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CAHSPR Conference 2015

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COST-DRIVERS

IN PRIVATE DRUG

PLANS IN CANADA

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E L E N A L U N G U, M A N A G E R  
N P D U I S, P M P R B

# Background

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- **Purpose**

- ♦ Points towards the most important cost pressures, measures their impact, and delves into the factors determining trends

- **Methods**

- ♦ Builds on the cost driver methodology developed by the PMPRB
- ♦ Data Source: IMS Brogan Private Pay Direct Drug Plan Database
- ♦ Focus: 2013
  - 133 million prescriptions, and
  - \$8.0 billion in total prescription cost (drug cost, markup and dispensing fees)

# Cost drivers – 101



- **Changes in drug expenditures are multifactorial**
  - ◆ e.g. aging of the population, the increased use of drugs, the rate of generic substitution, price changes, and shifts in the mix of drugs utilized
- **Some factors may have a “push” or positive effect on the change in prescription drug expenditures**
  - ◆ e.g. aging and the increased use of drugs
- **Other factors may have a “pull” or negative effect**
  - ◆ e.g. generic substitution and price reductions
- **The net effect of these opposing forces yields the rate of change in prescription drug expenditures**

# “Push” and “Pull” Effects on Drug Costs



Pull Effects



## Demographic Effects

- ♦ Population effect
- ♦ Aging effect
- ♦ Gender effect

## Volume Effects

- ♦ Prescription volume effect
- ♦ Prescription size effect
- ♦ Strength-form effect

## Drug Mix Effects

- ♦ Existing drug effect
- ♦ Entering drug effect
- ♦ Exiting drug effect

## Price Effects

- ♦ Price change
- ♦ Generic substitution effect

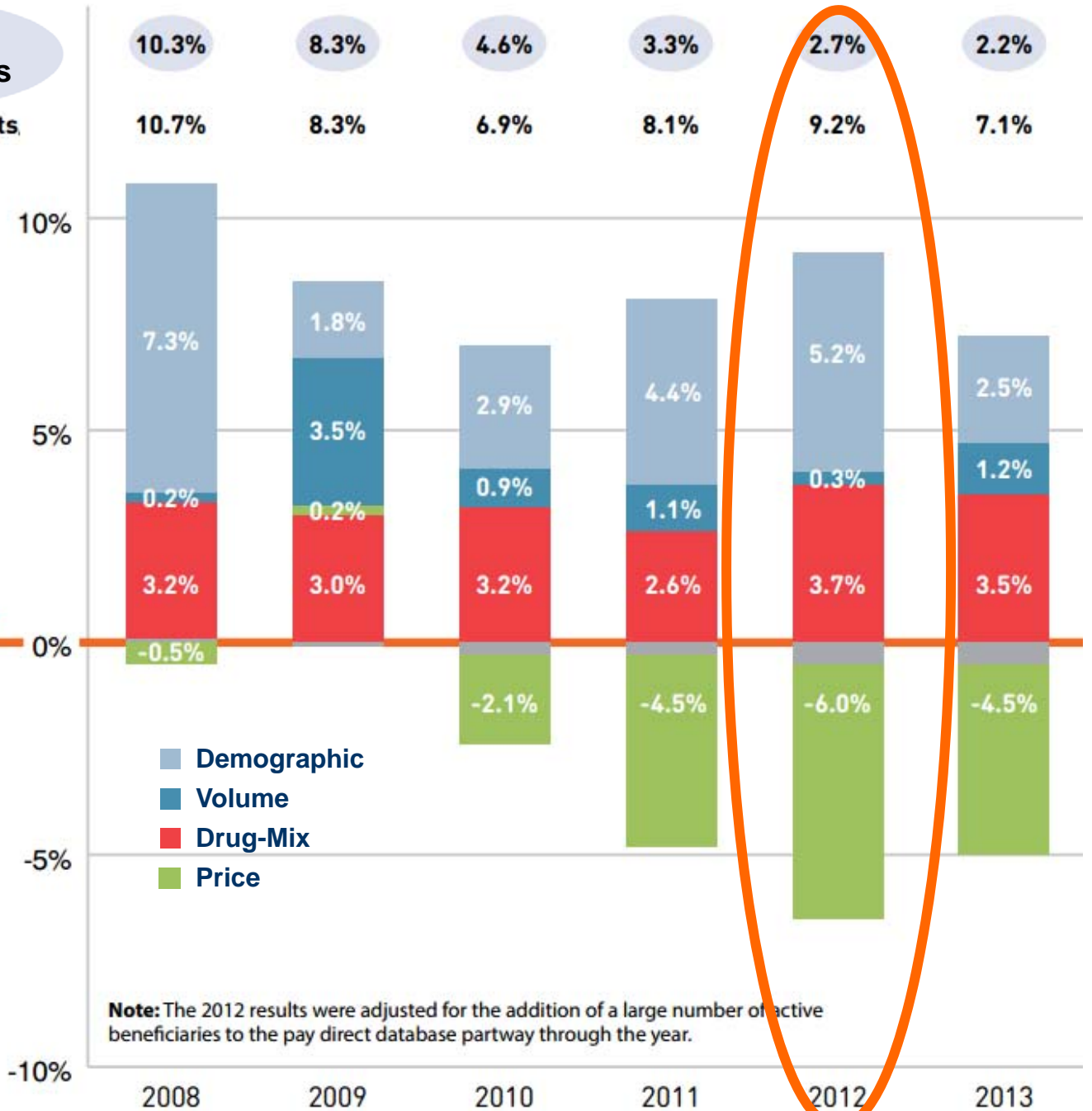
*“How much would drug plan expenditures have changed from one year to another if only one factor (e.g. price of drugs) changed while all the others remained the same?”*

In reality though, multiple factors change simultaneously, creating a cross effect.

# Cost Drivers in Private Plans

**Net Change in Drug Costs**

Total Push Effects

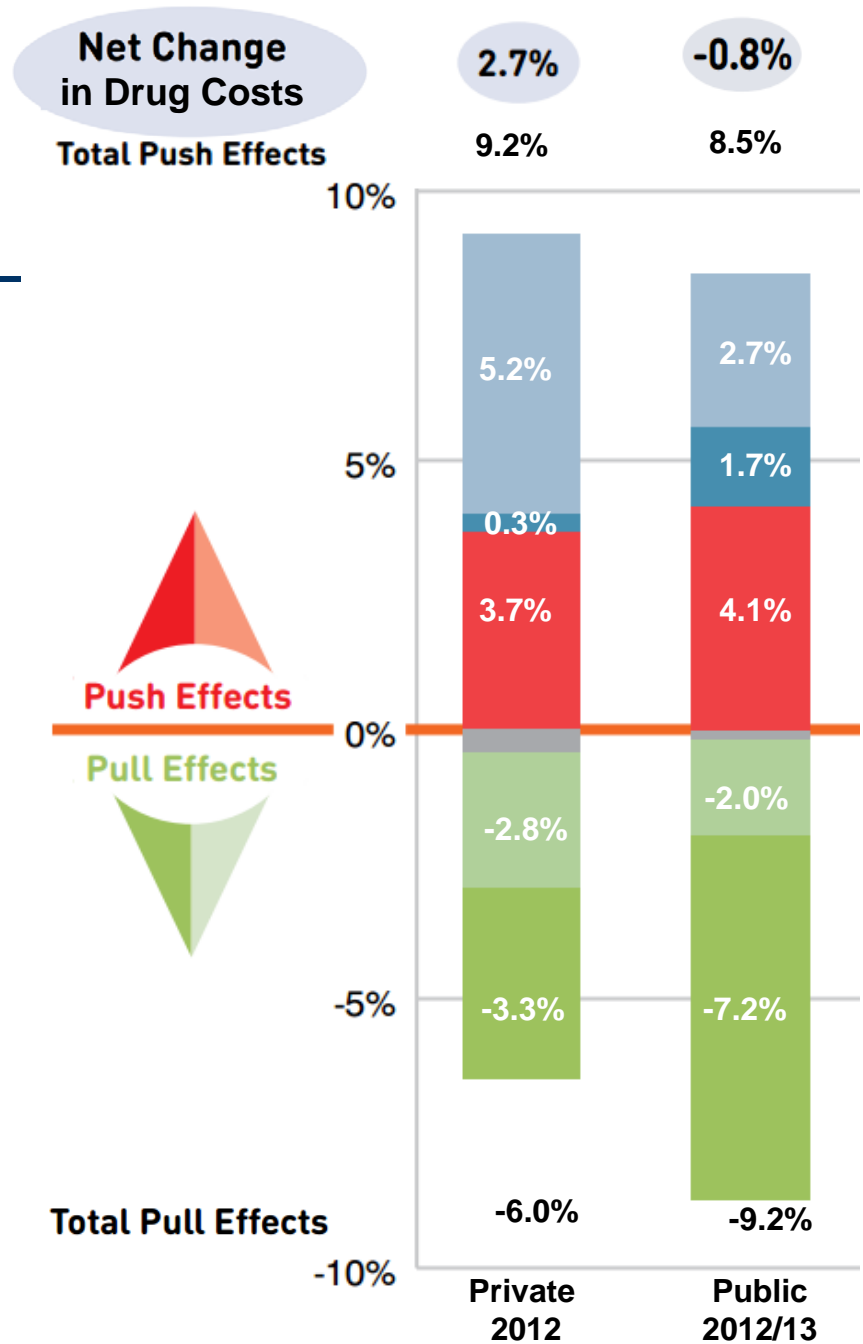


Data Source: IMS Brogan Private Drug Plan Pay-Direct Database

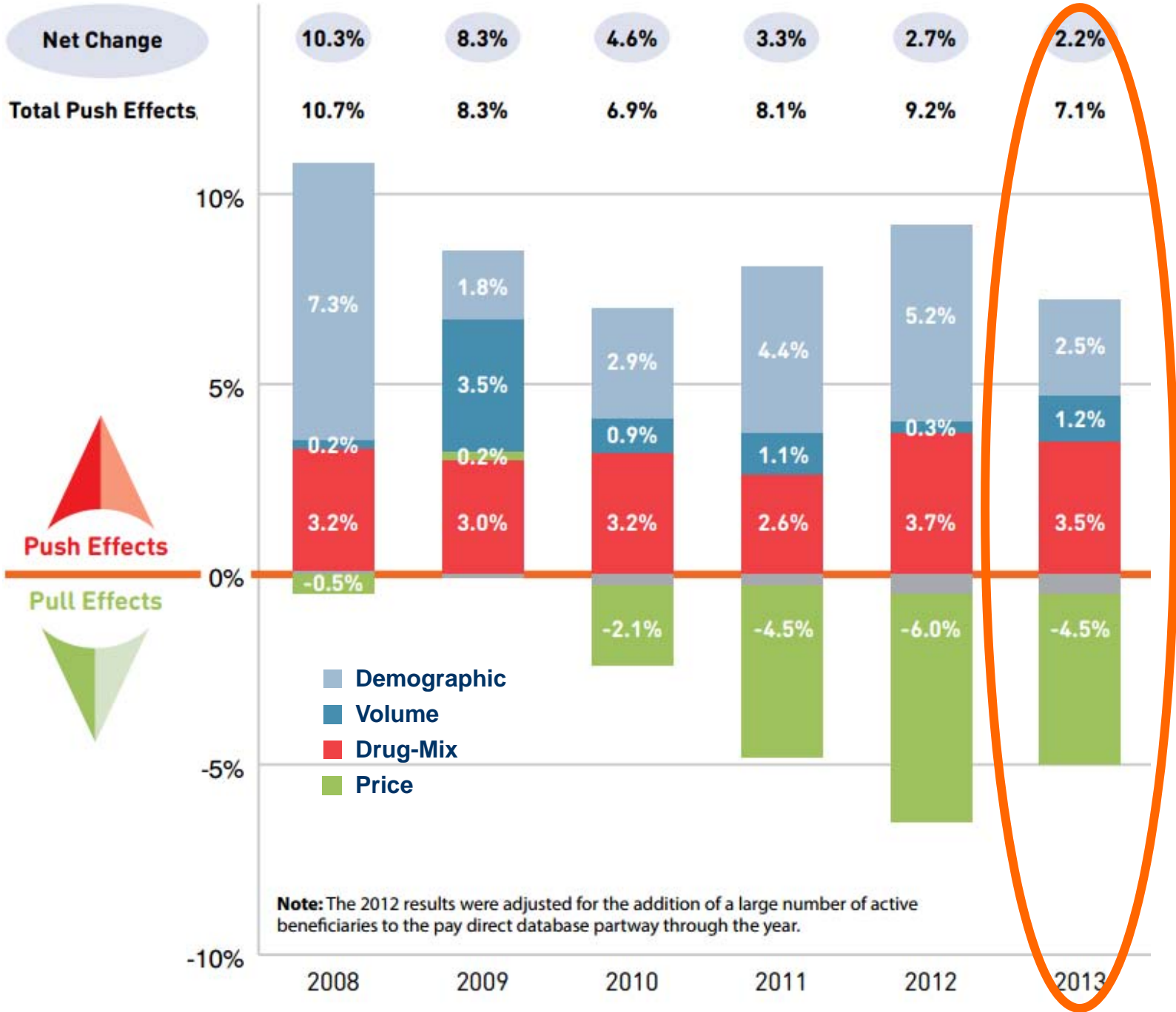
# Private vs. Public Drug Plans

- Lower overall rates of change in drug costs in public plans
- Comparable drug-mix effect
- Lower generic substitution effect in private

- Demographic
- Volume
- Drug-Mix
- Price Change
- Generic Substitution

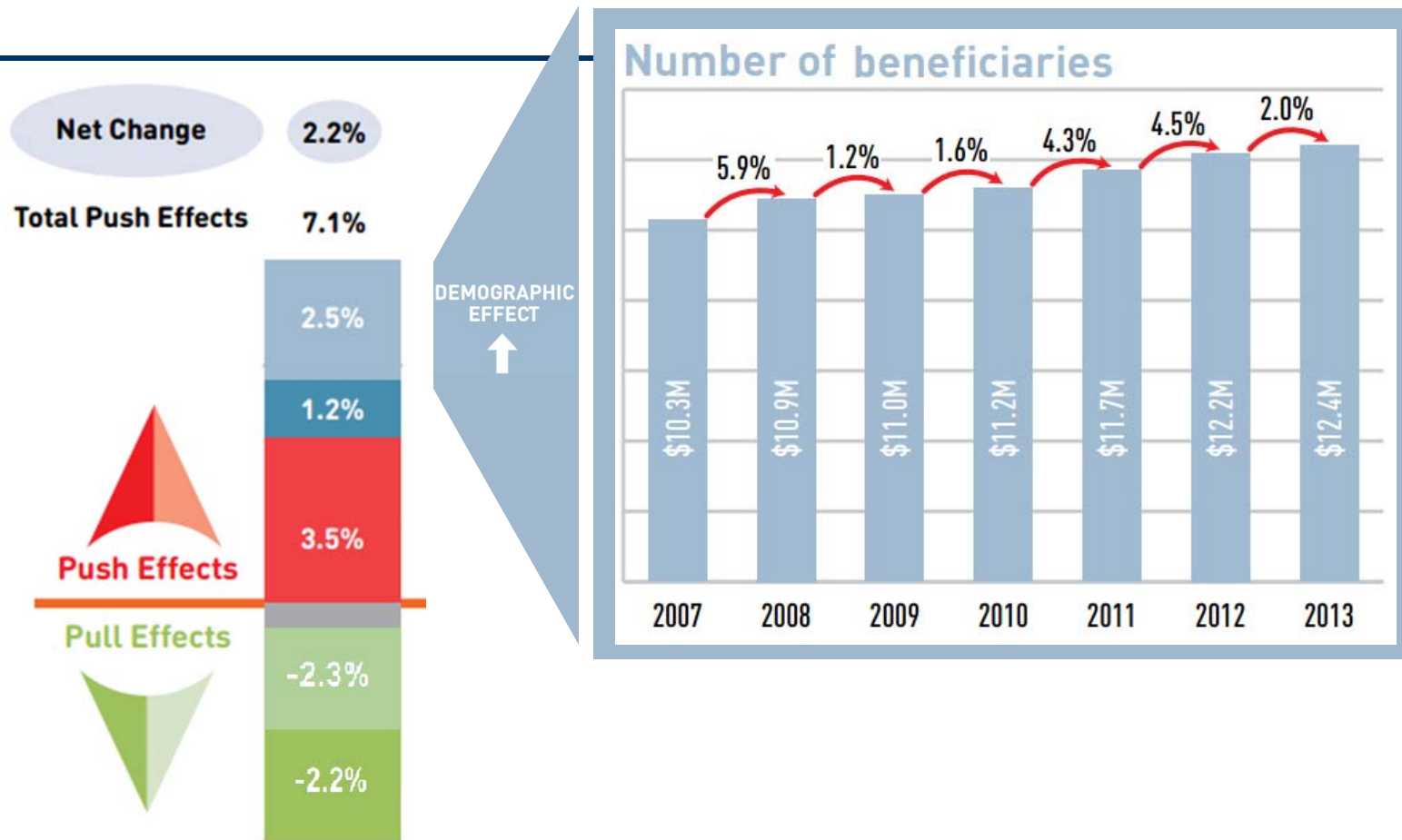


# Cost Drivers in Private Plans



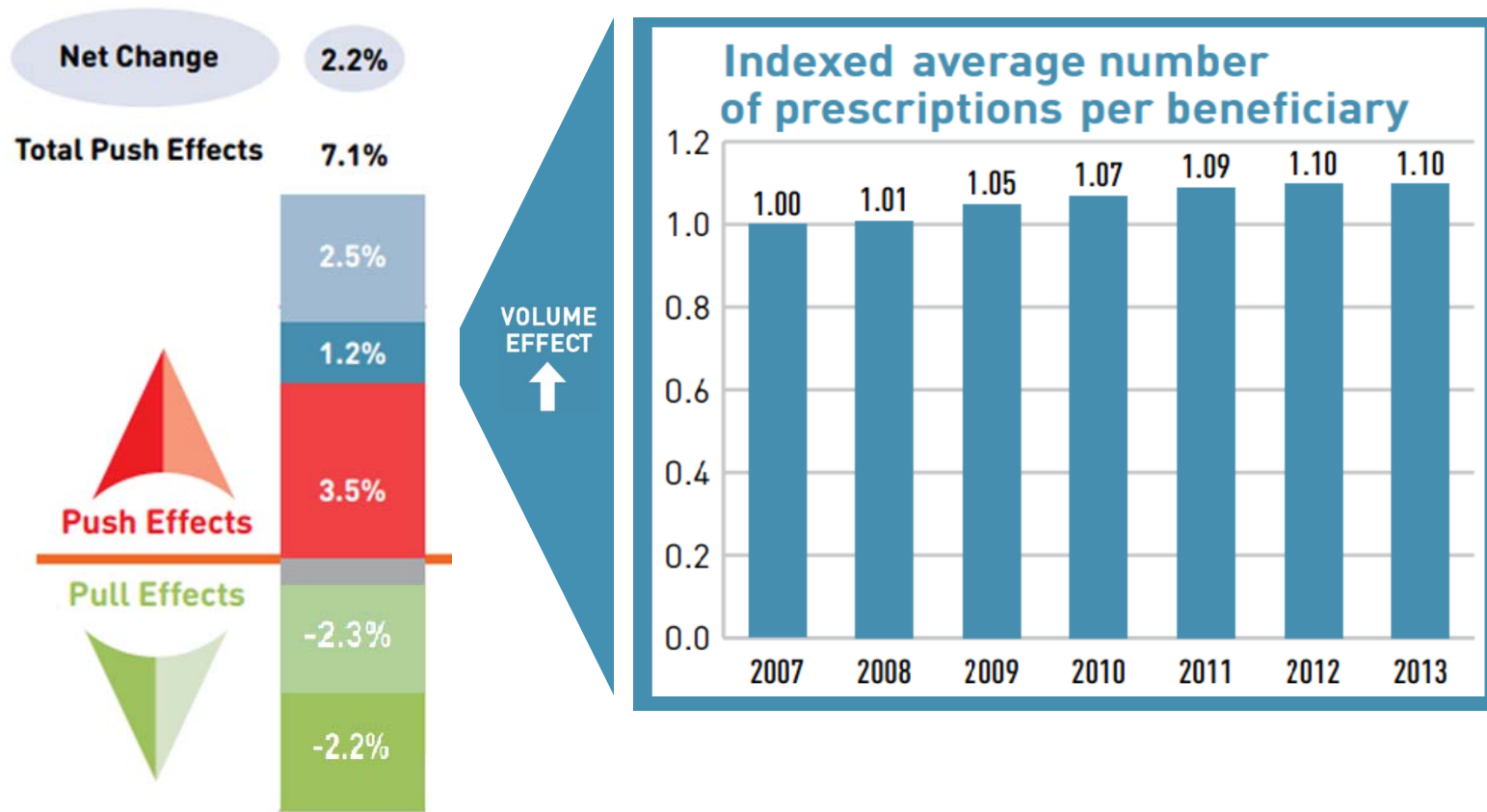
Data Source: IMS Brogan Private Drug Plan Pay-Direct Database

# Push effect: growth in no of beneficiaries

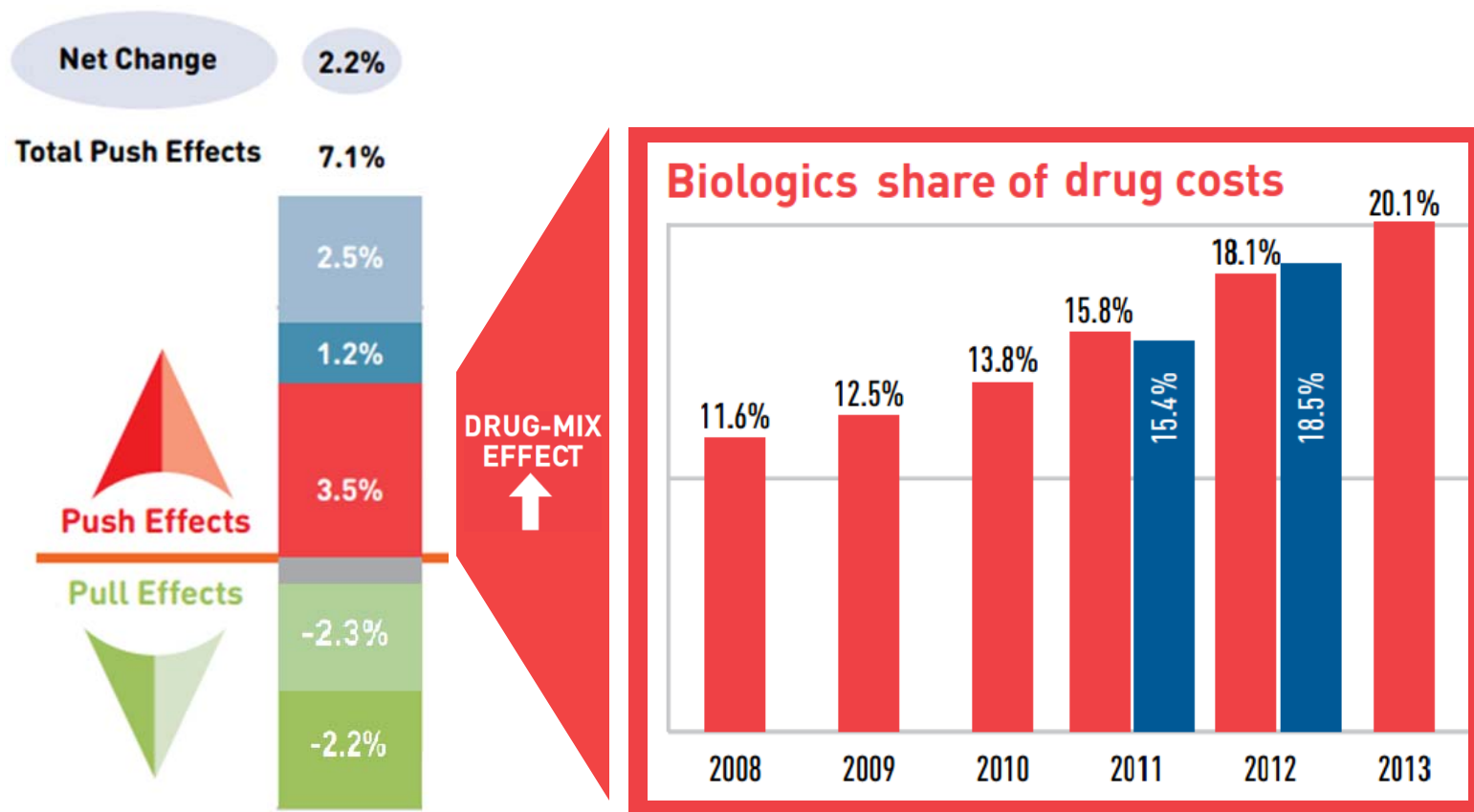




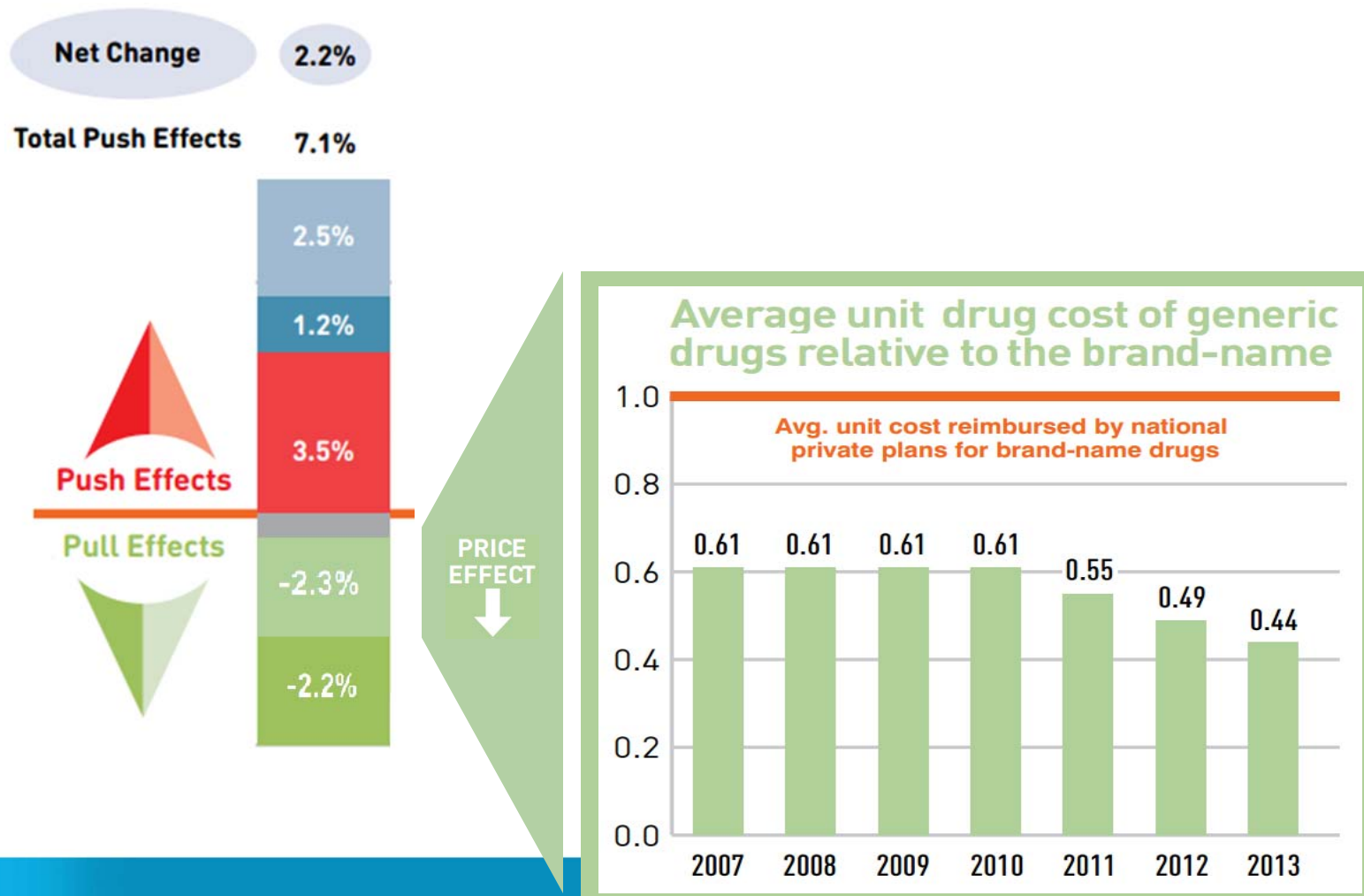
# Push effect: higher use of drugs



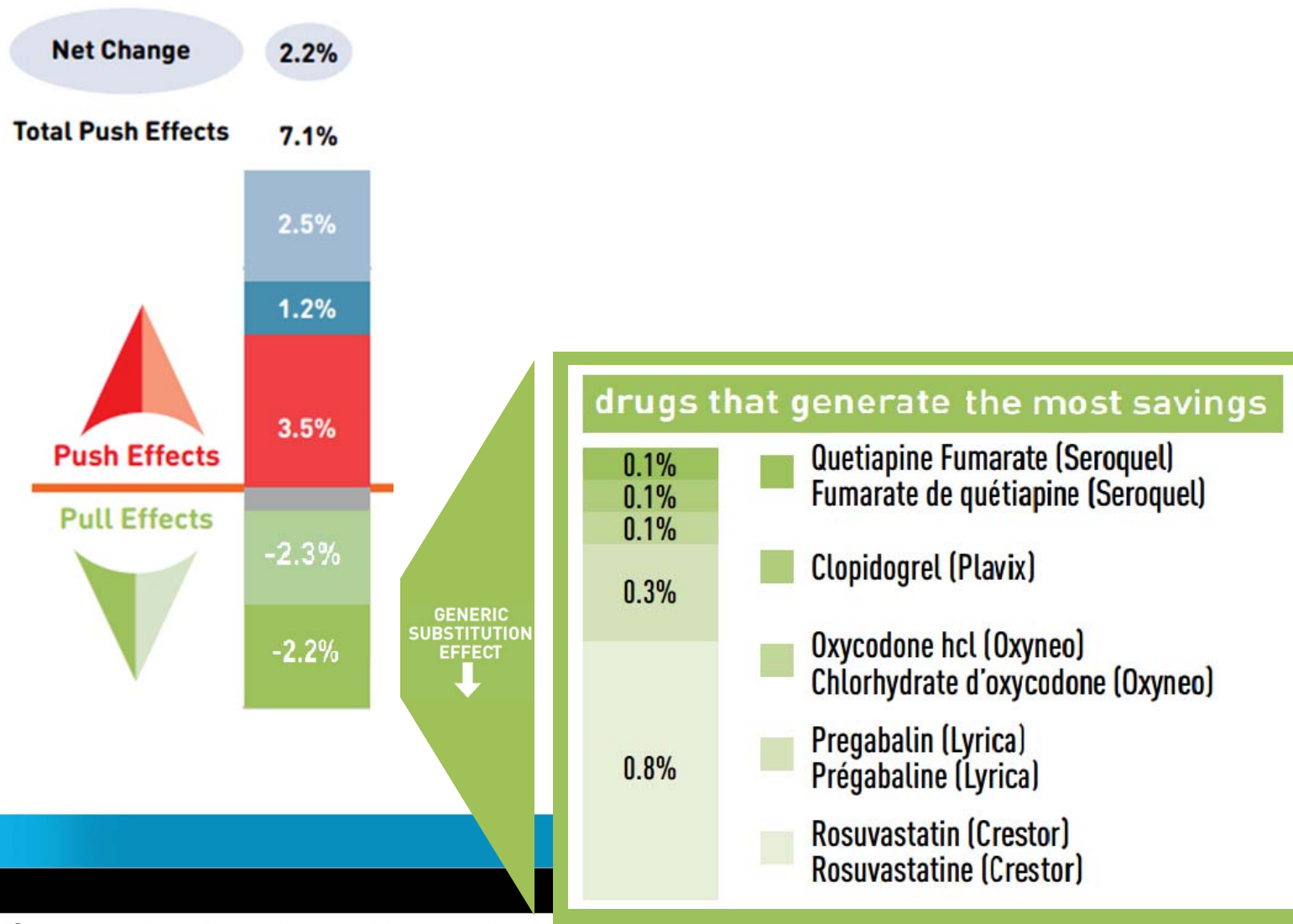
# Push effect: increased use of high-cost drugs



# Pull effect: lower generic prices



# Pull effect: increased generic substitution



Data Source: IMS Brogan Private Drug Plan Pay-Direct Database

# Conclusions

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- Declining rates of change in drug cost in recent years in private plans
- Driven by opposing “push” and “pull” effects which nearly off-set each other
- Demographic, volume and drug-mix effects pushed costs upward:
  - ♦ In the absence of generic savings, would have increased drug costs by 7% or more
  - ♦ Drug-mix had the most important push effect on drug costs
- Generic price change and substitution effects pulled costs downward:
  - ♦ In the absence of other cost pressures, would have decreased drug costs by 4.5% or more
- Higher rates of change in drug cost in private compared to public plans in 2012
  - ♦ Mainly due to a less pronounced impact of generic substitution.



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<http://www.pmprb-cepmb.gc.ca/en/npduis>

# Thank you

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