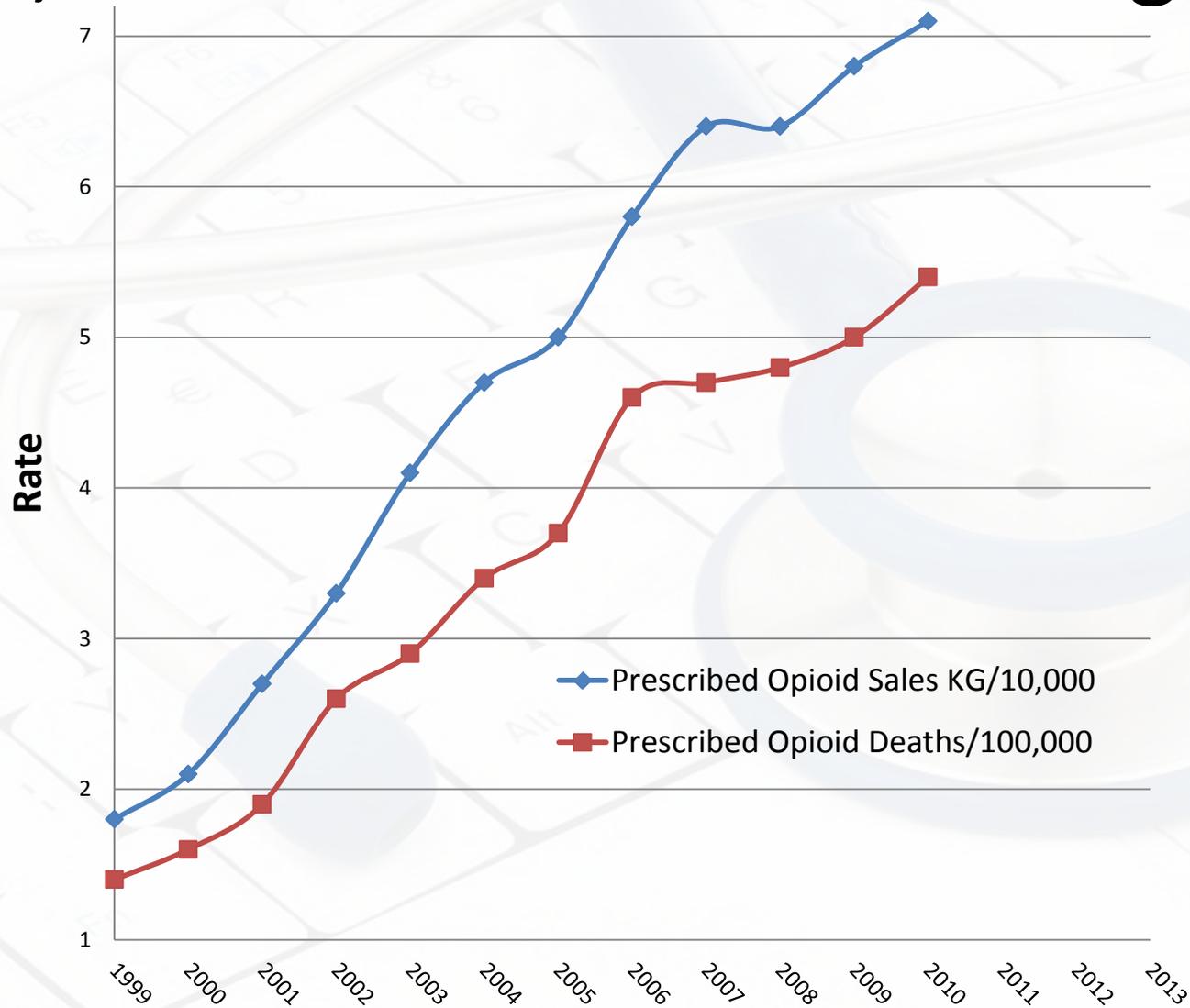


# CDC, 2010: Health Care Emergency

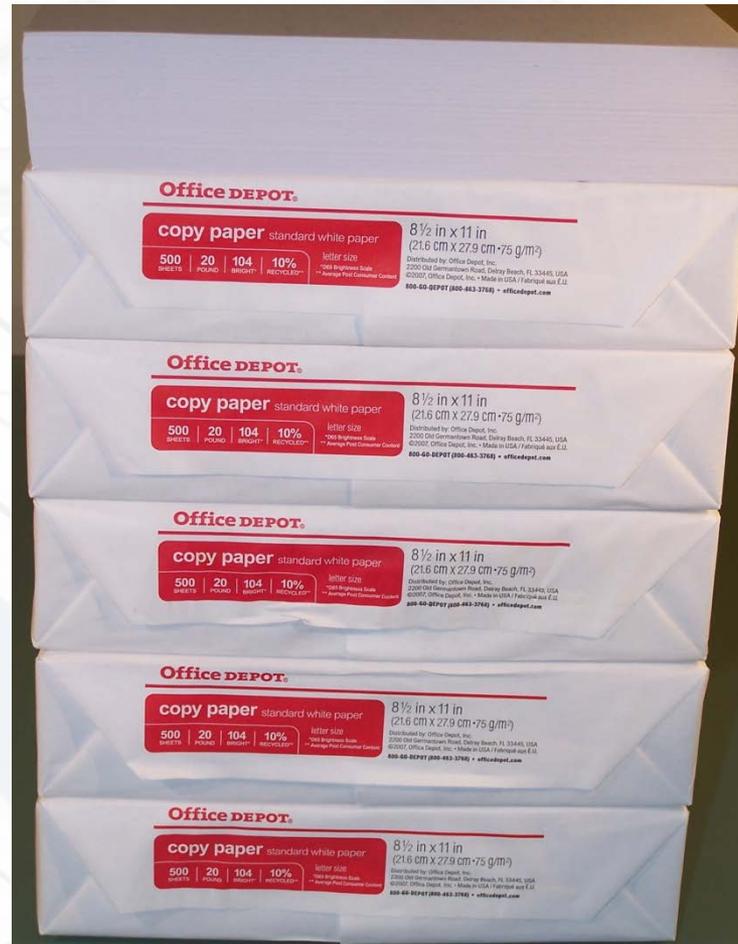


# CDC, 2010: Health Care Emergency

30,000 Deaths Per Year – All Prescribed  
Controlled Substances – Congresswoman  
Mary Bono Mack, April 2012

CDC 2010 Raw Data – Special Thanks to  
Mark Biagioni, National Injury Prevention  
Center, CDC

# CDC, 2010: This Weight of Prescribed Opiates Leads to One Death

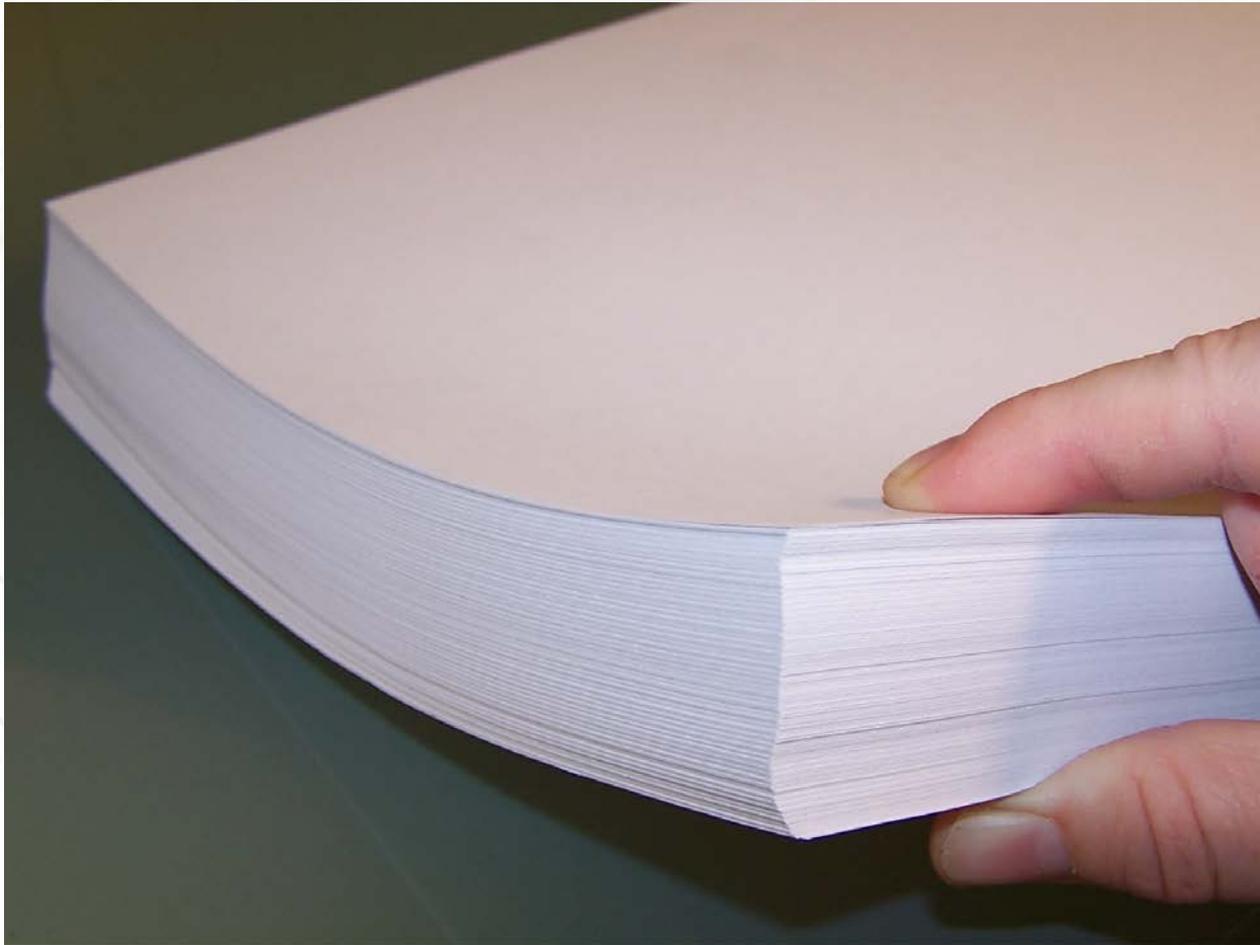


5 Reams + 398 Sheets

[www.Divert-X.com](http://www.Divert-X.com)



# CDC, 2010: This Weight of Prescribed Opiates Leads to One Treatment Admission

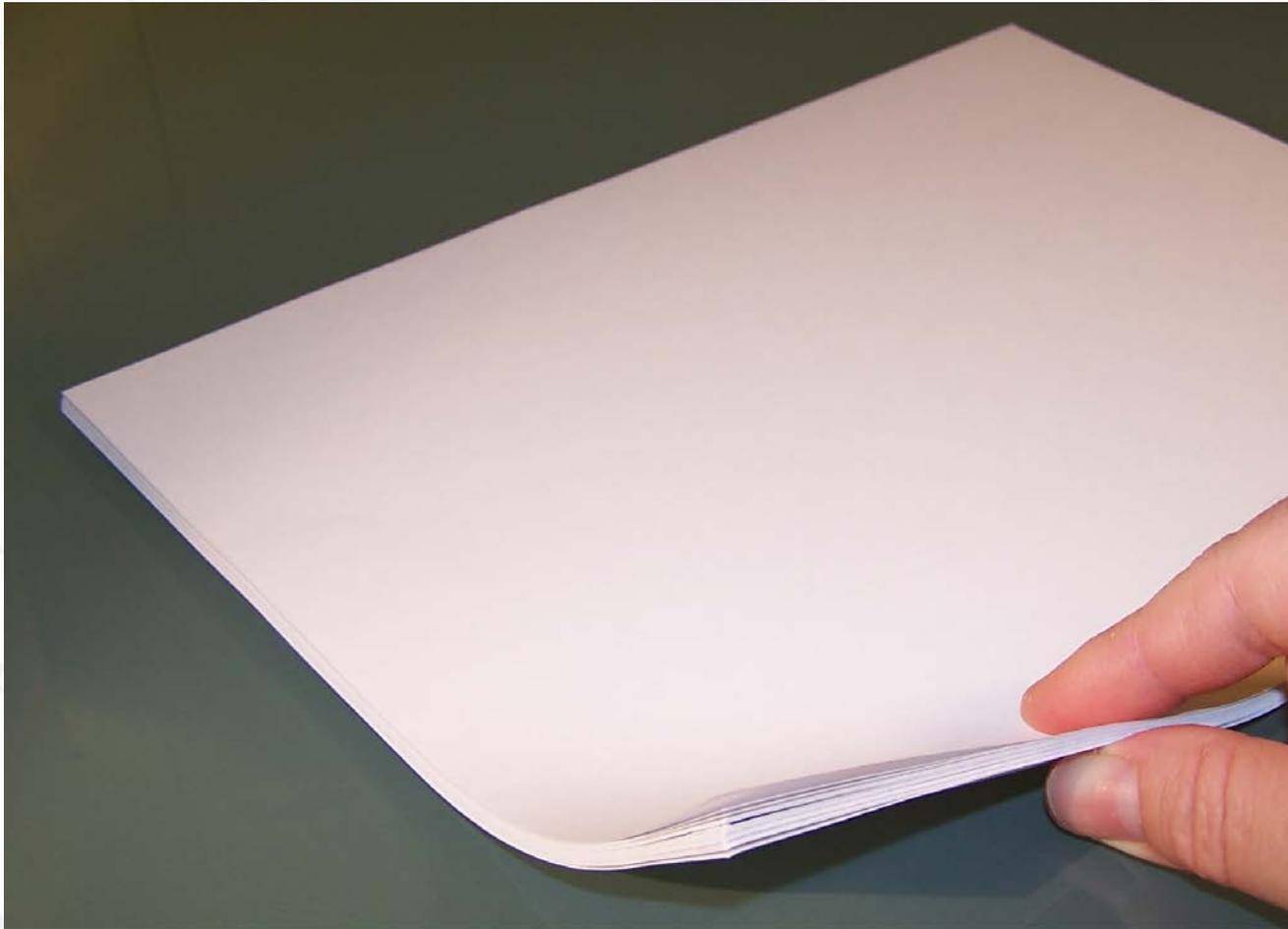


306 Sheets

[www.Divert-X.com](http://www.Divert-X.com)



# CDC, 2010: This Weight of Prescribed Opiates Leads to One Addict

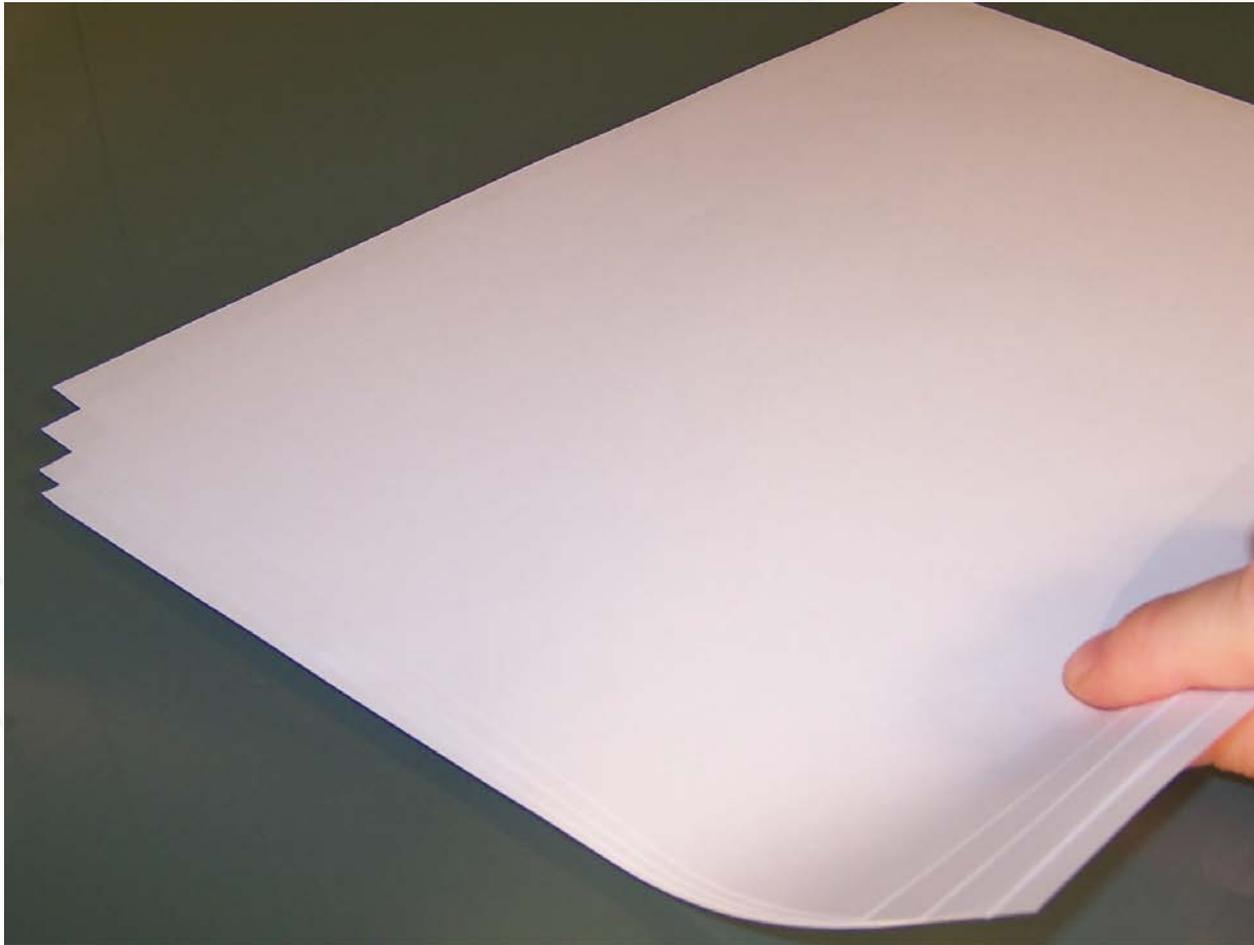


27 Sheets

[www.Divert-X.com](http://www.Divert-X.com)



# CDC, 2010: This Weight of Prescribed Opiates Leads to One Non-Medical User

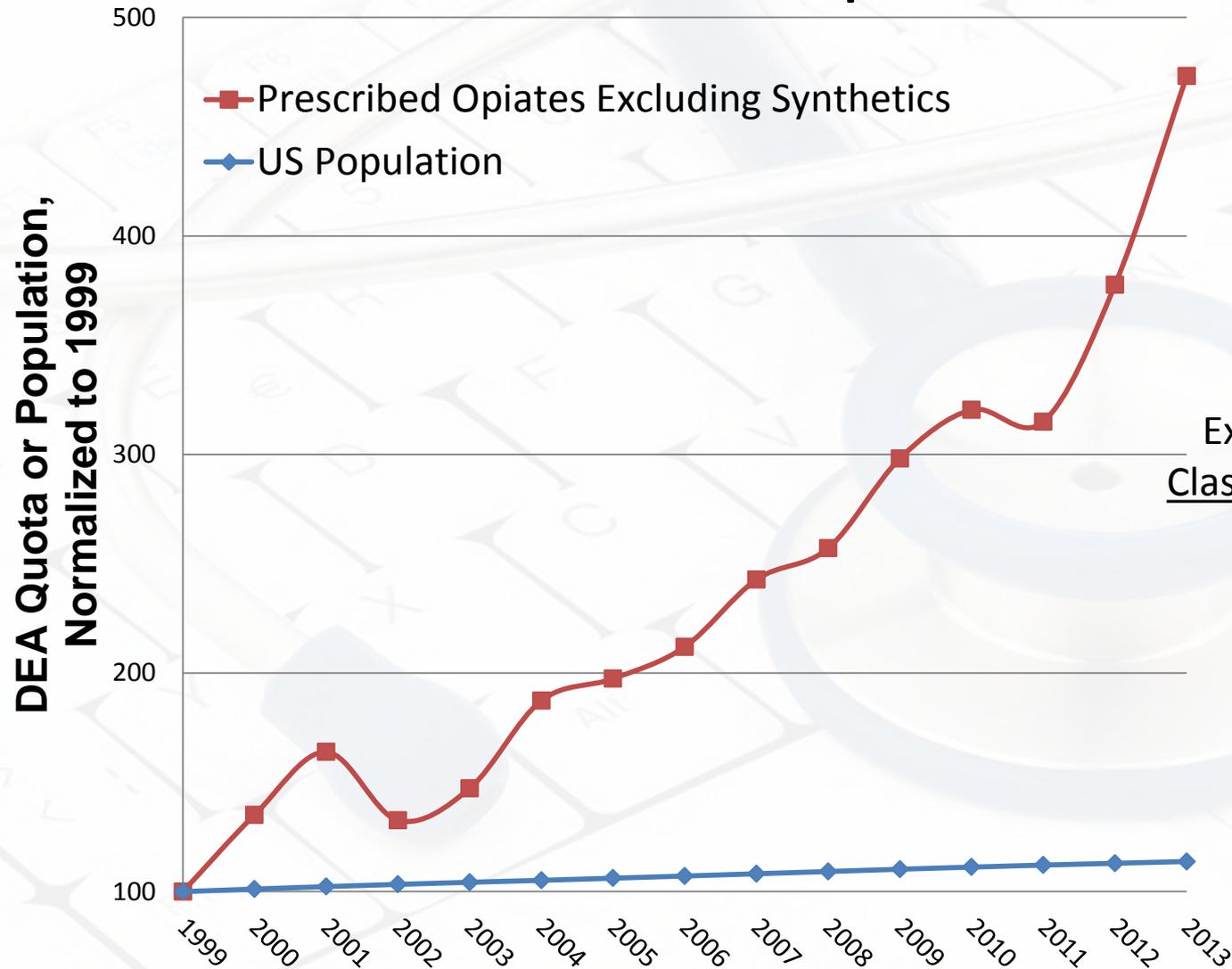


4 Sheets

[www.Divert-X.com](http://www.Divert-X.com)



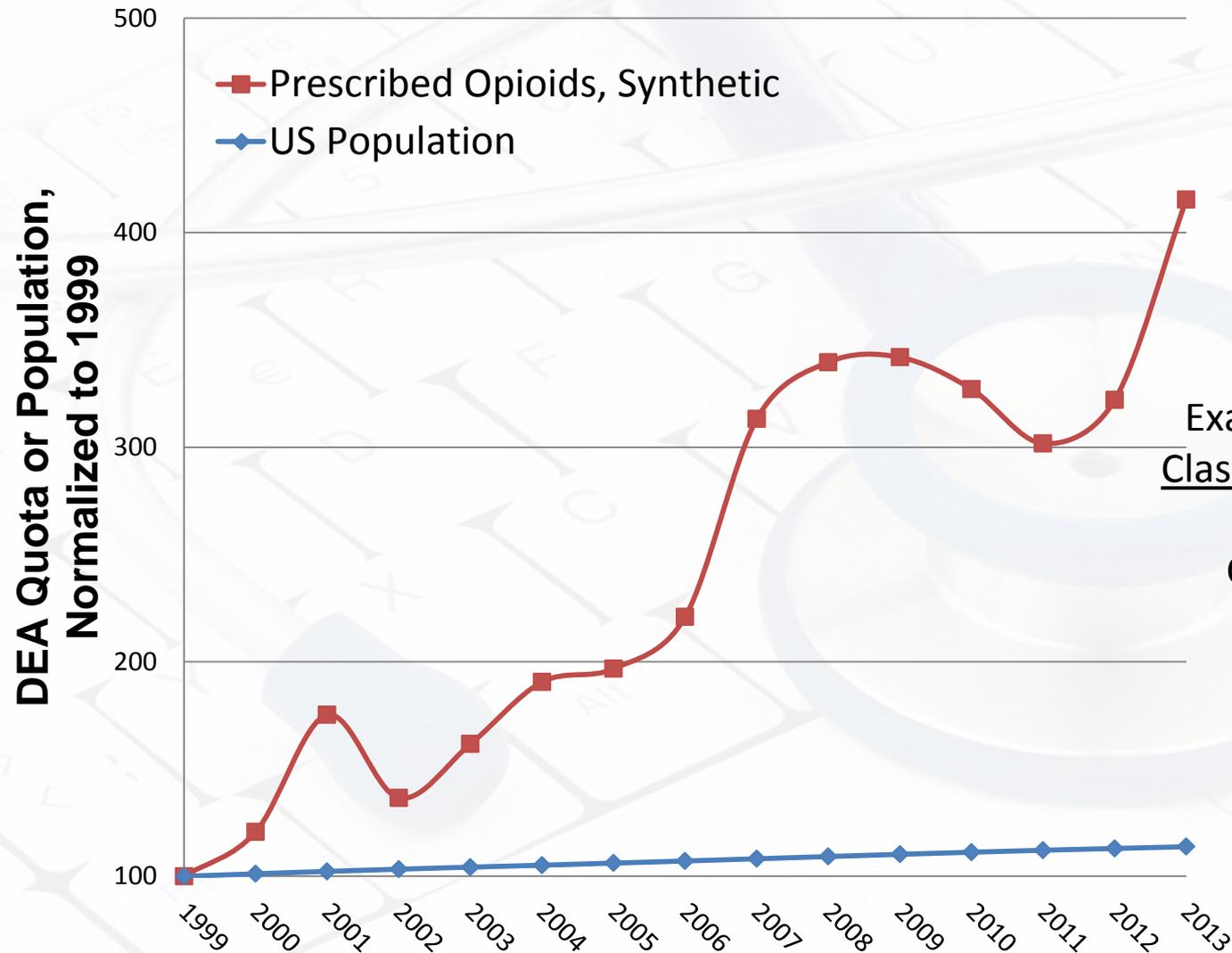
# DEA Quota Growth vs. Population Growth



Examples of This  
Class of Medications

goofers  
vikes  
oxys

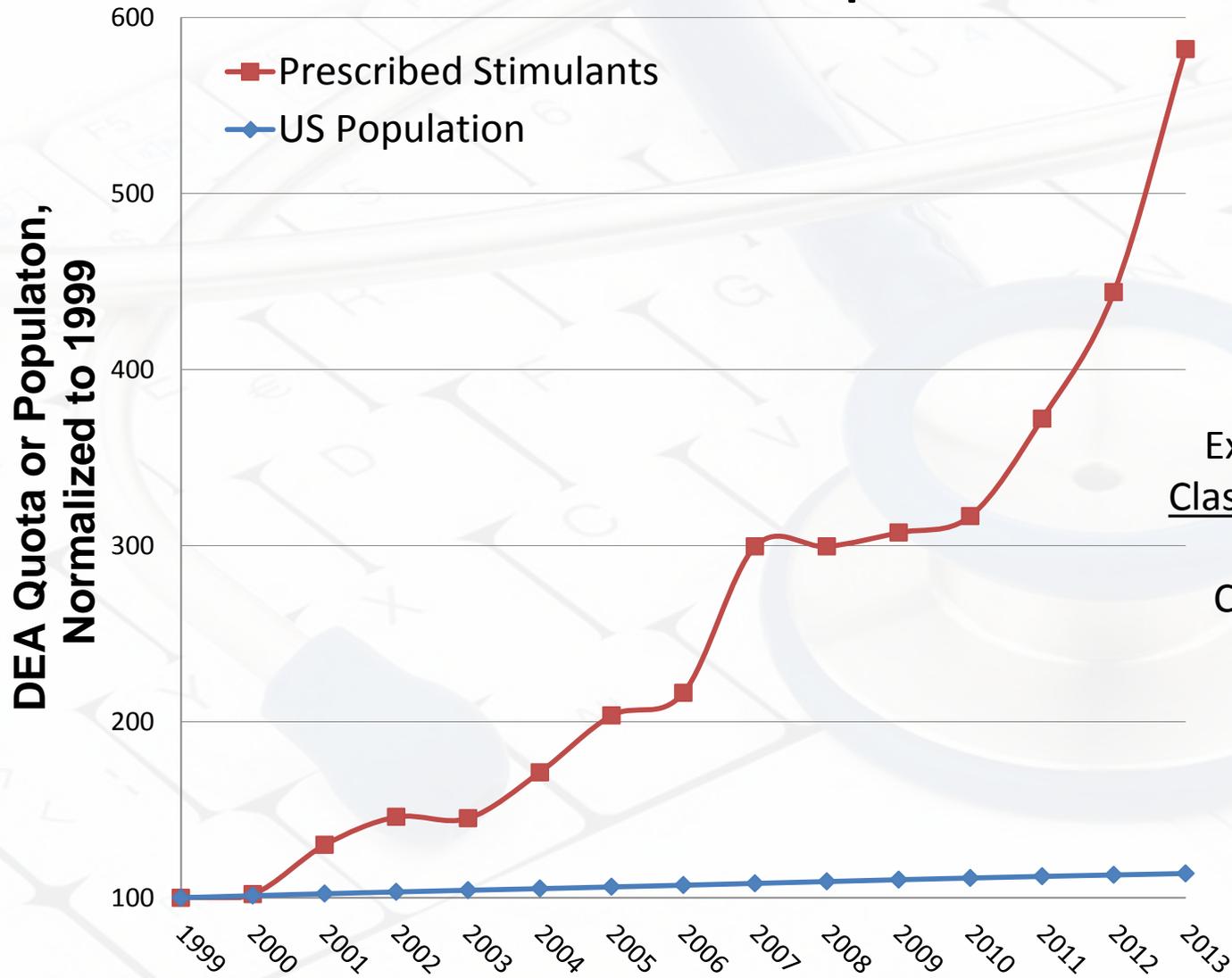
# DEA Quota Growth vs. Population Growth



Examples of This Class of Medications

stop signs  
China white  
dillies

# DEA Quota Growth vs. Population Growth



Examples of This  
Class of Medications

vitamin R  
Christmas trees  
speed

# DEA Quota Growth vs. Population Growth

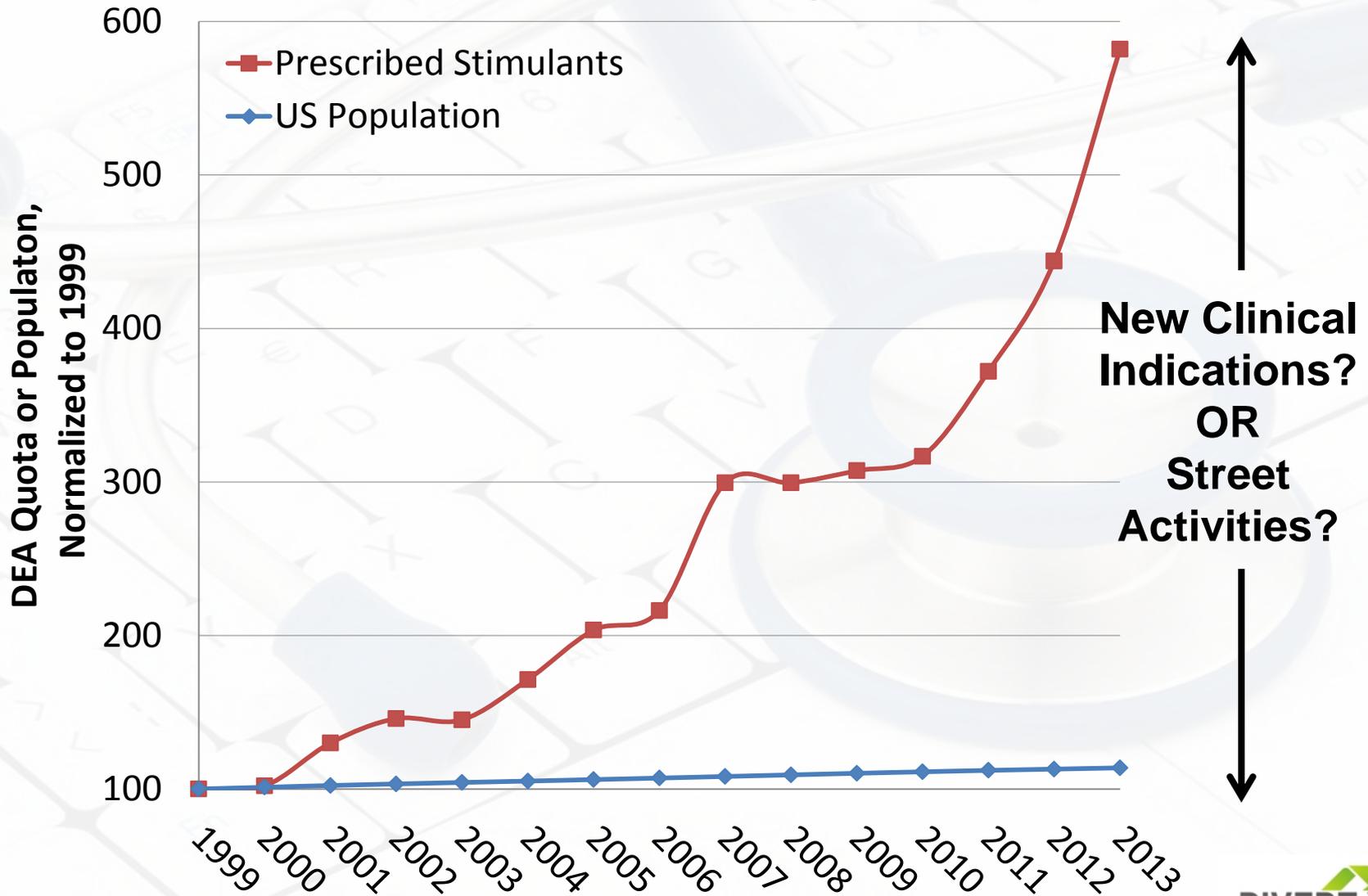
## Definitions Used:

- Stimulants = Amphetamine + Lisdexamfetamine + Methylphenidate + Methamphetamine
- Opioids, Synthetic = Fentanyl + Methadone + Tapentadol + Diphenoxylate + Meperidine + Thebaine + Oripavine
- "Popular" Opiates Excluding Synthetics = Hydrocodone + Hydromorphone + Morphine + Oxycodone + Oxymorphone

## Data Sources:

- US Population: <http://www.multpl.com/united-states-population/table>
- DEA Quota data for 2003-2013: [http://www.deadiversion.usdoj.gov/quotas/quota\\_history.pdf](http://www.deadiversion.usdoj.gov/quotas/quota_history.pdf)
- DEA Quota data for 2002: [http://www.deadiversion.usdoj.gov/fed\\_regs/quotas/2002/fr0723.htm](http://www.deadiversion.usdoj.gov/fed_regs/quotas/2002/fr0723.htm)
- DEA Quota data for 2001: [http://www.deadiversion.usdoj.gov/fed\\_regs/quotas/2001/fr0806.htm](http://www.deadiversion.usdoj.gov/fed_regs/quotas/2001/fr0806.htm)
- DEA Quota data for 2000: [http://www.deadiversion.usdoj.gov/fed\\_regs/quotas/2000/fr02108.htm](http://www.deadiversion.usdoj.gov/fed_regs/quotas/2000/fr02108.htm)
- DEA Quota data for 1999: [http://www.deadiversion.usdoj.gov/fed\\_regs/quotas/1999/fr0820a.htm](http://www.deadiversion.usdoj.gov/fed_regs/quotas/1999/fr0820a.htm)

# DEA Quota Growth vs. Population Growth

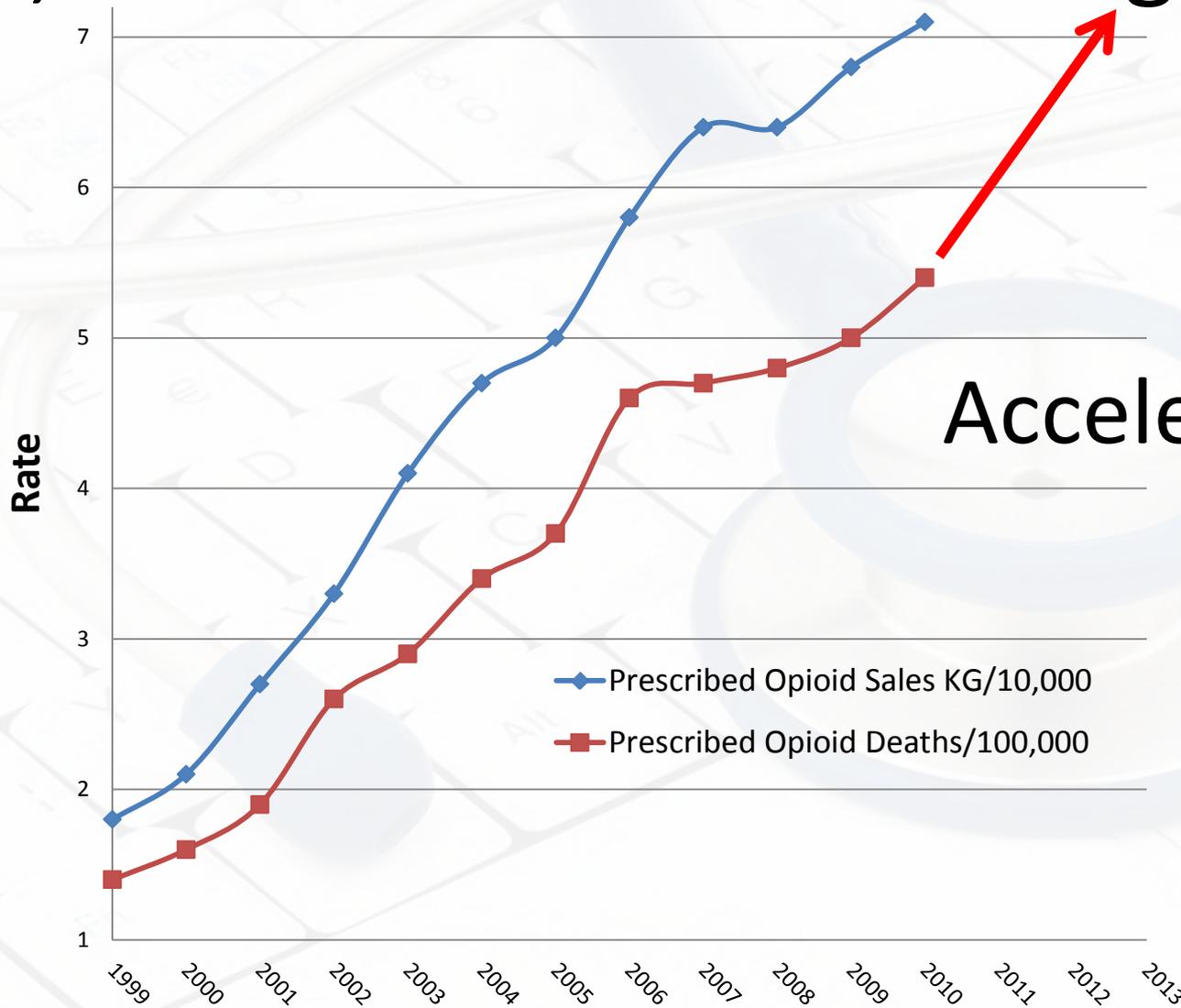


## Demand Wins

"DEA officials said that, based on the available prescription and sales data, there is no method to calculate which prescriptions are issued for a legitimate medical purpose by a practitioner acting in the usual course of professional practice and which are not."

U.S. Government Accountability Office  
Report Number GAO-12-115, Dec 22, 2011

# CDC, 2010: Health Care Emergency



# Vatex

## Addressing a Healthcare Epidemic

- The misuse and diversion of prescription medications is a healthcare and economic problem with limited solutions
  - 30,000 deaths per year from overdose
  - Leading cause of accidental death
  - Prescription medications main gateway recreational drug for teenagers
  - \$73 billion excess costs for medical insurance industry for opioids alone
  - \$100 billion US economic cost for all classes (2007)

# FICO Score – Fair Isaac Corp.

## Model: Behavior Monitoring & Modification

- Repayment-risk algorithm used for
  - Loan rates & availability
  - Insurance rates & availability
  - Employability
  - Tenancy
- Kept secret & contemporary
- Broad utility & secrecy changes behavior
- Promotes accountability

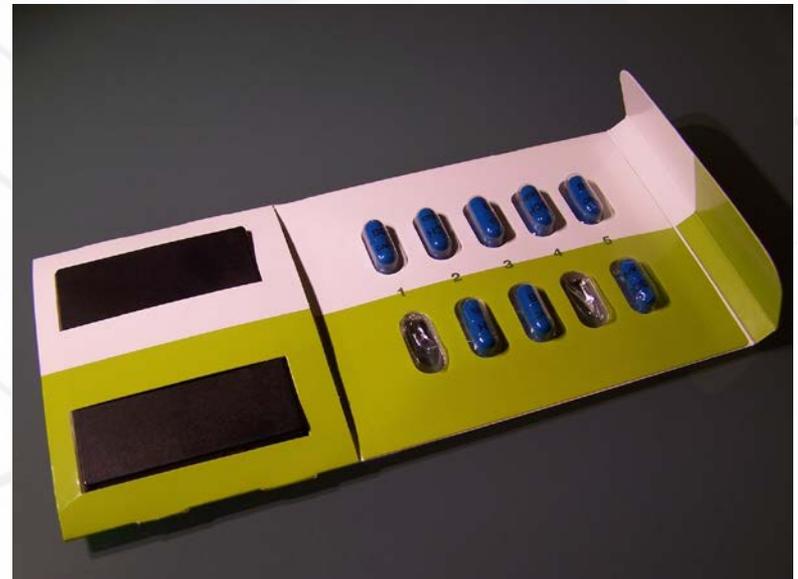
# Vatex Solution

- Monitor patient patterns of access to individual doses of medications to infer patient behaviors and drive better outcomes
- Product in development focused on Controlled Substances abuse and misuse - trademarked **Divert-X**
- Provide evidence-based option for intervention by healthcare providers
- System adoption reduces medical insurance costs and improves patient outcomes

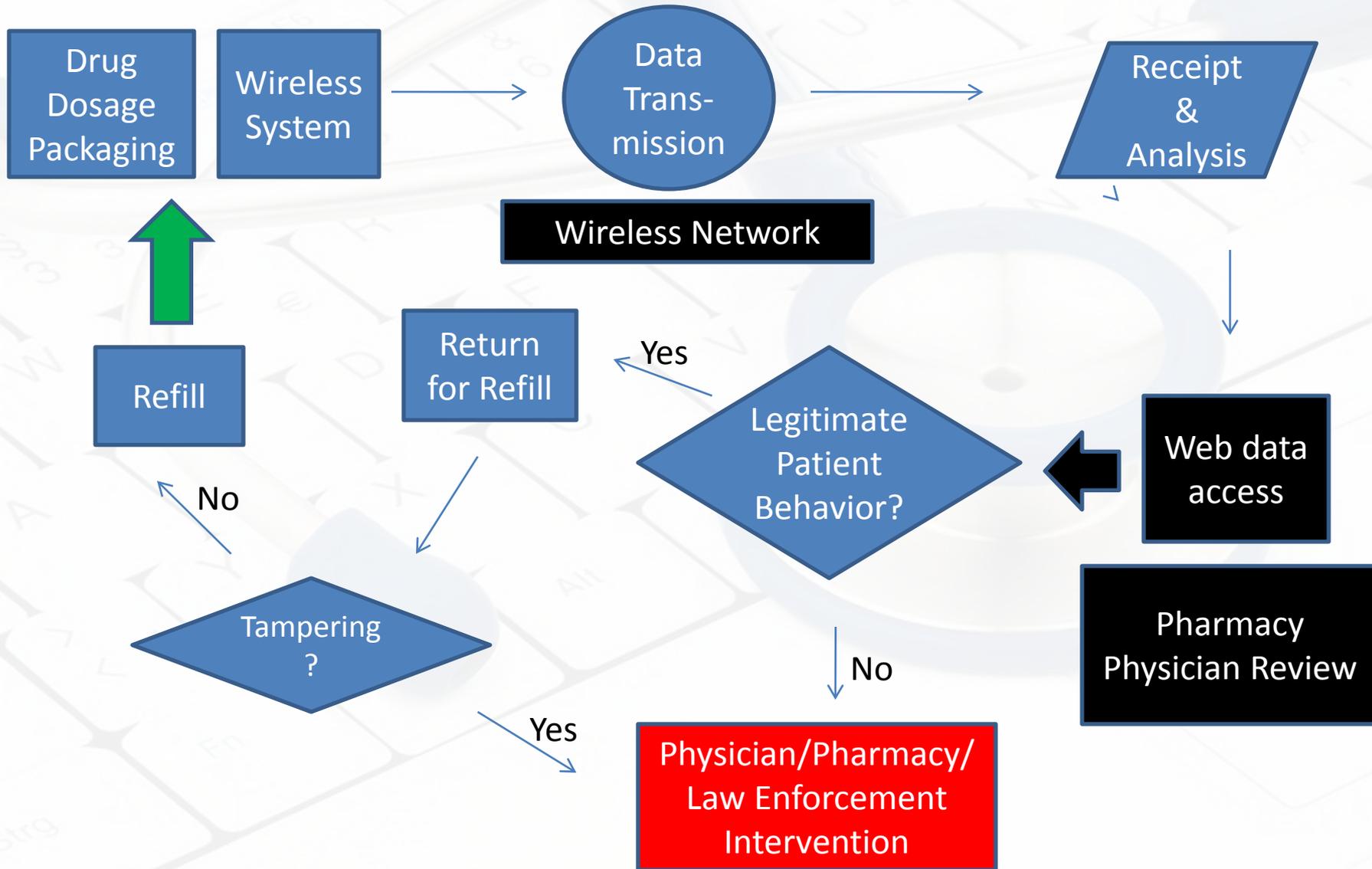
# Divert-X

## Our Solution

- Divert-X is an integrated monitoring system that extends scrutiny of Controlled Substances to the access of individual drug doses by a patient
- Time and location of drug access
- Inferences from patient data will be correlated to behavior and motive-exposing diversion or misuse
- Wireless transmitter, drug blister-pack modules



# Safe Use Network



# Vatex

## Key Partner Value Creation

### Pharmacies

- New revenue stream with same fixed costs
- Best management practices will reduce confrontation with DEA, other regulators
- Market recognition for early adopters for addressing the problem

### Physician Prescribers

- Re-establish trust by reducing criminal activities in medicine
- Intervene early to reduce iatrogenic addiction

### Insurance and Federal Agencies

- Cost savings from
  - Improved patient outcomes
  - Reduced abuse and addiction treatment
  - Reduced emergency room visits
  - Reducing or eliminating patient drug testing
  - Identification of legitimate patients

# Divert-X

## Value Proposition

- US medical insurance industry estimates \$73 billion excess costs accrued from opioid drug misuse and diversion
- Abuse and addiction to opiate painkillers largest problem - 200 million opiate prescriptions filled per year
- Hidden financial burden of painkiller use can be estimated to be > \$300 per prescription
- At \$20 Divert-X pricing per prescription economic value generated at only 6% effectiveness

# Vatex

## Other Modalities – Past & Present

- Divert-X only integrated IT approach to prescription drug misuse
- State Prescription Monitoring Programs follow paperwork not pills- generate information complimentary to Divert-X
- Drug monitoring methods without location and unit packaging insufficiently robust
- Urine testing – wild west; recent federal court decision

# Divert-X

- Vatex expects a strong adoption ramp because Divert-X addresses pressing clinical, safety, healthcare economic and law enforcement issues simultaneously
- High media and political scrutiny of diversion suggests the timing is right for developing a robust tool to combat the problem
- **Divert-X will not eliminate diversion but should materially reduce the problem**

# Divert-X

- Education, law enforcement, & regulation are insufficient
- Divert-X – a credible technology solution – was conceived in SW VA
- Remaining R&D likely to occur in SW VA
  - One Care & Occupational Enterprises
- Limited VA Tobacco Commission assistance will keep us in SW VA
  - Help us help SW VA and the nation
  - A wide variety of jobs, including high-tech

# Vatex

For slides, questions, raw data, or discussion on  
how to partner with us:

Jim Harris, PhD CSO

[JHarris@divert-x.com](mailto:JHarris@divert-x.com)

(276)633-0099