Availability of Opioid Analgesics in Eastern Europe and the World

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About the Pain & Policy Studies Group

The Pain & Policy Studies Group (PPSG) mission is to promote "balance" in international, national and state pain policies to ensure adequate availability of opioid analgesics and their appropriate medical use for patient care while addressing diversion and abuse. The PPSG is designated the World Health Organization (WHO) Collaborating Center for Policy and Communications in Cancer Care. Much of the PPSG's work, including new WHO Guidelines that are discussed later in this document, are available on their website at www.medsch.wisc.edu/painpolicy. As a WHO Collaborating Center, the PPSG provides technical assistance to governments in Asia, Europe, and Latin America, and established a WHO Demonstration Project in Calicut, India.

The PPSG also supports a global communications program to improve access to information about pain relief, palliative care, and pain policy, and publishes a WHO newsletter *Cancer Pain Release* (http://www.medsch.wisc.edu/WHOcancerpain/).

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SECTION I - CANCER PAIN RELIEF AND OPIOID AVAILABILITY IN THE WORLD

Relieving cancer pain

In 1986, the WHO said that implementation of currently available medical knowledge could relieve most pain due to cancer.[1] WHO recommended that health professionals and governments use a three-step Analgesic Ladder to treat cancer pain. The successful implementation of the WHO Analgesic Ladder depends on the availability of drugs which are effective in relieving severe pain, such as morphine or other strong opioids, including fentanyl, hydromorphone, methadone and oxycodone. However, the availability of these drugs varies greatly from country to country.

Monitoring progress

The WHO monitors countries' consumption of opioids as one indicator of national progress to improve cancer pain relief (see Section IV, p. 10). Morphine is the principal indicator because it is the most widely available opioid analgesic for moderate to severe pain. Consumption trends for pethidine are included in this monograph because, although pethidine is not recommended for chronic pain, it is an opioid with the same control status as morphine, and its medical use is extensive. Prior to 1986, the consumption of morphine throughout the world was low and stable. After 1986, the total global consumption of morphine began to increase substantially as some national governments and health professionals adopted the WHO Analgesic Ladder and as new opioid products became available more widely. It should be noted that medical use of morphine in some countries is mainly for cancer pain, but morphine is used also for acute post-operative pain, AIDS pain, and chronic non-cancer pain.

Morphine consumption in the world

The vast majority of the increased consumption of morphine has been in only ten industrialized countries: Australia, Canada, Denmark, France, Germany, Japan, Spain, Sweden, the United Kingdom, and the United States. These ten countries represent less than 15% of the world's population. The remaining countries of the world (a number of developed countries and all developing countries) represent approximately 85% of the world's population, yet consumed 13% of the morphine in 1999. In some countries, the lack of palliative care and opioids is particularly serious because, by the time most cancer patients are diagnosed, they have late-stage cancer that is often accompanied by pain.

Inadequate opioid availability

Although many countries have experienced little change in morphine consumption since 1986, some have recently begun to increase their use of opioids for cancer pain relief. Nevertheless, global consumption remains extremely low in comparison to the medical need, and many national governments have yet to address this important health priority. According to a survey of

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[1] World Health Organization. *Cancer Pain Relief.* Geneva, Switzerland: World Health Organization; 1986.

governments by the International Narcotics Control Board (INCB),[2] injectable forms of morphine are more available than oral forms, and approximately one-half of governments reported that morphine is not available in all hospitals that treat cancer patients. In addition, only 60% of governments surveyed had endorsed the WHO Analgesic Ladder. Success in implementing the WHO Analgesic Ladder has been limited by the lack of opioid analgesics; future success will depend on governmental efforts to make opioids more available.

Impediments to availability

The INCB and the WHO have concluded that there are a number of impediments to the availability and use of opioid analgesics for cancer pain relief. Many government policies limit the quantity and duration of opioid prescriptions and impose special requirements for physicians who prescribe. National health priorities may not include cancer pain relief, as was evident in about half of the governments responding to the survey. In addition, health professionals, narcotic regulators and legislators may not realize there is a need for pain relief; they may be mainly concerned about narcotic addiction and diversion. In fact, 43% of governments that responded to the INCB survey said that they require physicians to report to the government those patients who are prescribed opioid analgesics.

SECTION II - EFFORTS TO IMPROVE OPIOID AVAILABILITY IN THE WORLD

The WHO and the INCB are addressing the unmet need for opioid analgesics, as well as the impediments to their adequate availability.

WHO activities to improve availability

The WHO recommends that national governments implement a three-part strategy to make cancer pain relief and palliative care a priority: (1) establish a national policy that supports pain relief and palliative care, public and professional education, and drug availability; (2) develop educational programs for the public and health professionals; and (3) ensure the availability of needed drugs for the treatment of pain and other symptoms. The WHO Collaborating Center for Policy and Communications in Cancer Care provides technical assistance to governments and health professionals to evaluate impediments to opioid availability and to monitor the progress to improve opioid availability while preventing diversion. The INCB reports that despite the large number of transactions of narcotic drugs, there was no diversion reported in 1999.[3]

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[2] International Narcotics Control Board. *Report of the International Narcotics Control Board for 1995: Availability of Opiates for Medical Needs*. Vienna, Austria: United Nations; 1996. *Available at* http://www.incb.org/e/ar/1995/suppl1en.pdf

[3] International Narcotics Control Board. *Report of the International Narcotics Control Board for 1999*. New York, NY: United Nations; 2000. *Available at* http://www.incb.org/e/ar/1999/

WHO Guidelines: In 2000, WHO issued "Achieving Balance in National Opioids Control Policy: Guidelines for Assessment," which provides 16 guidelines that can be used by governments and health professionals to assess the national opioids control policies of any country.[4] The document can be used to determine if national policies contain provisions and procedures that are necessary to ensure the availability of opioid analgesics that are essential for the relief of pain. The guidelines are derived from the international principle of "balance" in drug control policy. This principle, which is carefully and extensively documented in the publication, asserts (1) that governments not only have an obligation to prevent drug abuse, but also to ensure the availability of opioid analgesics for medical purposes, and (2) that efforts to prevent drug abuse and diversion must not interfere with the adequate availability of opioid analgesics for patients' pain relief. The Guidelines are available on the WHO website at http://www.who.int/medicines/library/qsm/who-edm-qsm-2000-4/who-edm-qsm-2000-4.htm and on the PPSG website at http://www.medsch.wisc.edu/painpolicy/publicat/00whoabi/00whoabi.htm.

INCB activities to improve availability

The INCB is the international narcotics regulatory authority for the United Nations. The INCB monitors national governments' implementation of the 1961 Single Convention on Narcotic Drugs, as amended, a treaty that governs availability of narcotic drugs in the world.

According to the Single Convention, opioids (narcotic drugs) are indispensable for the treatment of pain and suffering, and governments should ensure their adequate availability for all medical and scientific purposes while preventing addiction and diversion. Thus, it is the responsibility of national governments (most governments are parties to this treaty) not only to prevent misuse and diversion, but also to ensure availability of opioids for medical needs. The INCB and other United Nations organizations, such as the Commission on Narcotic Drugs, have recognized that opioids are not sufficiently available in the world. The INCB has requested all national governments to (a) re-evaluate their medical needs for opioids, (b) identify and address impediments, and (c) communicate with health professionals to determine the unmet medical need for opioid analgesics. The INCB conclusions and recommendations are provided in the next section.

[4] World Health Organization. *Achieving Balance in National Opioids Control Policy: Guidelines for Assessment*. Geneva, Switzerland: World Health Organization; 2000. *Available at http://www.medsch.wisc.edu/painpolicy/publicat/00whoabi/00whoabi.htm*

III. INCB REPORT CONCLUSIONS AND RECOMMENDATIONS (Verbatim)[5]

44. The Board wishes to express its appreciation to the governments that responded to its 1995 survey. The Board notes with satisfaction that a significant number of governments are making efforts to respond to its recommendations; they are increasing their estimates to meet medical demand, issuing national policies to improve medical use of narcotic drugs, supporting educational programmes and examining their health-care systems and laws and regulations for impediments, or are planning to do so.

45. Governments reported a number of problems with the availability of narcotic drugs that must be dealt with. Those problems included lack of availability of drugs recommended by WHO, such as oral morphine, in many countries and particularly in hospitals with cancer programmes; insufficient importation; periodic shortages; problems with estimating future medical needs; and national narcotic laws that did not ensure medical availability of narcotic drugs and restricted availability. Although 36 governments reported having examined their health-care systems and laws and regulations for impediments to availability, they represented only 17 per cent of the governments in the world. Those that did so identified numerous impediments, most of which were linked not only to concerns about drug addiction, drug diversion and restrictive national laws, but also to insufficient import or manufacture, as well as problems in national health-care delivery systems, including insufficient training, personnel and facilities and the cost of medication.

46. The Board notes that most governments in the world did not respond to its questionnaire; thus, the Board did not have sufficient information concerning approximately one half of the world's population. Among those governments that did not respond were most of the developing and least developed countries, as well as those governments that had frequently failed to submit annual estimates of narcotic drug requirements as required by the 1961 Convention. The Board is cognizant that less developed countries have more difficulty meeting basic health-care needs. Nevertheless, the Board encourages governments of such countries to make efforts to examine their medical needs for narcotic drugs as well as the impediments to their availability, to advise the Board of the results of those efforts and to inform the Board if it can be of assistance. The governments that did not respond included a number of developed countries that the Board believes should also concentrate their attention on identifying unmet medical needs.

47. The Board concludes that the recommendations contained in its 1989 special report are far from being implemented and that, while there have been efforts by some governments to ensure the availability of narcotic drugs for medical and scientific purposes, it appears that many others have yet to focus on that obligation.

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[5] International Narcotics Control Board. *Report of the International Narcotics Control Board for 1995: Availability of Opiates for Medical Needs*. Vienna, Austria: United Nations; 1996. *Available at* http://www.incb.org/e/ar/1995/suppl1en.pdf

48. The Board believes that an efficient national drug control regime must involve not only a programme to prevent illicit trafficking and diversion, but also a programme to ensure the adequate availability of narcotic drugs for medical and scientific purposes. A national drug control programme should have legislative authority reflecting the provisions of the 1961 Convention, delegation of responsibility for implementation, including administrative responsibility for managing import and export licences, estimating medical requirements, reporting required statistics and supervising adequate controls over distribution. Controls over the professionals and medical facilities that distribute narcotic drugs should ensure accountability and prevent diversion while making narcotic drugs available to the patients who need them. Controls should not be such that for all practical purposes they eliminate the availability of narcotic drugs for medical purposes.

49. Therefore, bearing in mind the conditions prevailing in individual countries and the availability of resources, the Board concludes that if the recommendations below are implemented there will be significant additional progress towards ensuring adequate availability of narcotic drugs for me scientific purposes. The Board will continue its examination of the situation and will monitor responses to its recommendations.

50. The Board will:

(a) Increase monitoring of annual estimates submitted by Governments and initiate dialogue as necessary to identify unmet needs and ensure that annual estimates of requirements for narcotic drugs are neither overestimated nor underestimated;

(b) Continue to ensure expeditious confirmation of supplementary estimates submitted by Governments to assist them in coping with unforeseeable needs;

(c) Encourage Governments to use information from a variety of sources to improve their capability to estimate foreseeable medical needs for narcotics drugs;

(d) Encourage Governments to develop drug distribution systems that are well controlled and that will ensure availability of narcotic drugs to patients in medical facilities and in the community;

(e) Convene seminars in selected regions or areas for government narcotic control authorities and health-care representatives to facilitate the exchange of information about legal requirements, unmet medical needs, methods of estimating future needs, and ways to improve the availability of narcotic drugs for medical needs;

(f) Review on a regular basis national and international developments relevant to improving the availability of narcotic drugs for medical purposes, incorporating updated information and observations into its annual report;

(g) Re-evaluate in the year 2000 the world situation and the progress of Governments and other organizations in implementing the recommendations below, issuing new findings, conclusions and recommendations.

A. Recommendations for consideration by Governments

51. Governments are invited to consider the following recommendations:

(a) Governments that have not done so should determine whether there are undue restrictions in national narcotics laws, regulations or administrative policies that impede prescribing, dispensing or needed medical treatment of patients with narcotic drugs, or their availability and distribution for such purposes, and should make the necessary adjustments;

(b) Governments that have not done so should, in response to the recommendations contained in the 1989 special report of the Board, critically examine their methods for assessing medical needs for narcotic drugs and should make suitable arrangements for ensuring their availability;

(c) Governments should establish a system to collect information from medical facilities that care for surgical, cancer and other patients, from organizations that are working to improve the rational use of narcotic drugs and from manufacturers, distributors, exporters and importers and should establish groups of knowledgeable individuals to assist in obtaining information about changing medical needs;

(d) Governments should add to their annual estimates of requirements for narcotic drugs a margin of 10 per cent to allow for the possibility of increased consumption from such general causes as population growth, evolution of health services and trends in the incidence of diseases and their treatment and, if need be, should add an even greater margin in countries or territories where there is rapid economic and social development or rapid expansion of the medical use of drugs, including the introduction of new formulations or drugs;

(e) Governments that experience interruptions in supply of narcotic drugs because of delays in importation or for other reasons should examine the situation and develop a system to accomplish in a timely manner the steps involved, such as issuing licences, arranging for payment, carrying out paperwork, transporting the drugs, taking the drugs through customs and distributing the drugs to medical facilities;

(f) Governments should determine whether their national narcotic laws contain elements of the 1961 Convention and the 1972 Protocol that take into account the fact that the medical use of narcotic drugs continues to be indispensable for the relief of pain and suffering and the fact that adequate provision must be made to ensure the availability of narcotic drugs for such purposes and to ensure that administrative responsibility has been established and that personnel are available for the implementation of those laws;

(g) Governments should inform health professionals about the WHO analgesic method for cancer pain relief;

(h) Governments should communicate with health professionals about the legal requirements for prescribing and dispensing narcotic drugs and should provide an opportunity to discuss mutual concerns;

(i) Governments should inform the Board about progress and needs concerning implementation of the present recommendations;

(j) Governments that did not reply to the 1995 questionnaire of the Board should do so.

B. Recommendations for consideration by the United Nations International Drug Control Programme

52. The following recommendations are for consideration by the United Nations International Drug Control Programme (UNDCP):

(a) The UNDCP model national legislation on the control of narcotic drugs should contain provisions that recognize the obligation to ensure the availability of narcotic drugs for medical and scientific purposes;

(b) The UNDCP national drug control master plan should include policies, strategies and administrative measures for accomplishing the responsibilities associated with the obligation to ensure the availability of narcotic drugs for medical and scientific purposes;

(c) UNDCP should assist Governments in improving legislation and administrative capabilities to implement the obligation to ensure the availability of narcotic drugs for medical and scientific purposes;

(d) UNDCP should review situations where lack of resources prevents a Government from ensuring the availability of narcotic drugs for medical and scientific purposes and should identify sources of assistance.

C. Recommendations for consideration by the Commission on Narcotic Drugs

53. The Commission on Narcotic Drugs should call on Member States to give full consideration to the present special report and the recommendations contained in it, in the light of the following:

(a) The worldwide extent of unrelieved pain and suffering associated with diseases such as cancer and AIDS;

(b) The relatively recent medical advances that make pain relief possible;

(c) The fact that morphine and other narcotic analgesics must be available to provide such relief;

(d) The fact that there continues to be unmet medical needs for narcotic drugs particularly but not only in less developed countries;

(e) The obligation of parties to the 1961 Convention or to that Convention as amended by the 1972 Protocol to ensure the availability of narcotic drugs for medical and scientific purposes.

D. Recommendations for consideration by the World Health Organization

54. WHO is encouraged to consider the following recommendations:

(a) WHO should expand its efforts to provide Governments with information about its analgesic method for the relief of cancer pain and to educate the public, health professionals and policy makers about the rational medical use of narcotic drugs, including the analgesic method for the relief of cancer pain;

(b) WHO should continue to inform the public, health professionals, competent authorities and policy makers about the correct definition of terms regarding dependence, as well as their significance or lack of significance when narcotic analgesics are used to treat cancer pain under medical supervision;

(c) WHO should, in cooperation with the Board, assist Governments in developing adequately controlled drug distribution systems that are capable of providing narcotic drugs to patients in hospitals and in the community;

(d) WHO should encourage health-care organizations to communicate with national narcotic control authorities about the rational use of narcotic drugs, legal requirements, unmet medical needs and impediments to availability;

(e) WHO should expand its efforts to develop methods that can be used by governmental and non-governmental organizations to identify impediments to the appropriate medical availability of narcotic drugs;

(f) WHO should continue to evaluate whether national essential drug lists and formularies contain the narcotic drugs that are needed for cancer pain relief;

(g) WHO should inquire into the extent to which and the reasons why non-narcotic drugs are used in lieu of narcotic drugs for the treatment of severe pain, including the medical and regulatory factors behind that approach.

E. Recommendations for consideration by international and regional drug control, health and humanitarian organizations

55. International and regional drug control, health and humanitarian organizations are encouraged to consider the following recommendation: international and regional organizations that assist Governments with drug control, health and humanitarian aid should consider ways in which they can promote the WHO analgesic method for the relief of pain and support making narcotic analgesics available under adequate control.

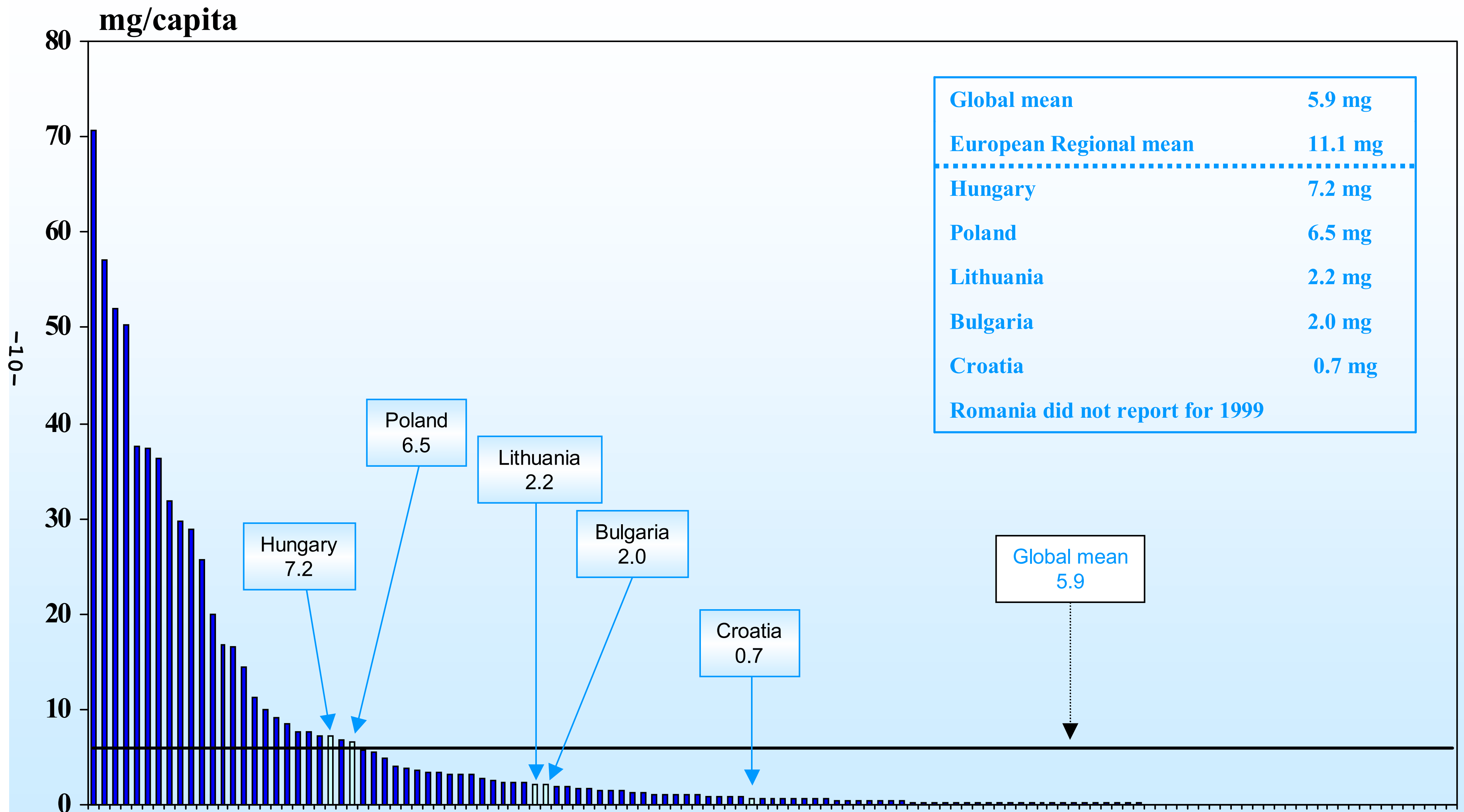
F. Recommendations for consideration by educational institutions and non-governmental health-care organizations, including the International Association for the Study of Pain and other health-care representatives

56. Educational institutions and non-governmental health-care organizations are encouraged to consider the following recommendations:

(a) Educational institutions and non-governmental health-care organizations, including the International Association for the Study of Pain and other health-care representatives, should teach students in health-care professions and licensed practitioners about the rational use of narcotic drugs, their adequate control and the correct use of terms related to dependence;

(b) Educational institutions and non-governmental health-care organizations, including the International Association for the Study of Pain and other health-care representatives, should establish ongoing communication with Governments about national requirements for the medical use of narcotic drugs, unmet needs for narcotic drugs and impediments to the availability of narcotic drugs for medical purposes.

Per Capita Global Consumption of Morphine, 1999



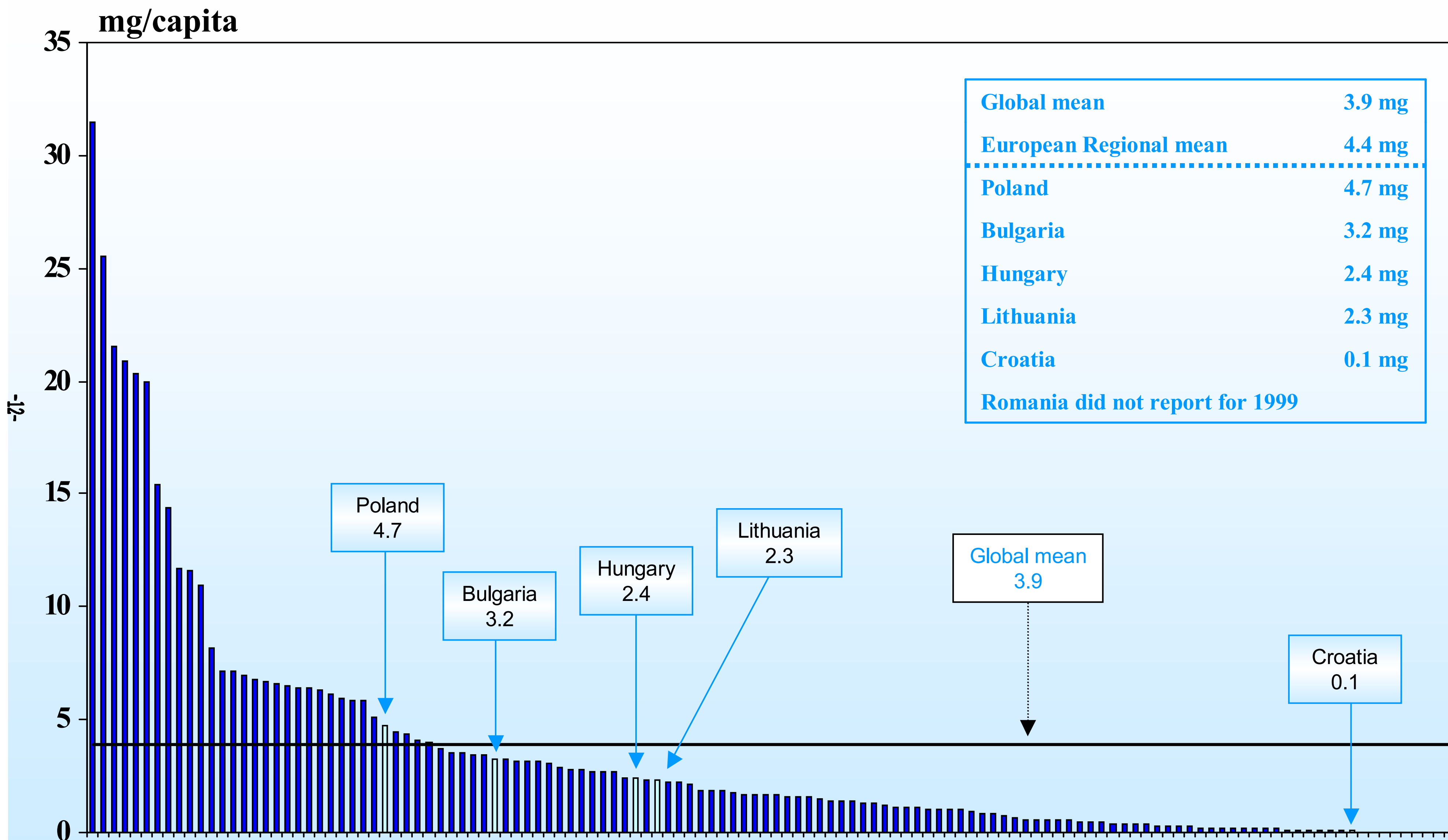
Source: International Narcotics Control Board; United Nations "Demographic Yearbook," 1999
By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2002

Morphine Consumption: Europe* and the World, 1999 (mg/capita)

Country	mg/capita
Falkland Islands	74.0000
Denmark	***70.7567***
Australia	57.0705
Canada	52.0475
Iceland	***50.2545***
New Zealand	37.6505
Sweden	***37.2499***
Austria	***36.3185***
France	***31.7967***
Norway	***29.7250***
United States of America	28.9582
Switzerland	***25.7126***
United Kingdom	***19.9868***
Kazakhstan	18.3779
Germany	***16.8477***
Ireland	***16.5869***
Israel	14.5262
Belgium	***11.3191***
Netherlands	***9.9081***
Slovenia	***9.0669***
Luxembourg	***8.4149***
Slovakia	***7.6669***
New Caledonia	7.6553
Finland	***7.5398***
Spain	***7.2408***
Hungary	***7.1883***
Japan	6.7843
Poland	***6.5055***
Namibia	5.6814
Czech Republic	***5.4825***
Republic of Palau	4.7895
Estonia	***3.9610***
Cayman Islands	3.8108
Hong Kong SAR	3.5837
Malta	***3.3990***
South Africa	3.3620
Form.Yug. Rep.of Macedonia	***3.2700***
Andorra	***3.0933***
Djibouti	3.0843
Portugal	***2.6719***
Cuba	2.5746
Italy	***2.3543***
Cyprus	***2.2935***
Costa Rica	2.2502
Lithuania	***2.1614***
Bulgaria	***2.0328***
Chile	1.9670
Jamaica	1.9531
Barbados	1.7903
Brazil	1.7769
Georgia	1.5566
Seychelles	1.4750
Argentina	1.4729
Belarus	***1.3208***
Colombia	1.2733
Republic of Korea	1.1849
Bahamas	1.1595
Lebanon	1.0343
Tunisia	1.0121
Singapore	1.0110
Aruba	0.9894
Latvia	***0.9807***
Netherlands Antilles	0.9488
Grenada	0.8602
Malaysia	0.8440
Fiji	0.7680
Croatia	***0.7398***
Greece	***0.6899***
Saint Vincent & the Grenadines	0.6696
Bahrain	0.6261
Macao	0.6244
Albania	***0.6200***
Oman	0.5557
Saint Kitts and Nevis	0.5385
Russian Federation	***0.5191***
Armenia	0.5036
Republic of Moldova	***0.4306***
Panama	0.4279
Sierra Leone	0.4240
Saudi Arabia	0.4169
United Arab Emirates	0.3824
Dominican Republic	0.3434
Turkey	***0.3407***
Cook Islands	0.3158
Sri Lanka	0.3064
Suriname	0.2892
Thailand	0.2868
Tonga	0.2857
Samoa	0.2485
Qatar	0.2479
Brunei Darussalam	0.2447
Mauritius	0.2240
Iran (Islamic Republic of)	0.2025
Paraguay	0.2001
Turks and Caicos Islands	0.1875
Kuwait	0.1846
Peru	0.1741
Egypt	0.1625
Antigua and Barbuda	0.1493
Mexico	0.1437
Botswana	0.1353
Mongolia	0.1282
Jordan	0.1223
Morocco	0.1158
China	0.1102
Syrian Arab Republic	0.1059
Nicaragua	0.0972
Zambia	0.0961
India	0.0884
Yugoslavia	***0.0715***
Wallis and Futuna Islands	0.0714
Kyrgyzstan	0.0711
Iraq	0.0696
Myanmar	0.0521
Uzbekistan	0.0519
Rwanda	0.0510
Dominica	0.0423
Algeria	0.0392
Honduras	0.0377
Bolivia	0.0232
Pakistan	0.0223
Vanuatu	0.0215
Nepal	0.0150
Libyan Arab Jamahiriya	0.0132
Guatemala	0.0087
Uganda	0.0083
Guyana	0.0082
Cape Verde	0.0072
Cambodia	0.0056
Indonesia	0.0054
Eritrea	0.0051
Niger	0.0048
Madagascar	0.0045
Dem. Rep. of the Congo	0.0033
United Republic of Tanzania	0.0014

**** European countries are indicated in bold and italics***

Per Capita Global Consumption of Pethidine, 1999



Source: International Narcotics Control Board; United Nations "Demographic Yearbook," 1999
By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2002

Pethidine Consumption: Europe* and the World, 1999 (mg/capita)

Country	mg/capita
Cayman Islands	37.4865
Canada	31.4393
United States of America	25.5606
Bahamas	21.4950
Israel	20.9161
Barbados	20.3408
Denmark	***19.9604***
Australia	15.4114
Ireland	***14.4224***
Switzerland	***11.7401***
New Zealand	11.6492
Czech Republic	***10.9501***
Falkland Islands	10.5000
Antigua and Barbuda	8.1493
Saint Vincent & the Grenadines	7.1071
Cook Islands	7.1053
Namibia	6.9717
Saint Kitts and Nevis	6.7692
United Kingdom	***6.6388***
Iceland	***6.5591***
Netherlands Antilles	6.4744
Mauritius	6.4361
Seychelles	6.4000
Norway	***6.2801***
Estonia	***6.1593***
Bahrain	5.9850
Malta	***5.8627***
Dominica	5.8169
Aruba	5.1277
South Africa	5.0839
Poland	***4.7343***
Kuwait	4.4822
Grenada	4.3871
Samoa	4.0592
Singapore	4.0344
Guyana	3.7427
Oman	3.5577
Slovakia	***3.5451***
Jamaica	3.5156
Netherlands	***3.3968***
Qatar	3.3956
Bulgaria	***3.2143***
Djibouti	3.2035
Greece	***3.1928***
Cyprus	***3.1620***
Hong Kong SAR	3.1581
Panama	3.0498
Jordan	2.8633
Brazil	2.7893
Turks and Caicos Islands	2.7500
Germany	***2.6862***
Macao	2.6682
Malaysia	2.6531
Republic of Korea	2.4322
Hungary	***2.4056***
Brunei Darussalam	2.3263
Lithuania	***2.3036***
Fiji	2.2333
Spain	***2.2071***
Portugal	***2.1453***
Cuba	1.8884
Turkey	***1.8730***
Zambia	1.8161
Austria	***1.7536***
Belgium	***1.7058***
China	1.6965
Paraguay	1.6916
Libyan Arab Jamahiriya	1.6595
Lebanon	1.6177
New Caledonia	1.6019
Syrian Arab Republic	1.5532
Sri Lanka	1.4908
Sweden	***1.3952***
Saudi Arabia	1.3820
Tonga	1.3776
Suriname	1.3060
France	***1.2569***
United Arab Emirates	1.2269
Albania	***1.1173***
Slovenia	***1.1166***
Guatemala	1.0854
Thailand	1.0675
Luxembourg	***1.0233***
Cape Verde	1.0215
Chile	1.0105
Vanuatu	0.9624
Andorra	***0.8800***
Finland	***0.8149***
Iran (Islamic Republic of)	0.7638
Argentina	0.6778
Iraq	0.5971
Uganda	0.5550
Peru	0.5503
Colombia	0.5313
Tunisia	0.5127
Costa Rica	0.5060
Egypt	0.4519
Viet Nam	0.4447
Honduras	0.3915
Morocco	0.3861
Italy	***0.3662***
Japan	0.3603
Nepal	0.2991
Yugoslavia	***0.2879***
United Republic of Tanzania	0.2501
Lao Peop. Dem. Rep.	0.2464
Venezuela	0.2018
Dominican Republic	0.1940
India	0.1837
Nicaragua	0.1805
Indonesia	0.1746
Eritrea	0.1745
Pakistan	0.1487
Latvia	***0.1468***
Rwanda	0.1326
Algeria	0.1151
Philippines	0.1088
Botswana	0.0857
Benin	0.0830
Sao Tome and Principe	0.0764
Croatia	***0.0762***
Georgia	0.0350
Madagascar	0.0247
Guinea-Bissau	0.0211
Dem. Rep. of the Congo	0.0205
Myanmar	0.0136
Cambodia	0.0043
Niger	0.0019
Bolivia	0.0011
Ecuador	0.0002

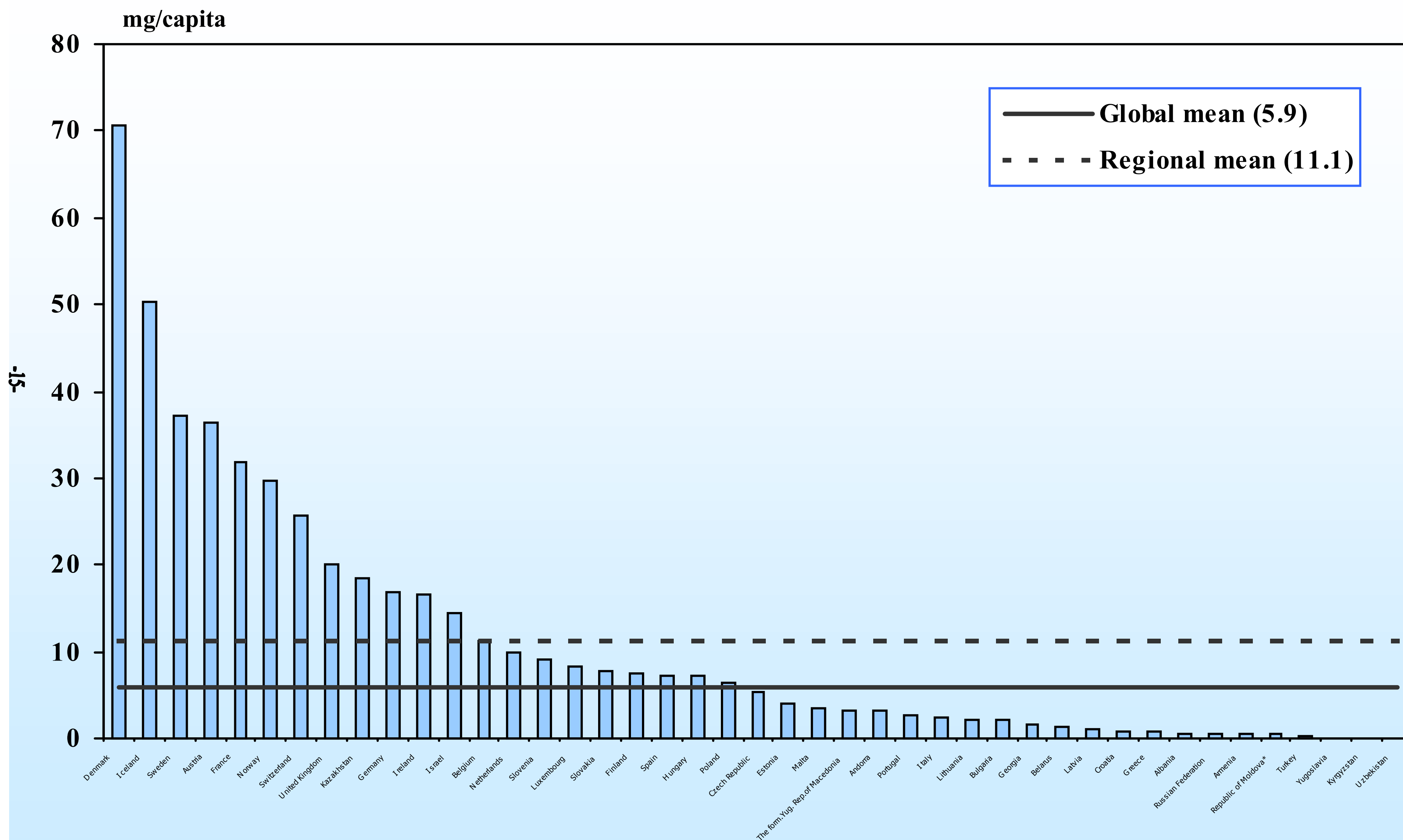
** European countries are indicated in bold and italics*

Consumption of Selected Opioid Analgesics, 1999 (mg/capita)

	Fentanyl	Methadone	Morphine	Oxycodone	Pethidine
Global mean	0.1	6.9	5.9	3.1	3.9
Europe Regional mean	0.1	9.3	11.1	1.7	4.4
France	0.2	2.7	31.8	0.1	1.3
Germany	0.4	9.3	16.8	1.8	2.7
Italy	0.0	12.9	2.4	6.0	0.4
Switzerland	0.2	43.4	25.7	?	11.7
United Kingdom	0.3	11.1	20.0	0.1	6.6
Bulgaria	0.0	0.8	2.0	?	3.2
Croatia	0.0	?	0.7	0.0	0.1
Hungary	0.1	0.2	7.2	0.0	2.4
Lithuania	0.0	2.3	2.2	?	2.3
Poland	0.0	0.2	6.5	0.0	4.7
Romania	?	?	?	?	?

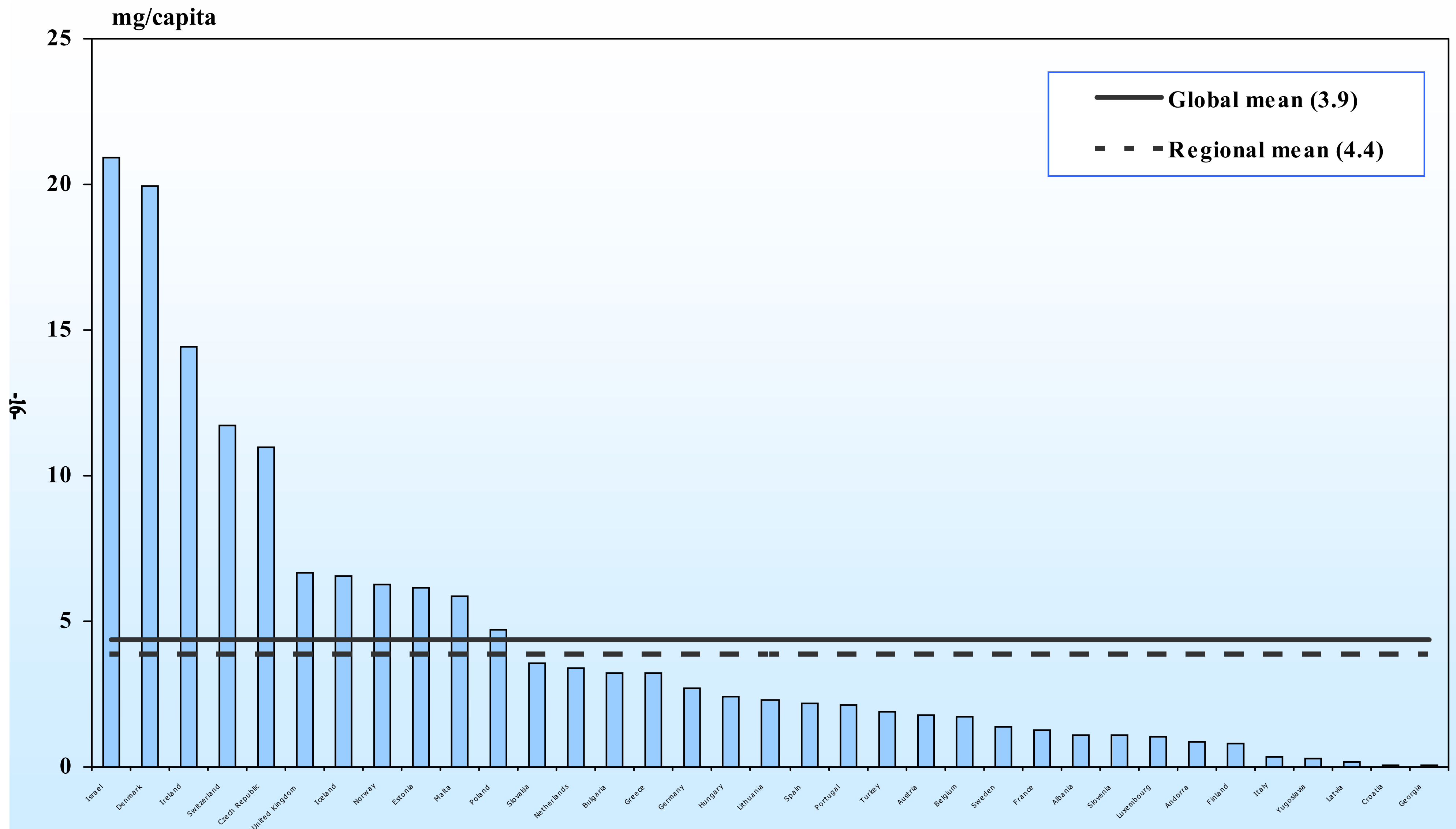
Source: International Narcotics Control Board; United Nations "Demographic Yearbook," 1999
By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2002

Per Capita Consumption of Morphine: Europe
1999

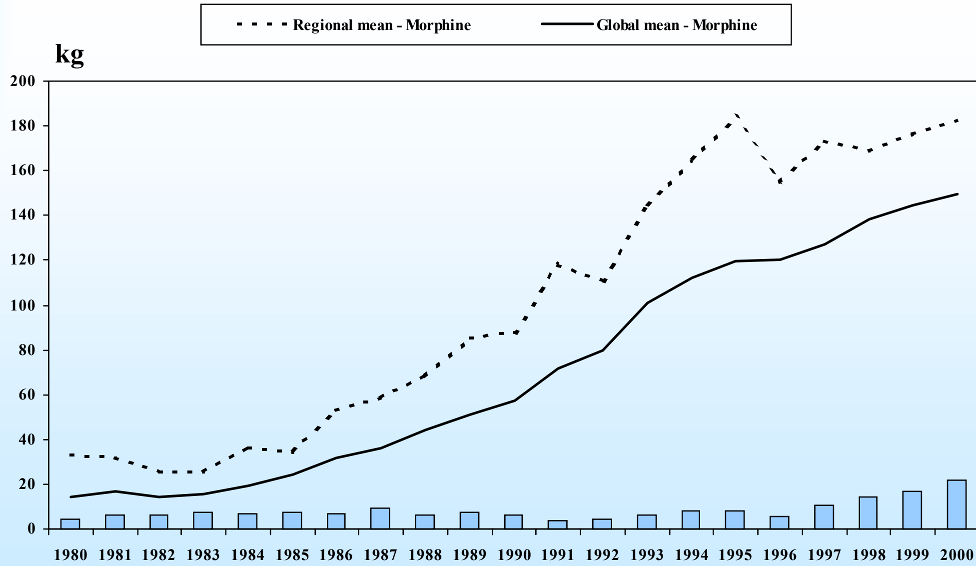


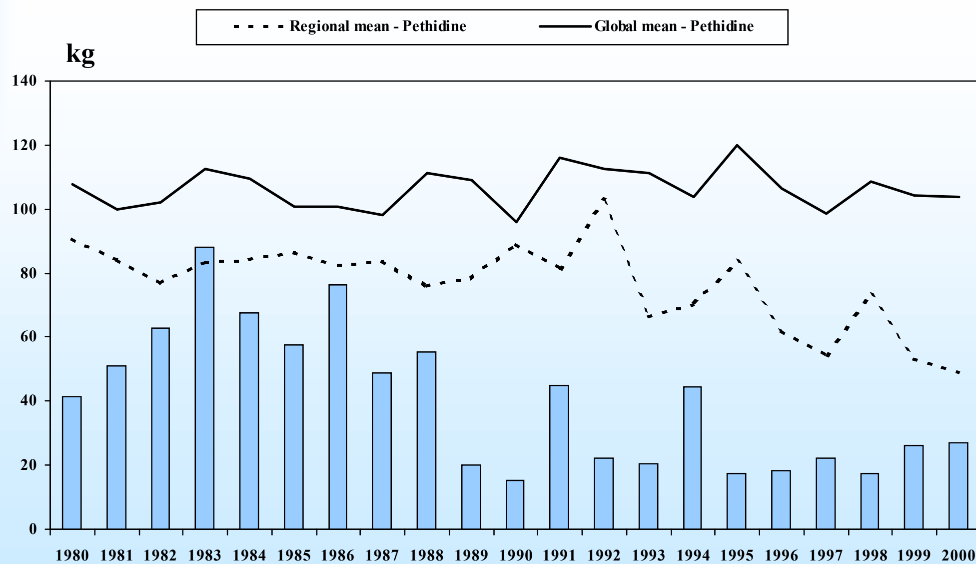
Source: International Narcotics Control Board; United Nations “Demographic Yearbook,” 1999
By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2002

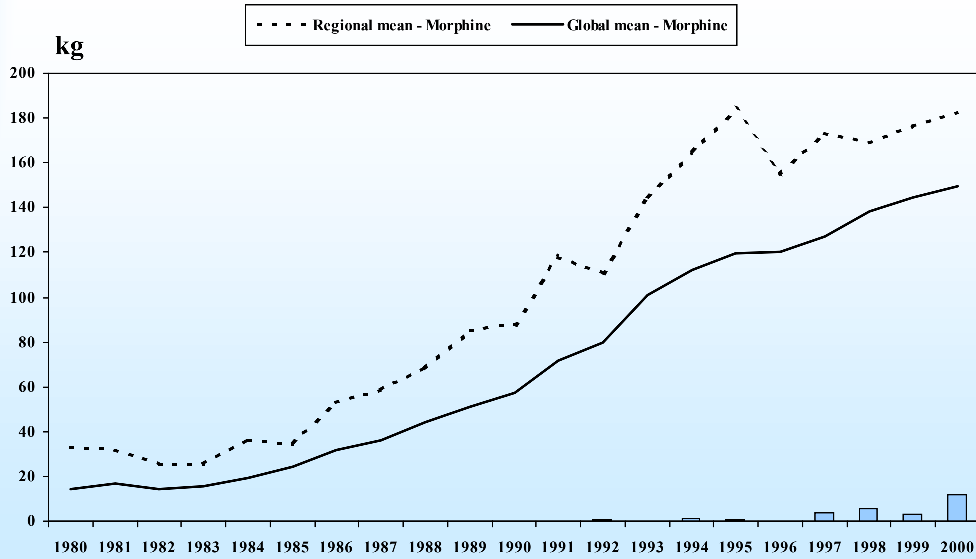
Per Capita Consumption of Pethidine: Europe 1999

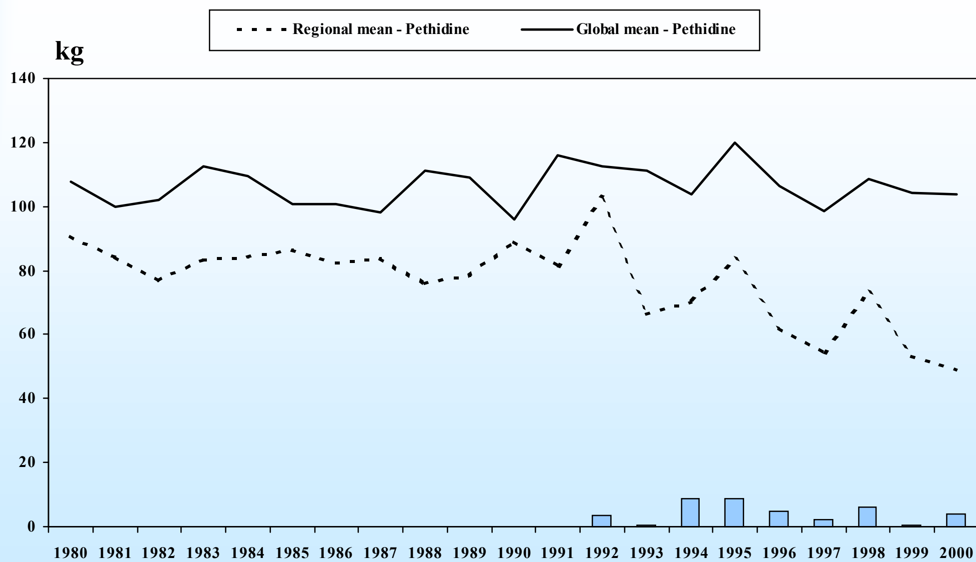


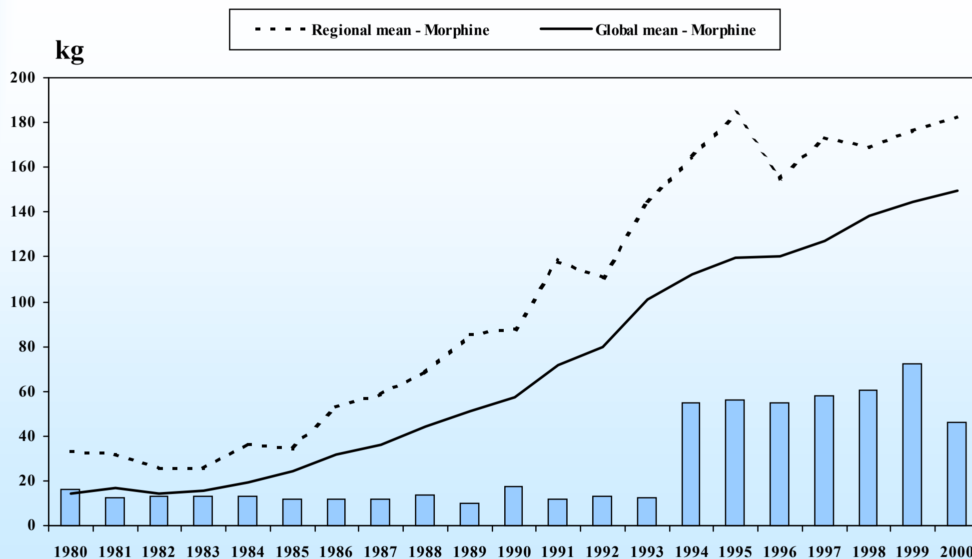
Source: International Narcotics Control Board; United Nations "Demographic Yearbook," 1999
By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2002

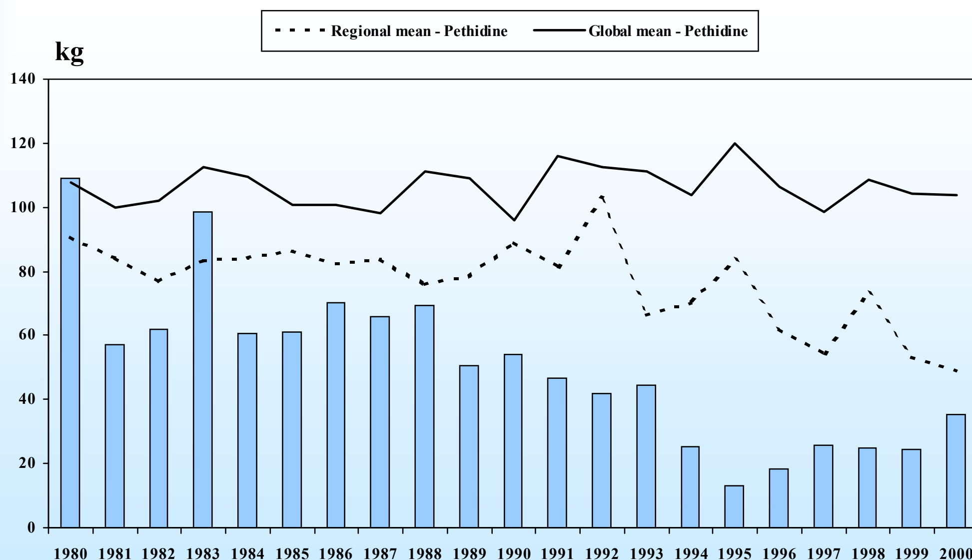

Total Consumption of Morphine in
BULGARIA
1980 - 2000
Regional mean - Morphine
Global mean - Morphine
kg
200
180
160
140
120
100
80
60
40
20
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

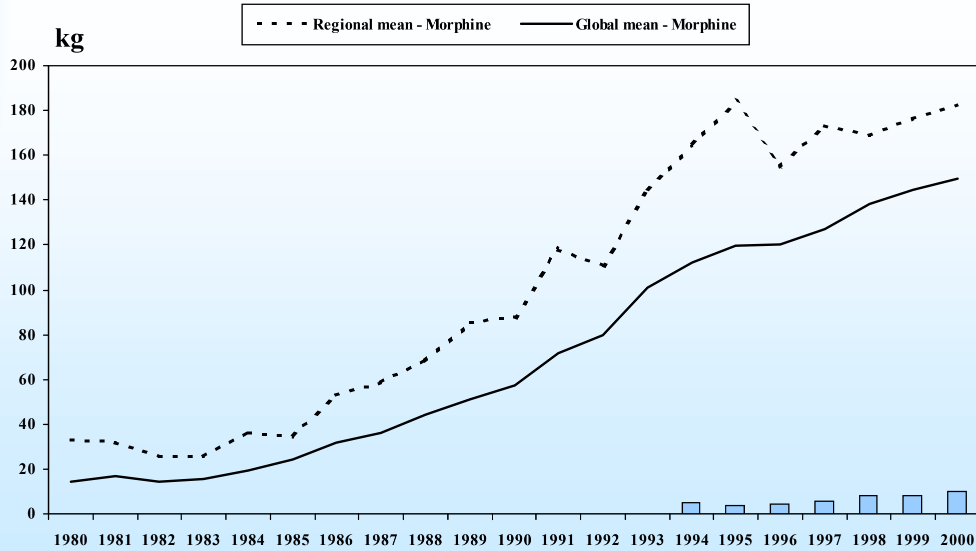

Total Consumption of Pethidine in
BULGARIA
1980 - 2000
Regional mean - Pethidine
Global mean - Pethidine
kg
140
120
100
80
60
40
20
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

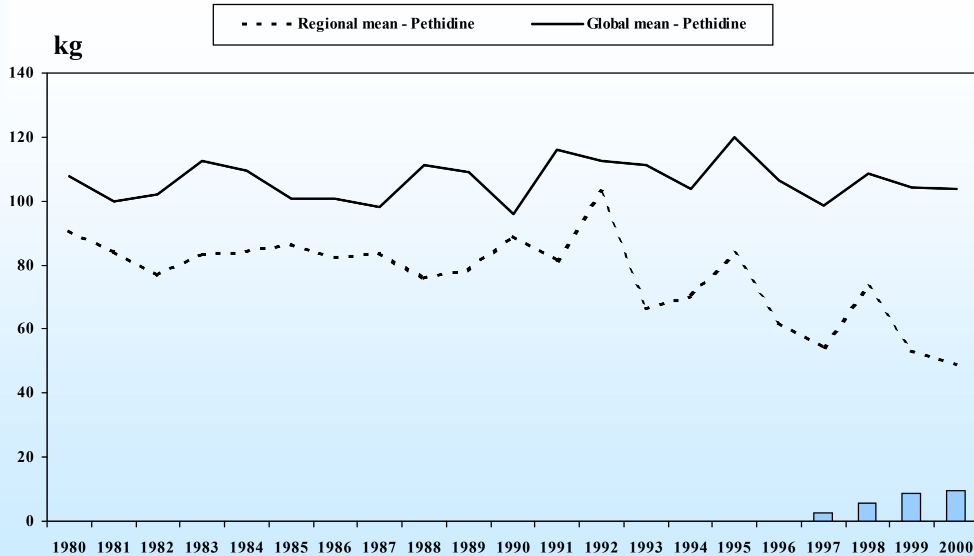

Total Consumption of Morphine in
CROATIA
1980 - 2000
Regional mean - Morphine
Global mean - Morphine
kg
200
180
160
140
120
100
80
60
40
20
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

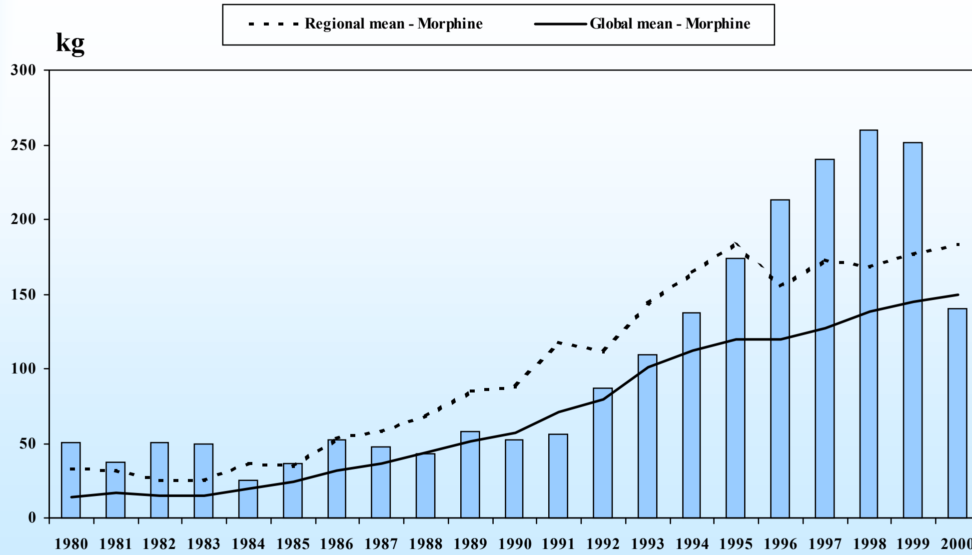

Total Consumption of Pethidine in
CROATIA
1980 - 2000
Regional mean - Pethidine
Global mean - Pethidine
kg
140
120
100
80
60
40
20
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

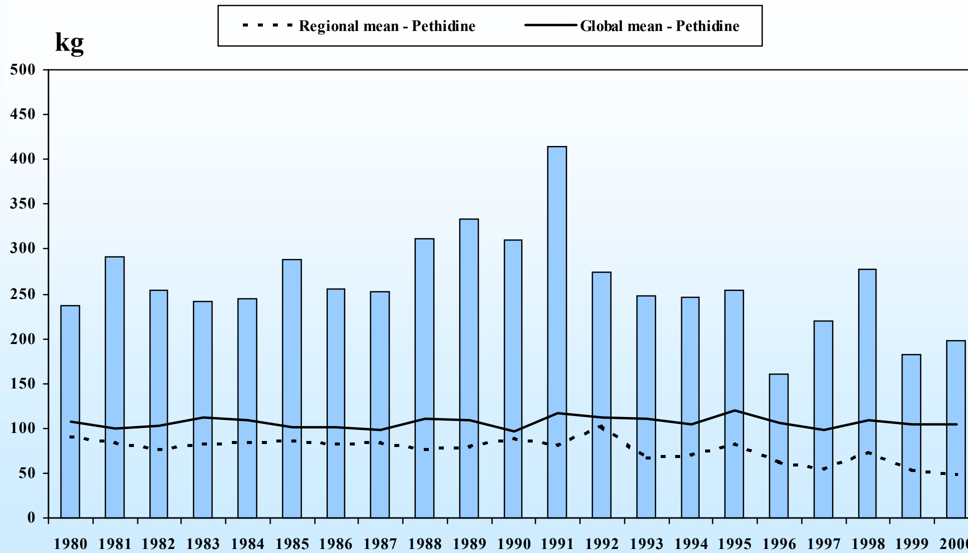

Total Consumption of Morphine in
HUNGARY
1980 - 2000
Regional mean - Morphine
Global mean - Morphine
kg
200
180
160
140
120
100
80
60
40
20
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

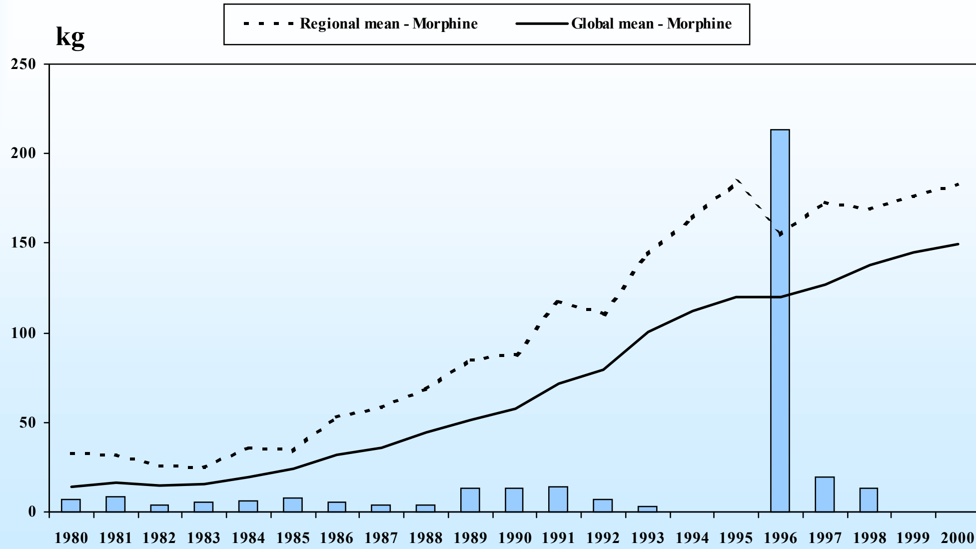

Total Consumption of Pethidine in
HUNGARY
1980 - 2000
Regional mean - Pethidine
Global mean - Pethidine
kg
140
120
100
80
60
40
20
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

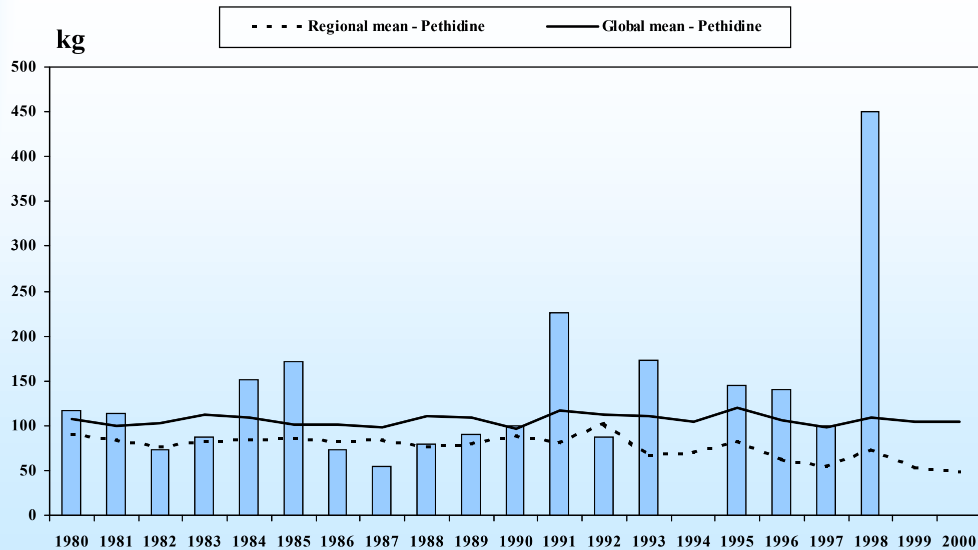

Total Consumption of Morphine in
LITHUANIA
1980 - 2000
Regional mean - Morphine
Global mean - Morphine
kg
200
180
160
140
120
100
80
60
40
20
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000


Total Consumption of Pethidine in
LITHUANIA
1980 - 2000
Regional mean - Pethidine
Global mean - Pethidine
kg
140
120
100
80
60
40
20
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000


Total Consumption of Morphine in
POLAND
1980 - 2000
Regional mean - Morphine
Global mean - Morphine
kg
300
250
200
150
100
50
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000


Total Consumption of Pethidine in
POLAND
1980 – 2000
Regional mean - Pethidine
Global mean - Pethidine
kg
500
450
400
350
300
250
200
150
100
50
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000


Total Consumption of Morphine in
ROMANIA
1980 - 2000
Regional mean - Morphine
Global mean - Morphine
kg
250
200
150
100
50
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000


Total Consumption of Pethidine in
ROMANIA
1980 - 2000
Regional mean - Pethidine
Global mean - Pethidine
kg
500
450
400
350
300
250
200
150
100
50
0
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

Status of Adherence to Conventions, Receipt of Statistics, and Estimates

	Adherence			
	Single Convention 1961	As amended 1961/72	Consumption Statistics for 1999	Estimated requirements for 2001
Bulgaria	●	●	●	●
Croatia	●	●	?	?
Hungary	●	●	●	●
Lithuania	●	●	●	●
Poland	●	●	●	●
Romania	●	●	?	?

Source: International Narcotics Control Board, Narcotic Drugs, Estimated World Requirements for 2001, Statistics for 1999

By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2002

Estimated requirements for selected opioids, 2001 and 2002 (in grams)

Country & Population	Year	Fentanyl	Methadone	Morphine	Oxycodone	Pethidine
Bulgaria 8,208,000	**2001**	300	10,000	58,842	947	52,156
	2002	300	14,000	50,000	500	35,000
Croatia 4,554,000	**2001**	200	80,000	10,000	?	12,000
	2002	1800	120,000	10,000	?	12,000
Hungary 10,068,000	**2001**	1,750	519	9,958,000	1,689	189,889
	2002	1,850	10,000	5,770,000	3,000	53,000
Lithuania 3,699,000	**2001**	120	10,888	12,000	1,000	6,000
	2002	75	10,000	13,000	1,000	11,000
Poland 38,654,000	**2001**	3,000	30,000	1,205,014	3,000	324,951
	2002	3,000	30,000	1,200,014	2,000	300,000
Romania 22,458,000	**2001**	375	1875	22,500	?	375,000
	2002	188	938	11,250	?	187,500

Source: International Narcotics Control Board
Quarterly Supplement, International Narcotics Control Board Estimated World Requirements of Narcotic Drugs for 2001
Advance Copy, International Narcotics Control Board Estimated World Requirements of Narcotic Drugs for 2002
United Nations "Demographic Yearbook," 1999
By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2002

SECTION VII

COMPETENT NATIONAL AUTHORITIES UNDER THE INTERNATIONAL DRUG CONTROL TREATIES

BULGARIA
Department of Licensing and Control of
Drugs and Precursors
26, Janko Sakazov Blvd
1504 Sofia
Bulgaria

Phone: (359) 2-9817112
Fax: (359) 2-9813827

LITHUANIA
Narcotic Commission
State Medicine Control Agency
Ministry of Health
Gedimino av. 27
2600 Vilnius, Lithuania

Phone: (370) 2-616549
Fax: (370) 2-616549
Email: NK.VVKT@VVKT.LT

CROATIA
Pharmaceutical Services
Ministry of Health
Marcou Dracou
1475 Lefkosia (Nicosia)
Cyprus

Phone: (357) 2-309578
Fax: (357) 2-305802

POLAND
Pharmacy Department
Ministry of Health and Social Welfare
Ul. Miodowa 15
PL-00952 Warsaw, Poland

Phone: (48) 22-8262721
(48) 22-6349272
Fax: (48) 22-8314354
(48) 22-8315585

HUNGARY
Department of Narcotic Drugs
Ministry of Health
Arany János u. 6-8
H-1051 Budapest, Hungary

Phone: (36) 1-3325754
(36) 1-3123216
Fax: (36) 1-3117255

ROMANIA
Ministère de la santé
Direction pharmaceutique
Rue du Ministère 1-3
Sector 1
Bucarest, Roumanie

Phone: (40) 1-3104966
Fax: (40) 1-3104966

SECTION VIII

Bibliography

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Colleau SM. Special issue on the International Narcotics Control Board survey of governments. *Cancer Pain Release*. 1996;9(Supplement):1-4. *Available at* *http://www.medsch.wisc.edu/WHOcancerpain/eng/9_s/9_s.html*

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Rajagopal MR, Joranson DE, Gilson AM. Medical use, misuse and diversion of opioid analgesics in India. *Lancet*. 2001;358(9276):139-143. *Available at* *http://www.medsch.wisc.edu/painpolicy/publicat/01lancet/contents.htm*

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World Health Organization. *Achieving balance in national opioids control policy: Guidelines for assessment*. Geneva, Switzerland: WHO;2000. *Available at* *http://www.who.int/medicines/library/qsm/who-edm-qsm-2000-4/who-edm-qsm-2000-4.htm* *or* *http://www.medsch.wisc.edu/painpolicy/publicat/00whoabi/00whoabi.htm*

World Health Organization. *Cancer pain relief with a guide to opioid availability*. Second ed. Geneva, Switzerland: WHO;1996. *Available at* *http://www.medsch.wisc.edu/painpolicy/publicat/cprguid.htm*

Internet Resources

Pain & Policy Studies Group
http://www.medsch.wisc.edu/painpolicy/

Cancer Pain Release
http://www.medsch.wisc.edu/WHOcancerpain/

Sheffield Palliative Care Studies Group
http://www.shef.ac.uk/uni/academic/D-H/dsas/spcsg/

WHO Access to Medicines
www.who.int/m/topics/access_medicines/en/index.html

ECEPT – Eastern and Central Europe Palliative Care Task Force
http://free.med.pl/ecept/index.html

International Narcotics Control Board
http://www.incb.org/e/index.htm

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World Health Organization Collaborating Center
University of Wisconsin Comprehensive Cancer Center
406 Science Dr, Suite 202
Madison, WI 53711-1068
USA

Telephone: 1-608-263-7662
Fax: 1-608-263-0259

http://www.medsch.wisc.edu/painpolicy/
http://www.medsch.wisc.edu/WHOcancerpain/