What role can policy play in implementing deprescribing initiatives?

Dr Justin Turner, BPharm, MClinPharm, PhD
Senior Advisor, Science Strategy, Canadian Deprescribing Network
Postdoctoral Fellow, Université de Montréal
Montréal, Canada

#deRx2018

Session resources available at deprescribing.org/resources

deprescribing.org

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Learning Objectives

1. To gain a more detailed understanding of the challenges and opportunities related to the use of policy to support the implementation of deprescribing guidelines
2. To generate new ideas that could be used to inform participant plans to connect with and influence policy makers

Why focus on policy?

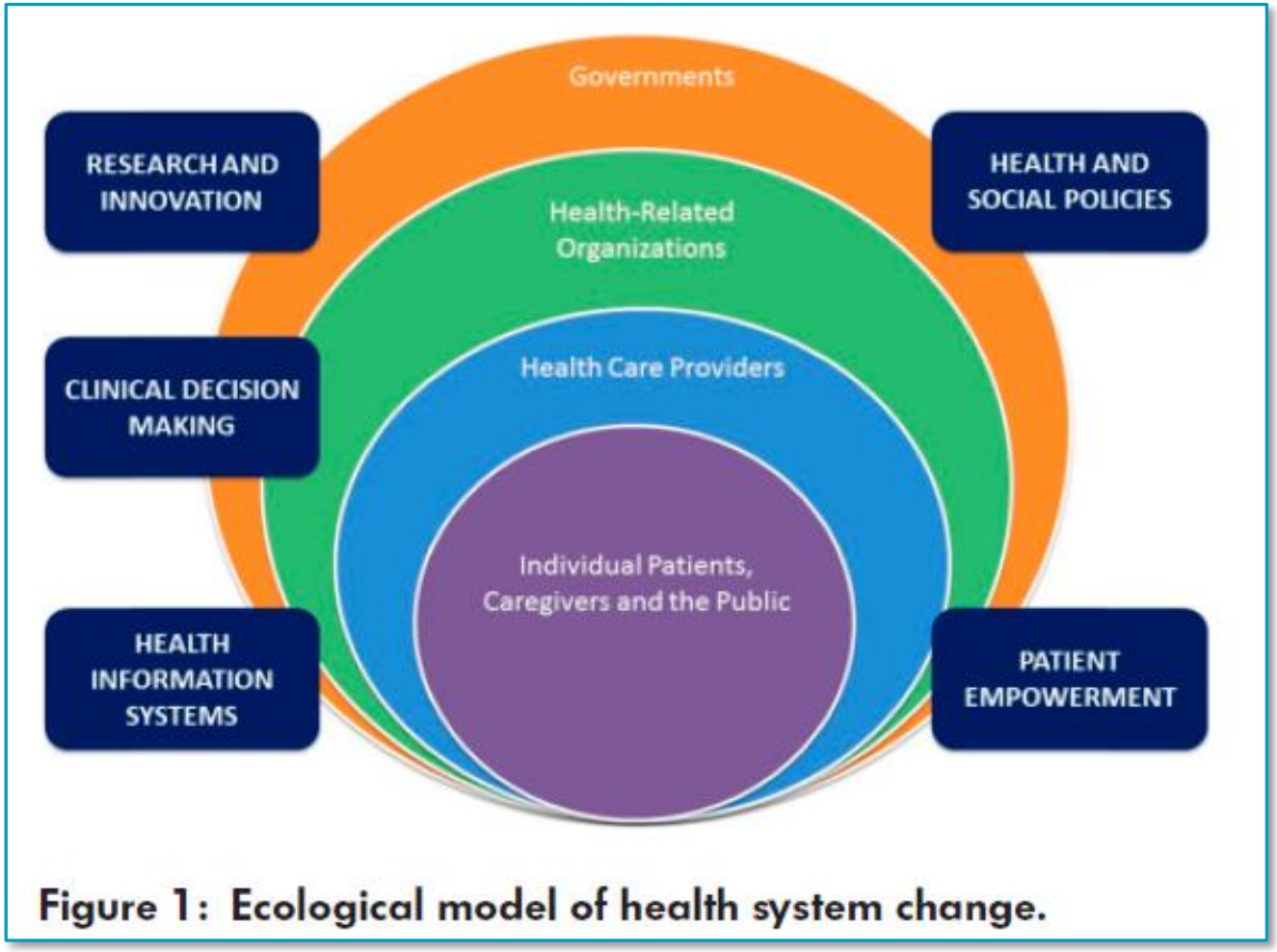

Figure 1: Ecological model of health system change.

Tannenbaum C, Farrell B, Shaw J, Morgan S, Trimble J, Currie J, et al. An Ecological Approach to Reducing Potentially Inappropriate Medication Use: Canadian Deprescribing Network. Canadian journal on aging. **2017**;36(1):97-107.

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Pop quiz!

TASK: “If you were the health minister, what could you do to facilitate deprescribing of unnecessary and inappropriate medications?”

Time: 2 minutes

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Potential Drug Policy Leavers

- Withdraw from market *
- Making prescribing more difficult
  - Limiting use / special authorisation *
  - Restrict to prescriber group
  - Re-scheduling *
  - Dose restriction
  - Quantity restriction
- De-listing / increase patient expense *
- Monitor use *
- Pay doctors to review medications*
- Public education programs *

* = examples in this presentation

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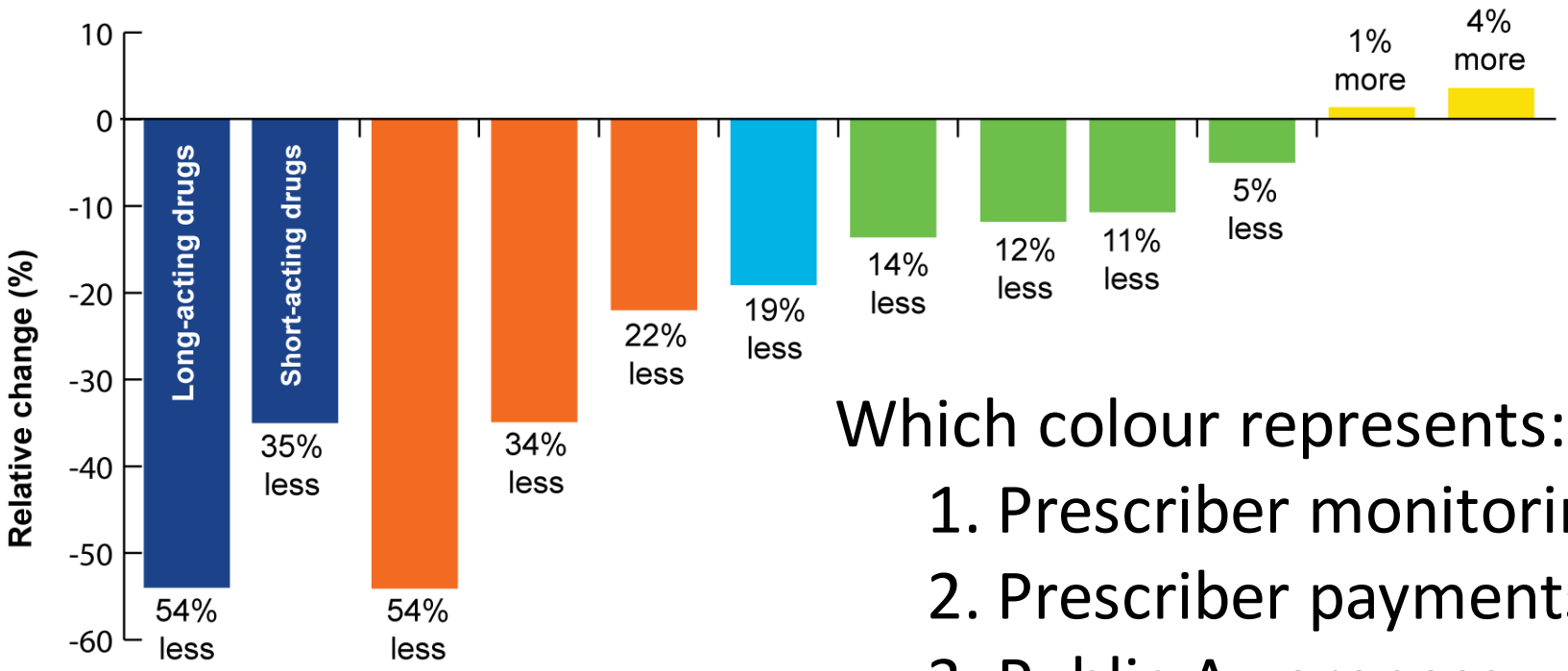
Which policies can reduce benzodiazepines?



Which colour represents:

1. Prescriber monitoring
2. Prescriber payments
3. Public Awareness
4. Restricting coverage
5. Other

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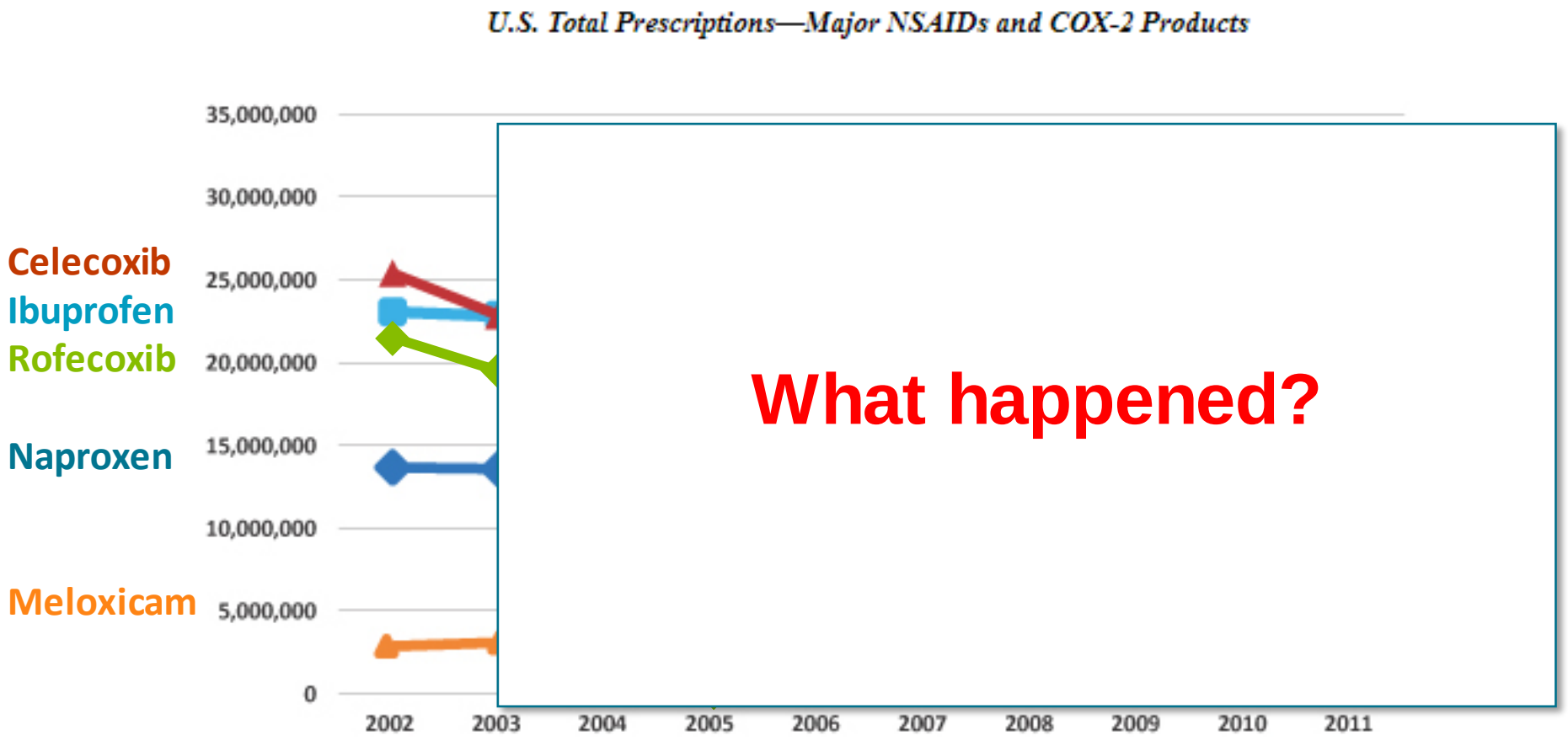
Evidence-Based Deprescribing Guidelines

- Where do Evidence-Based Deprescribing Guidelines fit in this list?

- more on that later, first lets see how well the suggested policy's works…

Withdraw from market

- In 2004, Rofecoxib was withdrawn from the market



IMS National Prescription Audit and Wolters Kluwer Pharmaceutical Audit Suite Total Rx's 2002-2011

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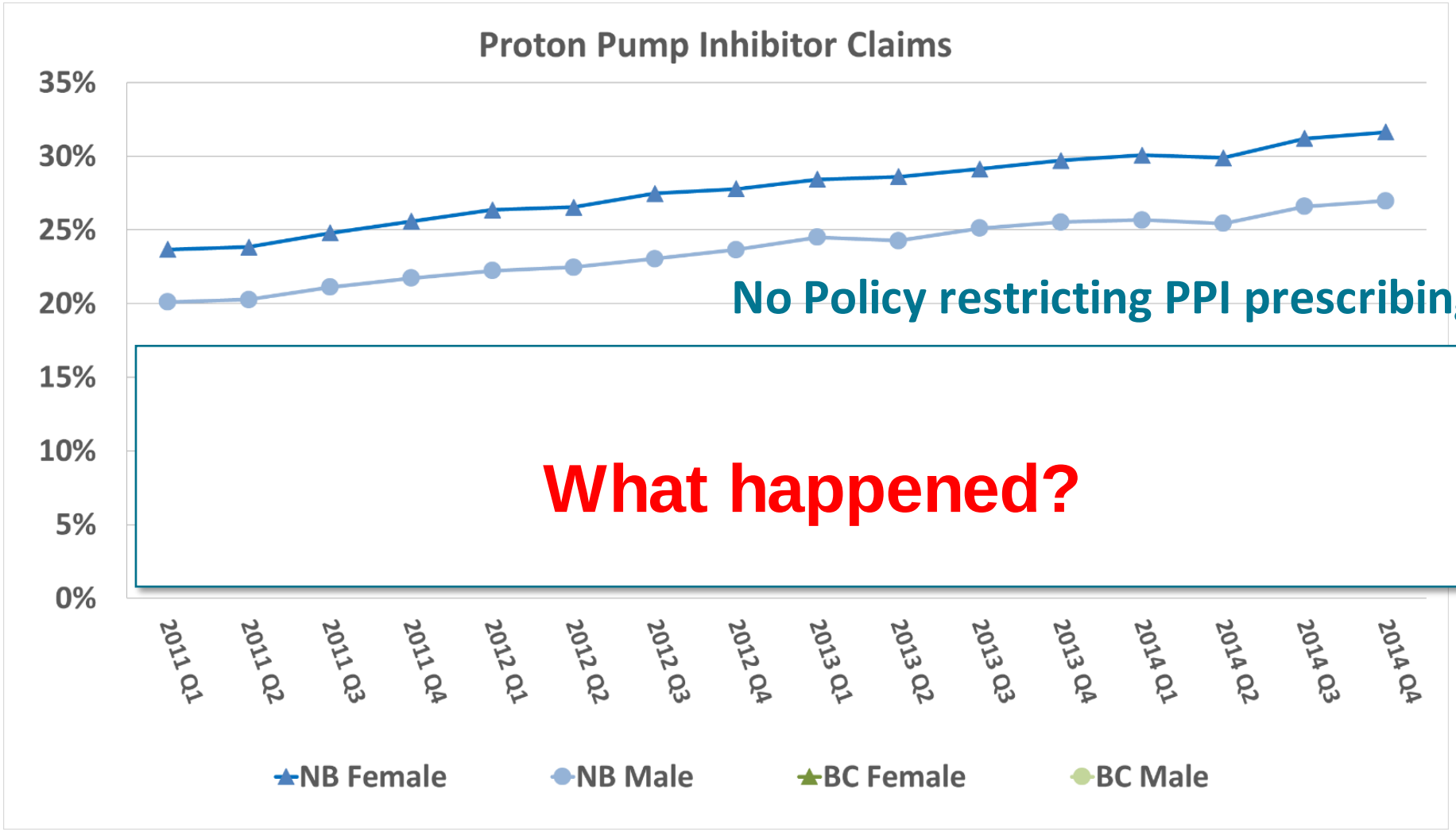
Limiting Use



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Rescheduling

RESEARCH LETTER

Interrupted Time Series Analysis of the Effect of Rescheduling Alprazolam in Australia: Taking Control of Prescription Drug Use

Schaffer AL et al JAMA Int Med 2016;176(8):1223

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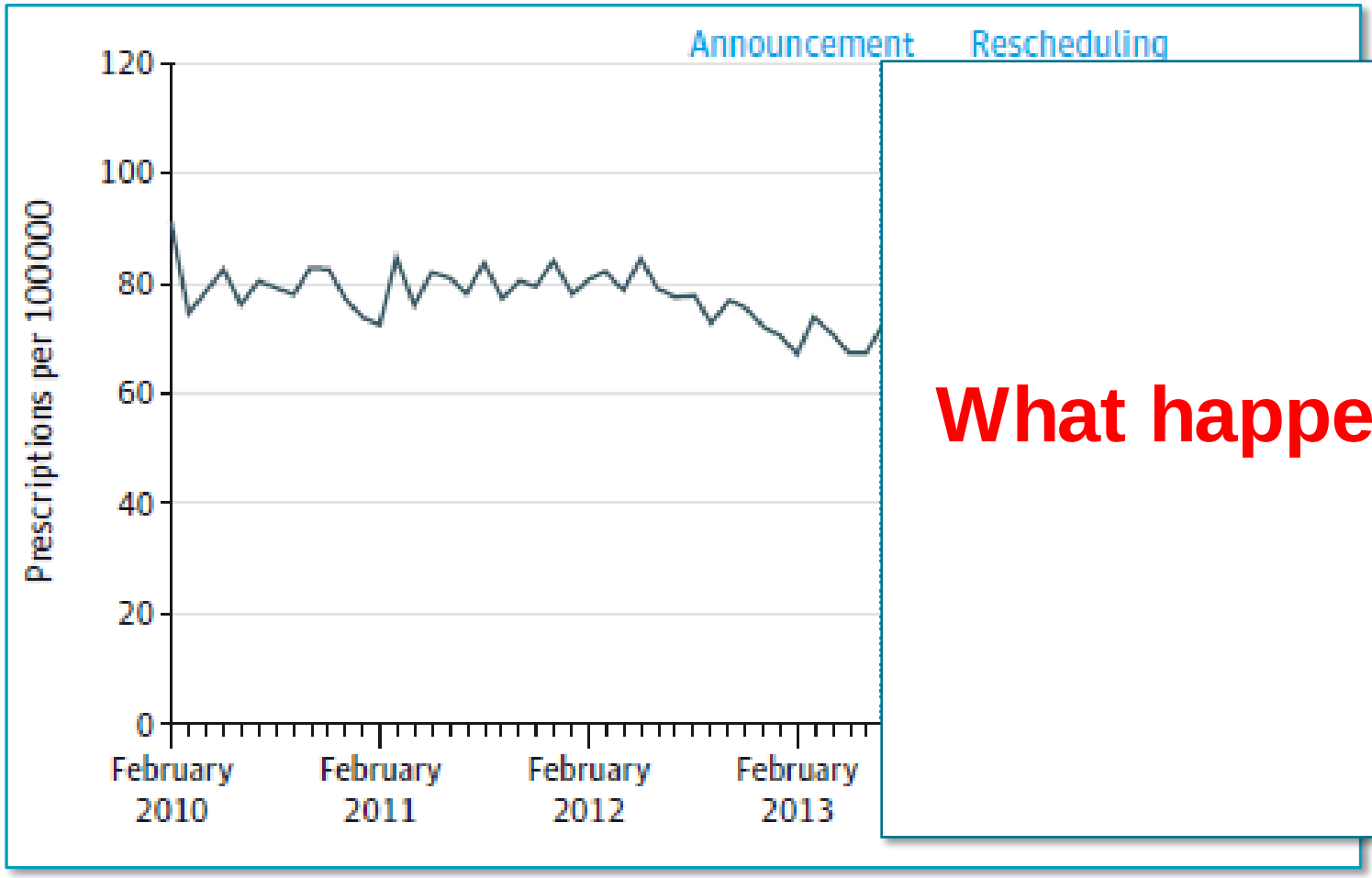
Rescheduling of Alprazolam



What happened?

Schaffer AL et al JAMA Int Med 2016;176(8):1223

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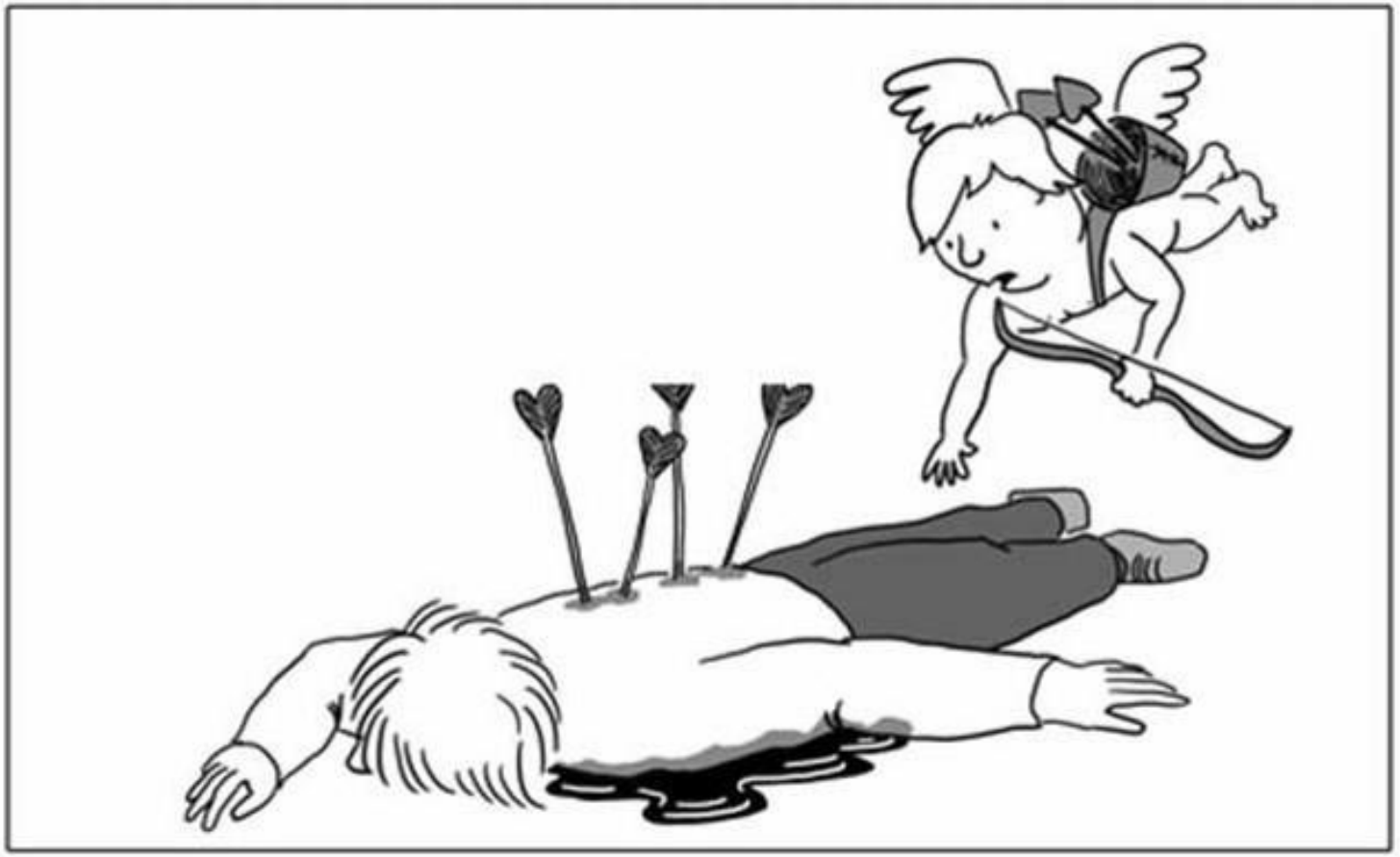
Beware of unintended consequences



...Hello? Gary?

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Alprazolam: Unintended consequences

- 22% ↓ in alprazolam prescribing
- 50% ↓ in poison center calls

BUT, at what cost?

- 216% ↑ other benzodiazepines;
- 142% ↑antidepressants
- 129% ↑ antipsychotics
- Overdose deaths involving 1 or more benzodiazepines increased from 42.2% to 52.5% (2009 – 2015) [2]

Schaffer AL et al JAMA Int Med 2016;176(8):1223
Lloyd B et al Int J Drug Pol 2017;39:138

Delisting

The Effect of Deinsuring Chlorpropamide on the Prescribing of Oral Antihyperglycemics for Nova Scotia Seniors' Pharmacare Beneficiaries

Ingrid S. Sketris, Pharm.D., George C. Kephart, Ph.D., Dawn M. Frail, M.Sc., Chris Skedgel, M.D.E., and Michael J. Allen, M.D.

Sketris IS, et al. The effect of deinsuring chlorpropamide on the prescribing of oral antihyperglycemics for Nova Scotia Seniors' Pharmacare beneficiaries. Pharmacotherapy. **2004**;24(6):784-91

Delisting

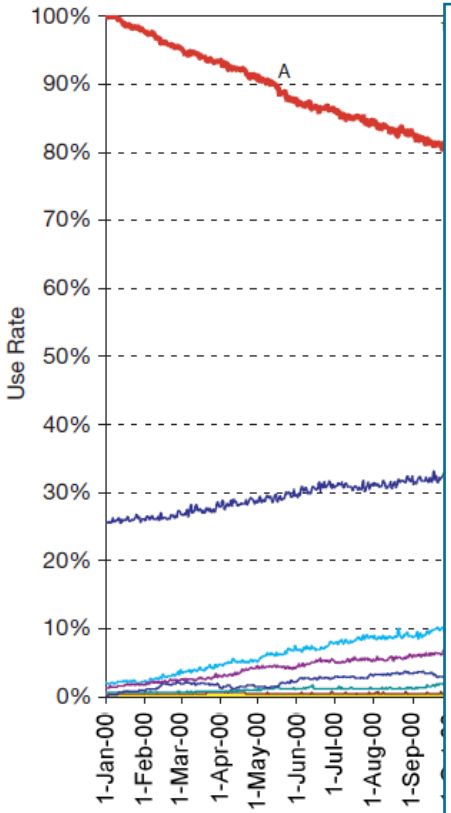

Figure 1. Monthly use rates for antih
chlorpropamide as of January 1, 2000.
antihyperglycemic drug. A = chlorpro
= insulin; G = acarbose; H = tolbutami

What happened?

Sketris IS, *et al.* The effect of deinsuring chlorpropamide on the prescribing of oral antihyperglycemics for Nova Scotia Seniors' Pharmacare beneficiaries. Pharmacotherapy. 2004;24(6):784-91

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Delisting

The Impact of Medicare Part D on Psychotropic Utilization and Financial Burden for Community-Based Seniors

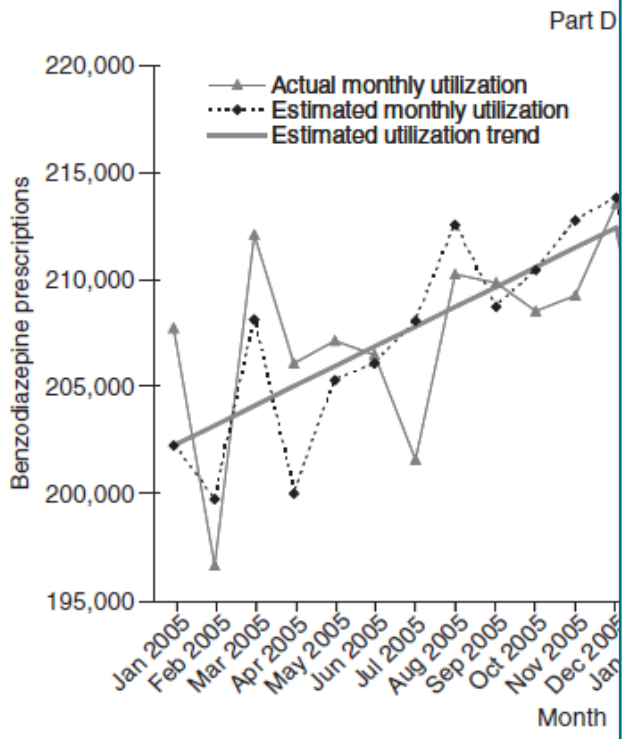
Hua Chen, M.D., Ph.D.
Afam Nwangwu, Pharm.D., M.S.
Rajender Aparasu, M.Pharm., Ph.D.
Ekere Essien, M.D., Dr.P.H.
Shawn Sun, Ph.D.
Kwan Lee, Ph.D.

Chen H et al. The impact of Medicare Part D on psychotropic utilization and financial burden for community-based seniors. Psychiatr Serv. **2008**;59(10):1191-7.

Delisting: Medicare Part D and benzodiazepines

Figure 3

Time series of the volume of benzodiazepine prescriptions dispensed to seniors in 2005–2006



What happened?

Chen H et al. Psychiatr Serv. 2008;59(10):1191-7.
Briesacher BA, et al. Medicare part D's exclusion of benzodiazepines and fracture risk in nursing homes. Arch Intern Med. 2010;170(8):693-8

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Monitoring

- Triplicate Prescription Program implementation

International Journal for Quality in Health Care 2003; **Volume 15, Number 5**: pp. 423–431 10.1093/intqhc/mzg064

Effects of state surveillance on new post-hospitalization benzodiazepine use

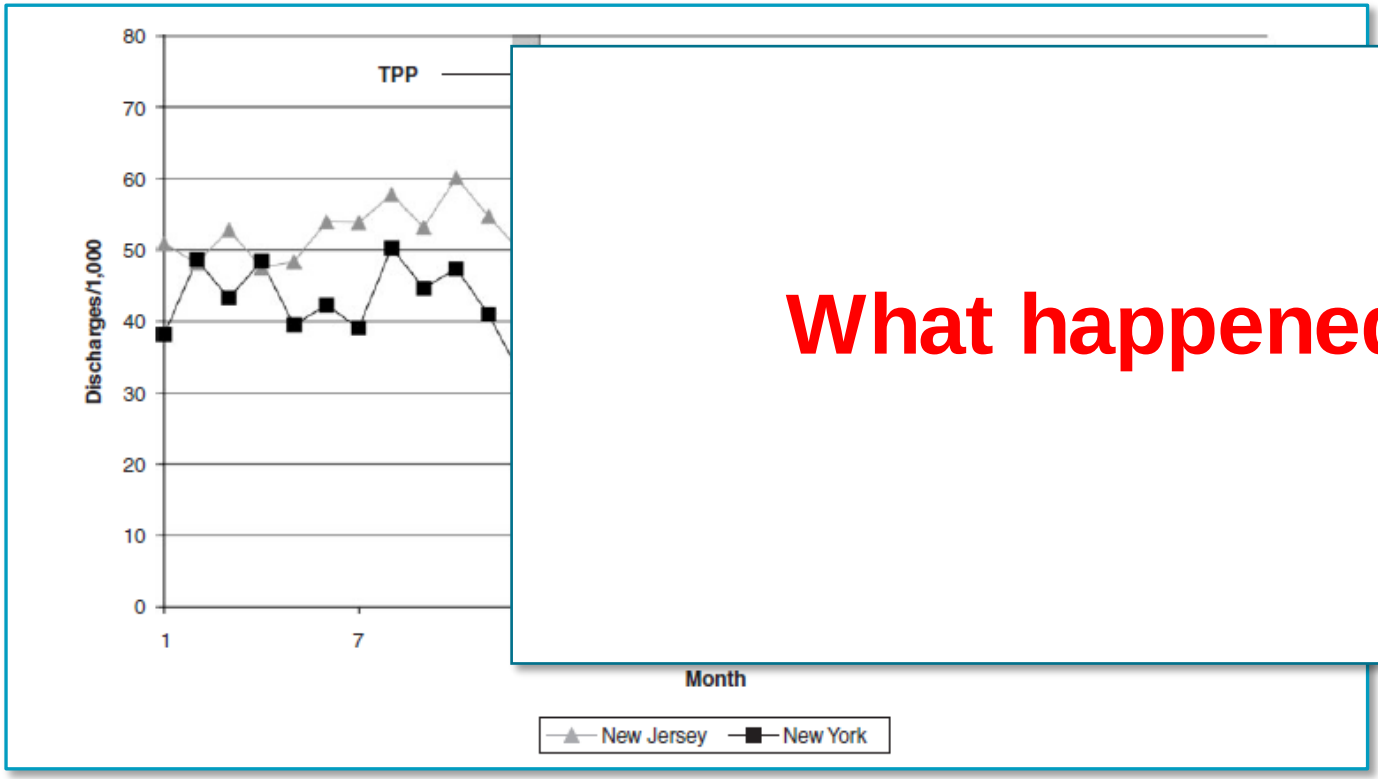
ANITA K. WAGNER[1], STEPHEN B. SOUMERAI[1], FANG ZHANG[1], CONNIE MAH[1], LINDA SIMONI-WASTILA[2], LEON COSLER[3,4], THOMAS FANNING[4], PETER GALLAGHER[4] AND DENNIS ROSS-DEGNAN[1]

[1]Department of Ambulatory Care and Prevention, Harvard Medical School and Harvard Pilgrim Health Care, Boston, MA, [2]Department of Pharmacy Practice and Science, University of Maryland School of Pharmacy, Baltimore, MD, [3]Albany College of Pharmacy, Albany, NY, [4]Management Reports and Research Unit, Office of Medicaid Management, New York State Department of Health, Albany, NY, USA

Wagner AK, et al. Effects of state surveillance on new post-hospitalization benzodiazepine use. Int J Qual Health Care. **2003**;15(5):423-31.

Monitoring

- Triplicate Prescription Program implementation



What happened?

Proportion of patients with new benzodiazepine prescription on hospital discharge

Pay-for-Performance

Rat *et al. BMC Health Services Research* 2014, **14**:301
http://www.biomedcentral.com/1472-6963/14/301

RESEARCH ARTICLE Open Access

Did the new French pay-for-performance system modify benzodiazepine prescribing practices?

Cédric Rat[1,2*], Gaëlle Penhouet[1], Aurélie Gaultier[3], Anicet Chaslerie[4], Jacques Pivette[4], Jean Michel Nguyen[2,3] and Caroline Victorri-Vigneau[5]

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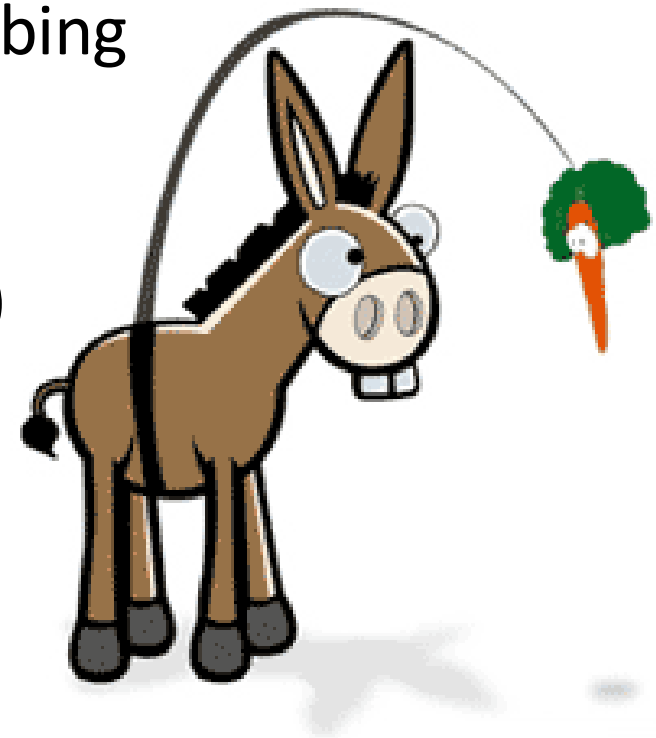
Pay-for-Performance

- Quality improvement program
  - 4 priorities: practice organization, chronic disease management, prevention, prescribing
  - Total incentive payment of €5000 (€490 for prescribing component)



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Pay-for-Performance

Table 3 Short vs. long half-life benzodiazepines prescribed to patients older than 65 years (France, 2011-2012)

	2011 N = 9,894 *n*; %	2012 N = 10,839 *n*; %	p
Short half-life BZD[a]	4,601; 46.50		
Clotiazepam	*118*; 1.19		
Oxazepam	*723*; 7.31		
Lorazepam	*962*; 9.72		
Alprazolam	*2,798*; 28.28		
Long half-life BZD[a]	5,293; 53.50		
Bromazepam	*4,120*; 41.64		
Clobazam	*115*; 1.16		
Diazepam	*64*; 0.65		
Ethyl loflazepate	*112*; 1.13		
Prazepam	*624*; 6.31		
Nordazepam	*101*; 1.02		
Potassium clorazepate	*157*; 1.59		

[a]Benzodiazepine.

What happened?

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Public Education

Journal of Clinical Pharmacy and Therapeutics (2005) 30, 425–432

ORIGINAL ARTICLE

Achieving a sustained reduction in benzodiazepine use through implementation of an area-wide multi-strategic approach

W. B. Dollman*† MAppSc FSHP, V. T. LeBlanc* BA, L. Stevens*, P. J. O'Connor* MA PhD, E. E. Roughead†‡ MAppSc PhD and A. L. Gilbert†‡ BPharm PhD

*Department of Health, Rundle Mall, SA, †Quality Use of Medicines and Pharmacy Research Centre, University of South Australia, Adelaide, SA and ‡School of Pharmacy and Medical Sciences, Adelaide, SA, Australia

Dollman WB, et al. Achieving a sustained reduction in benzodiazepine use through implementation of an area-wide multi-strategic approach. J Clin Pharm Ther. **2005**;30(5):425-32.

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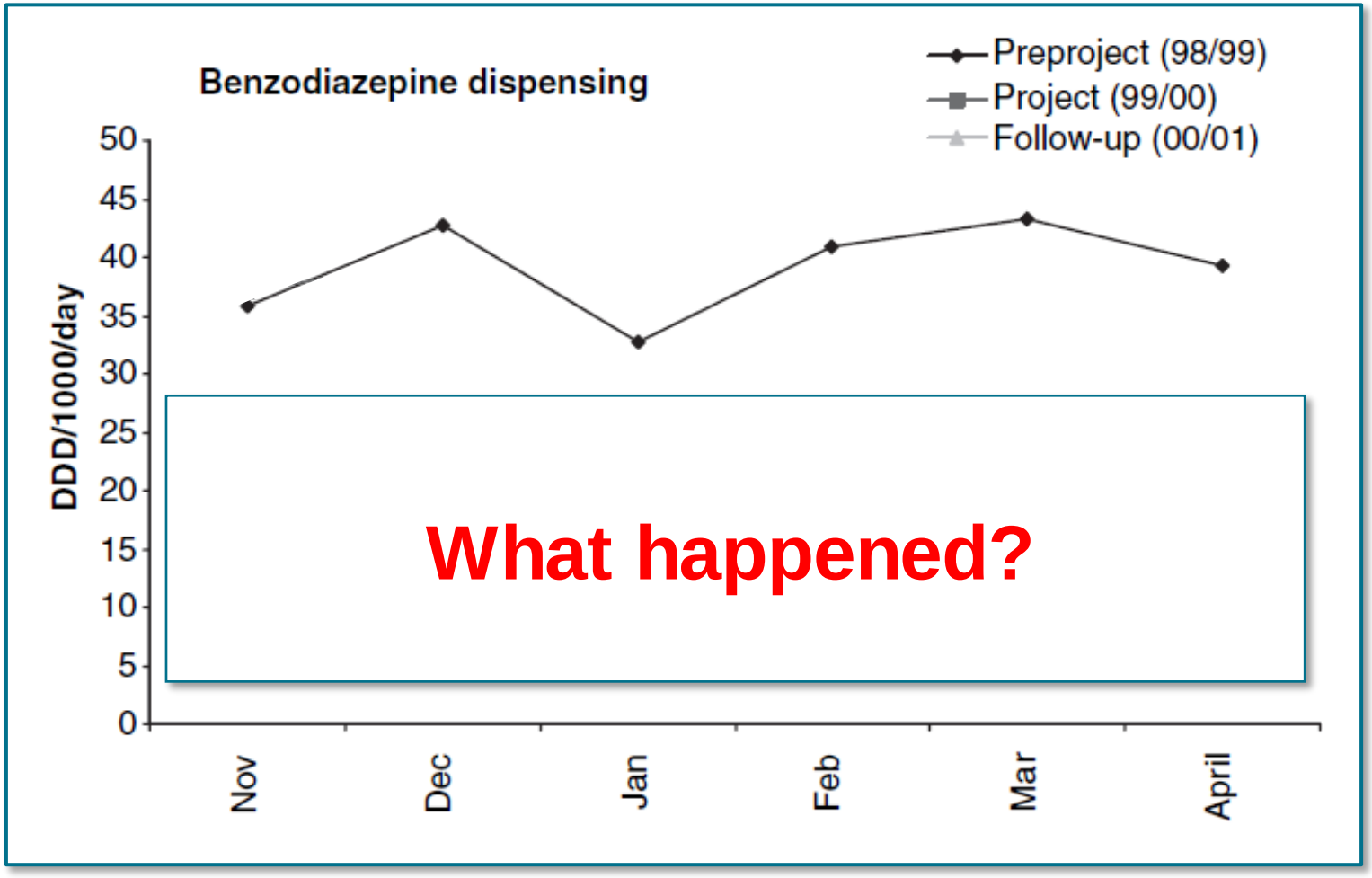
Public Education



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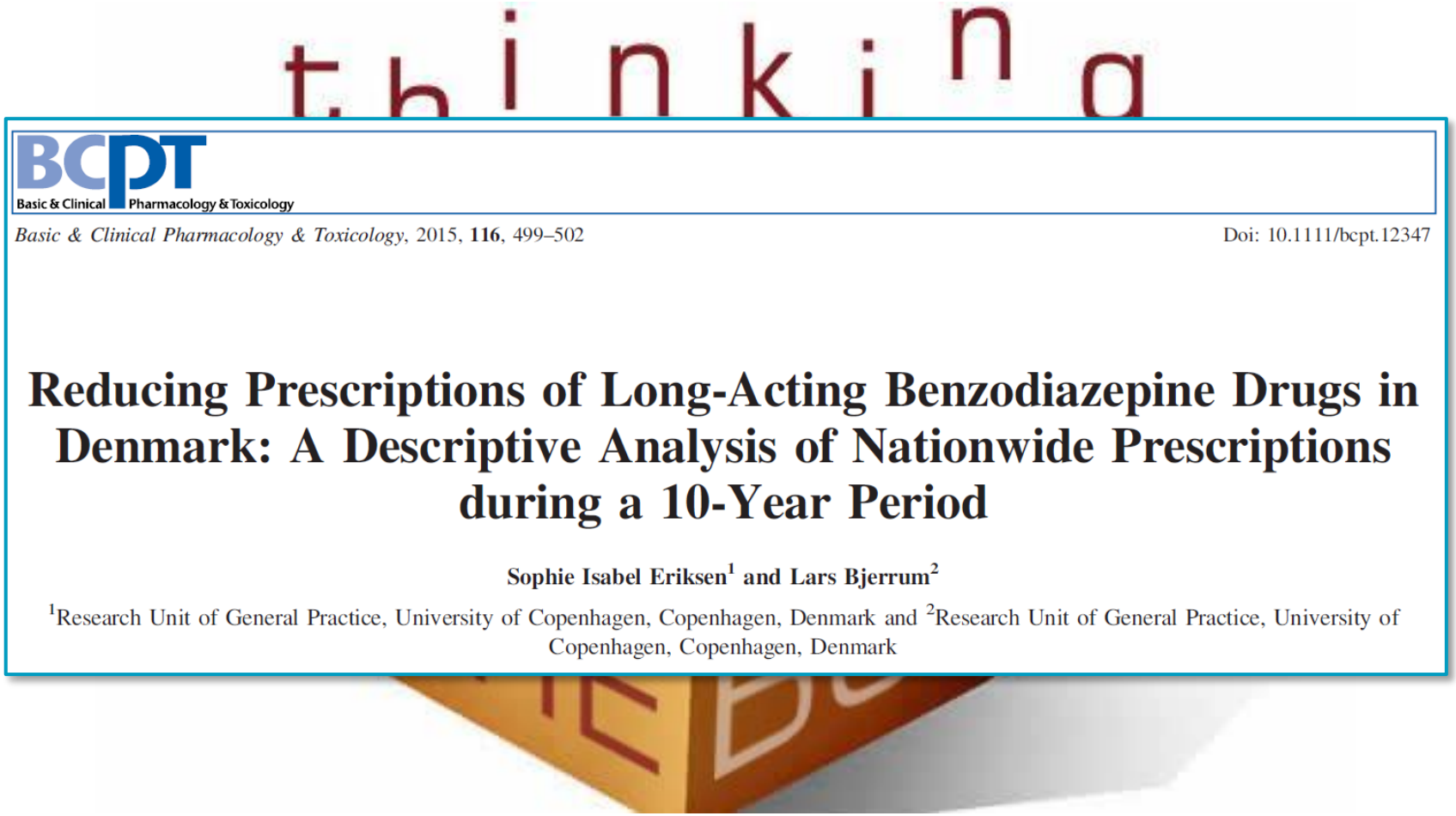
Thinking outside the box!



BCPT
Basic & Clinical Pharmacology & Toxicology

Basic & Clinical Pharmacology & Toxicology, 2015, **116**, 499–502

Doi: 10.1111/bcpt.12347

Reducing Prescriptions of Long-Acting Benzodiazepine Drugs in Denmark: A Descriptive Analysis of Nationwide Prescriptions during a 10-Year Period

Sophie Isabel Eriksen[1] and Lars Bjerrum[2]

[1]Research Unit of General Practice, University of Copenhagen, Copenhagen, Denmark and [2]Research Unit of General Practice, University of Copenhagen, Copenhagen, Denmark

Eriksen SI, Bjerrum L. Reducing Prescriptions of Long-Acting Benzodiazepine Drugs in Denmark: A Descriptive Analysis of Nationwide Prescriptions during a 10-Year Period. Basic Clin Pharmacol Toxicol. **2015**;116(6):499-502.

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Danish Drivers Licence

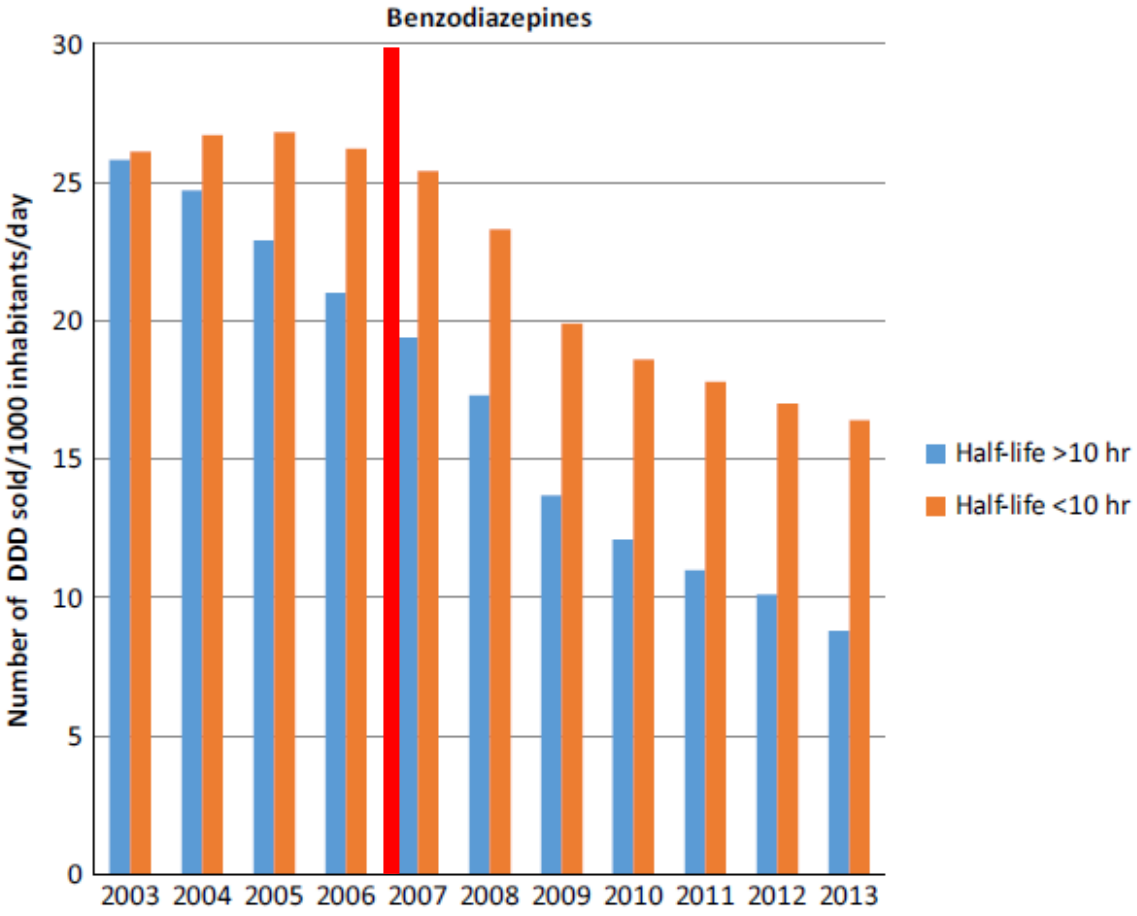
- The policy: rules for renewal of drivers' licences

  - For long-term users of a BZD with a half-life >10 hr, renewal of, or to regain, ones driving license is not possible. Furthermore, driving licenses can be confiscated if the GP reports the patient to the Medical Officer of Health.
  - For BZD with a half-life of exactly 10 hr, the patient's driving license will have a 1-year time limit, resulting in a yearly test of the patient's cognitive functions.
  - If starting treatment with, or increasing the dose of BZD, the patient is recommended not to drive for 4 weeks.
  - When using a single dose of BZD with a half-life <10 hr, it is recommended not to drive after consumption, considering the half-life of the drug.

Danish Drivers Licence

- So what happened?

Danish Drivers Licence



54% long acting

35% short acting

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Rapid Realist Review

"What works,
for whom,
under what circumstances?"

Saul *et al. Implementation Science* 2013, **8**:103
http://www.implementationscience.com/content/8/1/103

IMPLEMENTATION SCIENCE

METHODOLOGY Open Access

A time-responsive tool for informing policy making: rapid realist review

Jessie E Saul[1,2], Cameron D Willis[1,3,4], Jennifer Bitz[5] and Allan Best[3,6,7*]

Saul JE, Willis CD, Bitz J, Best A. A time-responsive tool for informing policy making: rapid realist review. Implementation science : IS. **2013**;8(1):103.

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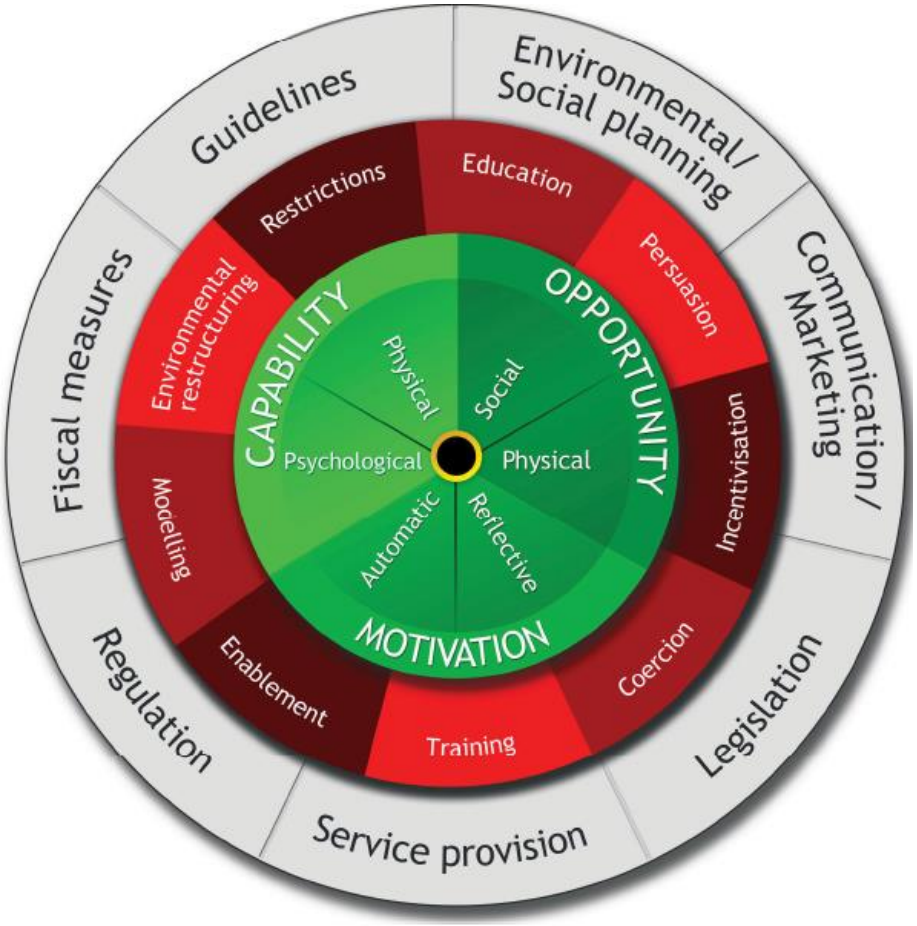
Global Deprescribing Policies

- Reducing benzodiazepines and Z-drugs?
  - What policies *work* and in *whom*?
  - What were the *mechanisms*?
  - What were the influences of *context*?

Possible Policy Mechanisms



Sources of behaviour

Intervention functions

Policy categories

Michie et al (2011). The behavior change wheel: A new method for characterizing and designing behavior change interventions. *Implementation Science 6*:42.

Michie S et al. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implementation science : IS. **2011**;6(1):42.

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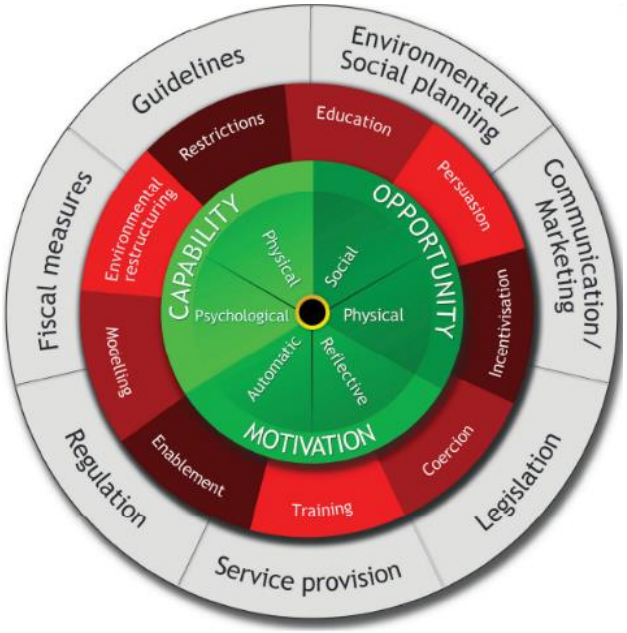
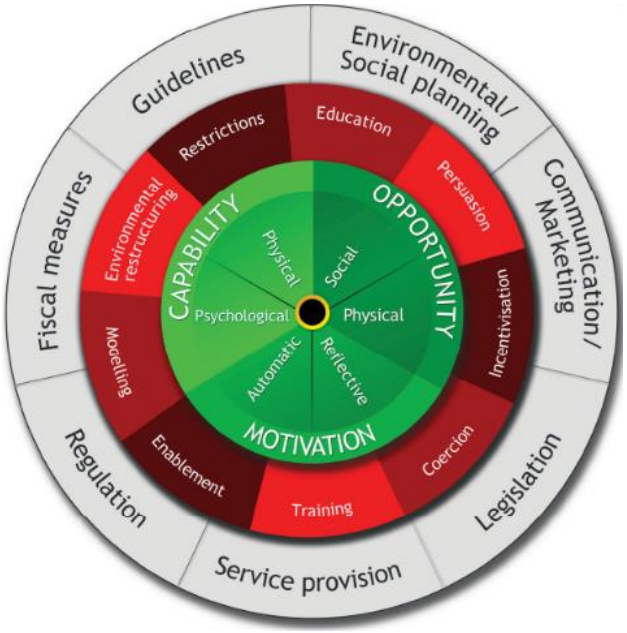
Pay-for-Performance

- Why?
  - Mechanism: Fiscal
  - Contexts: highly paid physicians, prescribing patterns, other competing practice priorities



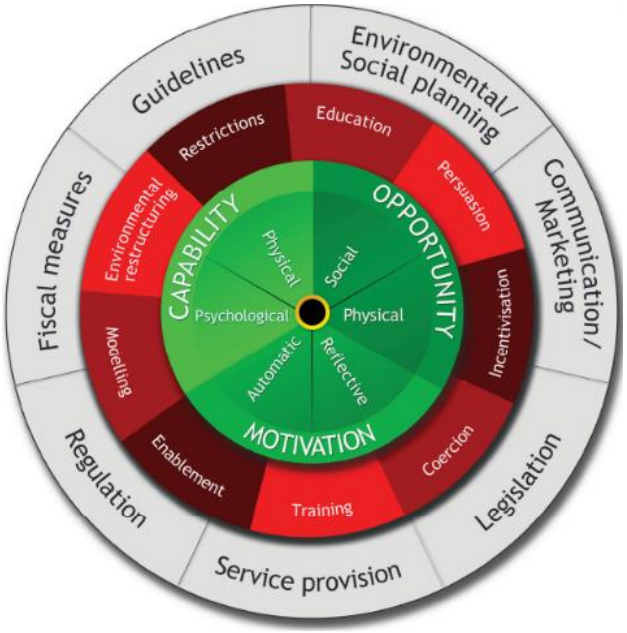
Medicare Part D

- Why?
  - Mechanism: Legislation + Fiscal measures
  - Contexts: Low income population versus multiple payment sources, prescribing practices, and patient expectations



Danish Drivers Licence

- Why?
  - Mechanism: Legislation and Regulation + Guidelines, Communication (engaging both physicians and patients)
  - Contexts: single payer health system, population driven toward independence (driving), political will



Which Policies Provided Positive Outcomes?

- Withdraw from market * ??
- Making prescribing more difficult
  - Limiting use / special authorisation * ✓
  - Restrict to prescriber group
  - Re-scheduling * ? ✗
  - Dose restriction
  - Quantity restriction
- De-listing / increase patient expense * ? ✗
- Monitor use * ✓
- Pay doctors to review medications * ✗
- Public education programs * ✓
- Thinking outside the box: Danish Drivers License ✓

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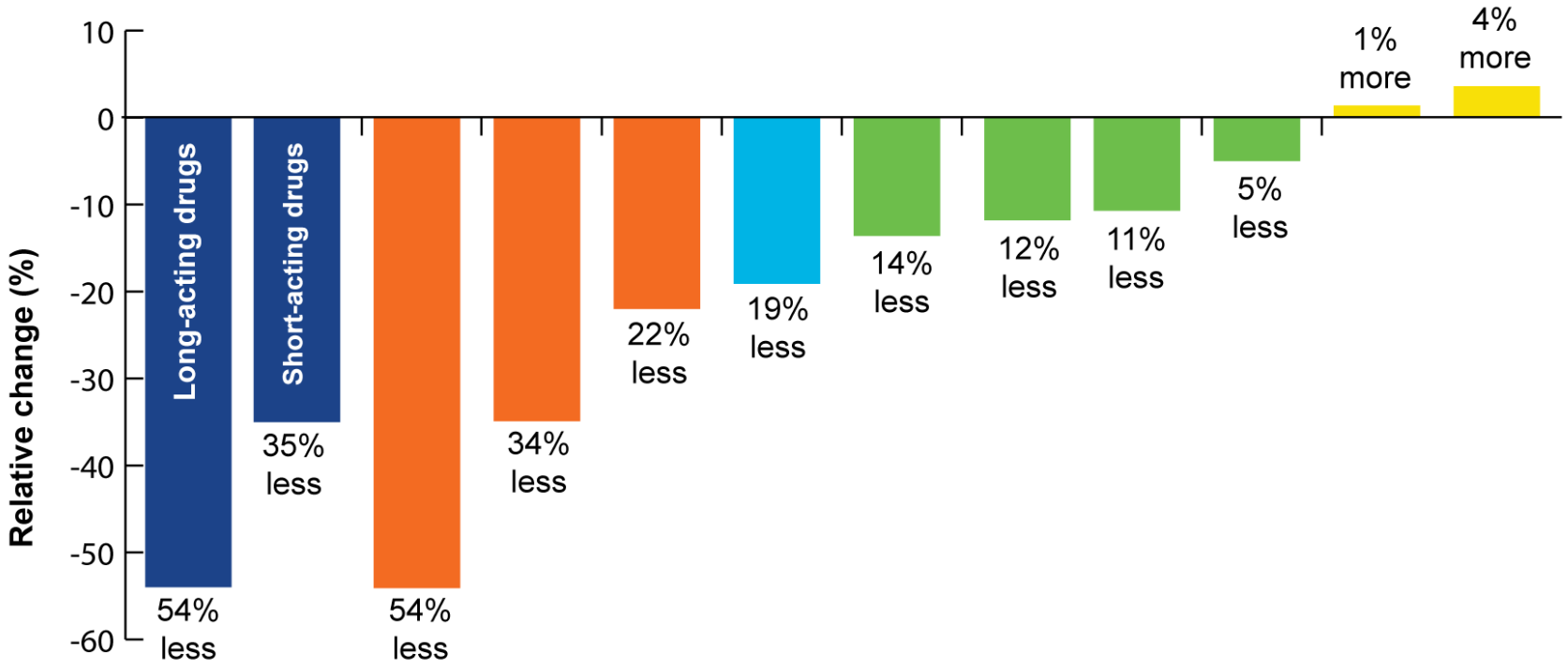
Policies to reduce benzodiazepine use



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Regulation and Evidence-Based Deprescribing Guidelines

TASK: “How can we facilitate implementation of evidence-based deprescribing guidelines using regulation?”

Time: 2 minutes

Education

- Include deprescribing as a mandatory component for all national guidelines
- Enforce deprescribing content in all undergraduate, postgraduate and continuing professional education
- Develop a deprescribing competency framework for professional certification programs (e.g. Gerontological Nursing Certification)
- Include how to start and stop a medication in Product Information

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Workflow Enhancement

- Mandate Electronic Medical Record Software to include easy access to deprescribing algorithms
- Mandate Pharmacy Dispense software to include the steps of deprescribing algorithms as part of the workflow

Promote Clinical Review

- Professional body audit and feedback
- Academic Detailing
- Fund collaboration between health care providers
  - Medication reviews in community pharmacies
  - Pharmaceutical opinions
  - Pharmacists in family medicine clinics

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Influencing Decision Makers

TASK: “How can we influence decision makers to ensure there is implementation of deprescribing guidelines?”

Time: 2 minutes

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Influencing Decision Makers

- This is up for discussion…
  I don't have absolute answers!

  - Improving patient outcomes
  - Reducing adverse drug events
  - Reducing medication cost
  - Reducing hospitalisations and burden on health system
  - Saving money
  - Dependent on the political cycle

Summary

- Policy interventions seem to perform poorly when other contextual influences not considered
  (e.g. other payment sources, competing practice priorities, poor knowledge, availability of alternatives)

- Regulatory change *with* health care provider and patient education and engagement worked in Denmark (combined mechanisms)

- Policies that target valued privileges are more effective

- Strategies exist beyond de-listing

Actionable Steps

- **What can you do?**

- The patien y change
- Ensure app
- Regulation mprove deprescrib
- Combined
  - Change
  - Change
  - Improved access to deprescribing guidelines

Questions?

"I feel a lot better since I ran out of those pills you gave me."

For more information: Justin.Turner@criugm.qc.ca

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Evidence Based Deprescribing Guideline Symposium 2018

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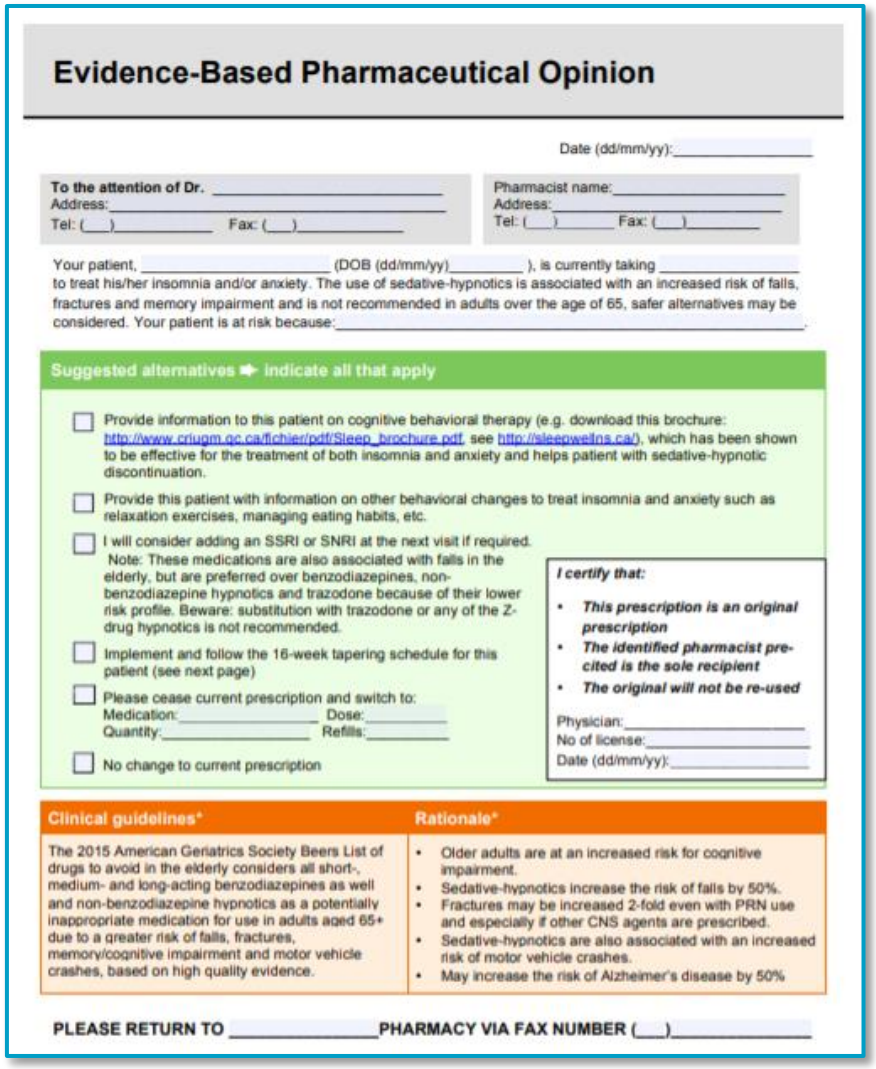
MEDICAL PHARMACIES

CADTH Evidence Driven.

Canadian Foundation for Healthcare Improvement

Fondation canadienne pour l'amélioration des services de santé

Evidence-based Pharmaceutical Opinion



Evidence-Based Pharmaceutical Opinion

Date (dd/mm/yy):_____

To the attention of Dr. _____
Address:_____
Tel: (___)_____ Fax: (___)_____

Pharmacist name:_____
Address:_____
Tel: (___)_____ Fax: (___)_____

Your patient, _____ (DOB (dd/mm/yy)_____), is currently taking _____ to treat his/her insomnia and/or anxiety. The use of sedative-hypnotics is associated with an increased risk of falls, fractures and memory impairment and is not recommended in adults over the age of 65, safer alternatives may be considered. Your patient is at risk because:_____.

Suggested alternatives ➡ indicate all that apply

- ☐ Provide information to this patient on cognitive behavioral therapy (e.g. download this brochure: http://www.criugm.qc.ca/fichier/pdf/Sleep_brochure.pdf, see http://sleepwellns.ca/), which has been shown to be effective for the treatment of both insomnia and anxiety and helps patient with sedative-hypnotic discontinuation.
- ☐ Provide this patient with information on other behavioral changes to treat insomnia and anxiety such as relaxation exercises, managing eating habits, etc.
- ☐ I will consider adding an SSRI or SNRI at the next visit if required.
  Note: These medications are also associated with falls in the elderly, but are preferred over benzodiazepines, non-benzodiazepine hypnotics and trazodone because of their lower risk profile. Beware: substitution with trazodone or any of the Z-drug hypnotics is not recommended.
- ☐ Implement and follow the 16-week tapering schedule for this patient (see next page)
- ☐ Please cease current prescription and switch to:
  Medication:_____ Dose:_____
  Quantity:_____ Refills:_____
- ☐ No change to current prescription

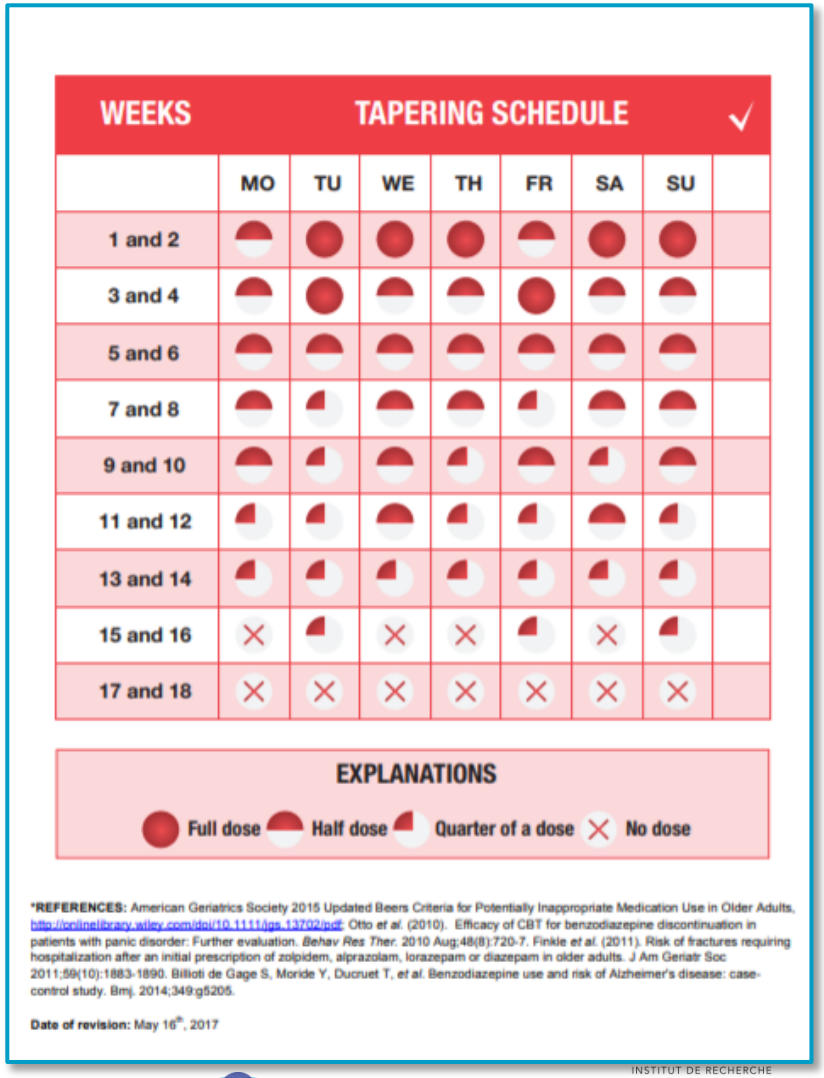
I certify that:

- ***This prescription is an original prescription***
- ***The identified pharmacist pre-cited is the sole recipient***
- ***The original will not be re-used***

Physician:_____
No of license:_____
Date (dd/mm/yy):_____

Clinical guidelines*	Rationale*
The 2015 American Geriatrics Society Beers List of drugs to avoid in the elderly considers all short-, medium- and long-acting benzodiazepines as well and non-benzodiazepine hypnotics as a potentially inappropriate medication for use in adults aged 65+ due to a greater risk of falls, fractures, memory/cognitive impairment and motor vehicle crashes, based on high quality evidence.	• Older adults are at an increased risk for cognitive impairment. • Sedative-hypnotics increase the risk of falls by 50%. • Fractures may be increased 2-fold even with PRN use and especially if other CNS agents are prescribed. • Sedative-hypnotics are also associated with an increased risk of motor vehicle crashes. • May increase the risk of Alzheimer's disease by 50%

PLEASE RETURN TO _____**PHARMACY VIA FAX NUMBER (___)**_____



WEEKS	TAPERING SCHEDULE							✓
	MO	TU	WE	TH	FR	SA	SU	
1 and 2	◗	●	●	●	◗	●	●	
3 and 4	◗	●	◗	◗	●	◗	◗	
5 and 6	◗	◗	◗	◗	◗	◗	◗	
7 and 8	◗	◢	◗	◗	◢	◗	◗	
9 and 10	◗	◢	◗	◢	◗	◢	◗	
11 and 12	◢	◢	◗	◢	◢	◗	◢	
13 and 14	◢	◢	◢	◢	◢	◢	◢	
15 and 16	✕	◢	✕	✕	◢	✕	◢	
17 and 18	✕	✕	✕	✕	✕	✕	✕	

EXPLANATIONS

● Full dose ◗ Half dose ◢ Quarter of a dose ✕ No dose

***REFERENCES:** American Geriatrics Society 2015 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults, http://onlinelibrary.wiley.com/doi/10.1111/jgs.13702/pdf; Otto *et al.* (2010). Efficacy of CBT for benzodiazepine discontinuation in patients with panic disorder: Further evaluation. *Behav Res Ther.* 2010 Aug;48(8):720-7. Finkle *et al.* (2011). Risk of fractures requiring hospitalization after an initial prescription of zolpidem, alprazolam, lorazepam or diazepam in older adults. *J Am Geriatr Soc* 2011;59(10):1883-1890. Billioti de Gage S, Moride Y, Ducruet T, *et al.* Benzodiazepine use and risk of Alzheimer's disease: case-control study. Bmj. 2014;349:g5205.

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