

# Understanding and Using Opioid Consumption Statistics and Guidelines on Making Estimates

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Advocacy for Palliative Care in Africa  
*Essential Pain Medication Accessibility*

Accra, Ghana 9-11 May 2007

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

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

**UNITED NATIONS**

# Single Convention on Narcotic Drugs

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- The Parties shall furnish to the Board statistical reports on the consumption of drugs.
- A drug is “consumed” when it has been supplied to any person or enterprise for retail distribution, medical use, or scientific research.
- Consumption is therefore defined as the transfer from wholesale to retail.

# U.N. Single Convention

## Article 1, paragraph 2

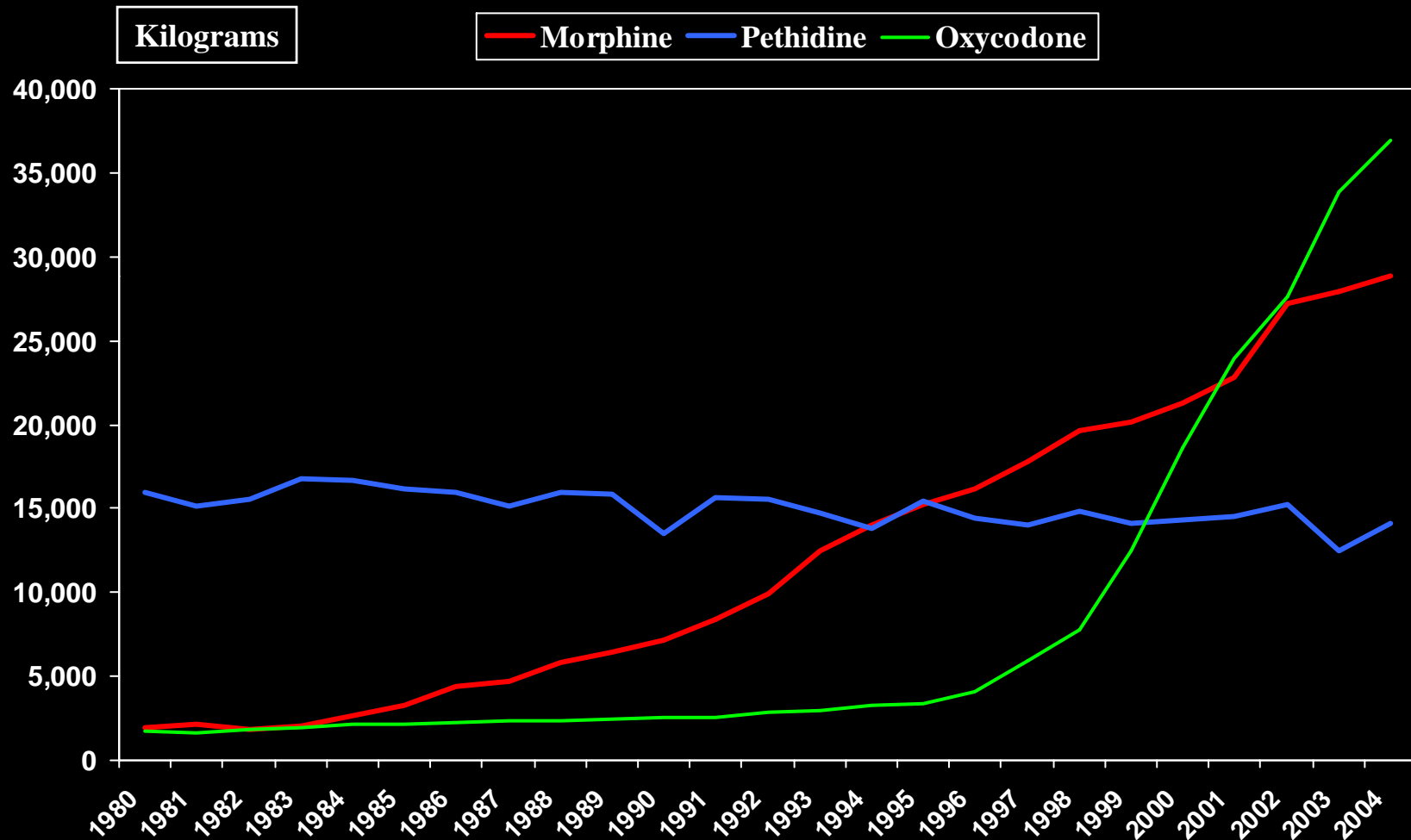
For the purposes of this Convention a drug shall be regarded as “consumed” when it has been supplied to any person or enterprise for retail distribution, medical use or scientific research; and “consumption” shall be construed accordingly.

# INCB

Training material, Part II, paragraphs 3 and 4

In accordance with the Single Convention..... Consumption is therefore defined as the transfer from wholesale to retail.

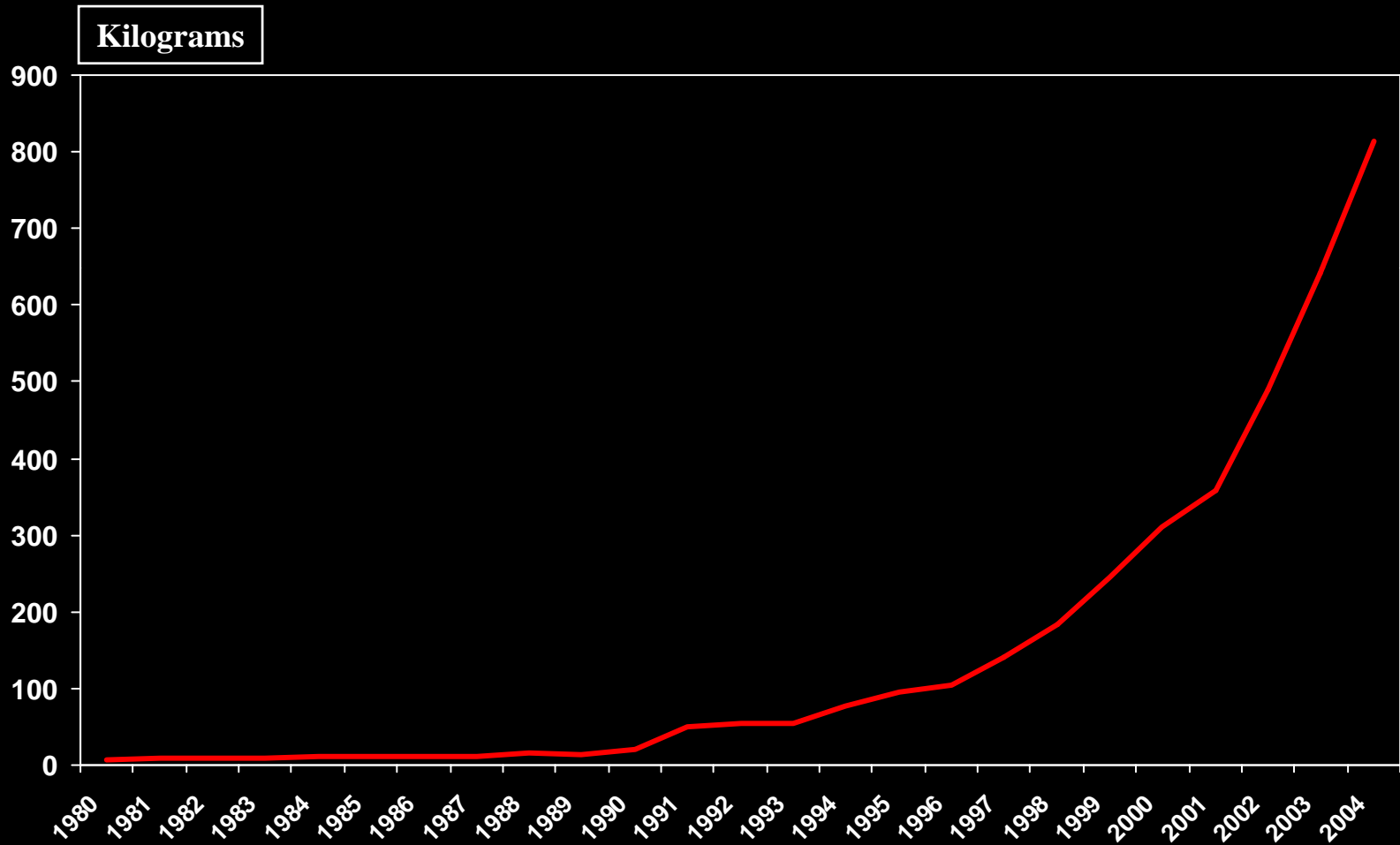
# Graph 1. Global Consumption of Morphine, Pethidine and Oxycodone 1980-2004



Source: International Narcotics Control Board

By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2006

## Graph 2. Global Consumption of Fentanyl 1980-2004



Source: International Narcotics Control Board

By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2006

# National Competent Authorities

## **Cameroon**

Ministère de la santé publique  
Yaoundé, CAMEROUN

## **Nigeria**

Director-General  
National Agency for Food and Drug  
Administration and Control  
Olusegun Obasanjo Way  
Zone 7, Wuse  
Abuja, NIGERIA

## **Côte d'Ivoire**

Direction de la pharmacie et du  
médicament  
B.P. V5  
Abidjan, COTE D'IVOIRE

## **Sierra Leone**

Chairman  
Pharmacy Board  
Government Medical Stores  
New England Ville  
Freetown, SIERRA LEONE

## **Ghana**

Narcotics Control Board  
Private Mail Bag  
Cantonments  
Accra, GHANA

## **the Gambia**

Medicines Board  
Department of State for Health  
Banjul, GAMBIA

## Annual Statistics, Form C, Part 1 (FOR ALL COUNTRIES)

1		2		3		4		5			6		
Quantity manufactured		Narcotic drug	Quantity consumed		Quantity used for the manufacture of Schedule III preparations		Quantity held in stocks as at 31 December		Quantity procured (P) for or withdrawn (W) from special stocks			Losses (during manufacturing process) *	
Kg	G		Kg	G	Kg	G	Kg	G	Kg	G	P/ W	Kg	G
		Methadone											
		Morphine											
		Nicomorphine											
		Normethadone											
		Opium											
		Oxycodone											
		Oxymorphone											
		Pethidine											
		Phenoperidine											
		Pholcodine											
		Thebacon											
		Thebaine											
		Tilidine											
		Trimeperidine											
Kg	G		G	Mg	G	Mg	G	Mg	G	Mg	P/ W	G	Mg
		Alfentanil											
		Fentanyl											

# Uses of Consumption Statistics

- Identification of the opioids that are available (i.e., manufacture or import authorization) in a country.
- An indicator of a country's current and historical ability to treat moderate to severe pain.
- A tool to evaluate the efforts to improve opioid availability (i.e., following removal of a barrier.)

# Limitations of Consumption Statistics

- Countries may not annually report or may report incorrect statistics.
- For a few medicines, not able to distinguish between different clinical USES, e.g., methadone to treat pain vs. addiction.
- Not able to distinguish between types of pain being treated, e.g., acute vs. chronic.
- Consumption for single drugs offers only a partial view of a country's ability to manage pain.

# PPSG Collaboration with INCB

- **INCB publishes consumption statistics annually.**
  - **These reports do not include reported amounts less than 1 kg.**
- **PPSG has a long-term relationship with INCB: we are sent annual raw data, which includes ALL reports, even those less than 1 kg.**
- **PPSG receives annual updates of previous years' data.**

# Reasons for unavailability of opioids (INCB, 2002)

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- Inadequate method to assess requirements
- Unduly restrictive regulations
- Burdensome administrative procedures
- Concerns about addiction, dependence
- Physicians' fear of investigation, penalties
- Lack of medical training in pain relief

# Estimating opioid *requirements*

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*“Governments and the [International Narcotics Control] Board need to have accurate information about medical needs for narcotic drugs. In the case of narcotic drugs that are opiates, it is particularly important to accurately estimate all medical needs because the Board must make arrangements well in advance to cultivate a sufficient quantity of poppy plants.” (p. 1).*

# Methods for Estimating Opioid Requirements

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- 1) Population – based method
- 2) Service – based method
- 3) Consumption – based method
- 4) Consumption – Growth method\*

**INCB training materials**

# Consumption – Growth Method

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- Builds on Consumption-based method
- Accounts for increasing palliative care program needs for opioids
- When palliative care is being scaled up, projects higher than past average amount

**INCB training materials**

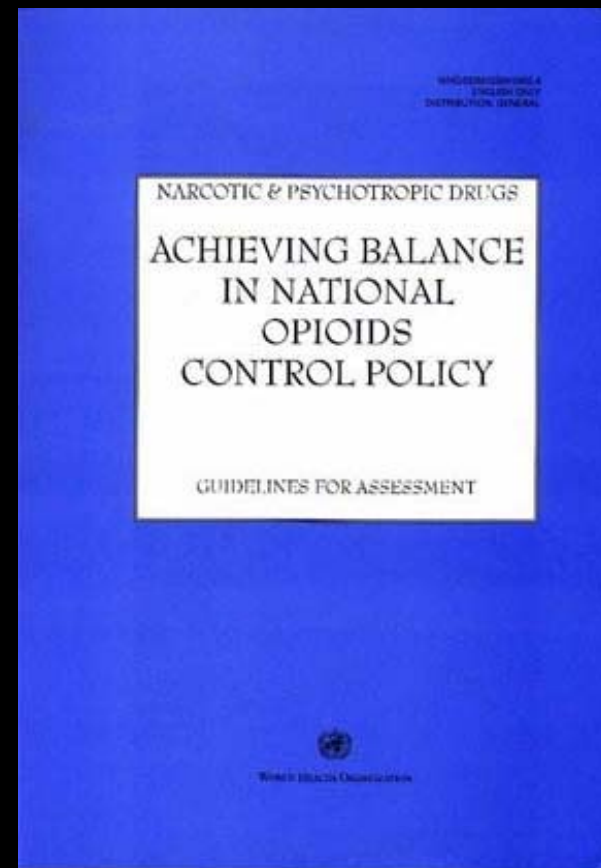
## INCB (2004)

“...the Board...would welcome a further increase in global demand for opiates. The Board encourages Governments to take steps to increase the medical use of opiates in their countries in order to meet their real needs for the treatment of pain.”

# WHO Criteria to Evaluate the System for Estimating Opioid Requirements

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- 5. Practical method to estimate requirements**
- 6. Submit estimates annually**
- 7. Submit supplementary estimates if necessary**



# How could your estimate system be improved?

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- Past use trend not always a reliable predictor
- Inventory palliative care programs (data collection)
  - List each institution, program that provides care for patients with cancer, AIDS (Sample forms)
    - All levels of health system
    - Estimate number of patients annually
    - Quantity consumed for each opioid
    - Average dose
  - Is each properly authorized to prescribe, dispense opioids?
    - If yes, estimate requirements
    - If no, develop plan of work

# PC Program Readiness

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<b>(a) Palliative care program (Name, Address, Telephone, E-mail)</b>	<b>(b) No. of authorized* and trained prescribers</b>	<b>(c) Facility authorized*?</b>	<b>(d) Security/ storage requirements met?</b>	<b>(e) Prescribing/ dispensing records?</b>	<b>(f) Program is ready** for opioids?</b>
<b>(1)</b> Hospice A	3	Yes	Yes	Yes	Yes
<b>(2)</b> Hospice B	1	No	No	No	No
<b>(3)</b>					
<b>(4)</b>					

# How could your estimate system be improved?

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- Each program/facility calculates next year's requirement
- Require programs to submit amendments if needed
- Submit estimate to the Competent Authority
- Consult INCB guidelines on estimation methods

# Estimated Requirements for 2007

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Country	Est. in grams	Population
Cameroon	3	18,060,382
Côte d'Ivoire	70	18,013,409
Ghana	5,000	22,931,299
Nigeria	5,000	135,031,164
Sierra Leone	44	6,144,562
The Gambia	500	1,688,359

Source: INCB Estimated World Requirements for 2006 report

Population Source: <https://www.cia.gov/cia/publications/factbook/index.html> (July 2007 Estimates)

# Consumption Statistics: Discussion Questions

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- (1) Clarify questions about the statistics and who reports them.
- (2) Do the statistics reported in the Monograph for your country seem accurate? What might explain periods of lower or higher consumption or non-reporting in your country?
- (3) Are these statistics credible and convincing in making the case of inadequate availability?
- (4) In what ways might you use these statistics, including in your action planning?

# Estimates: Questions for Discussion

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- Have the estimates been adequate to satisfy actual needs for pain management?
- What sources of information are used?
- Has the method been evaluated?
- How could the method be strengthened?

**Thank you  
and Good Luck!**

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