

Cancer Care in Low-Resource Areas
Cancer Treatment, Palliative Care, and Survivorship Care
November 14th, 2016

Access to Pain Control Issues

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Website: <http://www.painpolicy.wisc.edu>

JUNE 18, 2012

Inside: The truth about gluten

Aziz Ansari on digital dating

TIME

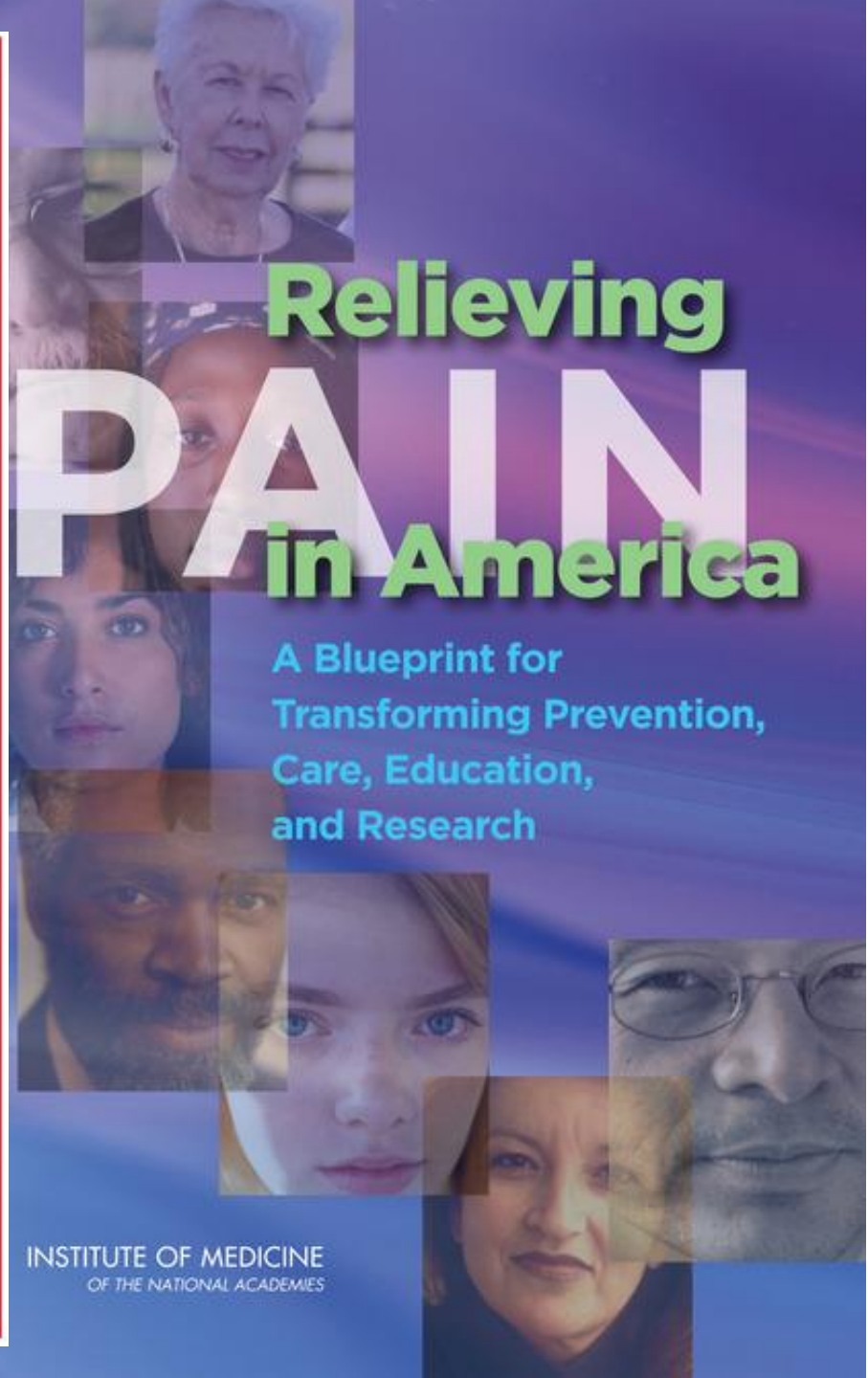
They're the most
**powerful
painkillers**
ever invented.

And they're creating
the worst addiction
crisis America
has ever seen.

By Massimo Calabresi



time.com



Relieving **PAIN** in America

A Blueprint for
Transforming Prevention,
Care, Education,
and Research

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

VIERA



Panasonic

New Opioids

- **Laudanum (opium in alcohol base)**
- **1811: Morphine**
 - Serturner, Morpheus:
 - Hypodermic needle: Civil War
- **1874: Heroin**
 - Wright (Bayer, 1898); cough

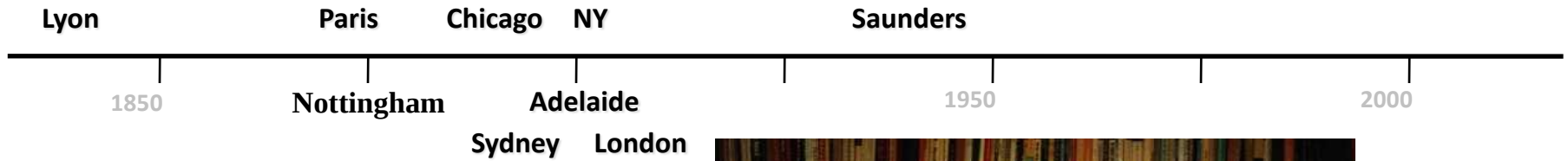


Addiction History

- Opioid addiction
 - 1900: Opium less problems than alcohol
 - Elderly white woman and civil war veterans
 - **1915: Harrison Act**
 - 1920: Dangerous Drug Act
 - 1938: **25,000 MDs** arraigned on narcotics charges
 - 3,000 served penitentiary sentences.
 - World War II
 - No addiction in civil society
 - US soldiers: morphine syrette
 - Medics had the needle.
 - Syrette clipped to lapel.



Cecily Saunders



Nurse
Social Worker
Physician

1957: St Joseph's Hospice

Documented use of regular morphine at St Luke's

St Christopher's Hospice



New Opioids

- Laudanum (opium in alcohol base)
- 1811: Morphine
 - Serturmer, Morpheus: Civil War veterans.
- 1874: Heroin
 - Wright (Bayer, 1898)
- 1916: Oxycodone (Germany)
- 1920: Hydrocodone
- 1932: Pethidine (Demerol)
 - Germany: Anti-spasmodic and analgesic
- 1938: Methadone (Germany)
 - Dolorphine: End Pain
- 1960: Fentanyl





**SINGLE CONVENTION
on
NARCOTIC DRUGS, 1961,**

**as amended by
the 1972 Protocol Amending the Single Convention
on Narcotic Drugs, 1961**

UNITED NATIONS

**Establishes a
Framework to:**

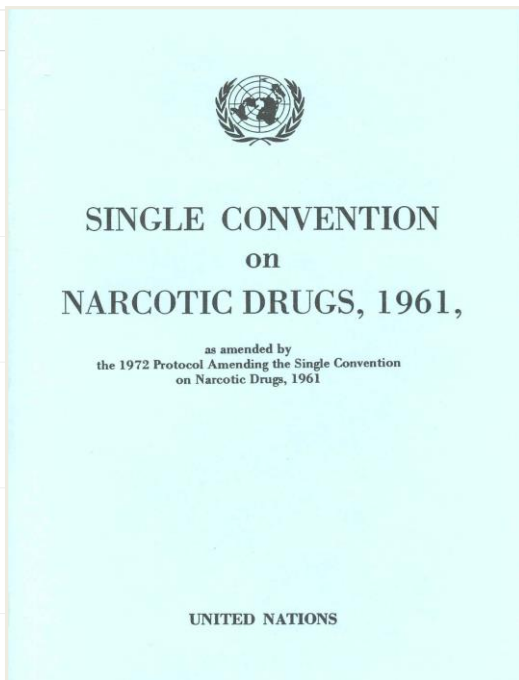
- 1. Prevent abuse and
diversion, *and***
- 2. Ensure the
availability of
drugs for medical
purposes**



Lin

Morphine Equivalence (mg/capita)

800
700
600
500
400
300
200
100
0



United States of America, 1964

Australia, 1964

Germany, 1964

1965 1970 1975 1980 1985 1990 1995 2000 2005 2010

Time

1964

“the medical use of narcotic drugs continues to be indispensable for the relief of pain and suffering... adequate provision must be made to ensure the availability of narcotic drugs for such purposes....

(Preamble, p. 13)

Essential Medicines

1st Edition

1977 WHO Model List

2.2 Opioid analgesics

Codeine

Tablet: 15 mg (phosphate); 30 mg (phosphate).

Morphine

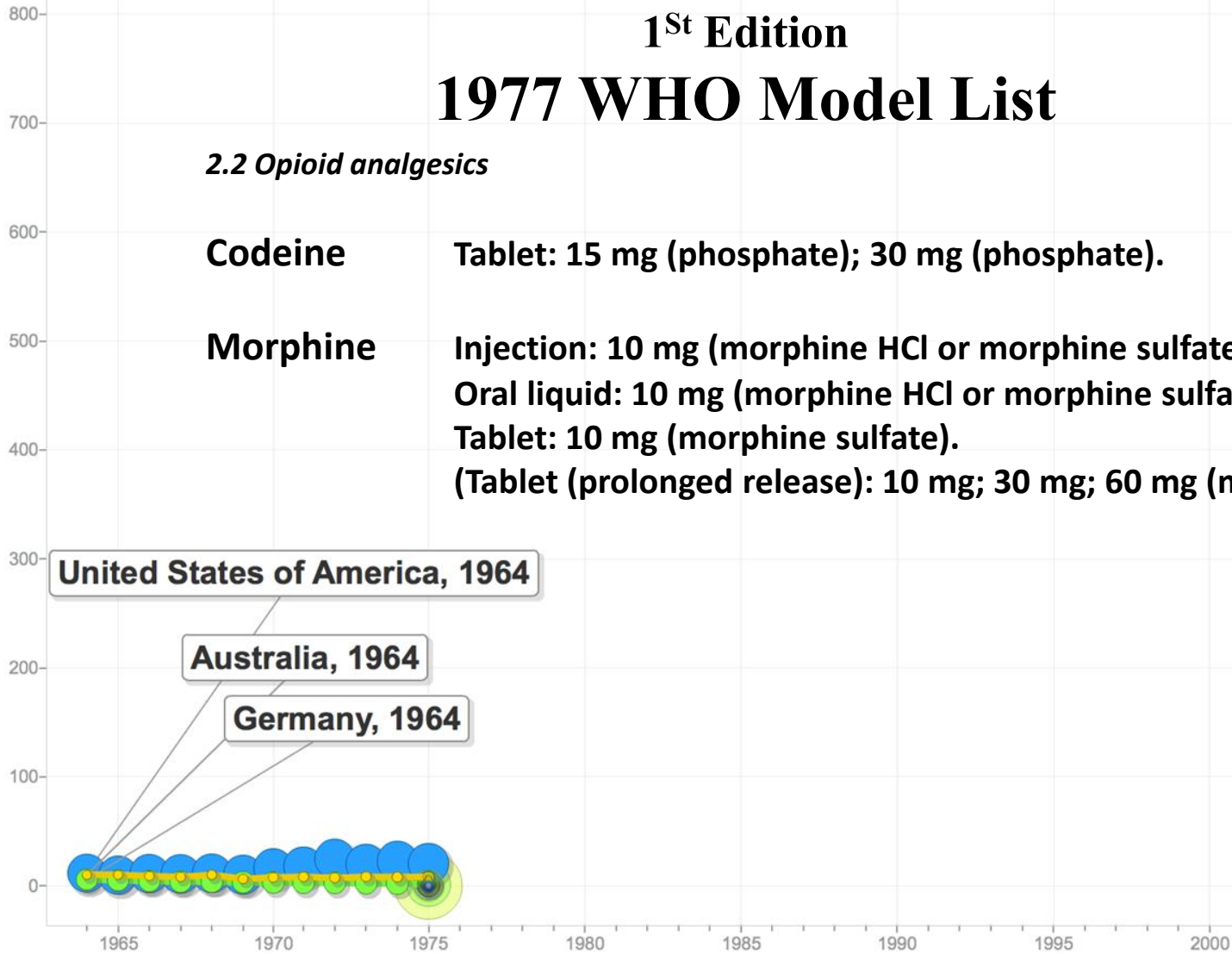
Injection: 10 mg (morphine HCl or morphine sulfate) in 1-ml ampoule.

Oral liquid: 10 mg (morphine HCl or morphine sulfate)/5 ml.

Tablet: 10 mg (morphine sulfate).

(Tablet (prolonged release): 10 mg; 30 mg; 60 mg (morphine sulfate))

Morphine Equivalence (mg/capita)

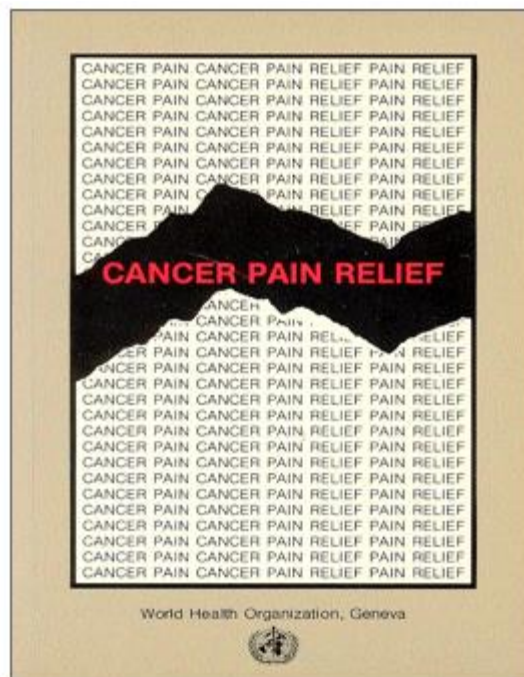
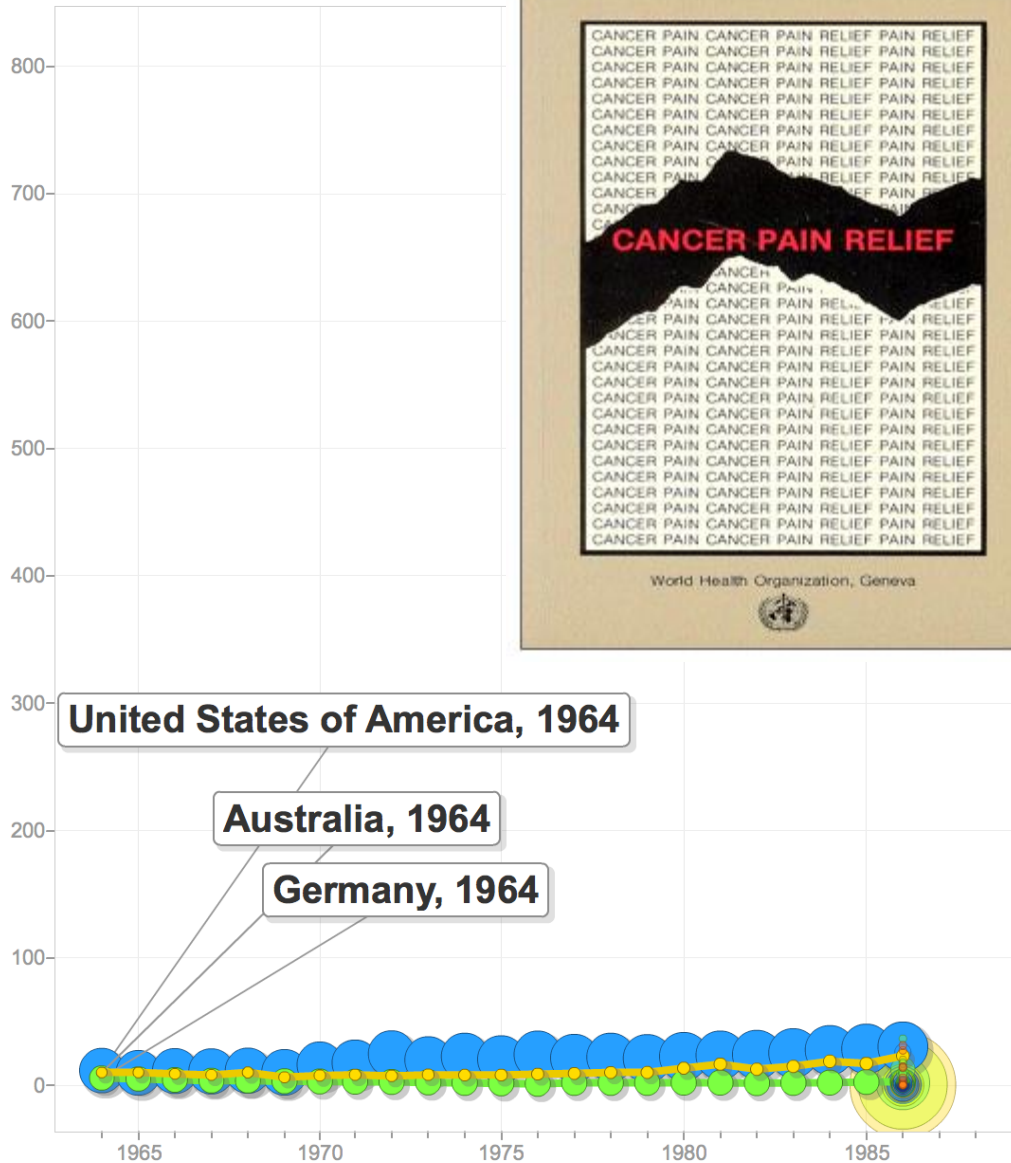


Time

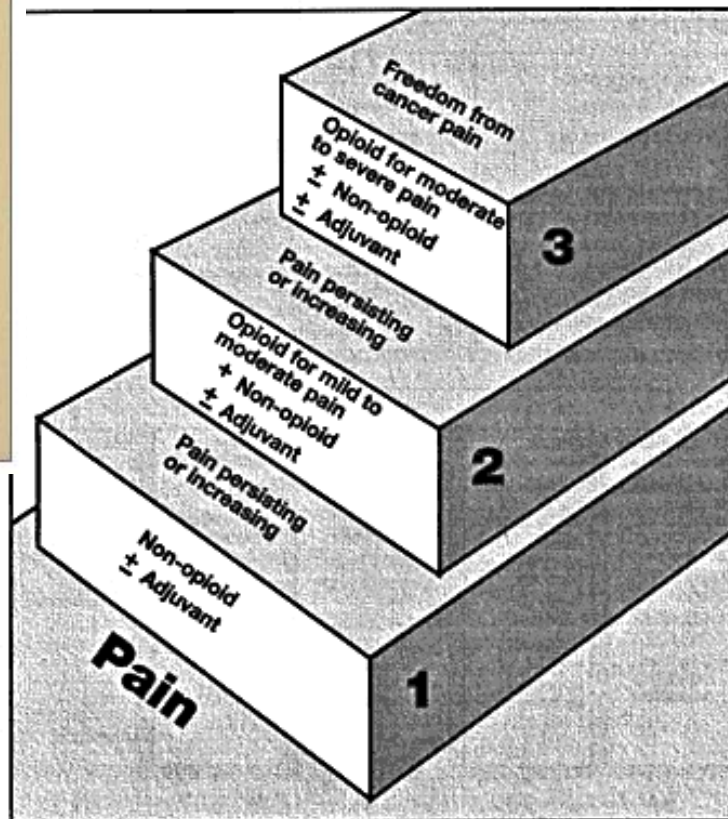
1975

Morphine Equivalence (mg/capita)

Lin



The WHO three-step analgesic ladder



Source: World Health Organization, 1990. Used with permission.

PAIN AND ITS TREATMENT IN OUTPATIENTS WITH METASTATIC CANCER

CHARLES S. CLEELAND, PH.D., RENÉ GONIN, PH.D., ALAN K. HATFIELD, M.D., JOHN H. EDMONSON, M.D.,
RONALD H. BLUM, M.D., JAMES A. STEWART, M.D., AND KISHAN J. PANDYA, M.D. 42%

Abstract *Background and Methods.* Pain is often inadequately treated in patients with cancer. A total of 1308 outpatients with metastatic cancer from 54 treatment locations affiliated with the Eastern Cooperative Oncology Group rated the severity of their pain during the preceding week, as well as the degree of pain-related functional impairment and the degree of relief provided by analgesic drugs. Their physicians attributed the pain to various factors, described its treatment, and estimated the impact of pain on the patients' ability to function. We assessed the adequacy of prescribed analgesic drugs using guidelines developed by the World Health Organization, studied the factors that influenced whether analgesia was adequate, and determined the effects of inadequate analgesia on the patients' perception of pain relief and functional status.

Results. Sixty-seven percent of the patients (871 of 1308) reported that they had had pain or had taken analgesic drugs daily during the week preceding the study, and 36 percent (475 of 1308) had pain severe enough

to impair their ability to function. Forty-two percent of those with pain (250 of the 597 patients for whom we had complete information) were not given adequate analgesic therapy. Patients seen at centers that treated predominantly minorities were three times more likely than those treated elsewhere to have inadequate pain management. A discrepancy between patient and physician in judging the severity of the patient's pain was predictive of inadequate pain management (odds ratio, 2.3). Other factors that predicted inadequate pain management included pain that physicians did not attribute to cancer (odds ratio, 1.9), better performance status (odds ratio, 1.8), age of 70 years or older (odds ratio, 2.4), and female sex (odds ratio, 1.5). Patients with less adequate analgesia reported less pain relief and greater pain-related impairment of function.

Conclusions. Despite published guidelines for pain management, many patients with cancer have considerable pain and receive inadequate analgesia. (N Engl J Med 1994;330:592-6.)

Black patients half as likely to receive pain medication as white patients, study finds

Findings show racial bias in emergency room prescriptions for 'non-definitive' pain, as advocates say lack of diversity in medical field may exacerbate situation

Amanda Holpuch in New York

[@holpuch](#)

Wednesday 10 August 2016 19.18 EDT



🕒 This article is 3 months old

🔗 Shares
1,523



📷 The researchers divided conditions from more than 60m records into two categories, with non-definitive ones – toothaches and abdominal and back pain – showing evidence of bias. Photograph: Toby Talbot/AP

Black patients are about half as likely to be prescribed opioid medicines in the emergency department than white patients, according to a new study.

The findings, [published on Monday in Plos One](#), are the latest to show that minorities are treated differently when it comes to pain management.

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African Americans With Cancer Pain Are More Likely to Receive an Analgesic With Toxic Metabolite Despite Clinical Risks: A Mediation Analysis Study

Salimah H. Meghani , Youjeong Kang, Jesse Chittams, Erin McMenamin, Jun J. Mao, Jeffrey Fudin

Salimah H. Meghani, Youjeong Kang, and Jesse Chittams, University of Pennsylvania; Erin McMenamin and Jun J. Mao, Perelman Center for Advanced Medicine, University of Pennsylvania, Philadelphia, PA; Jeffrey Fudin, University of Connecticut School of Pharmacy, Storrs, CT; and Jeffrey Fudin, Western New England University College of Pharmacy, Springfield, MA.

[Abstract](#)[Full Text](#)[PDF](#)

Abstract

Purpose

Renal impairment is highly prevalent among patients with cancer, and many patients have undiagnosed chronic kidney disease (CKD) from underlying disease, treatment, or both. African American individuals have disproportionate risk factors (diabetes, hypertension) predisposing them to CKD. We investigated whether African American patients are more likely than white patients to receive morphine with 3- and 6-glucuronide metabolites, which are known to be neurotoxic and accumulate in CKD.

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OPTIONS & TOOLS

[!\[\]\(1f06d1638b7bf9105e482fb4fdb05a2f_img.jpg\) Export Citation](#)[!\[\]\(7c9c5ce8bcacfadbf2cd1b5c92244649_img.jpg\) Track Citation](#)[!\[\]\(d6c8b4dd2ad7542c769a53846575550e_img.jpg\) Add To Favorites](#)[!\[\]\(d1f70f1feee1d35b8823b4642f89723e_img.jpg\) Purchase](#)[!\[\]\(622978af0987ec07858cbbcdb483152f_img.jpg\) Rights & Permissions](#)

COMPANION ARTICLES

No companion articles

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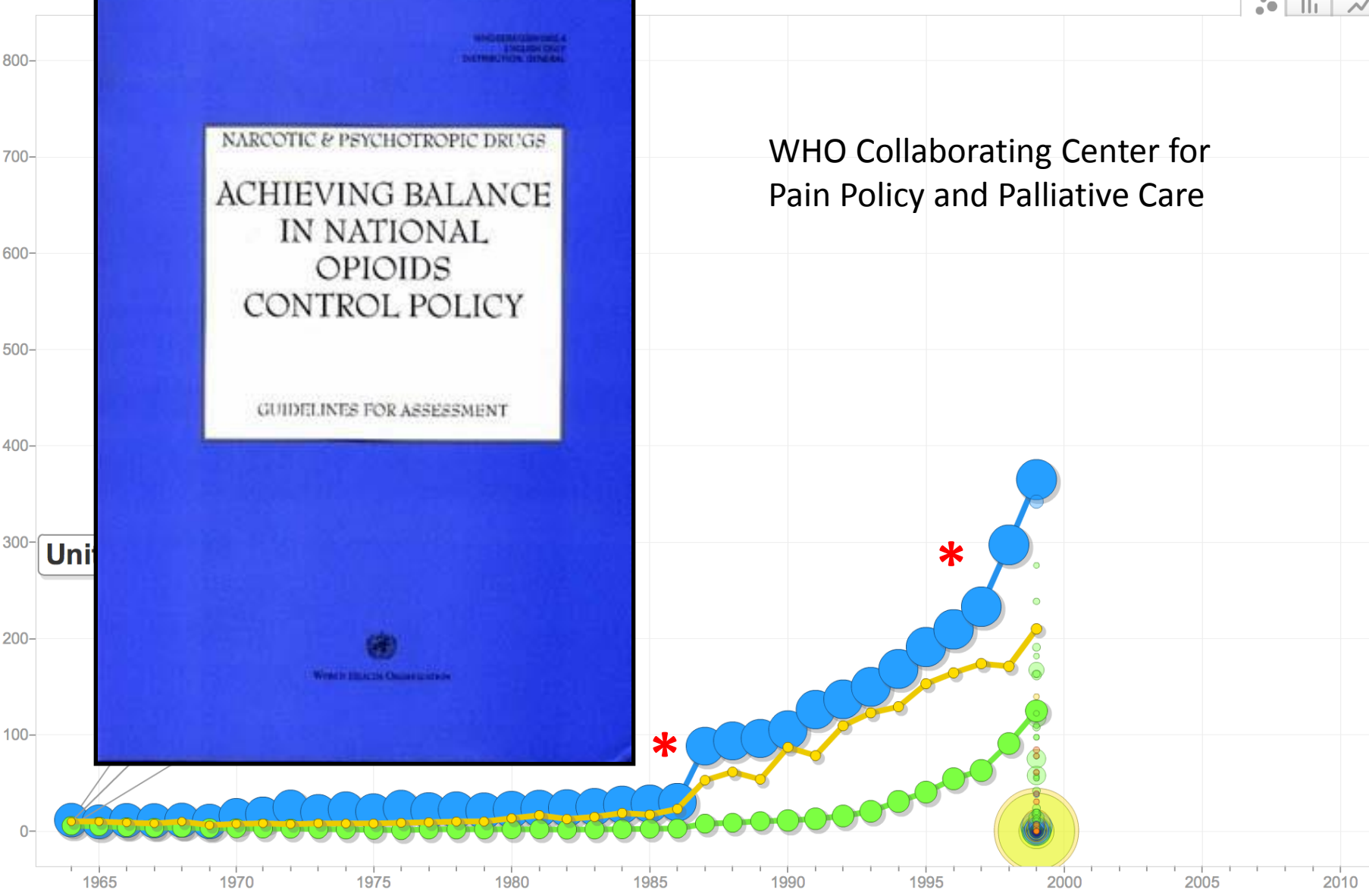
DOI: 10.1200/JCO.2013.54.7992 *Journal of Clinical Oncology* 32, no. 25 (September 2014) 2773-2779.

PMID: 25049323

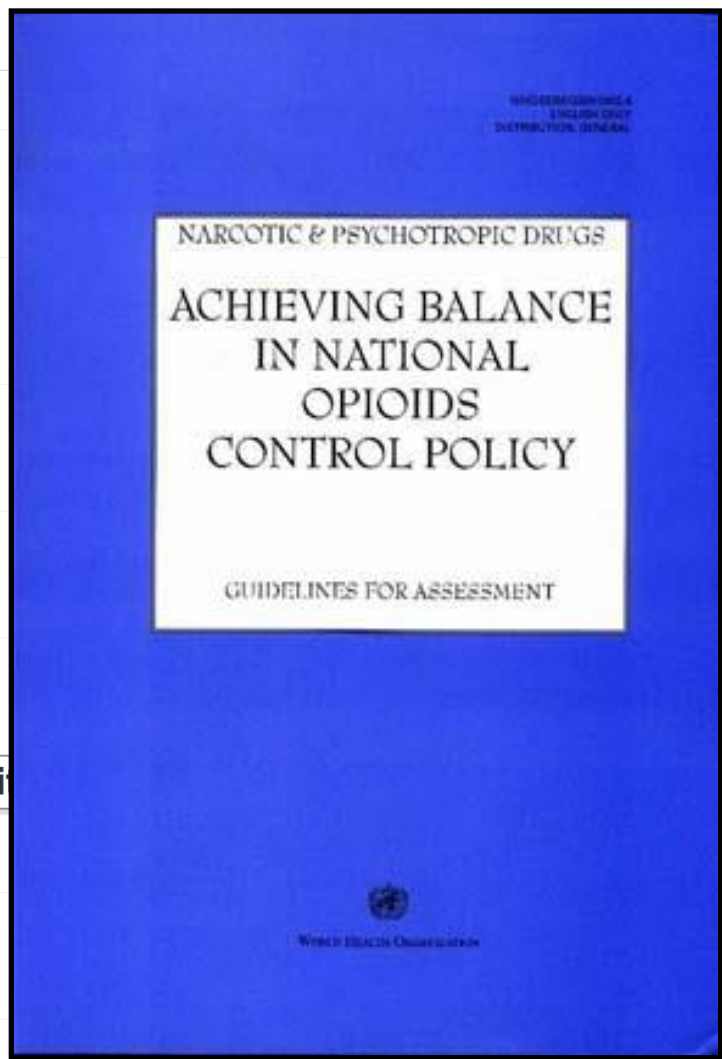
RELATED ARTICLES

Lin

Morphine Equivalence (mg/capita)



WHO Collaborating Center for Pain Policy and Palliative Care



Time

1999

“Balance” is the Fundamental Principle



National policy should establish a drug control system that prevents diversion ***and*** ensures adequate availability for medical use

Drug control measures should not interfere with medical access to opioid

State Policy

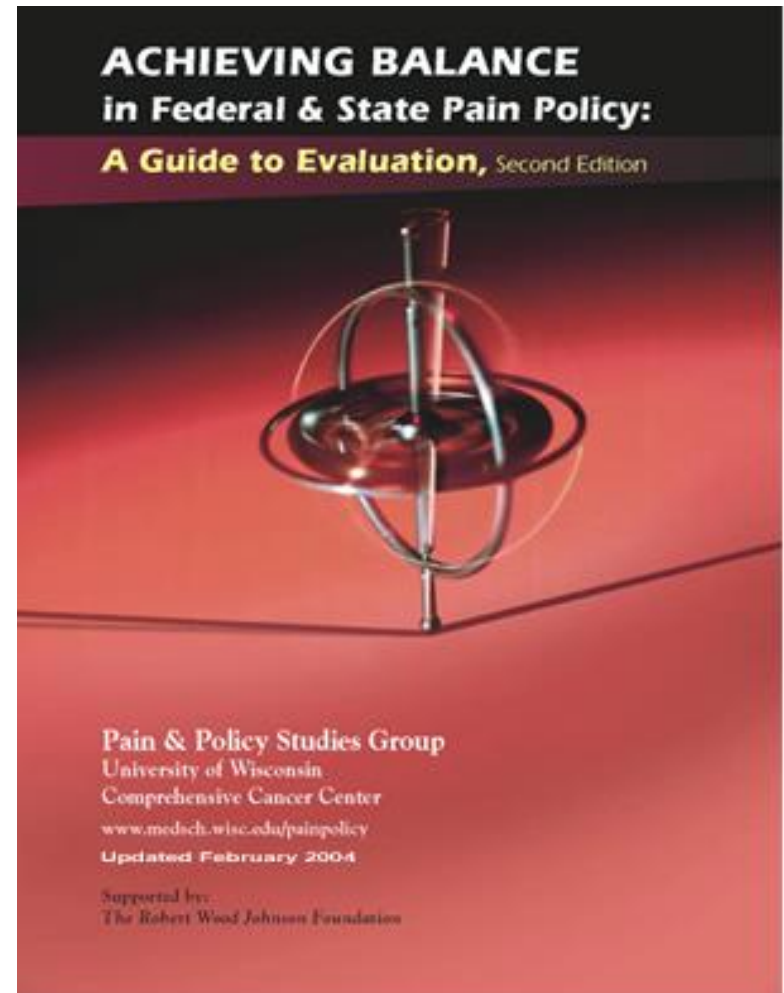
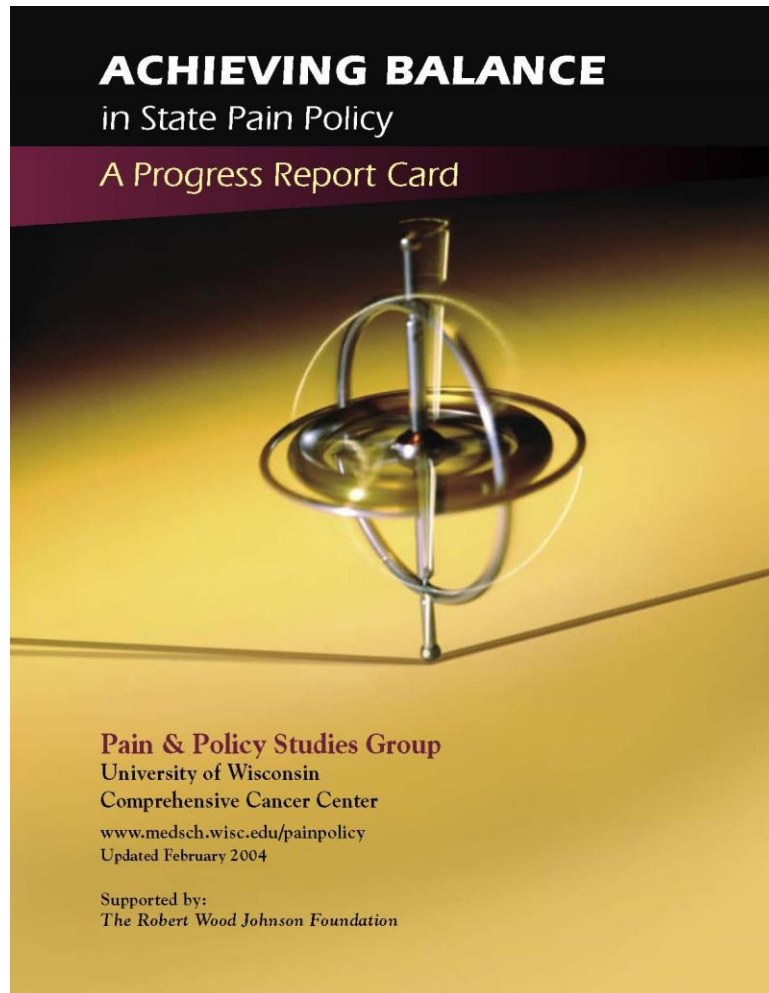
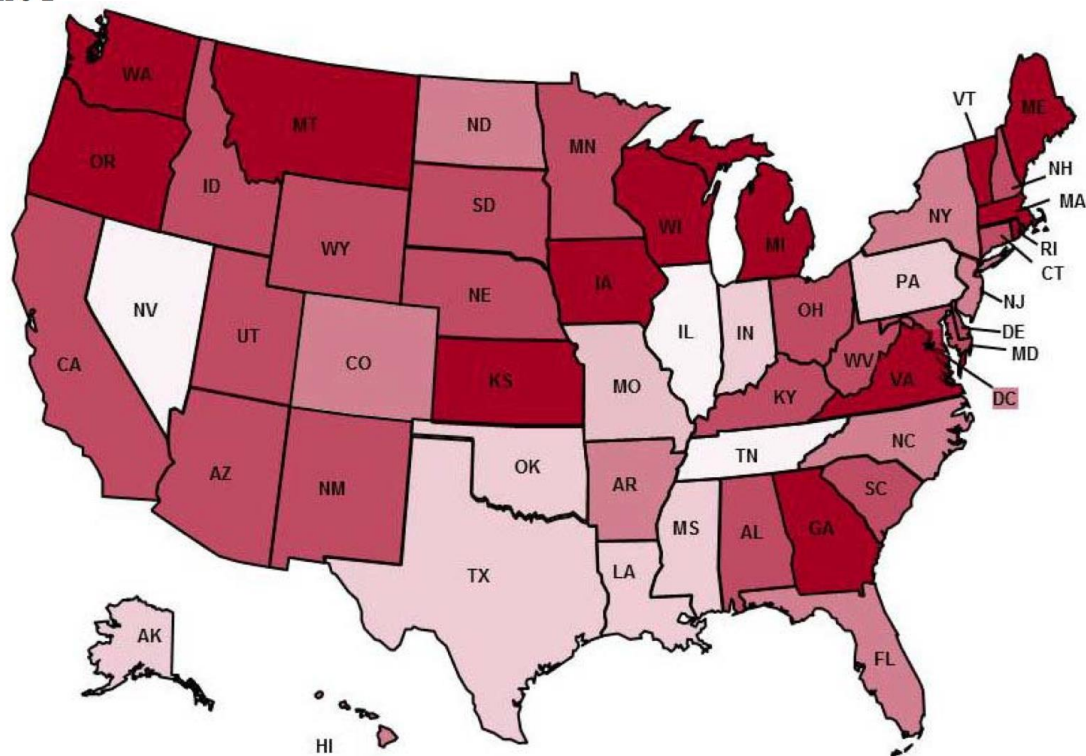


Figure 1



A 	B+ 	B 	C+ 	C 	D+ 	D 	F 
13 states 20% of US pop.	18 states 31% of US pop.	9 states 22% of US pop.	8 states 20% of US pop.	3 states 7% of US pop.	None	None	None
Georgia Iowa Kansas Maine Massachusetts Michigan Montana Oregon Rhode Island Vermont Virginia Washington Wisconsin	Alabama Arizona California Connecticut Delaware Idaho Kentucky Maryland Minnesota Nebraska New Hampshire New Mexico Ohio South Carolina South Dakota Utah West Virginia Wyoming	Arkansas Colorado Dist. of Columbia Florida Hawaii New Jersey New York North Carolina North Dakota	Alaska Indiana Louisiana Mississippi Missouri Oklahoma Pennsylvania Texas	Illinois Nevada Tennessee			

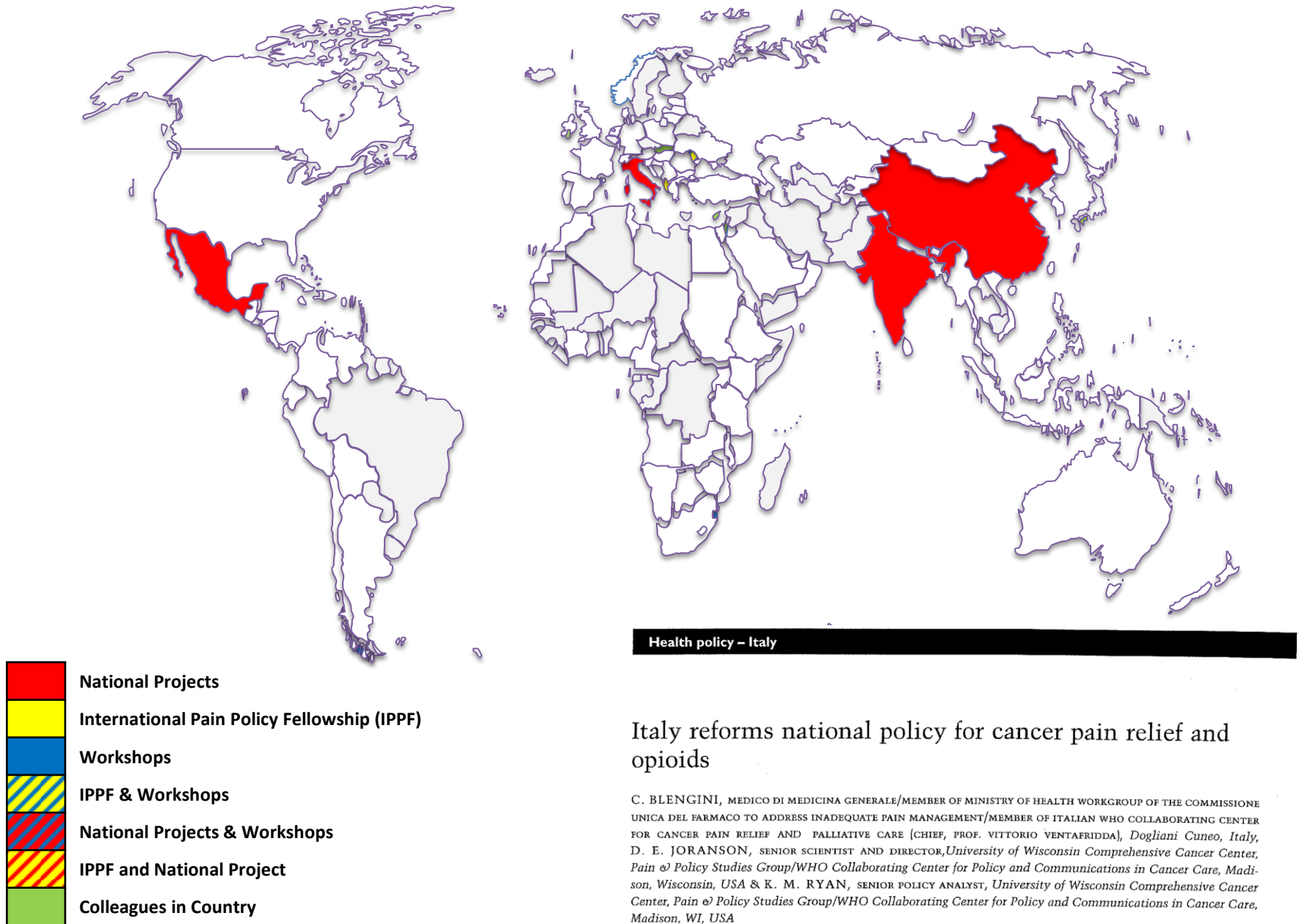
...controlled substances are used only after all other measures and non-controlled analgesics are found to be ineffective;.....

Mississippi Medical Board Policy Statement

the Board strives to ensure that all lowans have access to pain relief medication.

Iowa Medical Board

PPSG Global Activities



Progress in the world

(Salzburg 2006)

1. <u>France</u> :	7 days	28 days
2. <u>Mexico</u> :	5 days	30 days
3. <u>Italy</u> :	8 days	1 month
4. <u>Germany</u> :	1 day	no limit
5. <u>Poland</u> :	100 mg	4.0 grams
6. <u>Peru</u> :	1 day	14 days
7. <u>India</u> :	5 lic	2 lic Mor
8. <u>Uganda</u> :	No morphine	Morphine + RN
9. <u>Romania</u> :	3 d supply	30 d supply?

Uganda

Morphine Consumption (mg/capita) 1980–2012



0.6

mg per capita

0.0

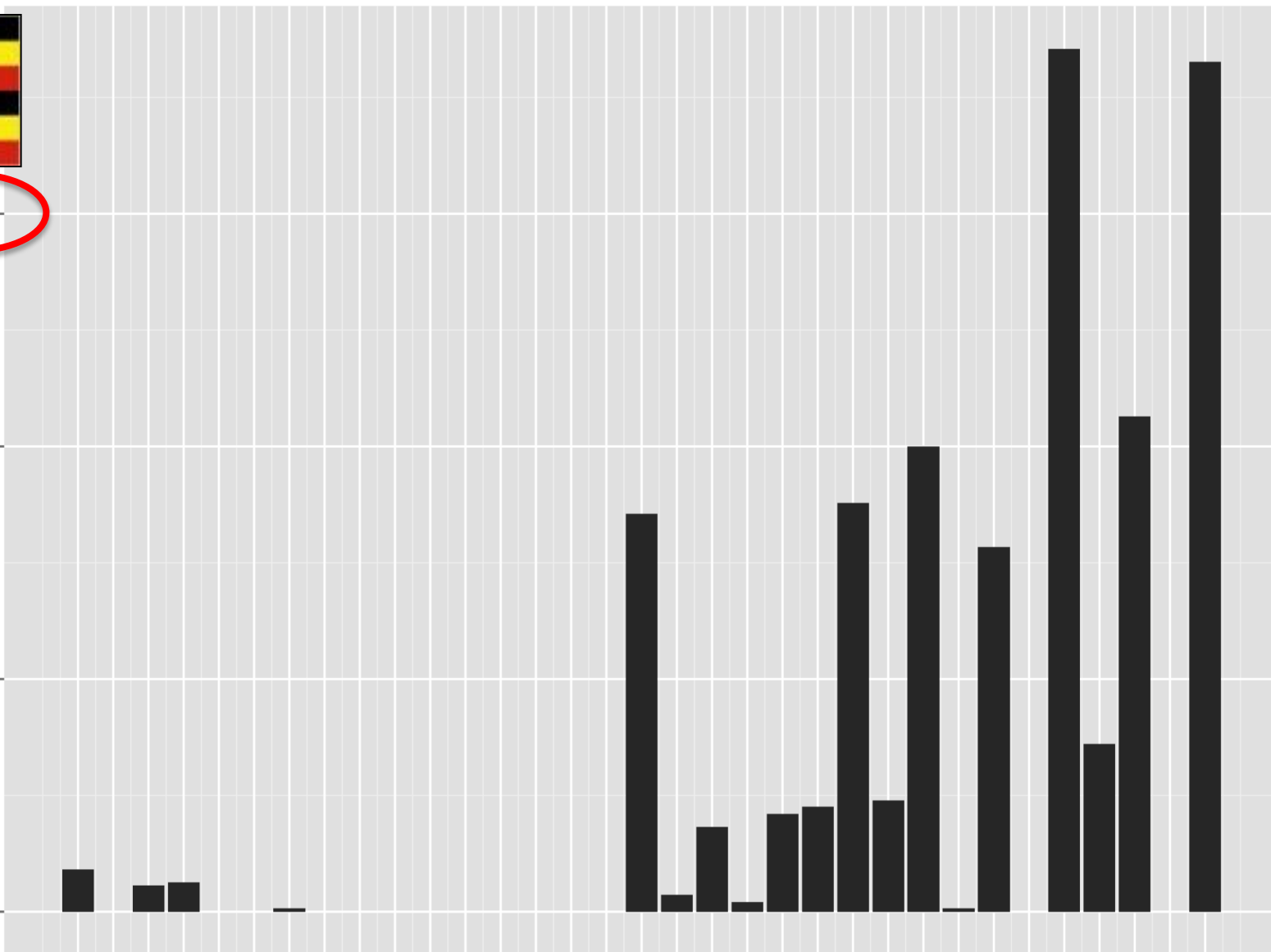
0.2

0.4

0.6

Year

1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012





**Joranson,
Lancet 2006**

Colectivul de Specialisti in Terapia Durerii si Ingrijiri Paliative
Pain & Policy Studies Group,
Centrul OMS, Universitatea Wisconsin

**Recomandari catre
Ministerul Sanatatii**

16 iulie 2003

Commission of Specialists in Pain Therapy and Palliative
Pain & Policy Studies Group,
WHO Centre, Wisconsin University

**Recommendations to the
Ministry of Health**

16 July 2003



**World Health Organization
Collaborating Center for Pain
Policy and
Palliative Care**



© The Regional Environmental Center for Central and Eastern Europe

Consumption of Morphine 1980 - 2003

East vs. West Europe (mg/capita/yr)

mg/capita



Formulary availability and regulatory barriers to accessibility of opioids for cancer pain in Europe: a report from the ESMO/EAPC Opioid Policy Initiative

N. I. Cherny^{1,2,3*}, J. Baselga^{4,5}, F. de Conno⁶ & L. Radbruch^{6,7}

¹Cancer Pain and Palliative Medicine Unit, Department of Oncology, Shaare Zedek Medical Center, Jerusalem, Israel; ²European Society for Medical Oncology; ³Palliative Care Working Group; ⁴Medical Oncology Service, Vall d'Hebron University Hospital, Barcelona, Spain; ⁵European Society for Medical Oncology; ⁶European Association for Palliative Care and ⁷Palliative Medicine, Aachen University, Aachen, Germany

Received 3 October 2009; revised 25 November 2009; accepted 25 November 2009

Opioid availability and cost: West Europe

	Codeine	Propox	HC/DHC	BuprPO	BuprTD	MolR	MoCR	Molnj	OclR	OcCR	Methad.	FentTD	FentTM	HmlR	HmCR	PethInj
Finland	100% cost	<25% Cost	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
France	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Norway	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Austria	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	100% cost	Free	Free	Free	Free
Portugal	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Italy	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Denmark	Free	Free	Free	Free	Free	Free	Free	Free	Free	<25% Cost	<25% Cost	<25% Cost	Free	Free	Free	Free
Israel	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Netherlands	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Cyprus	Free	Free	Free	<25% Cost	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Greece	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Germany	<25% Cost	Free	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost
Luxembourg	<25% Cost	Free	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost
Spain	<25% Cost	Free	<25% Cost	25-50% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost
Switzerland	<25% Cost	Free	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost
UK	<25% Cost	Free	Free	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost
Belgium	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	<25% Cost	Free	<25% Cost	<25% Cost	<25% Cost	Free	<25% Cost	<25% Cost	<25% Cost
Iceland	100% cost	Free	Free	Free	100% cost	100% cost	100% cost	100% cost	100% cost	100% cost	100% cost	100% cost	100% cost	100% cost	100% cost	100% cost
Turkey	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free



Free



<25%
Cost



25-50%
Cost



50-75%
Cost



100%
cost

Opioid availability and cost: Eastern Europe

	Codeine	Propox	HC/DHC	BuprPO	BuprTD	MoIR	MoCR	MoInj	OciR	OcCR	Methad.	FentTD	FentTM	HmIR	HmCR	PethInj
Czech R.																
Croatia																
Latvia																
Rumania																
Slovak R.																
Hungary																
Estonia																
Serbia																
Bulgaria																
Moldova																
Poland																
Russia																
Monten.																
Maced.																
Bosnia-H																
Lithuania																
Belarus																
Albania																
Georgia																
Ukraine																



Free



<25% Cost



25-50% Cost



50-75% cost

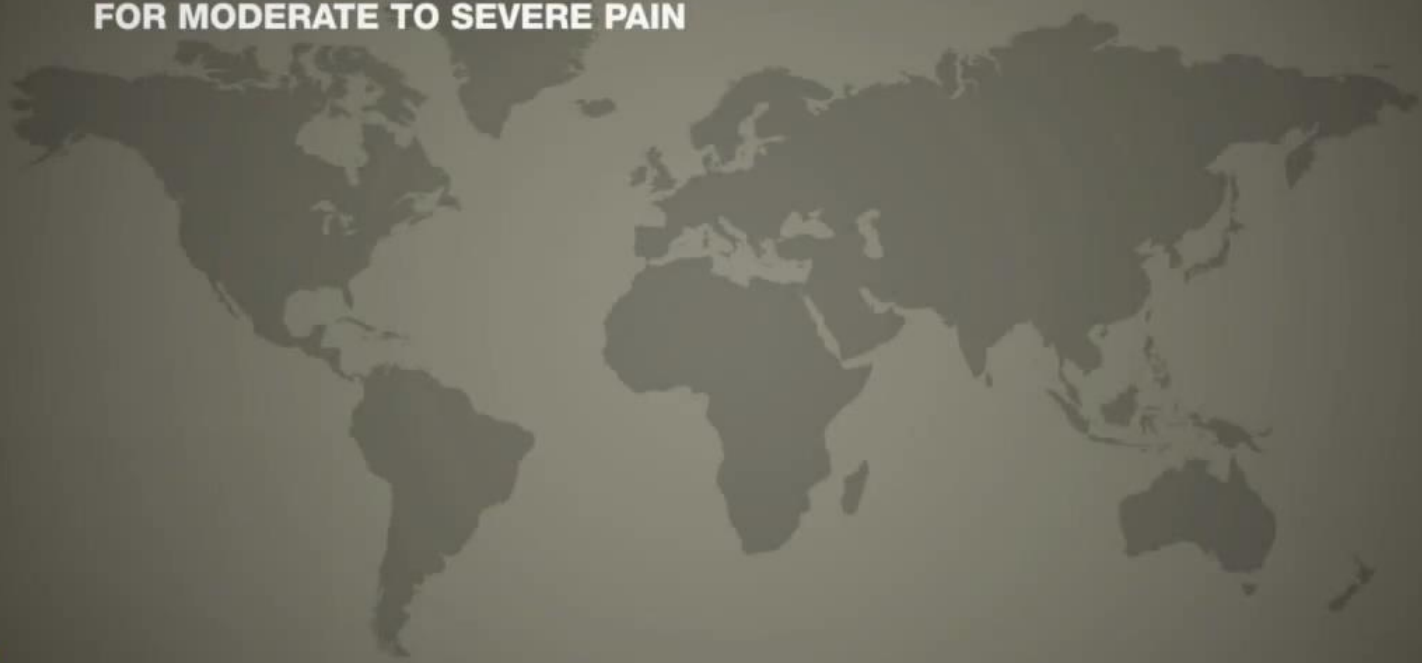


100% cost

VIEFA

AVAILABILITY OF MEDICINES

FOR MODERATE TO SEVERE PAIN



Panasonic

<https://ppsg.medicine.wisc.edu/chart>

ME minus Methadone (mg/capita)

600

550

500

450

400

350

300

250

200

150

100

50

0

Time

1964

1966

1968

1970

1972

1974

1976

1978

1980

1982

1984

1986

1988

1990

1992

1994

1996

1998

2000

2002

2004

2006

2008

2010

2012

2013

WHO
guidelines on
the pharmacological
treatment of persisting
pain in children with
medical illnesses



World Health Organization

Ensuring balance in national
policies on controlled substances
GUIDANCE FOR AVAILABILITY AND ACCESSIBILITY
OF CONTROLLED MEDICINES

World Health Organization

United States of America, 1964

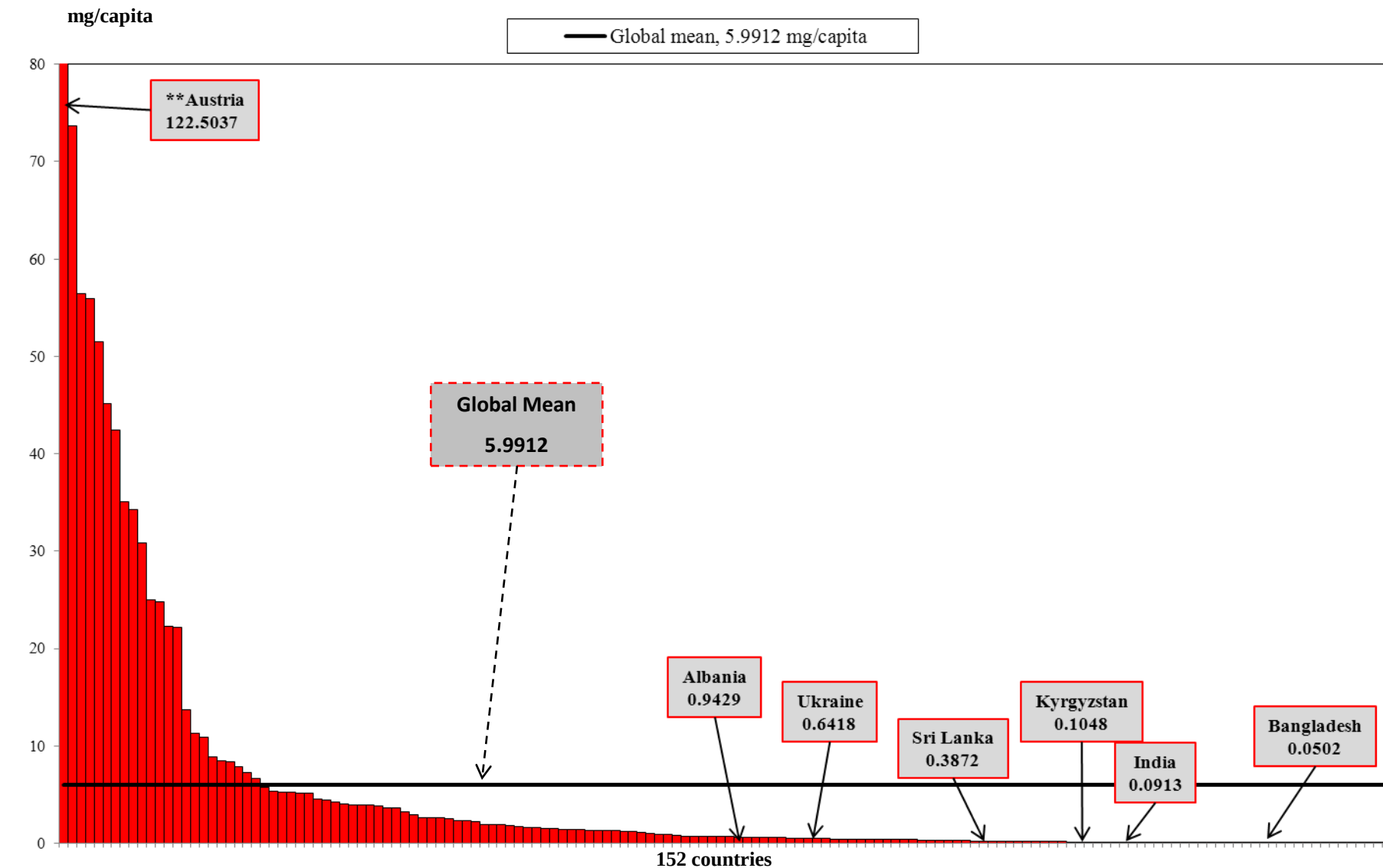
Germany, 1964

Australia, 1964

Turkey, 1964

Kenya, 1964

Global Consumption of Morphine, 2010



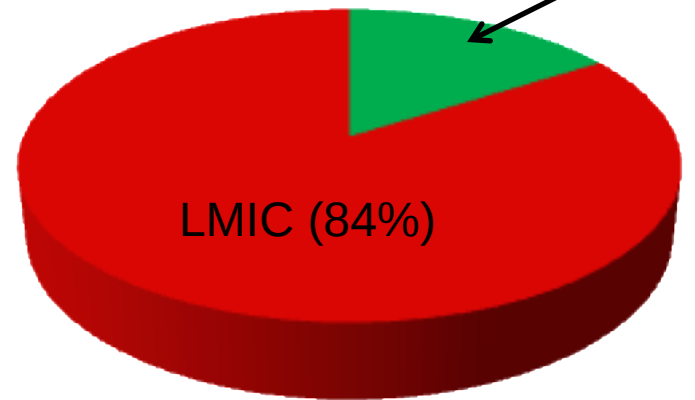
****Austria's consumption includes use of morphine for substitution therapy**

Sources: International Narcotics Control Board; World Health Organization population data

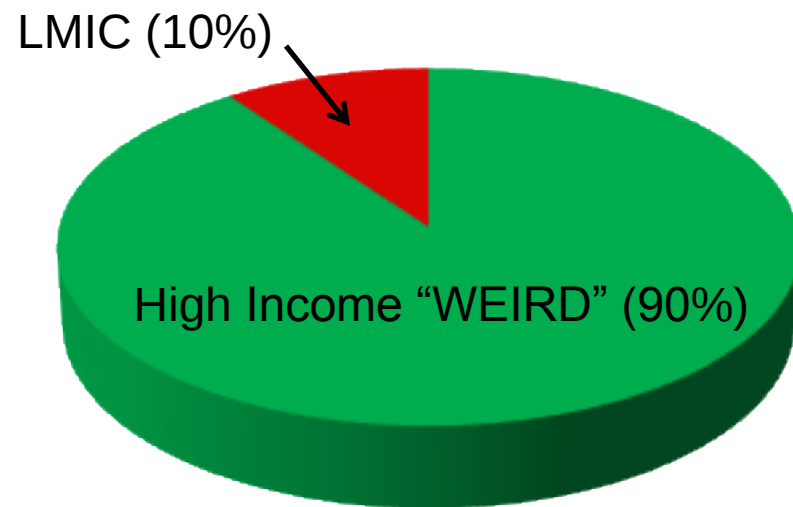
By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2012

Disparity in Consumption: High vs. Low- and Middle-income countries (LMIC)

2010 Population



2010 Morphine Consumption (kg)



Multivariate analysis of countries' government and health-care system influences on opioid availability for cancer pain relief and palliative care: More than a function of human development

Aaron M Gilson Pain & Policy Studies Group, University of Wisconsin Carbone Cancer Center, University of Wisconsin, Madison, WI, USA

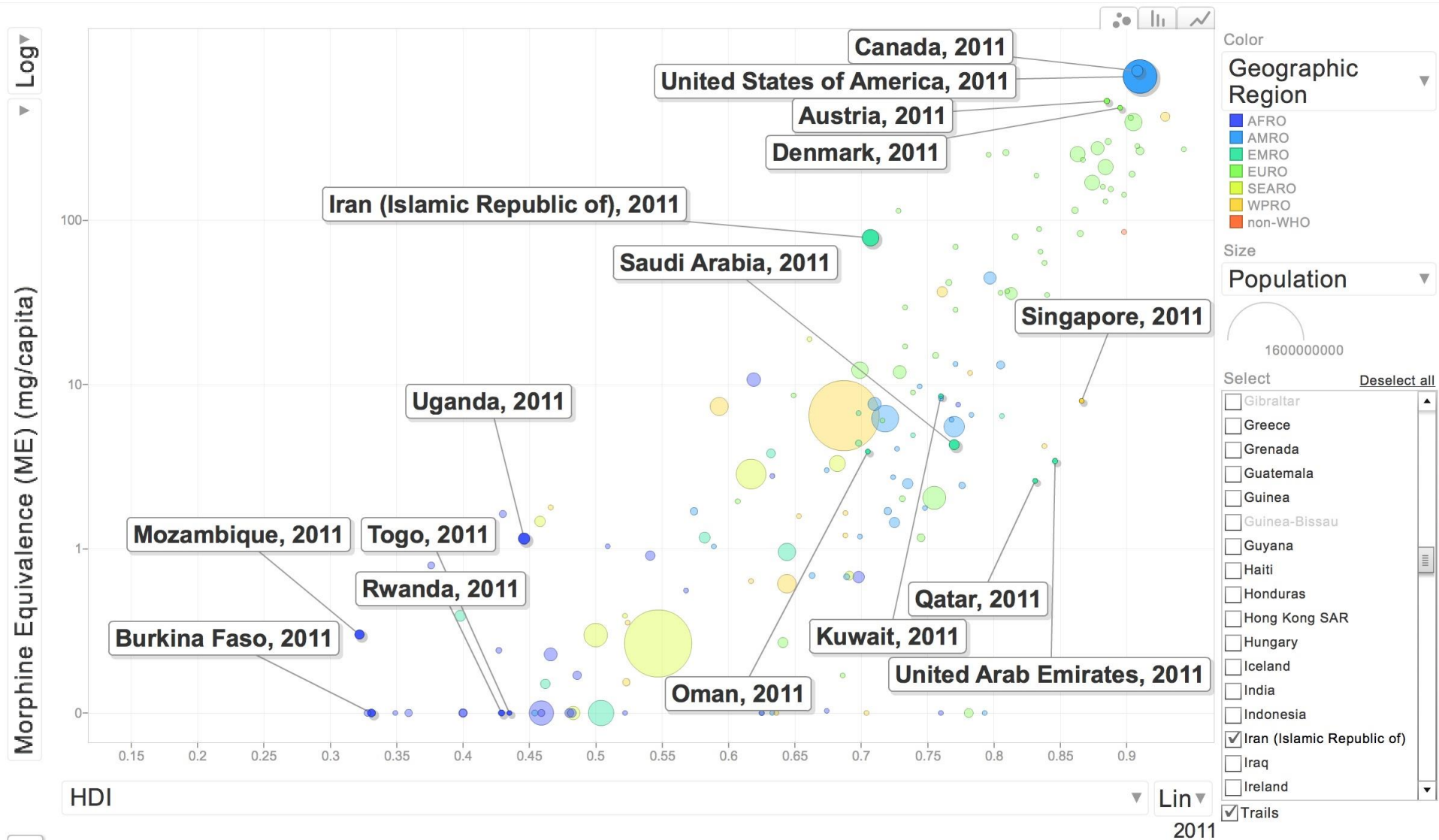
Martha A Maurer Pain & Policy Studies Group, University of Wisconsin Carbone Cancer Center, University of Wisconsin, Madison, WI, USA; World Health Organization Collaborating Center for Pain Policy and Palliative Care, Madison, WI, USA

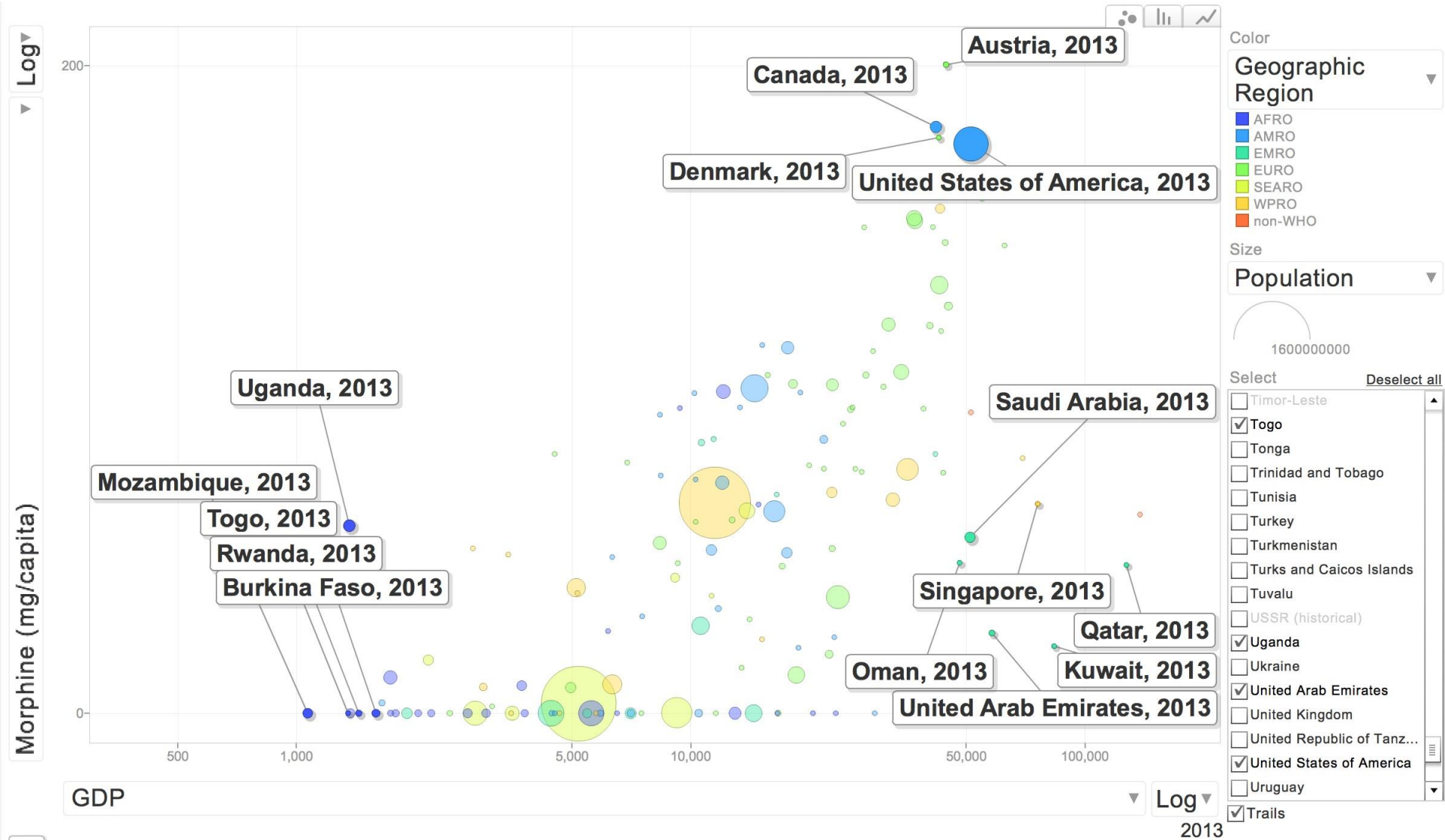
Virginia T LeBaron College of Nursing, University of Utah, Salt Lake City, UT, USA

Karen M Ryan Pain & Policy Studies Group, University of Wisconsin Carbone Cancer Center, University of Wisconsin, Madison, WI, USA; World Health Organization Collaborating Center for Pain Policy and Palliative Care, Madison, WI, USA

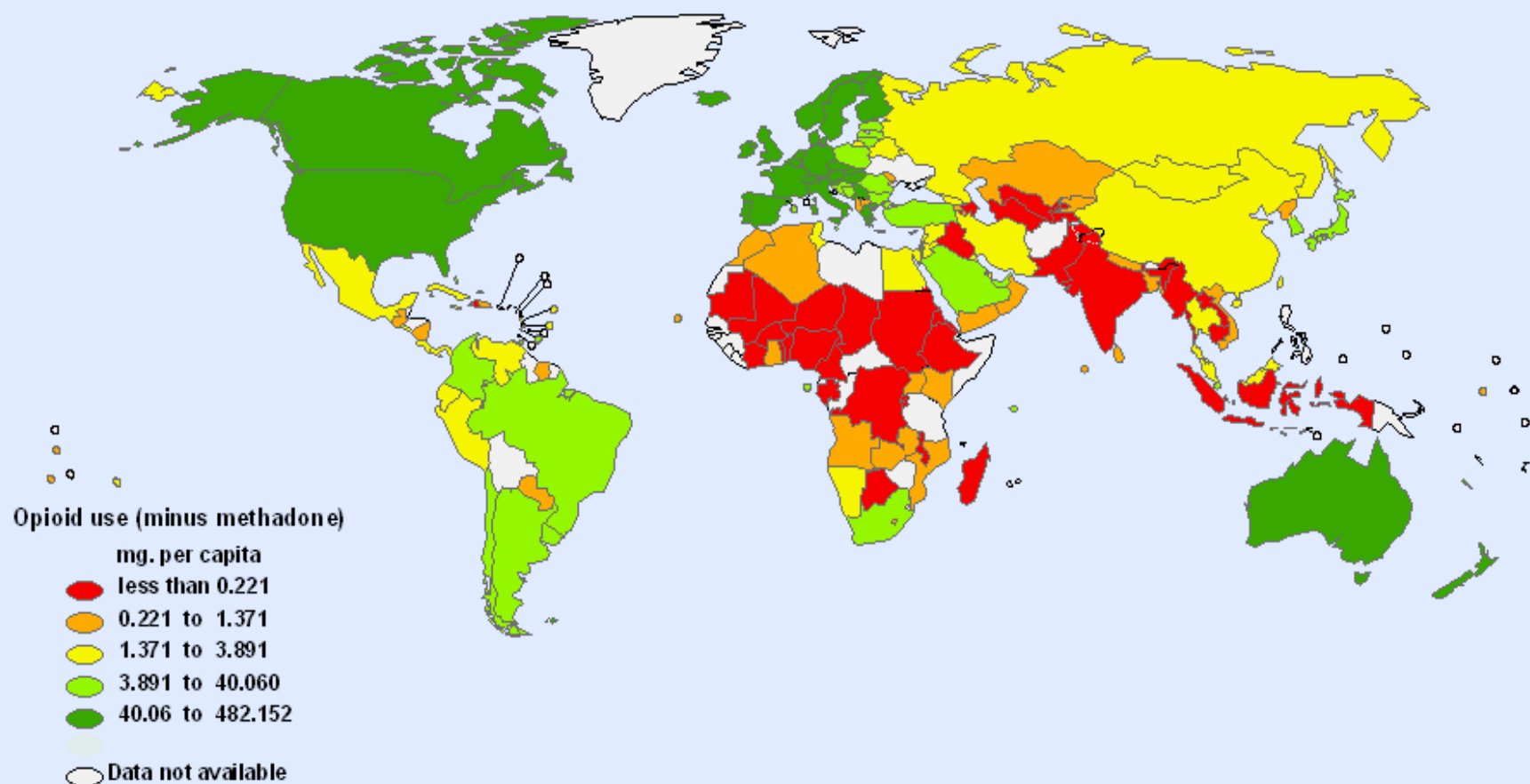
James F Cleary Pain & Policy Studies Group, University of Wisconsin Carbone Cancer Center, University of Wisconsin, Madison, WI, USA; World Health Organization Collaborating Center for Pain Policy and Palliative Care, Madison, WI, USA







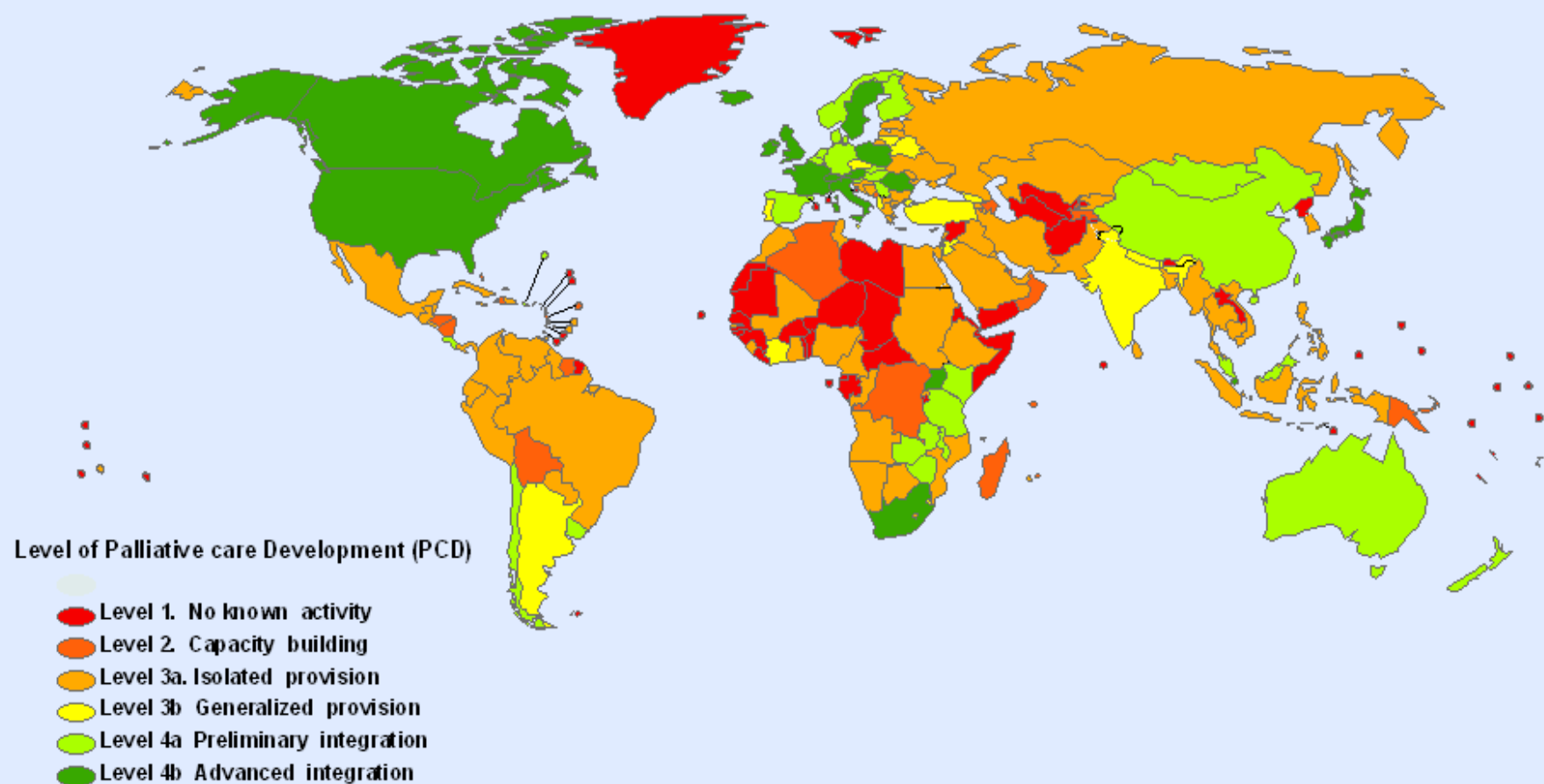
Worldwide Opioid use in mg/capita (minus methadone use) (Both Sexes: 2008)



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the WPCA or WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Worldwide WPCA Palliative Care Development

All levels (n = 234)



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the WPCA or WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.



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Strengthening of palliative care as a component of integrated treatment within the continuum of care

The Executive Board,

Having considered the report on strengthening of palliative care as a component of integrated treatment throughout the life course,¹

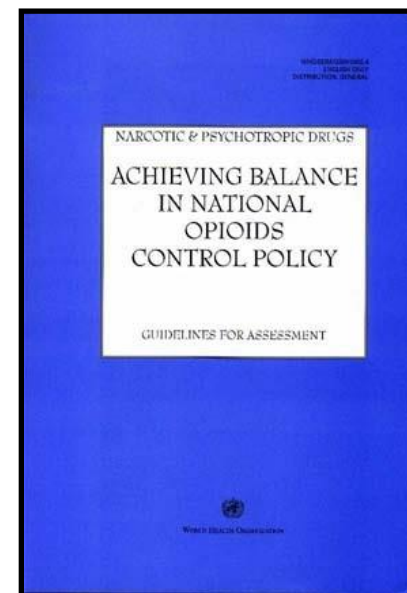
RECOMMENDS to the Sixty-seventh World Health Assembly the adoption of the following resolution:

The Sixty-seventh World Health Assembly,

Recalling resolution WHA58.22 on cancer prevention and control, especially as it relates to palliative care;

Taking into account the Commission on Narcotic Drugs' resolutions 53/4 and 54/6 respectively entitled "Promoting adequate availability of internationally controlled licit drugs for medical and scientific purposes while preventing their diversion and abuse" and "Promoting adequate availability of internationally controlled narcotic drugs and psychotropic substances for medical and scientific purposes while preventing their diversion and abuse";

Acknowledging the special report of the International Narcotics Control Board entitled Report of the International Narcotics Control Board on the Availability of Internationally Controlled Drugs: Ensuring Adequate Access for Medical and Scientific Purposes,² and the WHO guidance document entitled Ensuring balance in national policies on controlled substances: guidance for availability and accessibility of controlled medicines;³



WHO Palliative Care Resolution, 2014

- (5) to assess domestic palliative care needs, including pain management medication requirements, and promote collaborative action to **ensure adequate supply of essential medicines in palliative care**, avoiding shortages;
- (6) to review and, where appropriate, revise national and local legislation and policies for controlled medicines, with reference to WHO policy guidance, on **improving access to and rational use of pain management medicines**, in line with the United Nations international drug control conventions;
- (7) to update, as appropriate, national essential medicines lists in the light of the recent addition of sections on pain and palliative care medicines to the **WHO Model List of Essential Medicines** and the **WHO Model List of Essential Medicines for Children**;

UNGASS
2016

SPECIAL SESSION OF THE UNITED NATIONS GENERAL ASSEMBLY ON THE WORLD DRUG PROBLEM

ACHIEVING THE 2019 GOALS - A BETTER TOMORROW FOR THE WORLD'S YOUTH

[ABOUT](#) | [BACKGROUND](#) | [BOARD](#) | [PREPARATORY PROCESS](#) | [YOUTH](#) | [MULTIMEDIA](#) | [SIDE EVENTS](#) |

JOINT MINISTERIAL STATEMENT

2014 HIGH-LEVEL REVIEW BY THE COMMISSION
ON NARCOTIC DRUGS OF THE IMPLEMENTATION
BY MEMBER STATES OF THE POLITICAL DECLARATION
AND PLAN OF ACTION ON INTERNATIONAL COOPERATION
TOWARDS AN INTEGRATED AND BALANCED STRATEGY
TO COUNTER THE WORLD DRUG PROBLEM



POLITICAL DECLARATION AND PLAN
OF ACTION ON INTERNATIONAL
COOPERATION TOWARDS AN INTEGRATED
AND BALANCED STRATEGY TO COUNTER
THE WORLD DRUG PROBLEM



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INTERNATIONAL NARCOTICS CONTROL BOARD



Availability of Internationally Controlled Drugs: Ensuring Adequate Access for Medical and Scientific Purposes

*Indispensable, adequately available
and not unduly restricted*



UNITED NATIONS

Figure 6. Trends in consumption, by region, 2001-2013

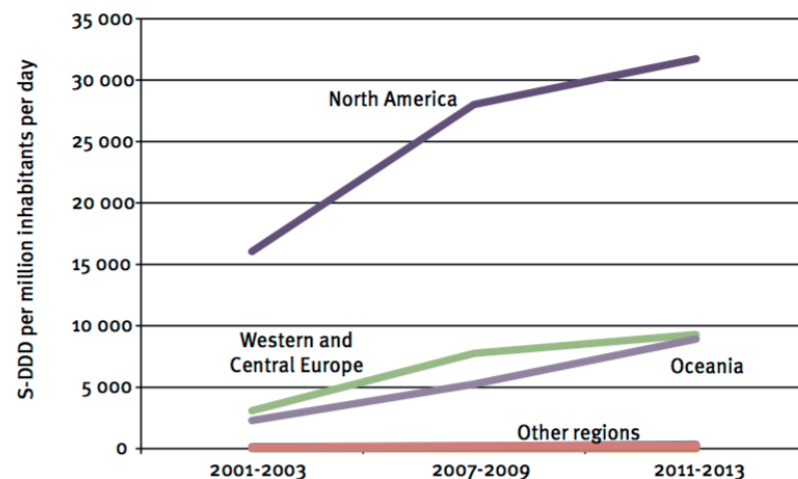
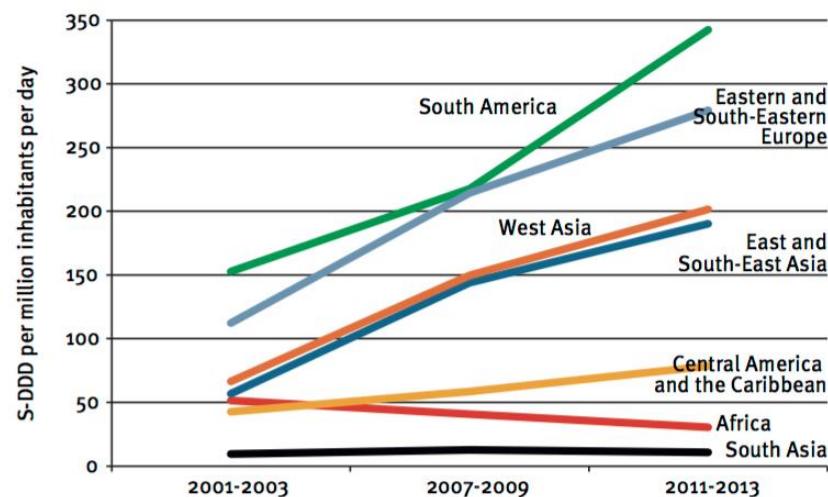


Figure 7. Trends in consumption for selected subregions, 2001-2013



Use of and barriers to access to opioid analgesics: a worldwide, regional, and national study



Stefano Berterame, Juliana Erthal, Johnny Thomas, Sarah Fellner, Benjamin Vosse, Philip Clare, Wei Hao, David T Johnson, Alejandro Mohar, Jagjit Pavadia, Ahmed Kamal Eldin Samak, Werner Sipp, Viroj Sumyai, Sri Suryawati, Jallal Toufiq, Raymond Yans, Richard P Mattick

Summary

Background Despite opioid analgesics being essential for pain relief, use has been inadequate in many countries. We aim to provide up-to-date worldwide, regional, and national data for changes in opioid analgesic use, and to analyse the relation of impediments to use of these medicines.

Methods We calculated defined daily doses for statistical purposes (S-DDD) per million inhabitants per day of opioid analgesics worldwide and for regions and countries from 2001 to 2013, and we used generalised estimating equation analysis to assess longitudinal change in use. We compared use data against the prevalence of some health disorders needing opioid use. We surveyed 214 countries or territories about impediments to availability of these medicines, and used regression analyses to establish the strength of associations between impediments and use.

Findings The S-DDD of opioid analgesic use more than doubled worldwide between 2001–03 and 2011–13, from 1417 S-DDD (95% CI –732 to 3565; totalling about 3·01 billion defined daily doses per annum) to 3027 S-DDD (–1162 to 7215; totalling about 7·35 billion defined daily doses per annum). Substantial increases occurred in North America (16046 S-DDD [95% CI 4032–28061] to 31453 S-DDD [8121–54785]), western and central Europe (3079 S-DDD [1274–4883] to 9320 S-DDD [3969–14672]), and Oceania (2275 S-DDD [763–3787] to 9136 S-DDD [2508–15765]). Countries in other regions have shown no substantial increase in use. Impediments to use included an absence of training and awareness in medical professionals, fear of dependence, restricted financial resources, issues in sourcing, cultural attitudes, fear of diversion, international trade controls, and onerous regulation. Higher number of impediments reported was significantly associated with lower use (unadjusted incidence rate ratio 0·39 [95% CI 0·29–0·52]; $p < 0·0001$), but not when adjusted for gross domestic product and human development index (0·91 [0·73–1·14]; $p = 0·4271$).

Interpretation Use of opioid analgesics has increased, but remains low in Africa, Asia, Central America, the Caribbean, South America, and eastern and southeastern Europe. Identified impediments to use urgently need to be addressed by governments and international agencies.

Funding International Narcotics Control Board, UN.

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S0140-6736(16)00234-8

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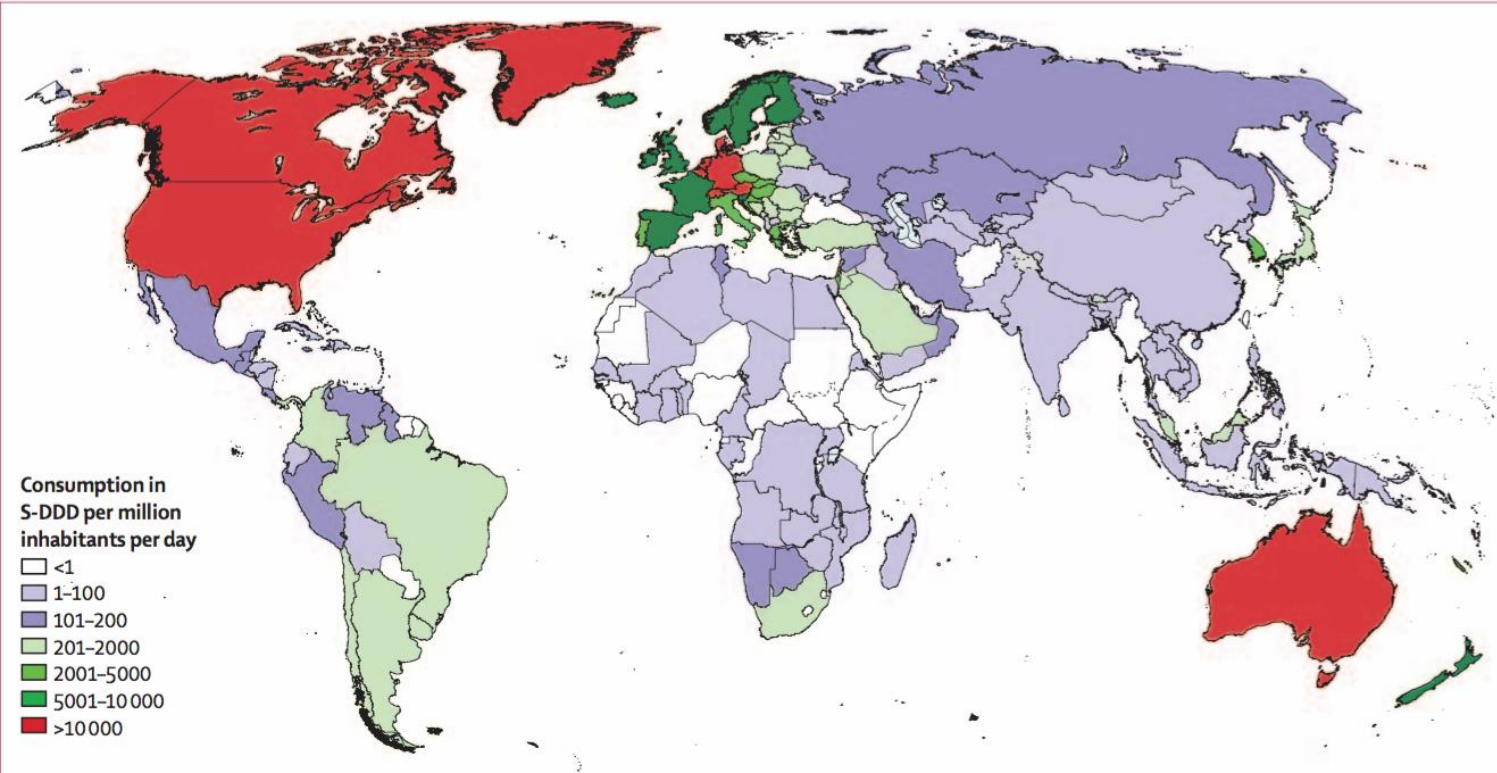
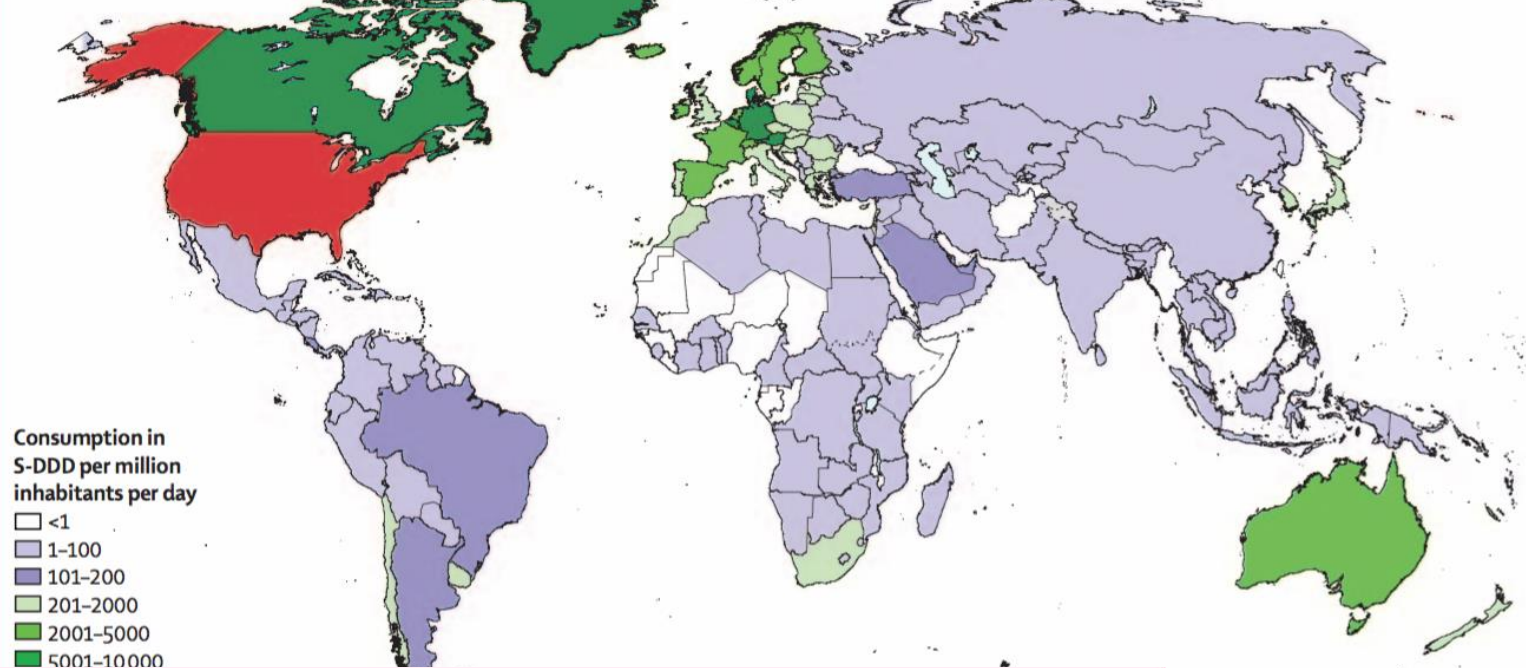
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Mental Health Institute, Central

South University, Changsha,

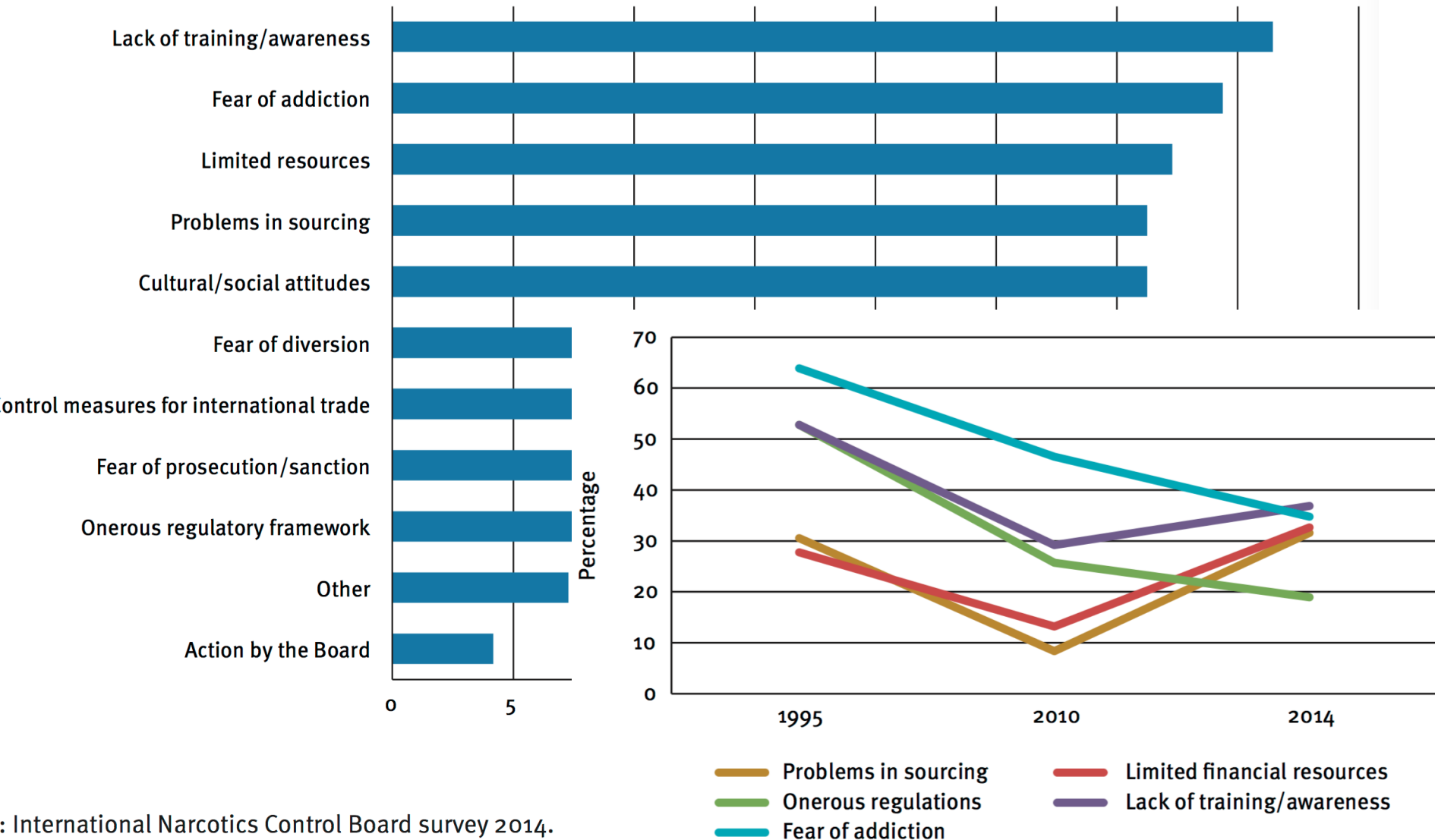
China (Prof W Hao); Unidad de

2001-3

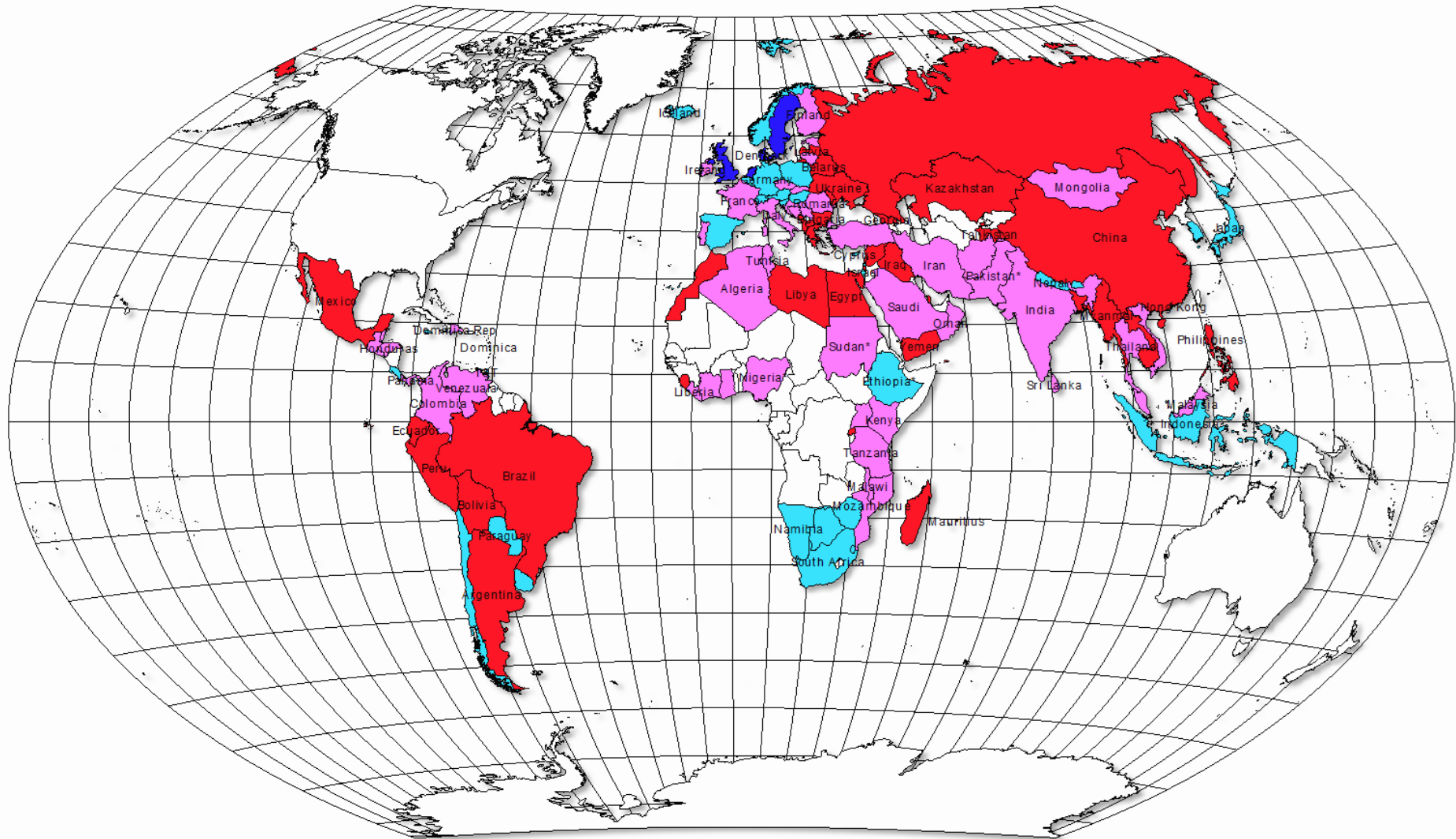


2011-3

Main factors affecting the availability of opioids for medical needs



Global Opioid Policy Initiative (ESMO, EAPC, WHO, UICC, PPSG)



1-3 limiting regulation types
4-6 limiting regulation types
7-8 limiting regulation types

Increasing worldwide access to medical opioids



"You are lucky Gordon, to have a controller who knows how to run railways."

Flying Scotsman, Thomas the Tank Engine, Wilbert Awdry

As the medical world began to understand the bacterial nature of infection, development of the hypodermic syringe in the mid 1800s led to opioids becoming important in pain management. Yet, today, 80% of the world's population lack access to morphine,¹ a medicine included in WHO's first essential medicine list in 1977,² whereas increases in opioid consumption have occurred in most high-income countries.³ Stefano Berterame and colleagues outlining this inequity and the continued absence of progress in improving access in *The Lancet* is a great step forward.⁴ They share with the medical and worldwide communities data that are all too often restricted to the International Narcotics Control Board (INCB) annual reports and technical publications, and also share a new statistical analysis substantiating previous descriptive results.⁵

Berterame and colleagues, present members and staff of the INCB, rightfully state that the Single Convention on Narcotic Drugs was agreed by the nations of the world more than 50 years ago, in part to ensure the availability of opioids for the relief of pain and suffering.⁶ But for 50 years, the primary result of the actions, or absence thereof, of the worldwide drug control mechanism has been to restrict access to these indispensable and essential medicines.

politics to correct this worldwide injustice of denying pain relief begin to be appreciated. Many think that the very use of control in the INCB's name has led to these restrictions, but the INCB's role is similar to that of the railway controller: ensuring the function of the complex system that balances access to opioids for medical use with the risk of misuse and diversion.

Opportunities exist to correct the system that is driving this inequity. A multipronged approach addressing the following points within each member state should be used: policies and regulations governing use of opioid medicines, availability and accessibility of these medicines, and education of clinicians and the public about their use. Education has been assessed as a major issue in countries such as the USA that now have increased opioid consumption but can be described as being unbalanced on the basis of an increase in opioid-associated mortality and morbidity. Much of the increased opioid availability in the USA has been associated with the illicit provision of opioids (so-called pill mills).⁷ Methadone, an opioid with a very long half-life and one that most clinicians have little training in its use, is associated with one-third of the opioid-associated deaths.⁸ A full understanding of the issue, including comparison with countries with opioid availability closer to that of the USA, is important to address this major public health challenge, using the solutions as a guide to those countries seeking to improve access. The Global Opioid Policy Initiative⁹ outlined next steps¹⁰ that can

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International Pain Policy Fellowship, 2006

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Amanor-Boadu
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Uganda



Dr. Henry Ddungu
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Serbia



Prof. Snežana Bošnjak
Physician

Argentina



Dr. Jorge Eisenchlas
Physician

Republic of Panama



Prof. Rosa Buitrago
Pharm Professor

Colombia



Dr. Marta Ximena León
Physician

Vietnam



Mrs. Nguyen Thi
Phuong Cham
Senior Pharmacist

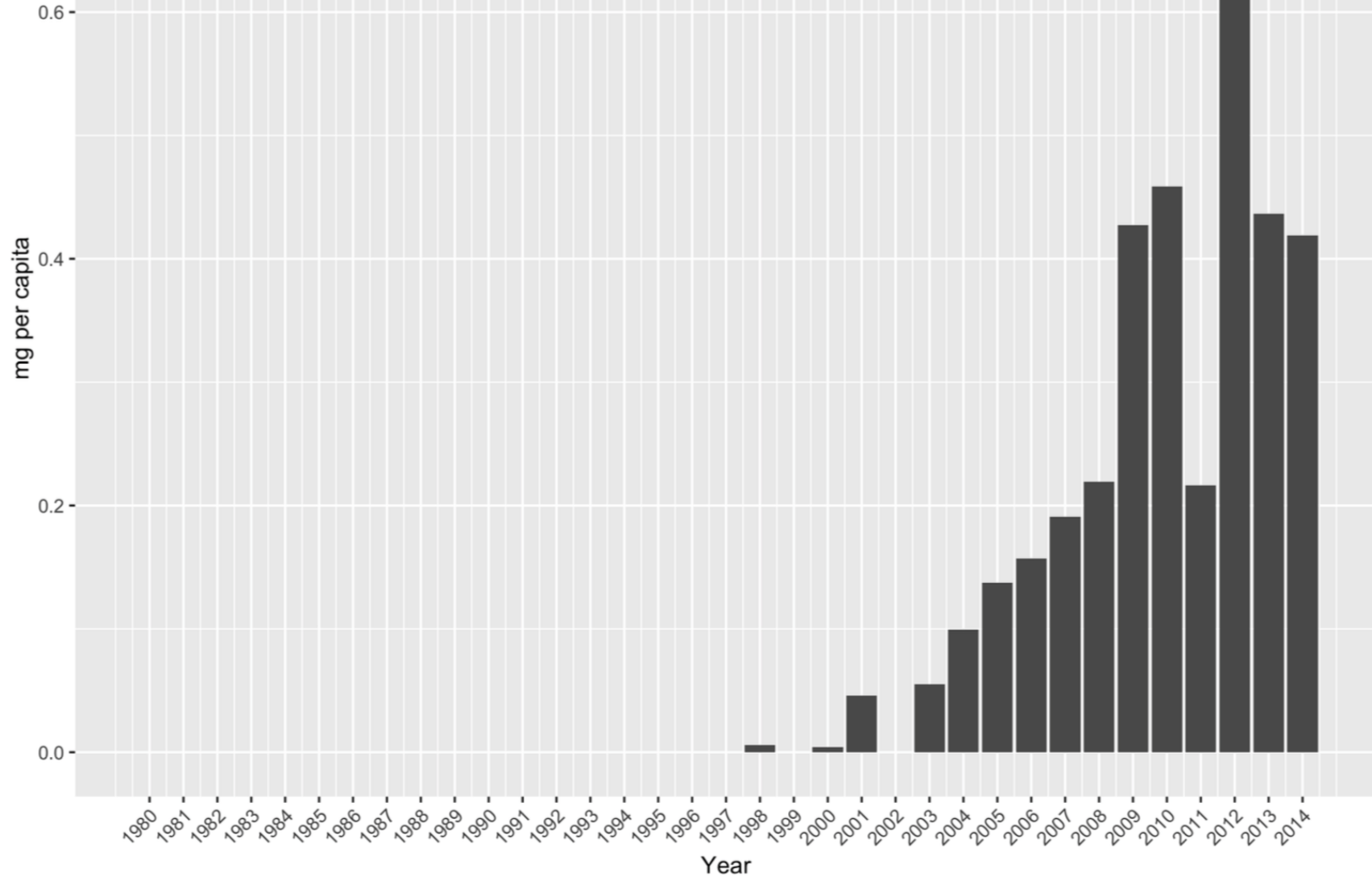
Sierra Leone



Mr. Gabriel Madiye
Hospice Administrator

Viet Nam

Morphine Consumption (mg/capita) 1980–2014



International Pain Policy Fellowship, 2008

Armenia



Dr. Hrant Karapetyan
Physician

Dr. Irina Kazaryan
Pharmacist

Jamaica



Dr. Dingle Spence
Physician

**Mrs. Verna
Walker-Edwards**
Pharmacist

Georgia



Dr. Pati Dzotsenidze
Physician

Kenya



Dr. Zippy Ali
Physician

Guatemala



Dr. Eva Duarte Juárez
Physician

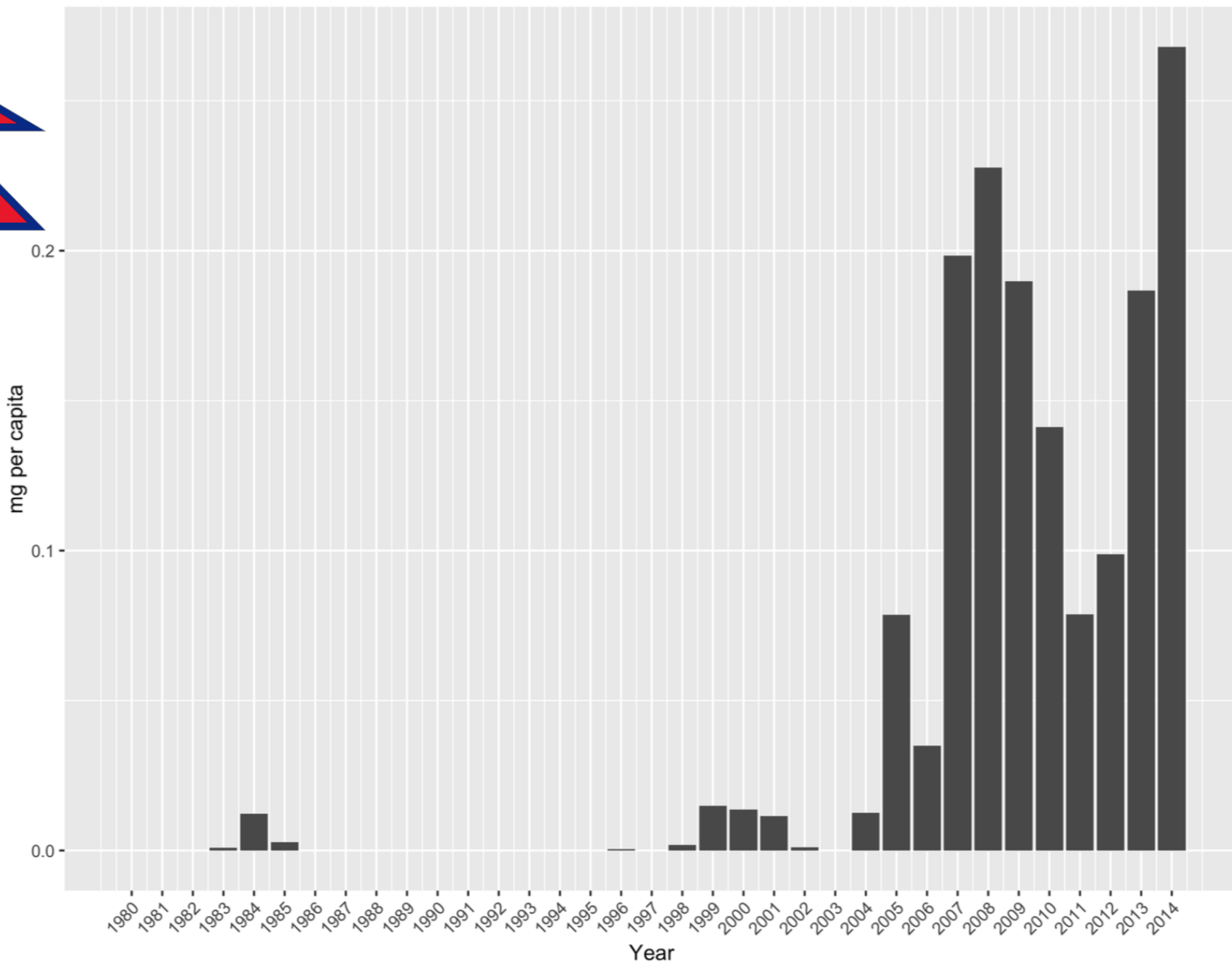
Nepal



Dr. Bishnu Paudel
Physician

Nepal

Morphine Consumption (mg/capita) 1980–2014



Jamaica

Morphine Consumption (mg/capita) 1980–2014



mg per capita

1.5

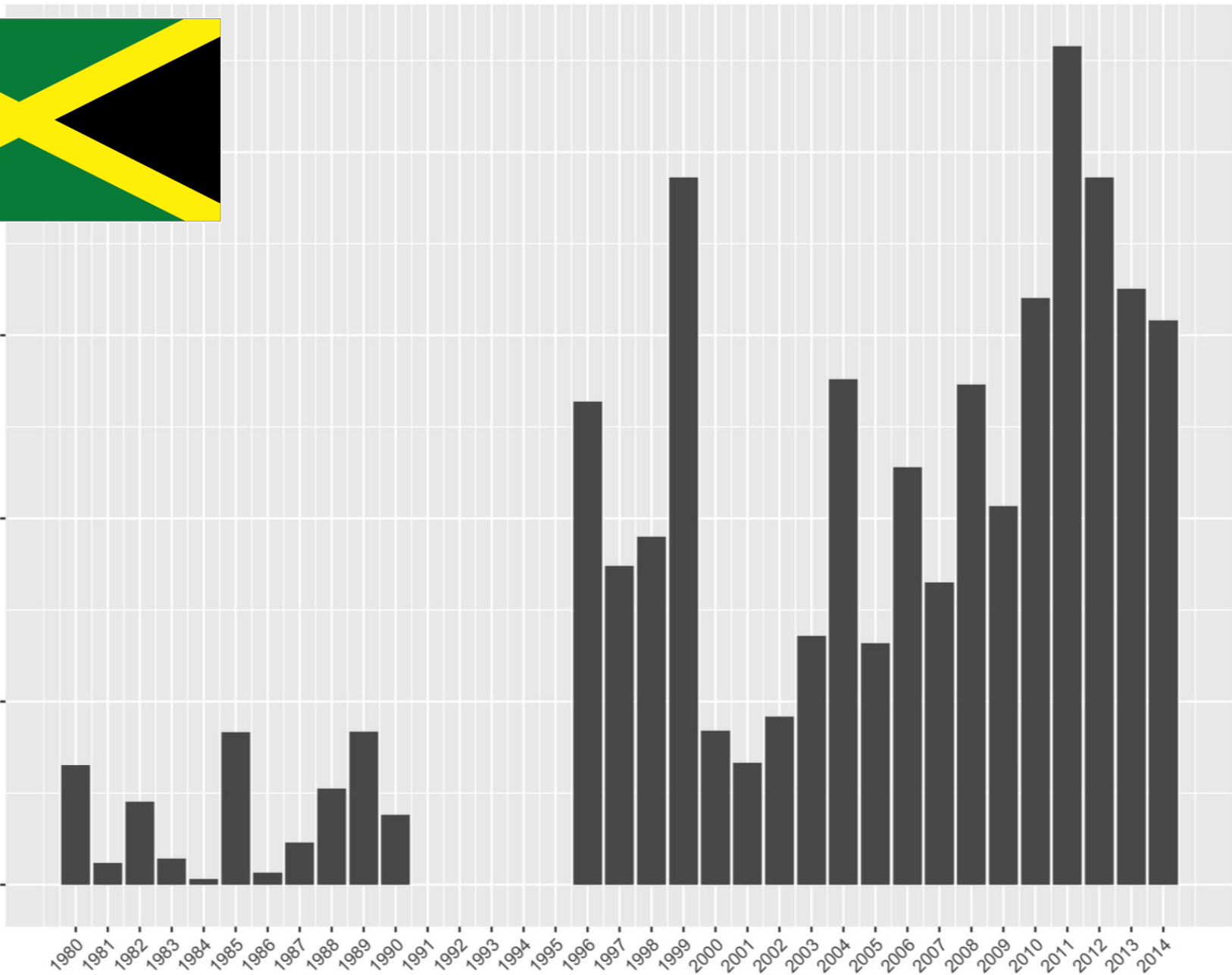
1.0

0.5

0.0

Year

1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014



Kenya

Morphine Consumption (mg/capita) 1980–2014

59kg



mg per capita

0.6

0.4

0.2

0.0

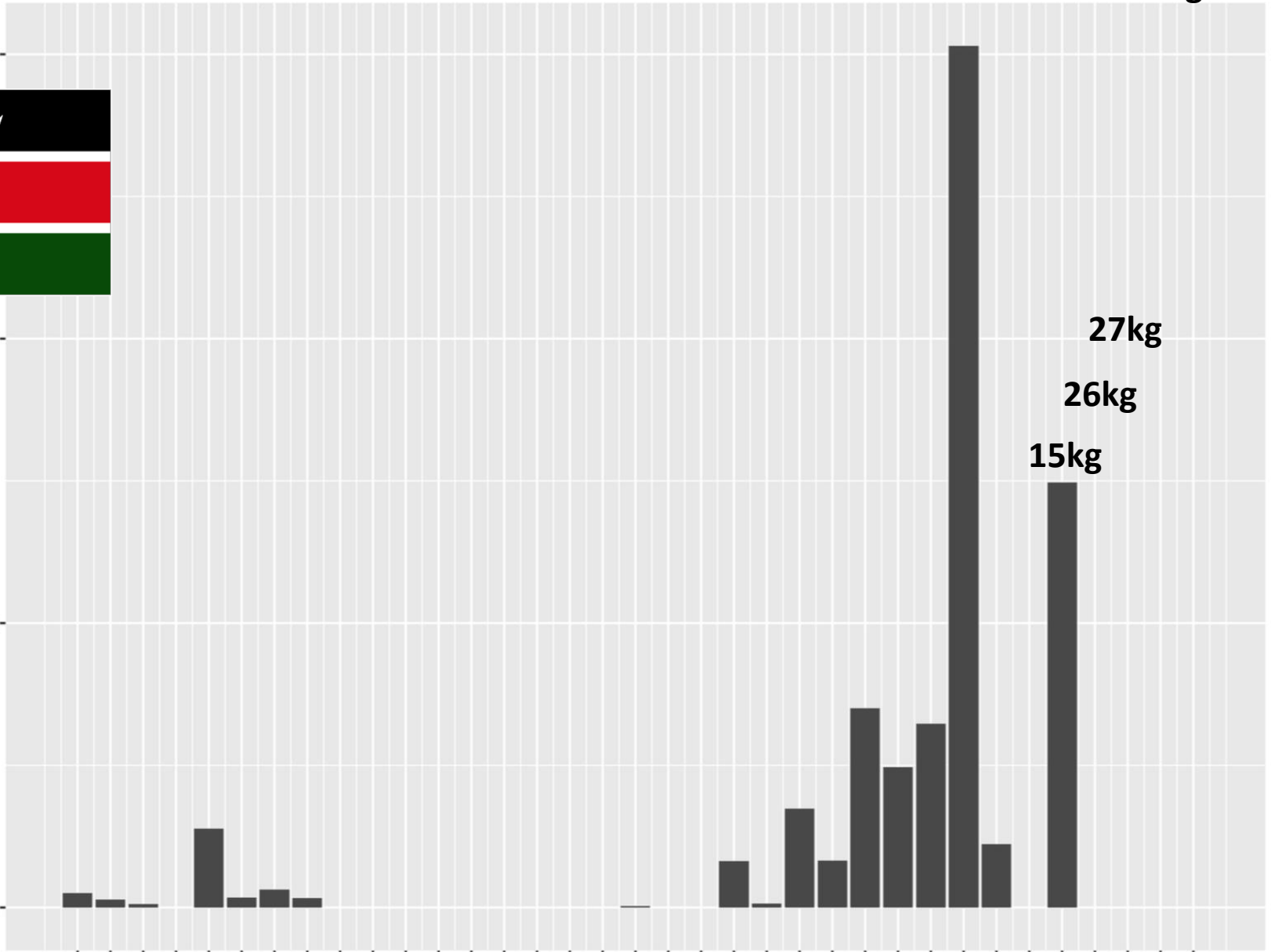
Year

1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

27kg

26kg

15kg



International Pain Policy Fellowship, 2012

Ukraine



Ms. Nataliia Datsiuk
Researcher

Bangladesh



Dr. Rumana Dowla
Physician

Dr. Farzana Khan
Physician

Albania



Dr. Kristo Huta
Physician



akumaran

erera

ini Kulkarni
Physician

Vallabhan
*Policy & Program
Consultant*

ini Vallath
Physician

ul Sabyrbekova
Physician

(some countries are cut and rotated)
refer to table below for exact data

NCI Funded African IPPF

- APCA
- Sudan
- Rwanda
- Zambia
- Ethiopia
- Ghana
 - UICC, IAEA, NCI, UNODC

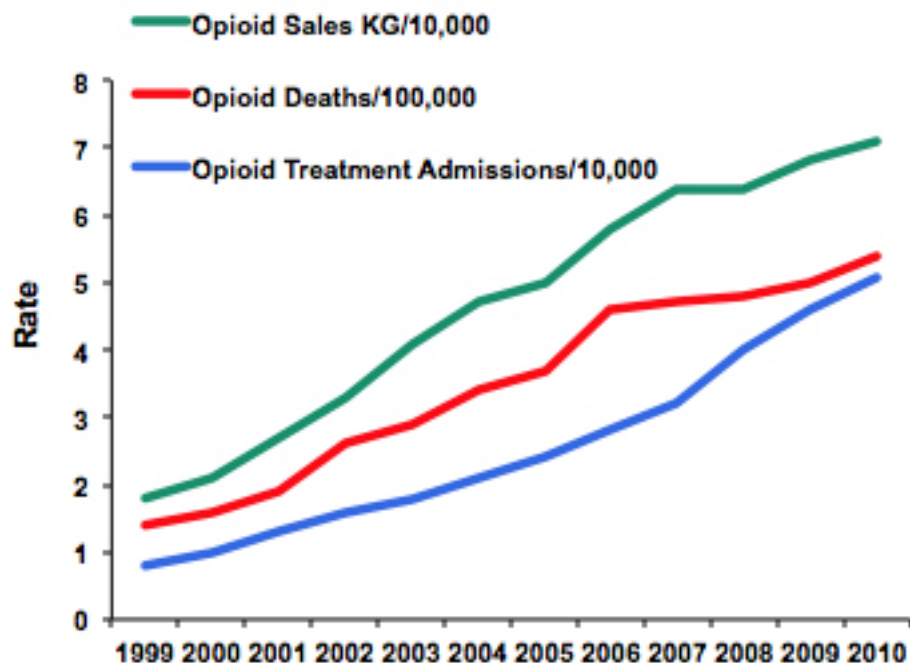




Is The Media Missing The Point On Pain Medication Dispute?

Posted on April 13, 2015 in [Drug Addiction](#), [Pain Medication](#)





Relieving PAIN in America

A Blueprint for Transforming Prevention, Care, Education, and Research

60% polypharmacy
Benzodiazepines
Alcohol

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Home & Recreational Safety

Drug Overdose

Get the Facts

Research & Activities

Publications

Policy Impact

State Rx Drug Laws

Heads Up: Concussion in Sports

Falls – Older Adults

Falls – Children

Water-Related Injuries

Poisoning

Fires

Playground Injuries

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Policy Impact: Prescription Painkiller Overdoses

What's the Issue?

In a period of nine months, a tiny Kentucky county of fewer than 12,000 people sees a 53-year-old mother, her 35-year-old son, and seven others die by overdosing on pain medications obtained from pain clinics in Florida.¹ In Utah, a 13-year-old fatally overdoses on oxycodone pills taken from a friend's grandmother.² A 20-year-old Boston man dies from an overdose of methadone, only a year after his friend also died from a prescription drug overdose.³

These are not isolated events. Drug overdose death rates in the United States have more than tripled since 1990 and have never been higher. In 2008, more than 36,000 people died from drug overdoses, and most of these deaths were caused by prescription drugs.⁴



Policy Impact:
Prescription Painkiller
Overdoses  [460KB, 12 pages]
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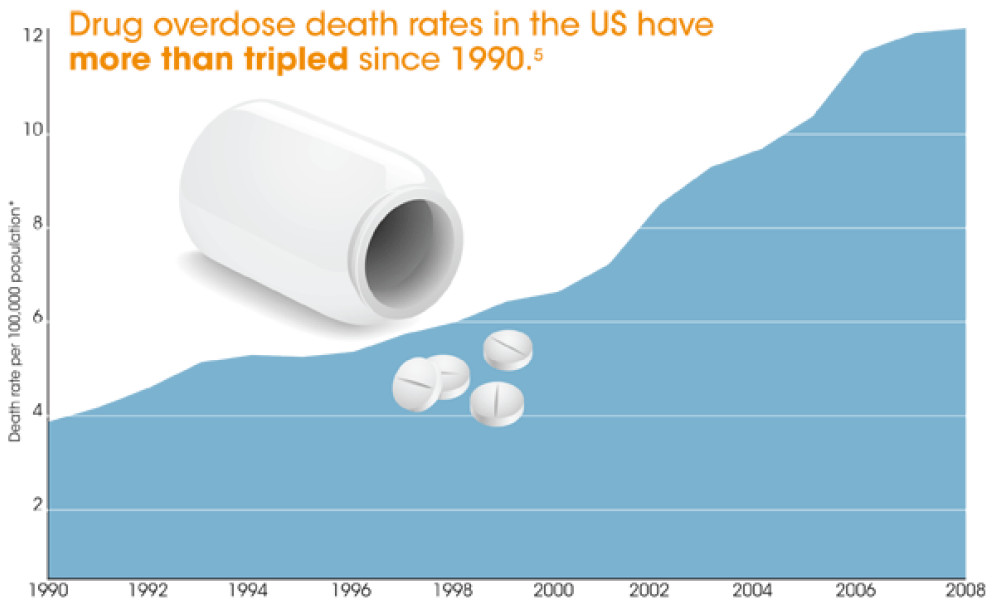
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Methadone contributed to nearly **1 in 3** prescription painkiller deaths in 2009.



Vitalsigns
www.cdc.gov/vitalsigns

100 people die from drug overdoses every day in the United States.⁴



*Deaths are those for which poisoning by drugs (illicit, prescription, and over-the-counter) was the underlying cause.

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 Centers for Disease Control and Prevention
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Atlanta, GA 30333

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 cdcinfo@cdc.gov

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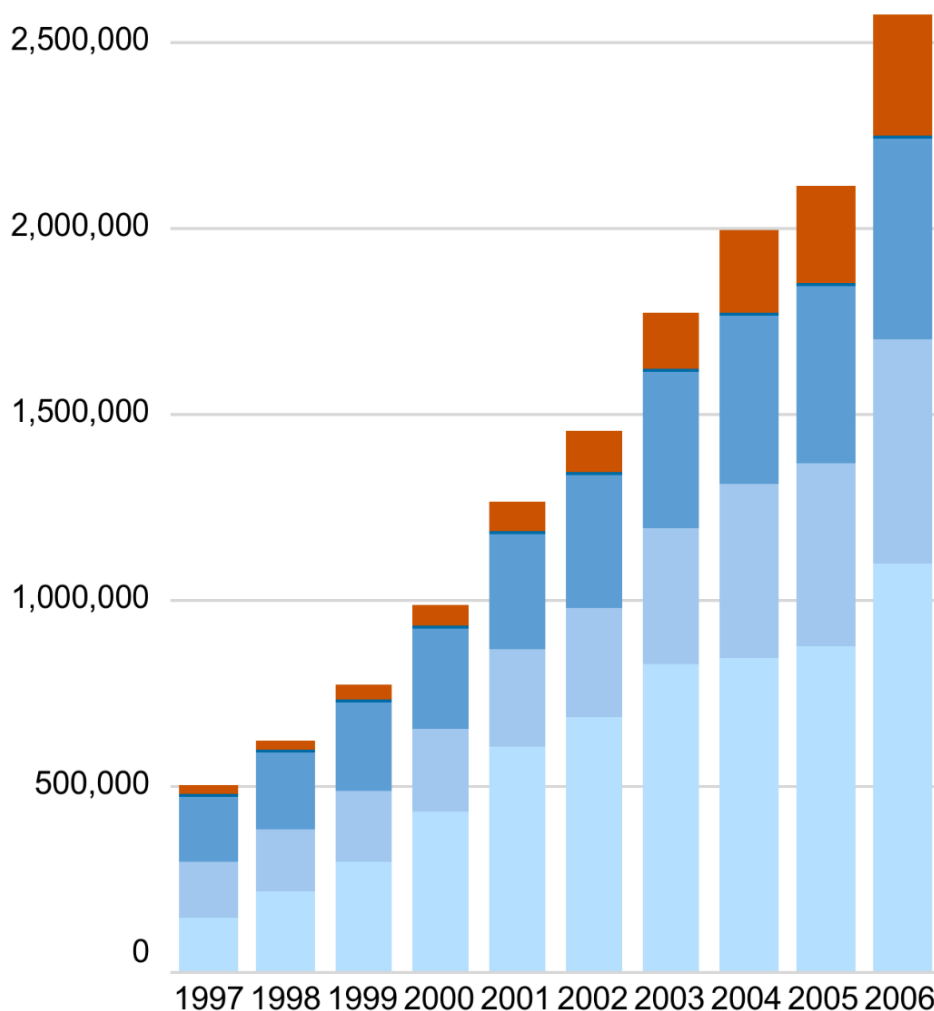
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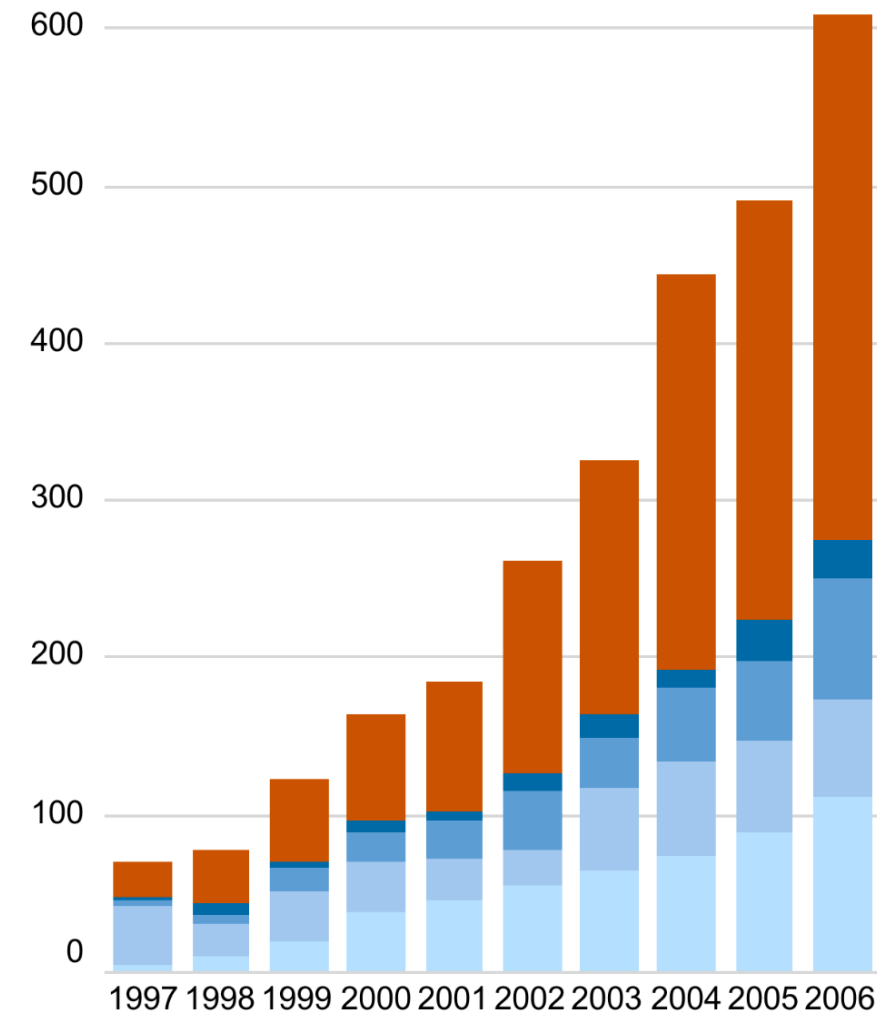
Painkillers (Click on the legend to highlight the drug. Shift-click to highlight multiple drugs.)

Methadone Fentanyl Hydrocodone Morphine Oxycodone

Washington drug use by type since 1997, in grams



Washington drug deaths by type since 1997



Note: Morphine use in 2000 is an estimate. These death statistics were derived from state research and vary from The Times' analysis.

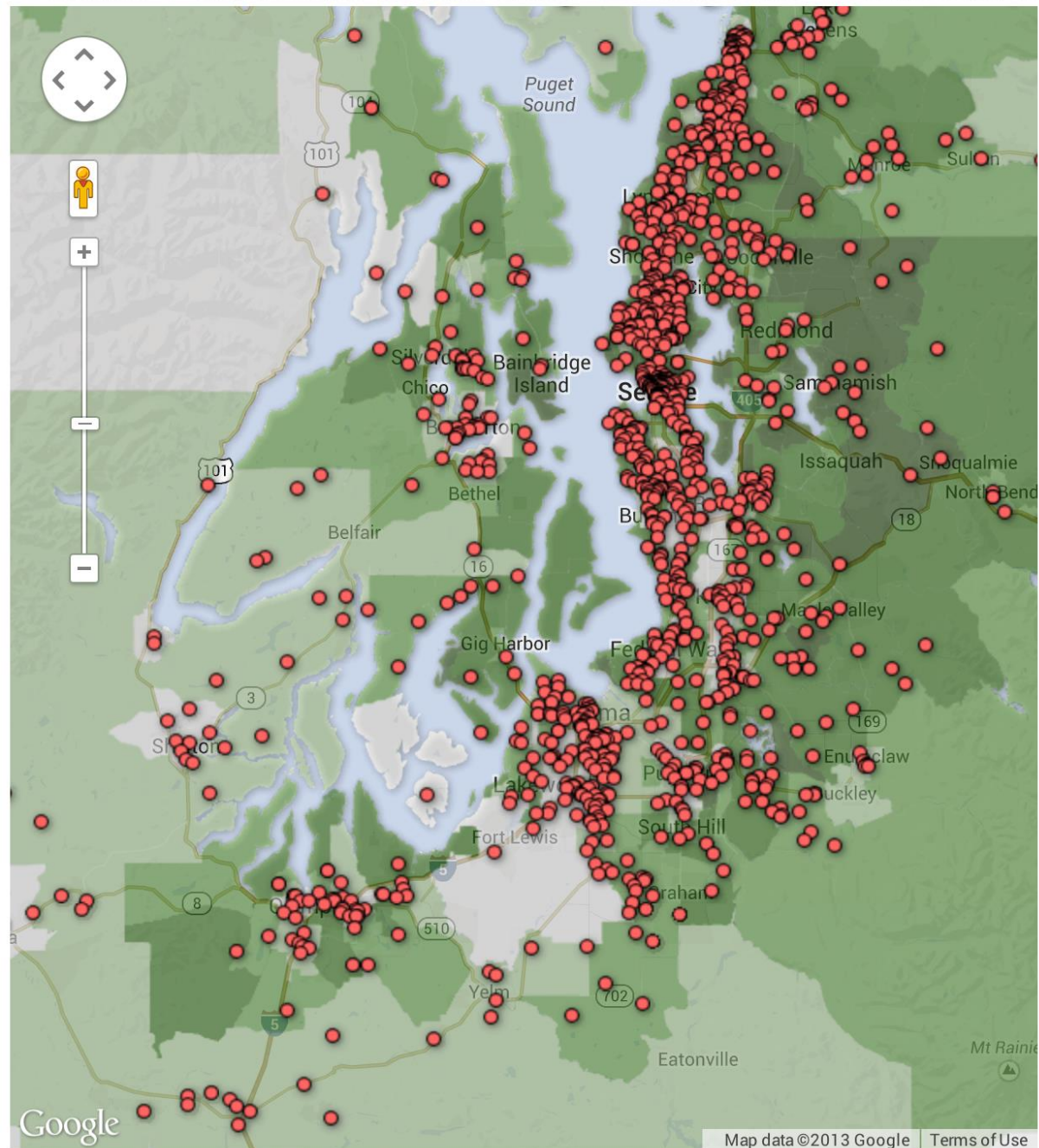
Source: U.S. Drug Enforcement Administration and state Department of Health

A. RAYMOND/THE SEATTLE

TIMES

Median household income

0 to \$45,000 \$45,000 to \$60,000 \$60,000 to \$75,000 \$75,000 to \$100,000 \$100,000 to \$185,000



Source: Seattle Times analysis of state death records.

JUSTIN MAYO/THE SEATTLE TIMES



STATE OF FLORIDA

PAM BONDI
ATTORNEY GENERAL

I appreciate the recent conversations between members of our respective staffs and believe your administration can continue to provide guidance and a degree of certainty across the entire prescription drug delivery system. Drug wholesalers, pharmacy chains and pain management physicians could all benefit from a clearly articulated set of best practices. Applying these practices would facilitate a level of confidence that prescription drug delivery systems could operate without fear of adverse federal government action in the absence of probable cause. Working together, Florida can retain the amazing progress already achieved in this life-and-death struggle while ensuring that legitimate pain patients can access the prescription drugs they need when they need them.

Sincerely,

Our collective efforts succeeded beyond comprehension and in just over four years, Florida shut down more than 500 pill mills, reduced the footprint from 98 of the top 100 hydrocodone prescribers nationally to zero and saved hundreds of lives thanks to dramatic declines in prescription drug overdose deaths. Notably, oxycodone overdose deaths declined 65 percent and prescription drug deaths declined 30 percent overall.

Now in my second term, I am receiving credible reports of what amounts to episodic instances of prescription drug rationing in Florida. This unfortunate situation results in legitimate pain patients occasionally being denied the pain relieving medicines they need. However, these shortages are not the result of Florida's anti-pill mill legislation or any of the other efforts undertaken by my office to fight the prescription drug epidemic.

oxycodone overdose deaths declined 65 percent and prescription drug deaths declined 30 percent overall.

Now in my second term, I am receiving credible reports of what amounts to episodic instances of prescription drug rationing in Florida. This unfortunate situation results in legitimate pain patients occasionally being denied the pain relieving medicines they need. However, these shortages are not the result of Florida's anti-pill mill legislation or any of the other efforts undertaken by my office to fight the prescription drug epidemic.



**SINGLE CONVENTION
on
NARCOTIC DRUGS, 1961,**

**as amended by
the 1972 Protocol Amending the Single Convention
on Narcotic Drugs, 1961**

UNITED NATIONS

**Establishes a
Framework to:**

- 1. Prevent abuse and
diversion, *and***
- 2. Ensure the
availability of
drugs for medical
purposes**



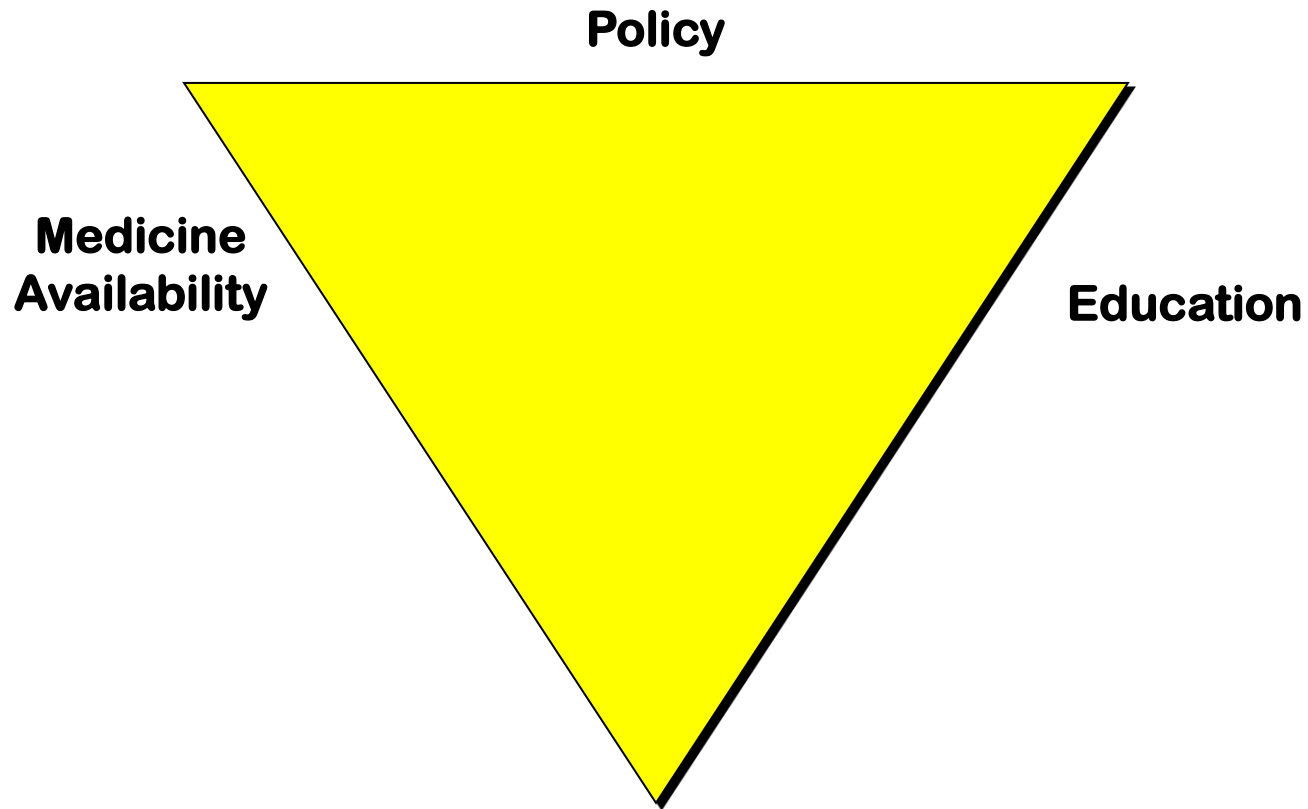
“Balance” is the Fundamental Principle

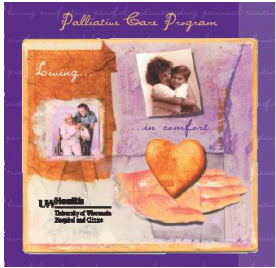


National policy should establish a drug control system that prevents diversion ***and*** ensures adequate availability for medical use

Drug control measures should not interfere with medical access to opioid

WHO Public Health Model





Palliative Care now

