

Changes in the use of hydrochlorothiazide and other antihypertensive drugs in Switzerland in association with the Swissmedic safety alert regarding skin cancer

An interrupted time-series analysis using Swiss claims data

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Post marketing findings: risk of skin cancer!

Use of hydrochlorothiazide increases risk of developing:

- Squamous cell carcinoma
 - (Basal cell carcinoma)
 - (Certain melanoma subtypes)
- } non-melanoma skin cancer

→ dose-response and duration effect

Swissmedic in November 2018:
Direct Healthcare Professional Communication (DHPC)

Updated product information:
«Warnings and Precautions» and «Adverse Effects»

Measurement of use: Swiss claims data

Helsana health insurance: claims data from 2015 – 2021

Tabelle 1: Allgemeine Kennzahlen der durch die Helsana-Gruppe grundversicherten Personen

	2018	2019	2020	2021
Anzahl Grundversicherte				
Gesamt	1'138'297	1'197'402	1'314'359	1'389'188
davon Frauen (%)	588'325 (51.7)	616'751 (51.5)	673'075 (51.2)	709'237 (51.1)
davon Männer (%)	549'972 (48.3)	580'651 (48.5)	641'284 (48.8)	679'951 (48.9)

Date of
claim

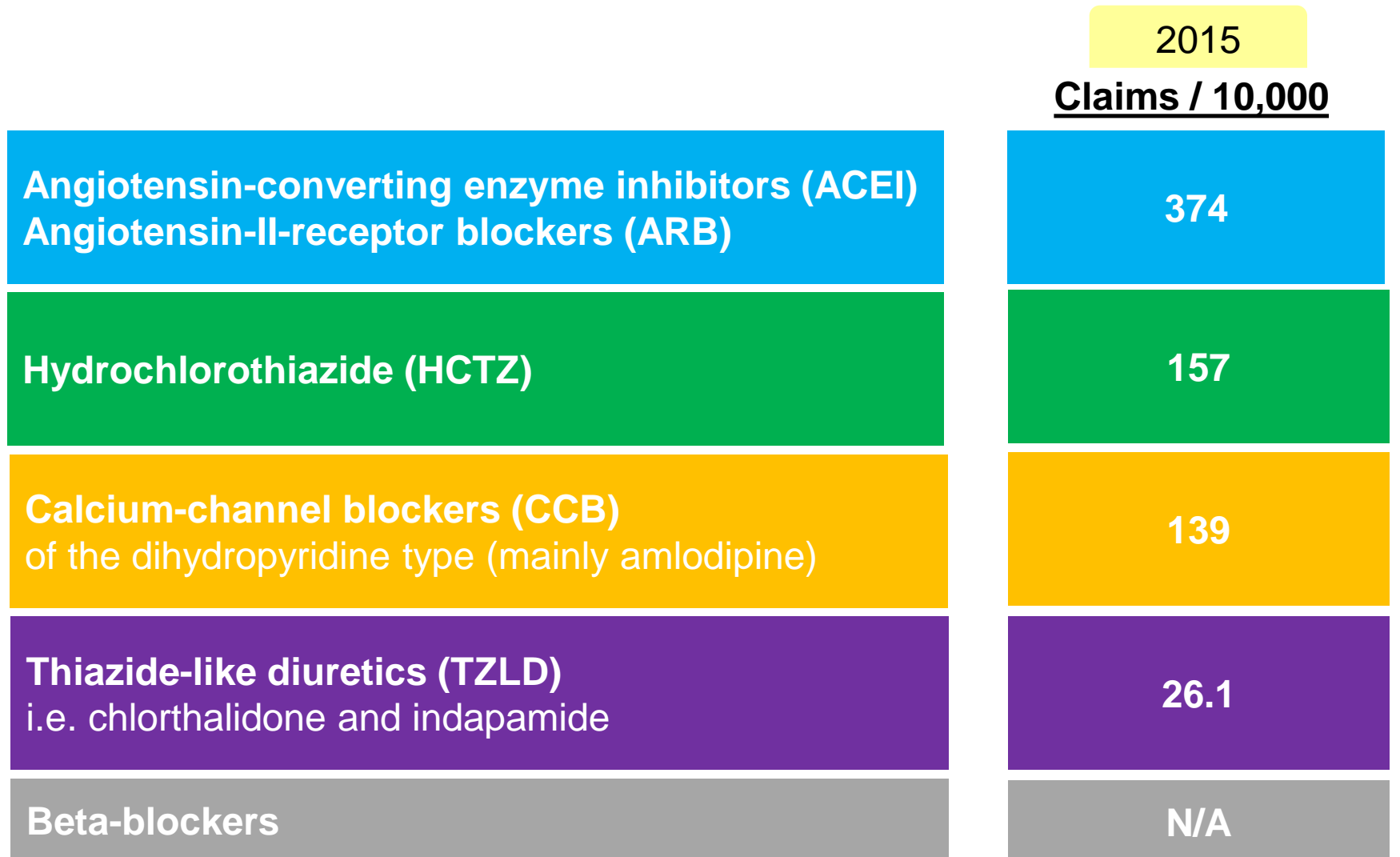
Demo-
graphics

ATC-
Codes

Product
information

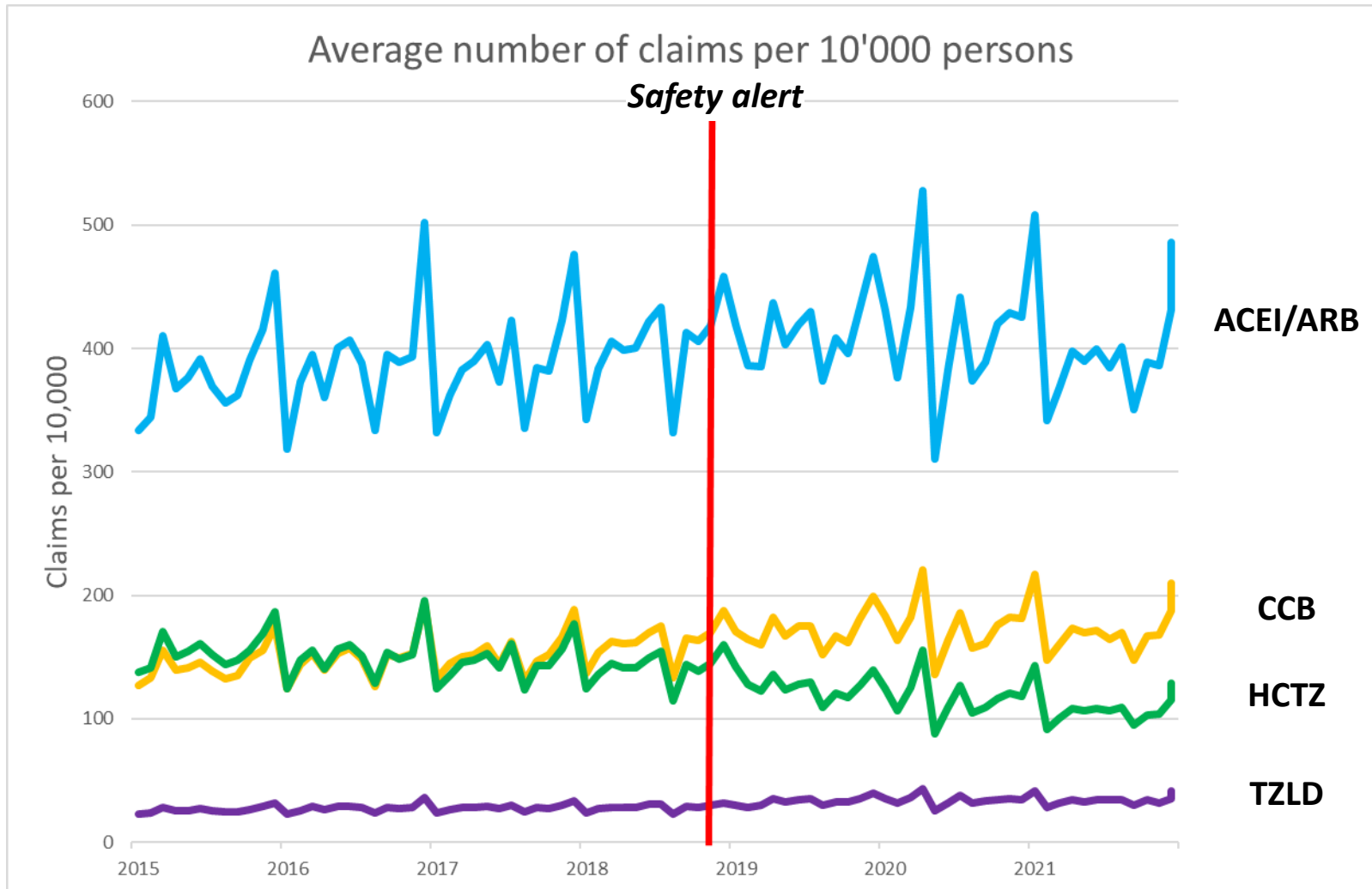
1. Monthly number of claims
2. Monthly number of dispensed «defined daily doses» (DDD)
3. Monthly number of new users
4. Yearly number of total users

Hydrochlorothiazide is central in the treatment of arterial hypertension!



ESC/ESH Guidelines 2018

Decrease of hydrochlorothiazide use over seven years!

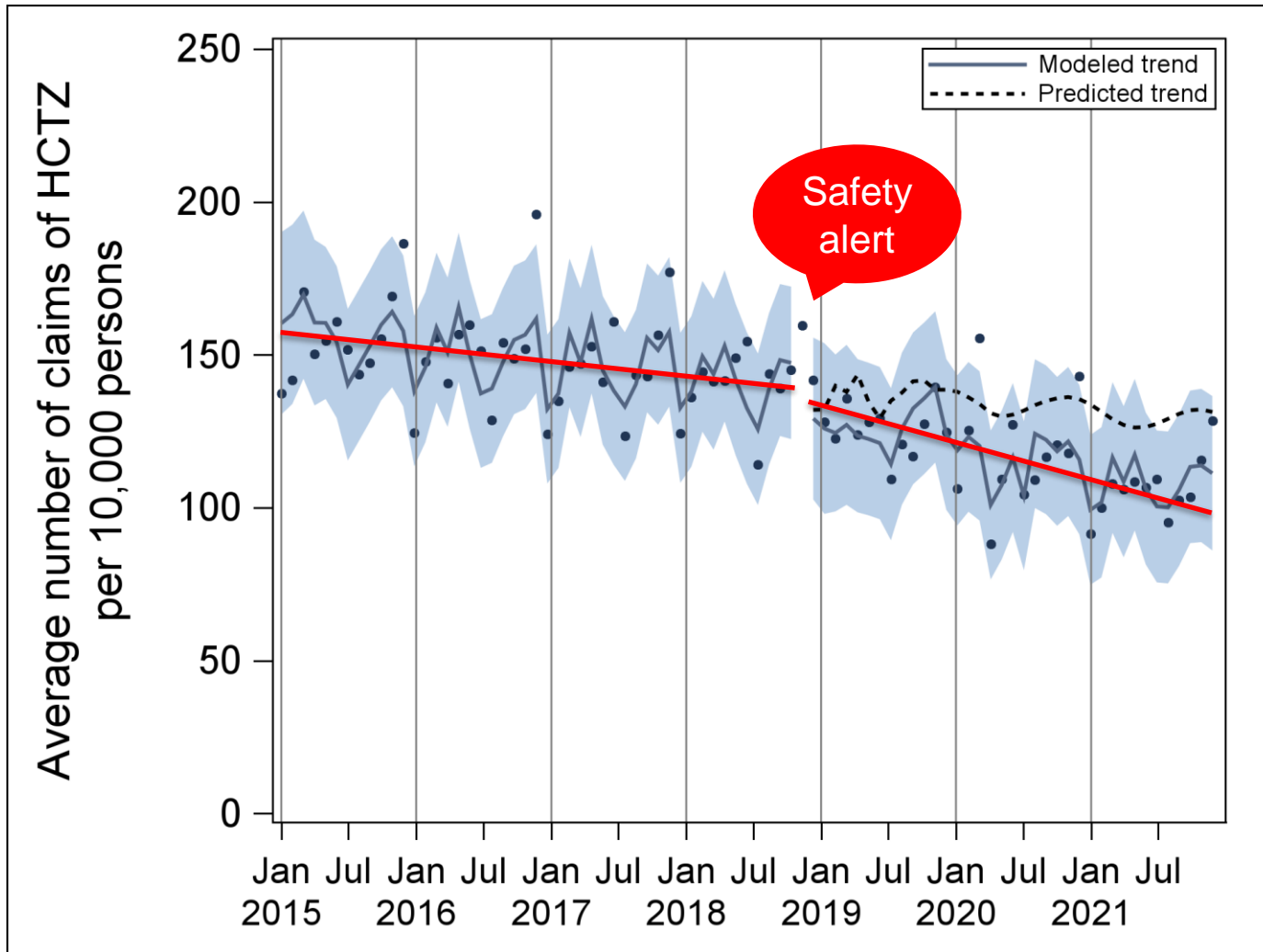


Measurement of intervention effect

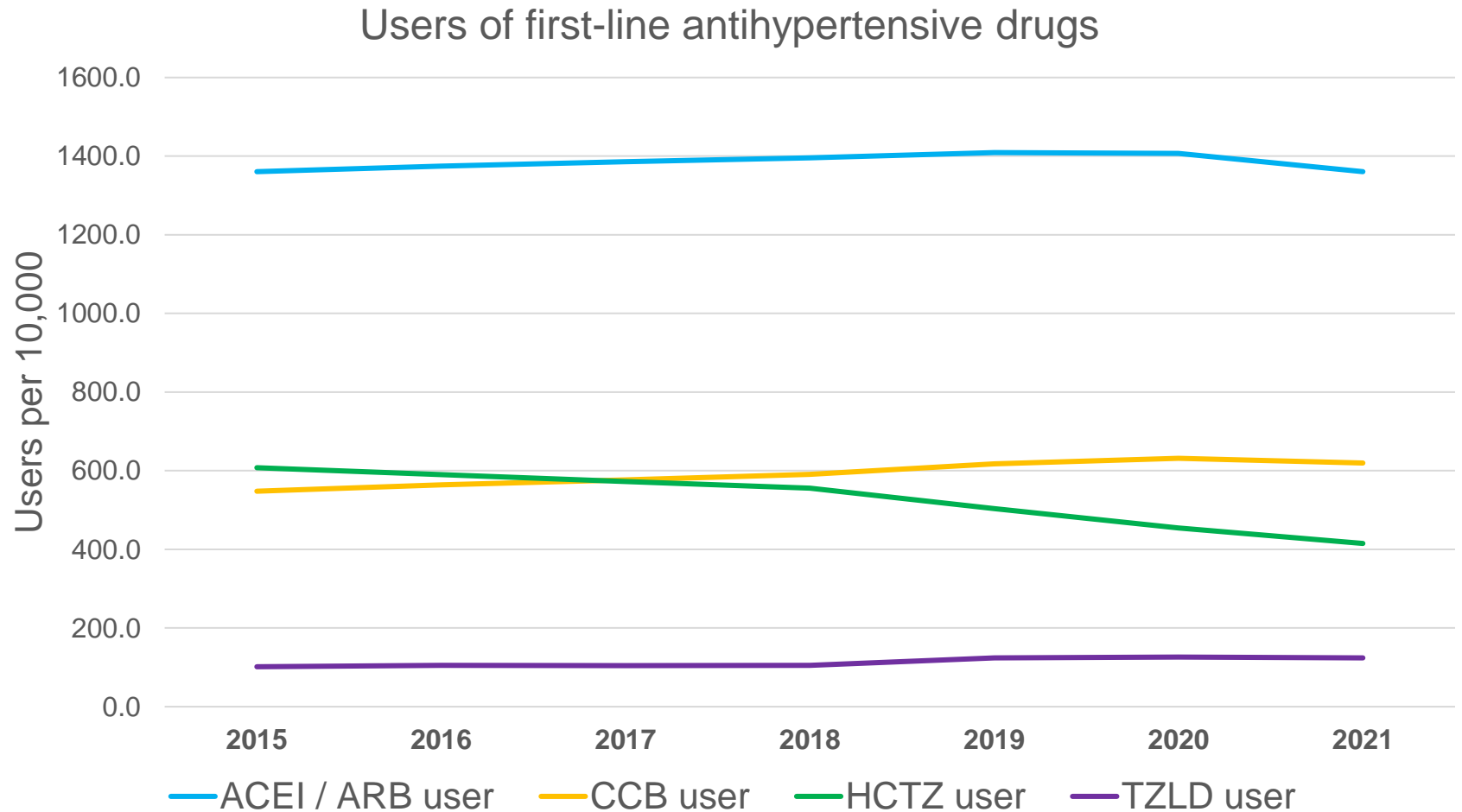
Statistical analysis: interrupted time-series analyses

- Intervention = Swissmedic DHPC (November 2018)
- Effect estimations:
 - Pre-DHPC trend
 - Immediate effect
 - Change in trend after DHPC

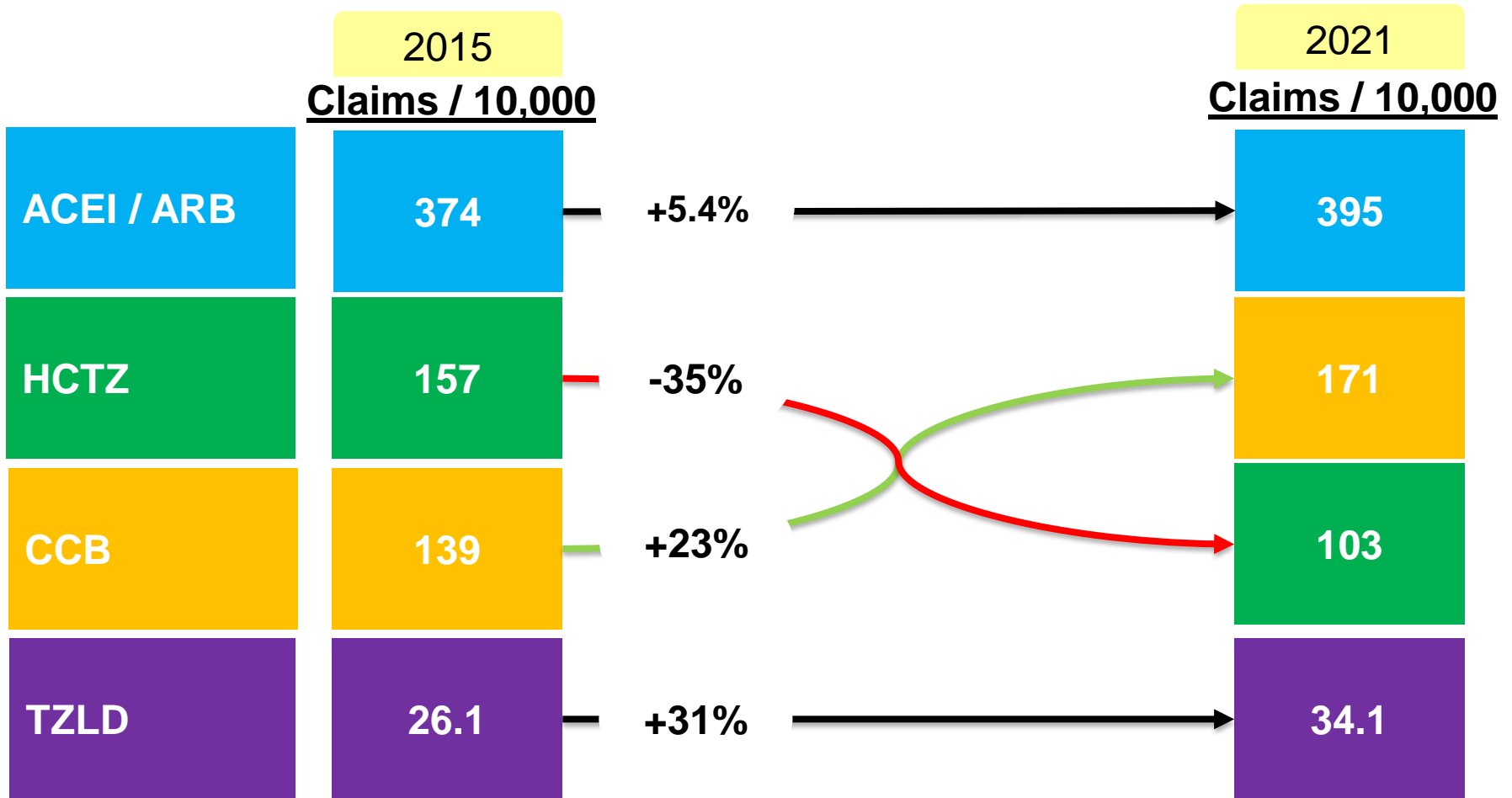
Hydrochlorothiazide use decreased by 6% after Swissmedic safety alert!



Hydrochlorothiazide users decreased after Swissmedic safety alert!



CCB use overtook hydrochlorothiazide use!



Conclusion

- Claims of HCTZ immediately decreased by 6% in association with the Swissmedic safety alert
- **The Swissmedic intervention was taken into account by prescribers in clinical practice**
- Claims of CCB immediately increased by 5.8% in association with the Swissmedic safety alert and by 23% overall
- **The increased use of CCB compensated for the decline in use of HCTZ**
- Current guidelines do not exclude HCTZ
- **HCTZ will still be used in clinical practice**



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Thank you
for your attention.