

# Quality of community pharmacy care: 5 years of performance measurement in the Netherlands



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# Background

- Comprehensive Quality Indicator (QI) set
- Since 2008 annual data collection
- Validated set in 2012
  - Content validity
  - Selection bias
  - Measurement bias
  - Statistical validity

## Evaluation of Quality Indicators for Dutch Community Pharmacies Using a Comprehensive Assessment Framework

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# Aims

For the QIs measured from 2008 to 2012:

- Scores & trends
- Changes between subsequent study years
- Impact of a certified quality management system
- Consistency to score higher or lower on several QIs

# Methods

1. Data were collected annually from all Dutch community pharmacies.
2. The validated QI set 2012 was leading.
3. QIs measured from 2008 to 2011 were matched.
4. National level: trends
  - dichotomous QIs (% answering 'yes')
  - numerical QIs (mean, percentiles)
5. Individual pharmacy level (numerical dispensing outcome QIs)
  - a) Changes between subsequent study years
  - b) Impact of a quality certificate on scores
6. Composite sum score
  - Consistency of high scores on several QIs during study period

# Results: QI set on 2012

- QI set 2012
  - 66 QIs in 10 domains
    - 29 structure QIs
    - 24 proces QIs
    - 13 dispensing outcome QIs
- 1,739 community pharmacies answered the QI set on 2012 (88%)

11 QIs with five years measurements

4 numerical QIs on dispensing outcomes

# Results: national trends

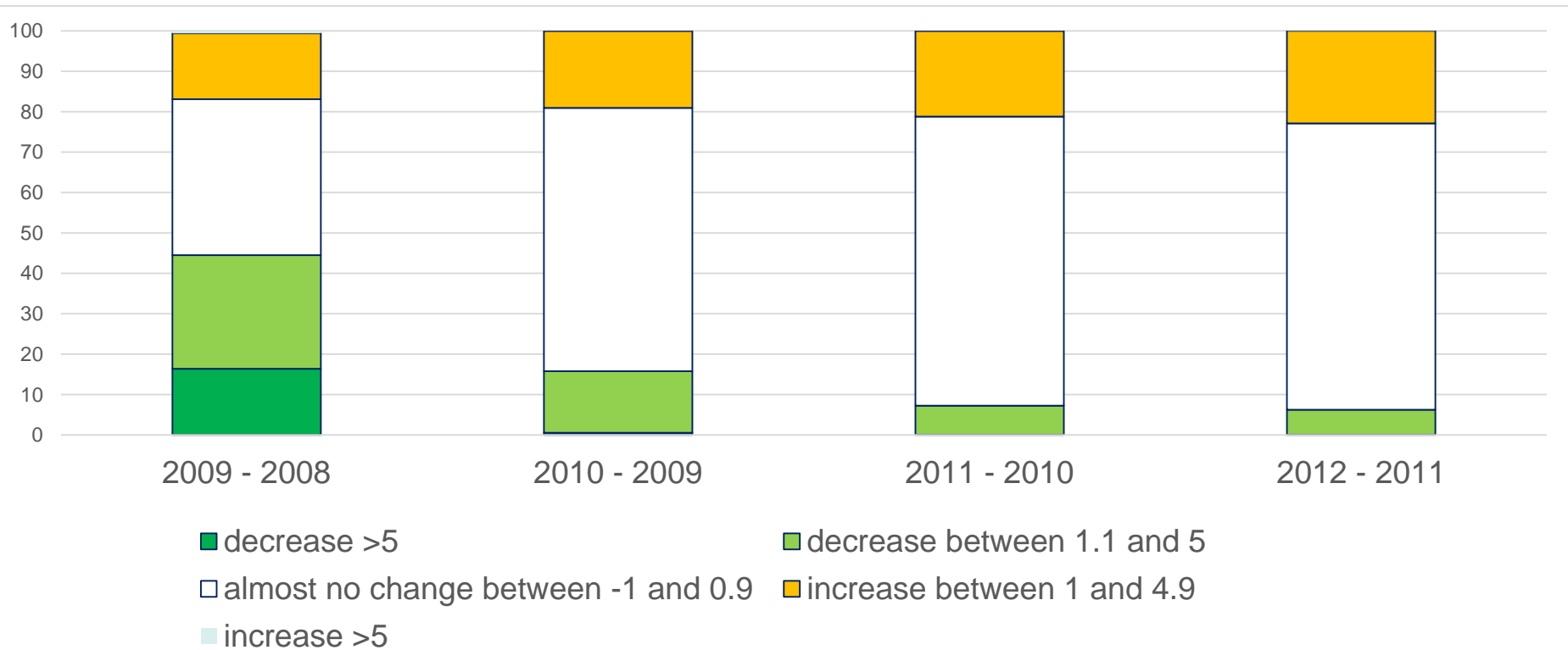
QI	Type	5 <sup>th</sup> ; 95 <sup>th</sup> percentile 2012	2012	2011	2010	2009	2008
1. Quality management certificate (%)	S		84	83	75	68	63
2. Patients' experiences (%)	S		94	93	84	82	87
3. Pharmacotherapy audit meetings (%)	S		85	86	81	79	78
4. Informing on <b>contra indications</b> (%)	S		99	97	92	90	74
5. <b>Cooperation</b> other healthcare providers (%)	S		70	60	57	52	53
6. <b>≥ 20 Medication Reviews</b> (%)	P		57	50	40	26	20
7. <b>Inhalation instruction</b> first dispensings (%)	P	4; 100	70	68	73	69	58
8. Interaction <b>coumarin / co-trimoxazol (N)</b>	O	0; 2	0.7	0.7	0.8	1.1	18
9. <b>NSAID</b> >70 with <b>gastroprotection</b> (%)	O	70; 96	85	84	82	77	71
10. <b>Nitrates</b> with <b>antithrombotics</b> (%)	O	86; 100	93	92	91	85	76
11. <b>Opioids</b> with <b>laxatives</b> (%)	O	35;76	54	56	53	53	45

# Results: impact quality certificate

	Coumarins and co-	NSAIDs and gastroprotec	Nitrates and antithrombo	Opioids and laxatives
	Significant differences between pharmacies for score in 2012 and for development during time			
a) Mean annual change of QI score	-3.41	3.46%	4.05%	2.18%
b) Quality certificate	-0.66	2.17%	2.00%	1.07%
c) Quality certificate, adjusted for scores in 2008	-0.01	1.21%	0.15%	1.88%

# Results: changes between years (individual pharmacy)

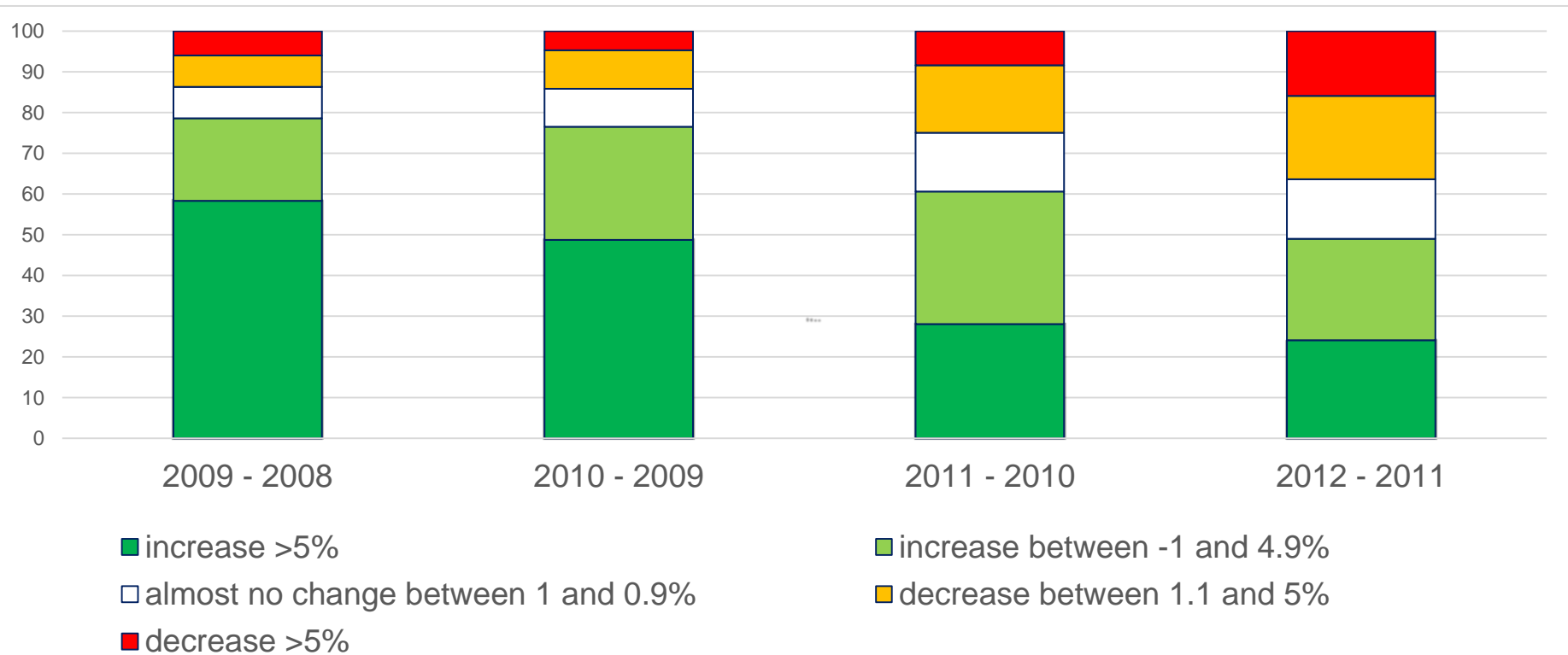
## Coumarins with co-trimoxazol





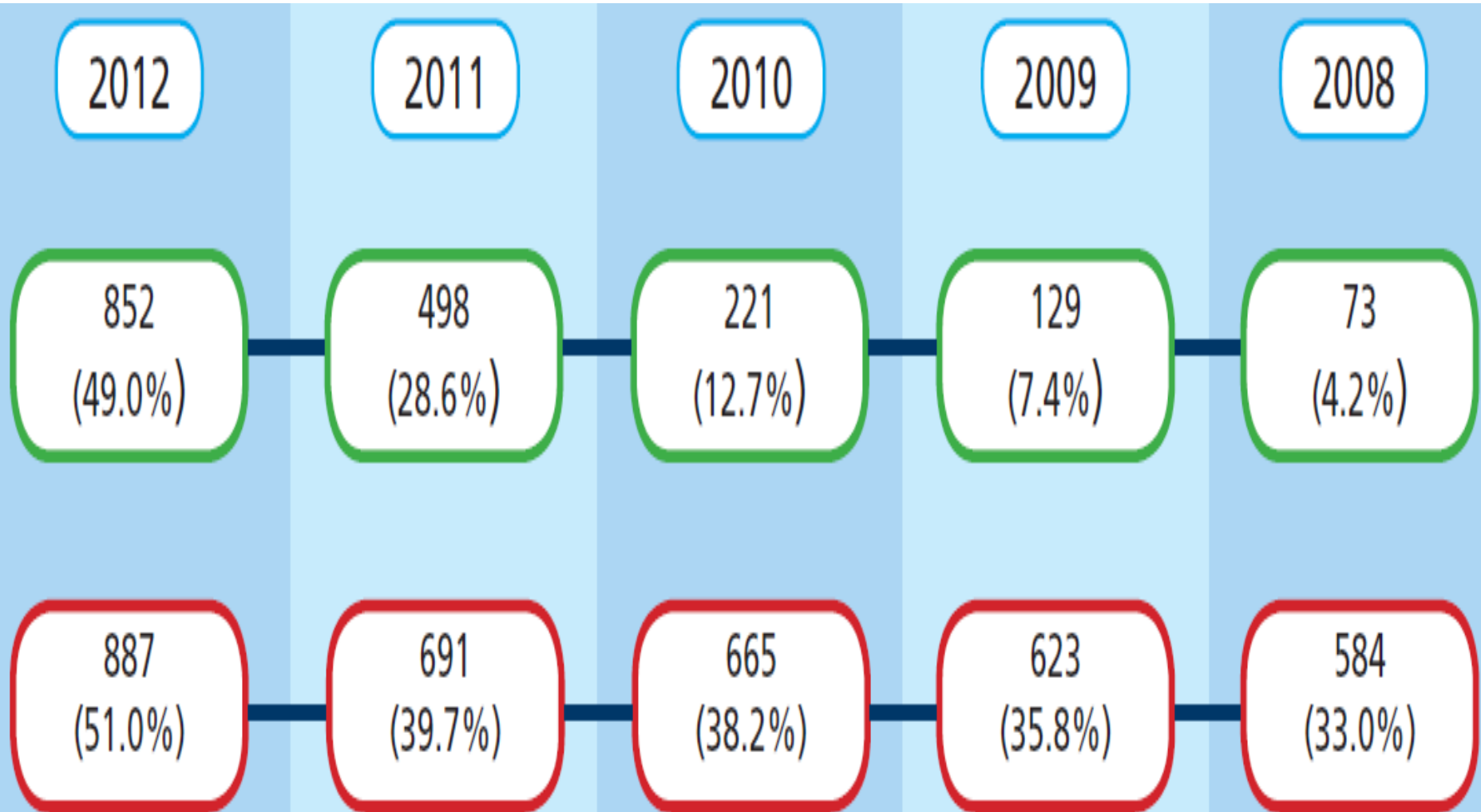
# Results: changes between years (individual pharmacy)

## NSAIDs 70+ with gastroprotection



# Results: consistency composite

sum score (individual pharmacy)



# Discussion

- QI scores improved since 2008
- Development differed substantially between individual pharmacies
- Influenced by feed back, pay for performance and a quality management certificate
- Few pharmacies remained consistently high in QI scores during the years



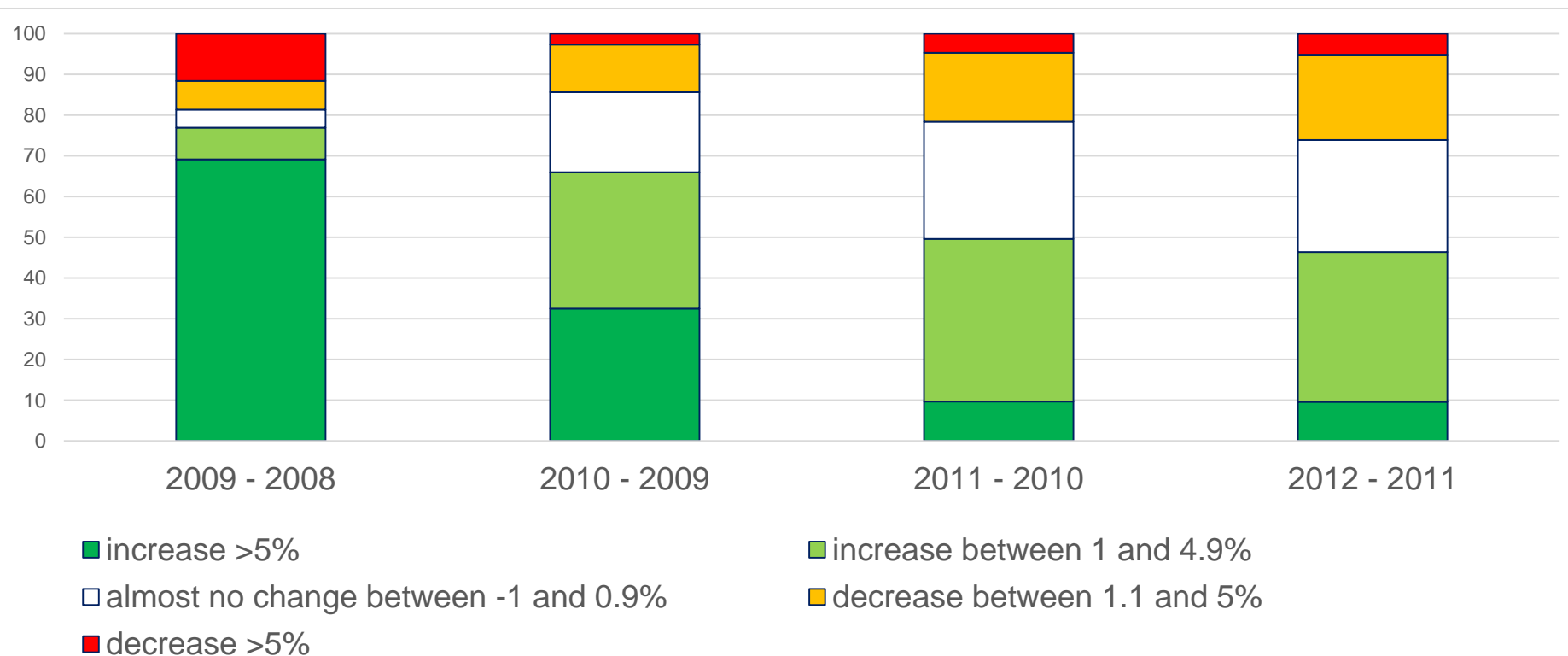
Quality is difference



 KNMP

# Results: changes between years (individual pharmacy)

## Nitrates with antithrombotics



# Results: changes between years (individual pharmacy) Opioides with laxatives

