of them, for example, Afghanistan, for the entire period from 2010 to 2019 *(26–29)*. The lack of a functioning public health system, the absence of basic resources and security issues likely affect the extent to which these countries can access pharmaceutical opioids.

We could not analyse these factors in-depth because of the lack of data on other sources of pharmaceutical opioids, such as use of other pain relief medication not under international control (e.g. tramadol), donations from nongovernmental organizations and illicit markets – either legal drugs diverted to illicit markets or falsified medicines. Other limitations to our data analysis include the lack of consumption data over several years for some countries.

Conclusions

In general, the consumption of opioid analgesics in most Eastern Mediterranean Region countries and territories could be considered inadequate or very inadequate. State Parties to the 1961 Single Convention have the obligation to guarantee availability of opioids for pain relief. Our study has shown that countries in the region with different HDIs may face different barriers to availability as indicated by their responses to the International Narcotics Control Board questionnaire. Countries with higher HDI should focus on overcoming cultural and social barriers and developing clear national policies to ensure the availability, affordability, and accessibility of pain relief.

Many countries in the Eastern Mediterranean region have low and medium human development levels, and several have been plagued by armed conflicts and social and political unrest, all of which create impediments to making analgesic opioids available and the government capacity to address these impediment is limited. Given that many countries may have weak and vulnerable institutions, the international community must play a role in supporting access to essential analgesic medicines for patients living in Eastern Mediterranean Region. In some contexts, expanding the number and types of healthcare professionals trained and licensed to prescribe opioids, such as nurses and family doctors, is key to reaching the most vulnerable groups of patients. Closer collaborations with patient organizations may allow decision-makers to enhance their knowledge of the analgesia needs of patients. Moreover, supporting the work of these countries to improve data and reporting of consumption patterns and impediments, as well as humanitarian assistance for access to pain relief, should be a priority for the international community.

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Competing interests: None declared.

Tendances de la consommation d'opioïdes pharmaceutiques dans la Région OMS de la Méditerranée orientale, 2010-2019

Résumé

Contexte : La consommation d'opioïdes pharmaceutiques augmente dans le monde entier, mais il existe des disparités dans l'accès à ces médicaments. Peu de pays de la Région OMS de la Méditerranée orientale disposent de politiques bien définies en matière de prise en charge de la douleur.

Objectifs : La présente étude examine les tendances de la consommation d'opioïdes pharmaceutiques dans les 22 pays de la Région de la Méditerranée orientale de 2010 à 2019 à l'aide des éléments suivants : analyses comparatives intra- et extra-régionales ; corrélation entre la consommation d'opioïdes pharmaceutiques et les classements de l'indice de développement humain ; et données sur la consommation d'opioïdes pharmaceutiques dans la Région.

Méthodes : Nous avons calculé les doses quotidiennes définies à des fins statistiques (S-DDD) d'opioïdes pharmaceutiques par million d'habitants et par jour de 2010 à 2019, et nous avons utilisé les modèles à effets mixtes pour évaluer les changements dans la consommation. Nous avons recouru à l'analyse de régression pour établir le degré d'association entre le niveau de l'indice de développement humain et la consommation dans la Région et ailleurs.

Résultats : L'usage d'opioïdes pharmaceutiques connaît des fluctuations dans la Région depuis 2010, la somme moyenne des S-DDD étant de 2547 pour la période 2010-2019. La consommation est relativement faible dans la Région quel que soit l'indice de développement humain. Le pays ayant la plus forte consommation a fait état de 369 S-DDD en 2019 et celui présentant la plus faible a enregistré 1 S-DDD. Les opioïdes pharmaceutiques les plus utilisés dans la Région étaient le fentanyl, la morphine, la péthidine, l'oxycodone et la codéine.

Conclusion : La consommation pourrait être considérée comme insuffisante dans plusieurs pays de la Région. La communauté internationale devrait avoir pour priorité d'aider ces pays à améliorer la collecte et la communication des données relatives à la consommation, et de fournir une aide humanitaire pour améliorer l'accès à la prise en charge de la douleur.

اتجاهات استهلاك المستحضرات الصيدلانية أفيونية المفعول في إقليم شرق المتوسط في الفترة من 2010 حتى 2019

جوليانا إرتال–ويليامسون، فيليب كلير، ناتاشا جيسيف، كورنيليا سانتوسو، ستيفانو بيرتيرام

الخلاصة

الخلفية: ان استهلاك المستحضرات الصيدلانية أفيونية المفعول في تزايد في جميع أنحاء العالم، ولكن هناك تفاوت في توفُّر هذه الأدوية. وفي إقليم شرق المتوسط، لا توجد سياسات محددة بدقة لعلاج الألم إلا في بلدان قليلة.

الأهداف: هدفت هذه الدراسة الى عرض الاتجاهات في استهلاك المستحضرات الصيدلانية أفيونية المفعول في بلدان إقليم شرق المتوسط، البالغ عددها 22 بلدًا، في الفترة من 2010 حتى 2019، مع إجراء تحليلات مقارنة داخل الإقليم وخارجه؛ والعلاقة بين استهلاك المستحضرات الصيدلانية أفيونية المفعول والترتيب وفقًا لمؤشر التنمية البشرية؛ واستخدام المستحضرات الصيدلانية أفيونية المفعول في الإقليم.

طرق البحث: لقد قمنا بحساب الجرعات اليومية المحددة للأغراض الإحصائية لكل مليون نسمة في اليوم الواحد من المستحضرات الصيدلانية أفيونية المفعول، من عام 2010 حتى عام 2019، واستخدمنا نماذج التأثيرات المختلطة لتقييم التغيرات في الاستهلاك. كما استخدمنا تحليلات الانحدار لتحديد قوة الارتباط بين الترتيب على مؤشر التنمية البشرية والاستهلاك في المنطقة وخارجها.

النتائج: شهد استخدام المستحضرات الصيدلانية أفيونية المفعول تذبذبًا في الإقليم منذ عام 2010، وبلغ متوسط إجمالي الجرعات اليومية المحددة للأغراض الإحصائية 2547 للفترة من 2010 حتى 2019. ويُعَدُّ الاستهلاك منخفضًا نسبيًّا في المنطقة، بغض النظر عن الترتيب على مؤشر التنمية البشرية. وقد أبلغت أعلى البلدان استهلاكًا عن استهلاك 369 جرعة يومية محددة للأغراض الإحصائية في عام 2019، بينما أبلغت أقل البلدان استهلاكًا عن جرعة واحدة فقط. وكانت أكثر المستحضرات الصيدلانية أفيونية المفعول استخدامًا في المنطقة هي الفينتانيل والمورفين والبيتيدين والأكسيكودون والكودايين.

الاستنتاجات: ان استهلاك المستحضرات الصيدلانية أفيونية المفعول يمكن أن يُعَدَّ غير كاف في العديد من بلدان الإقليم. وينبغي للمجتمع الدولي أن يولي الأولوية لدعم هذه البلدان، لتحسين جمع بيانات الاستهلاك وإعداد التقارير عنها، ولتقديم المساعدة الإنسانية لتعزيز الحصول على المسكنات حسب الحاجة.

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