

La pandemia da SARS COV2 ha influenzato i profili di consumo delle terapie croniche nell'area cardiovascolare?

Modello analitico di uno studio multiregionale

Manuela Casula





BACKGROUND

30 Dec 2019, **Whuan China**
1st confirmed cases of unusual pneumonia

17, Feb 2020
1st confirmed autochthonous case from Codogno (LO), North Italy
38yo male

21, Feb 2020
1st confirmed death for COVID-19 in Padova, North Italy
78 yo male

7-8 Mar, 2020
Lockdown in Lombardy

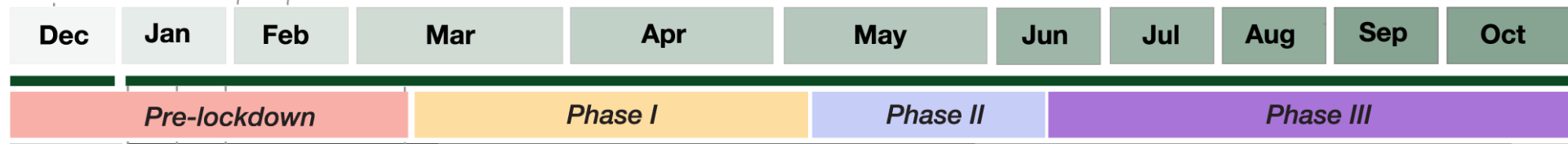
11 Mar, 2020
Lockdown extended through the country

INDOSSA LA MASCHERINA

MANTIENI LA DISTANZA

LAVA SPESSO LE MANI

Giovanetti et al. Commun Biol 2021; 4:489



2019

2020

1 Jan 2020
Huanan Seafood Market closed

7 Jan 2020
2019-nCoV identified

30 Jan 2020
WHO declares **Public Health Emergency of International Concern**

11 Mar 2020
SARS-CoV-2 confirmed as pandemic by WHO

8 March - 3 May
Phase one lockdown measures first introduced on March 7th 2020 in 11 municipalities of Northern Italy, were extended by March 11th to the whole country

4 May - 14 June
Measures were progressively relaxed. This phase people were allowed to visit family members living in the same region and was characterized by the restart of some business activities

15 June
This phase was characterized by reopening of businesses and resumption of within country travel but leaving in place mask mandates

Mid-Aug 2020
New peak of potential virus transmission likely due to the relaxation of the restriction measures.

First two COVID-19 imported cases from chinese travellers were confirmed in Rome, Italy





BACKGROUND

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and resultant **COVID-19** pandemic has brought major challenges to healthcare systems and public health policies

Among others, **reduced access** to non-emergent and elective care may have resulted in increased risk of discontinuation of chronic disease management

**DON'T PUT OFF
NECESSARY MEDICAL
APPOINTMENTS**



Life has to continue even where COVID-19 is spreading.

Here's how to stay safe.



REDUCE YOUR RISK

Call to check if a phone or telemedicine consultation is possible and appropriate. If not, schedule your appointment in advance.

BEFORE YOU GO OUT



Always check on local regulations.



Bring sanitizer and wear your mask.



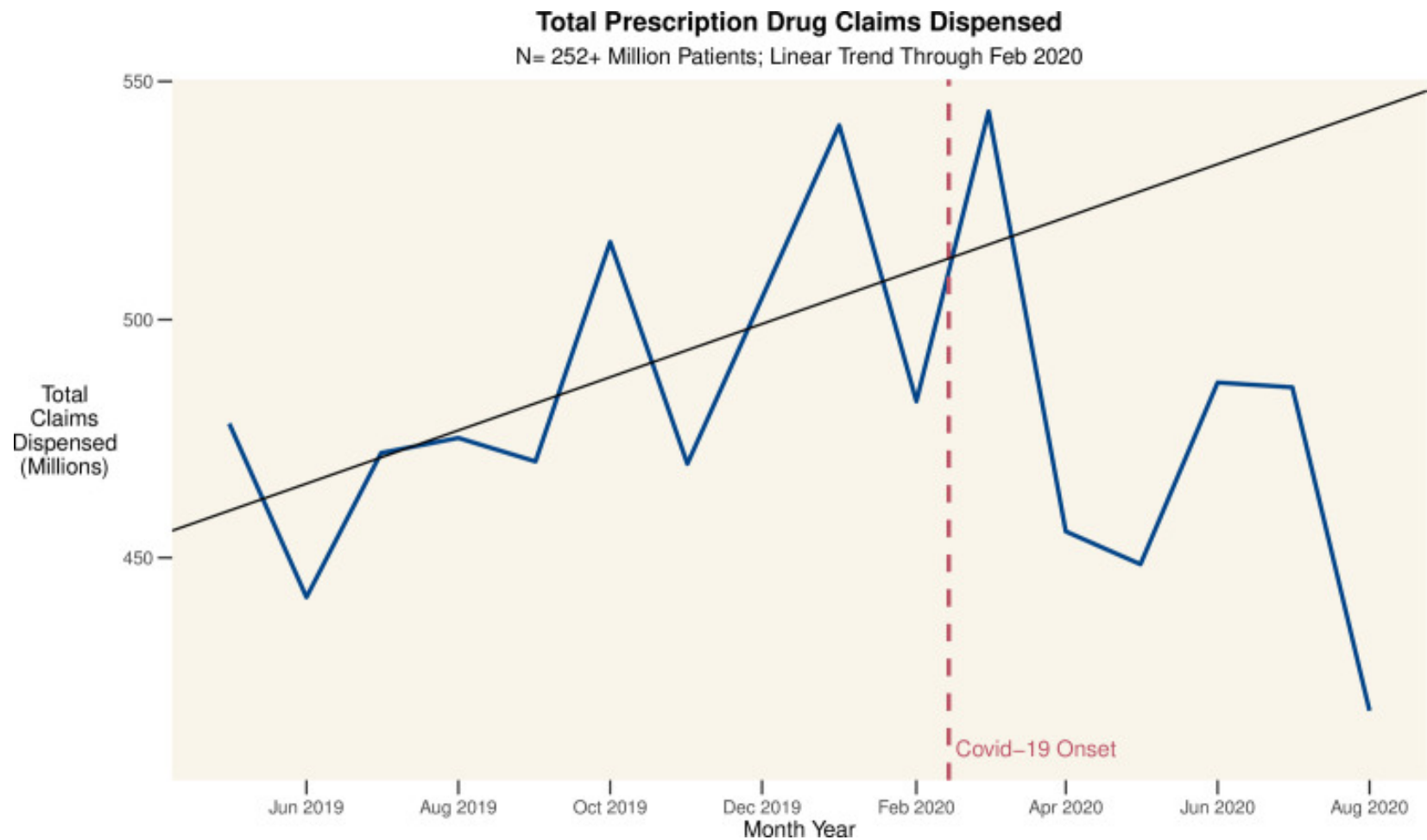
If you are in a high-risk group, wear a medical mask.





BACKGROUND

A culmination of stay-at-home orders, social distancing requirements, financial pressures, school closures, and increased personal stress raise the possibility of **refilling medication** becoming a lower priority, or an impossibility, due to these unprecedented roadblocks



Clement J, et al. PLoS One. 2021 Apr 1;16(4):e0249453

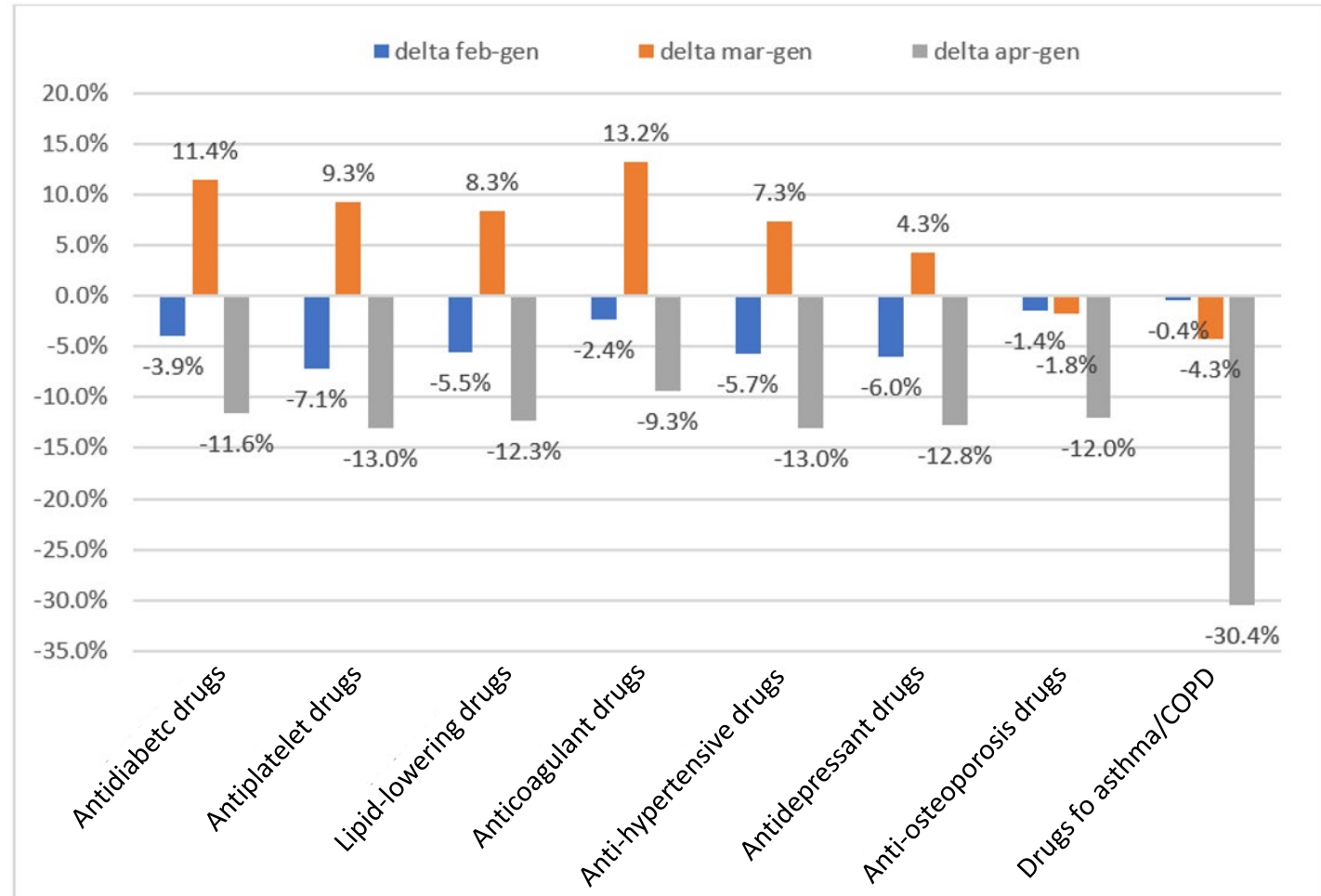




BACKGROUND

A culmination of stay-at-home orders, social distancing requirements, financial pressures, school closures, and increased personal stress raise the possibility of **refilling medication** becoming a lower priority, or an impossibility, due to these unprecedented roadblocks

Per capita consumption per 10,000 inhabitants, difference in each month (February, March and April 2020) compared to January 2020
AIFA Osmed Report





IMPACT OF THE COVID-19 PANDEMIC ON DRUG USE AND HEALTHCARE SERVICES ACCESS IN CHRONIC PATIENTS

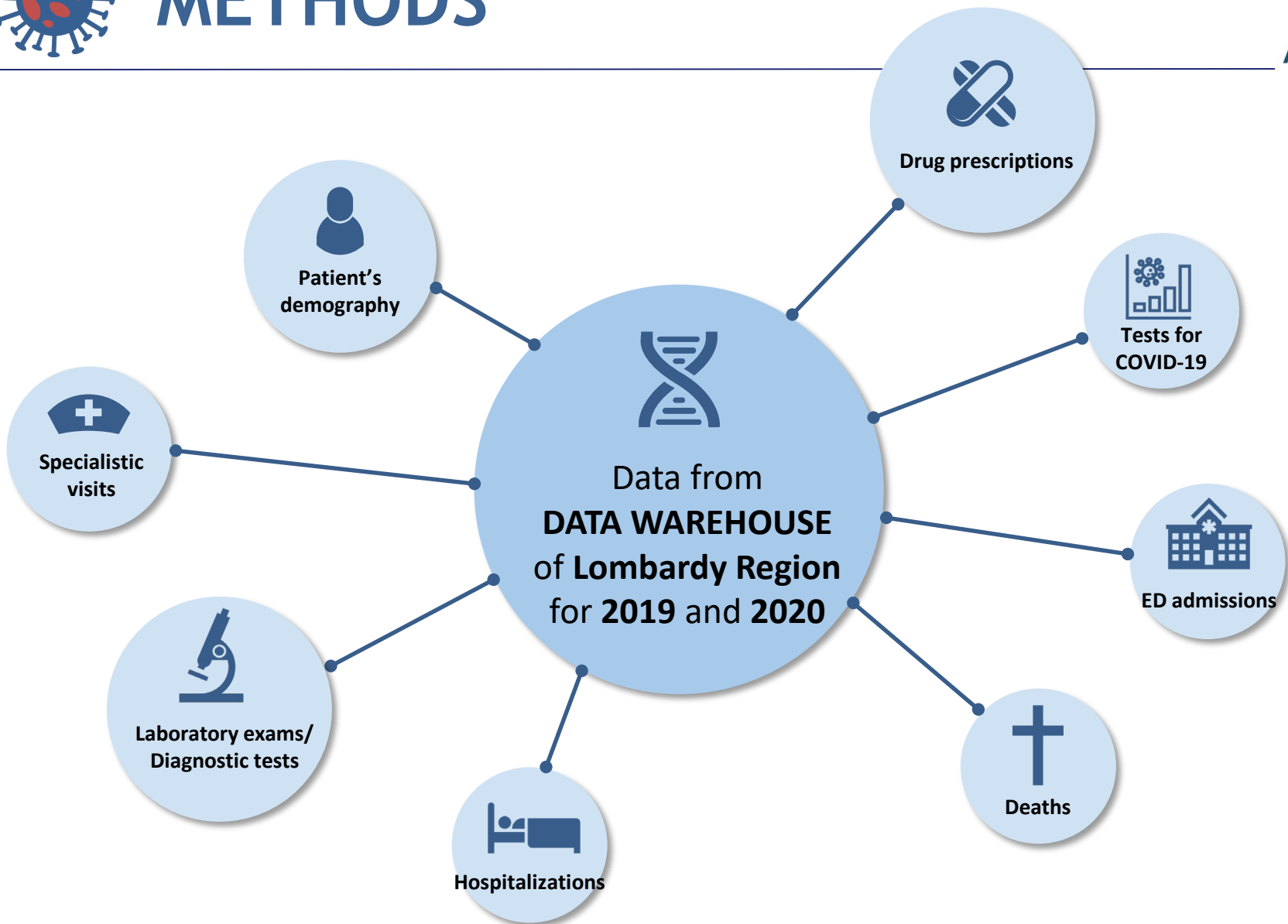


Primary aim

to analyse the variation in drug consumption and/or use of healthcare services by chronically treated patients during the pandemic period

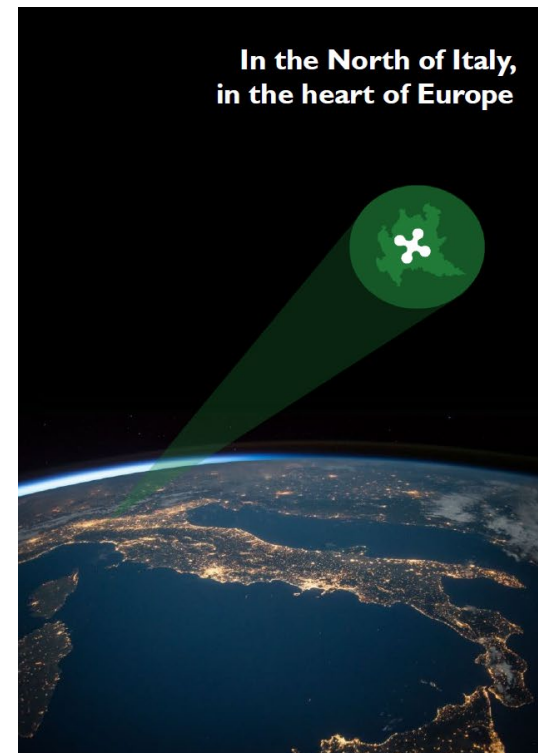


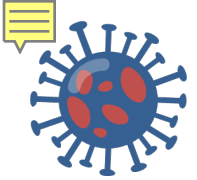
METHODS



Accesso al Patrimonio informativo regionale tramite DaaS 2.0

Emergenza Covid-19





METHODS

COHORTS SELECTION

Pharmaceutical prescriptions will be used to identify cohorts of patients on chronic treatment



≥65 ys

- Anticoagulant treatment
- Treatment for prostatic hypertrophy



≥40 ys

- Lipid-lowering treatment
- Antihypertensive treatment
- Antidiabetic treatment
- Anti-osteoporosis treatment
- Treatment for chronic respiratory diseases
- Treatment for depression/psychosis



≥18 ys

- Treatment for autoimmune diseases
- Treatment for hypothyroidism
- Treatment for hyperthyroidism



<18 ys

- Treatment for dysmetabolic syndromes
- Treatment for neurological syndromes
- Treatment for psychiatric syndromes
- Treatment of inflammatory bowel disease syndromes



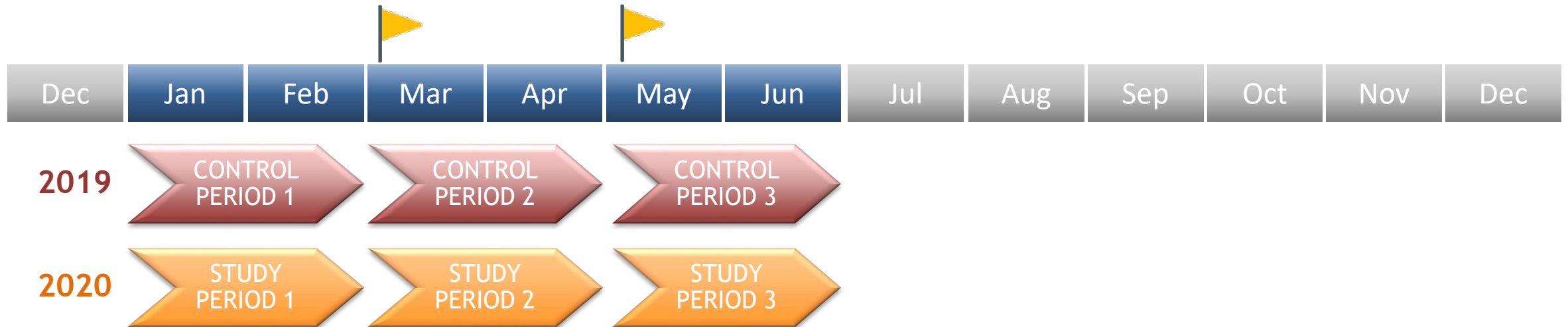


METHODS



PERIOD OF OBSERVATION

For the evaluation of outcomes, data on **pharmaceuticals** will be analyzed:





METHODS



OUTCOMES DEFINITION

For the evaluation of outcomes, data on **pharmaceuticals** will be analyzed:

At **REGIONAL** level



DISPENSED DRUGS FOR THE PHARMACOLOGICAL
MANAGEMENT OF THE CHRONIC DISEASES

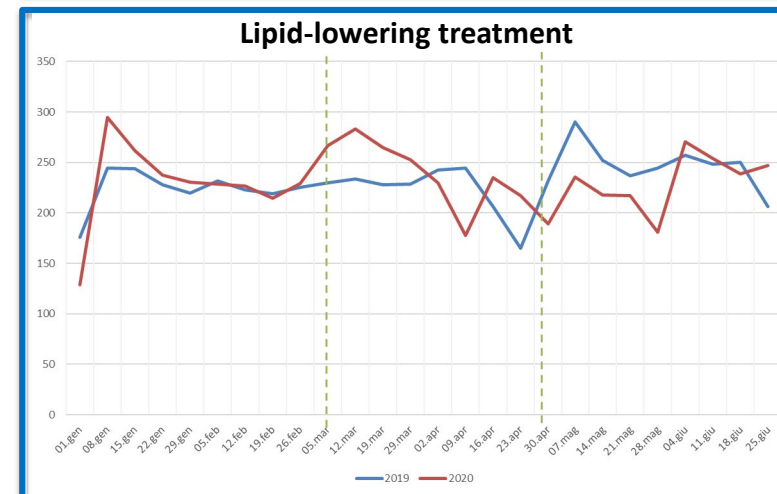
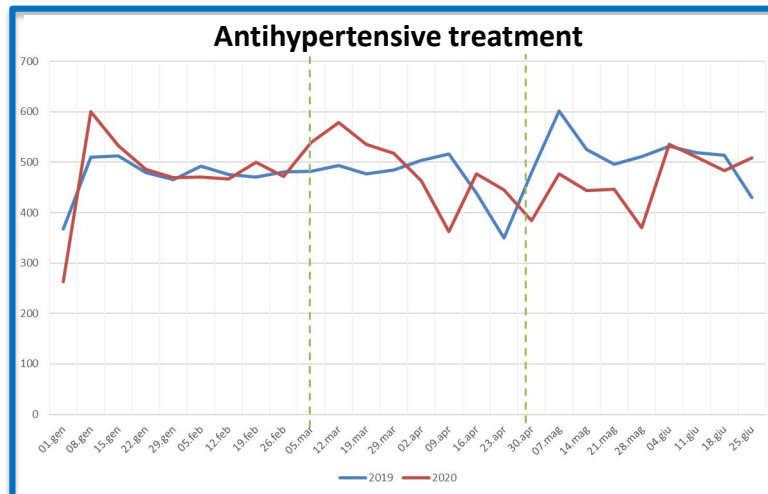
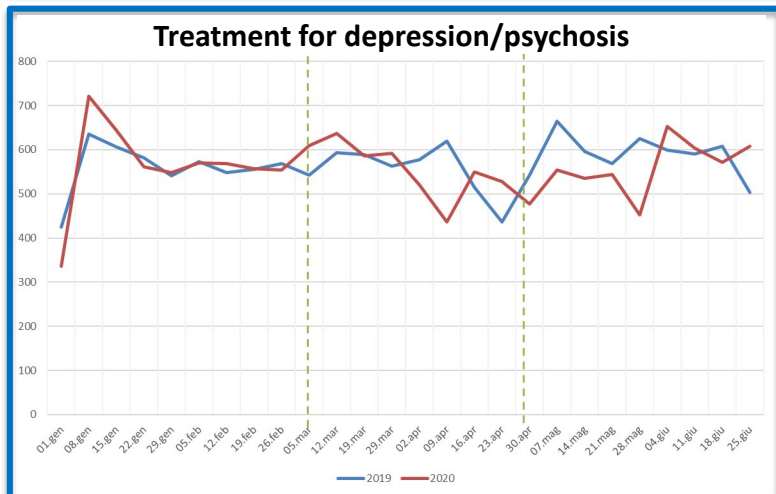
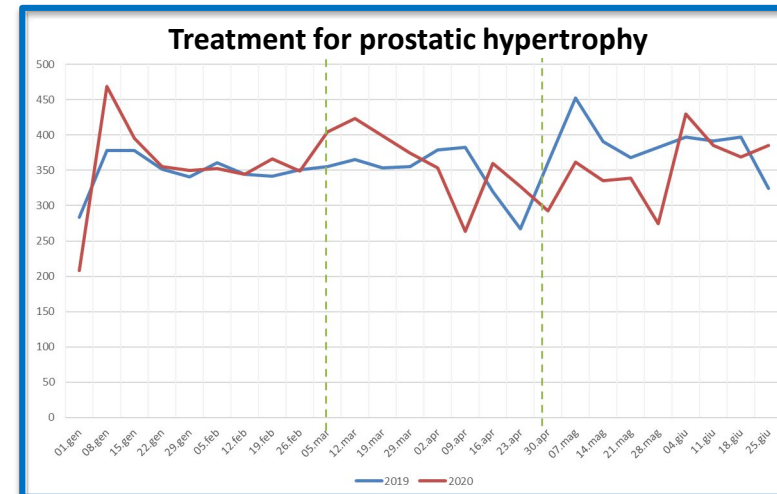
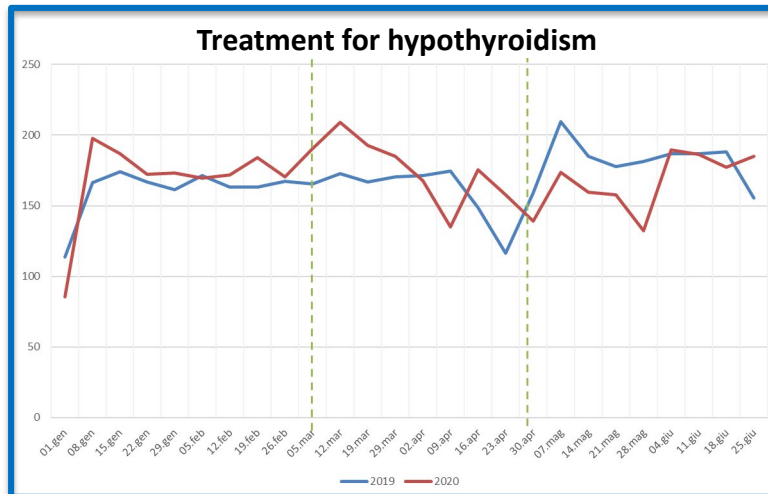
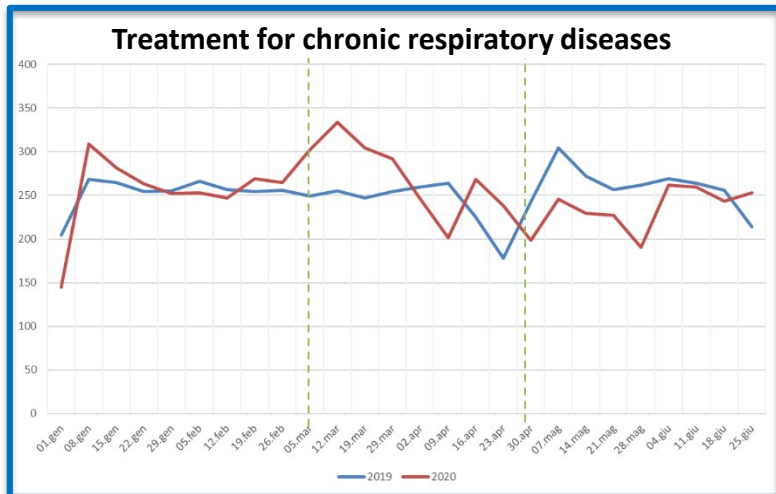




RESULTS

Fonte DWH Regionale Regione Lombardia

N. packages/1000 patients



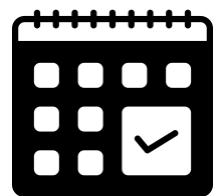


METHODS



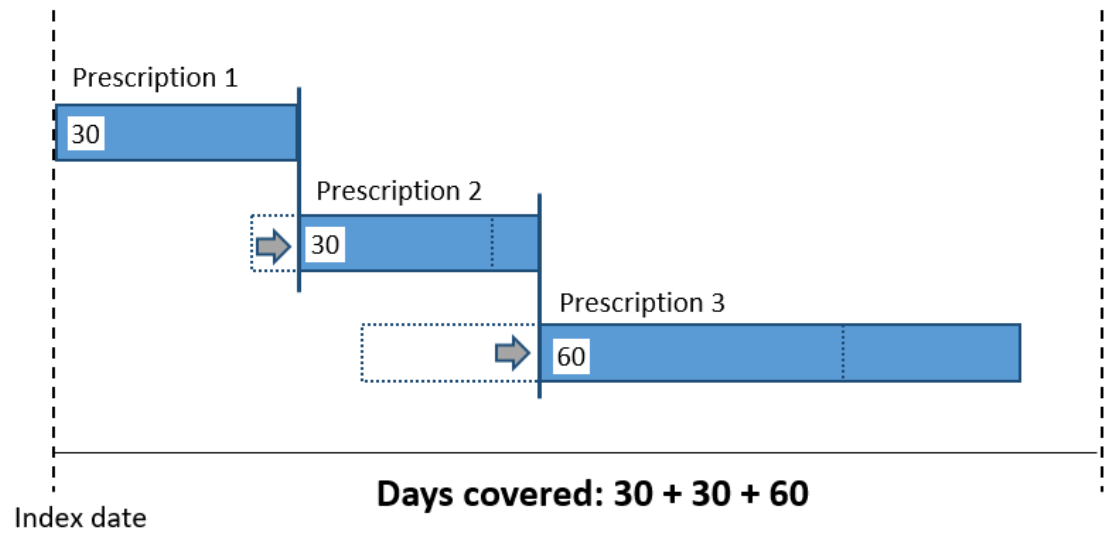
OUTCOMES DEFINITION

At PATIENT level



ADHERENCE TO THE CHRONIC THERAPY

$$PDC = \frac{\sum \text{Days covered by drug prescription}}{\sum \text{Days of observation}}$$



Canfield SL, et al. J Manag Care Spec Pharm. 2019 Oct;25(10):1073-1077

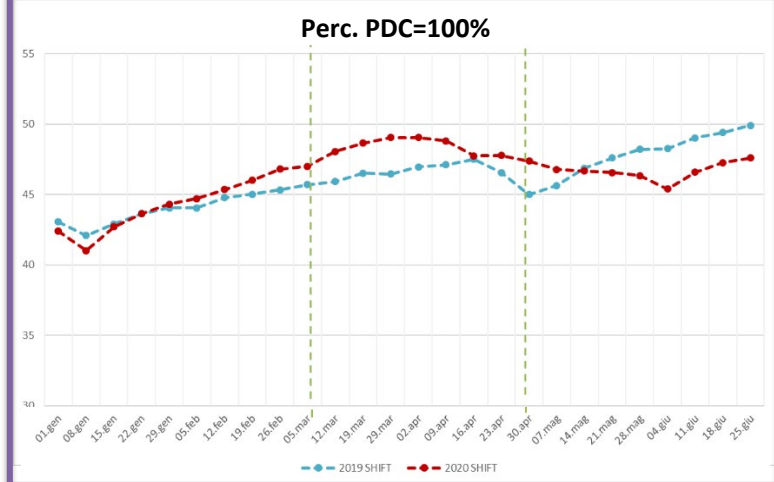
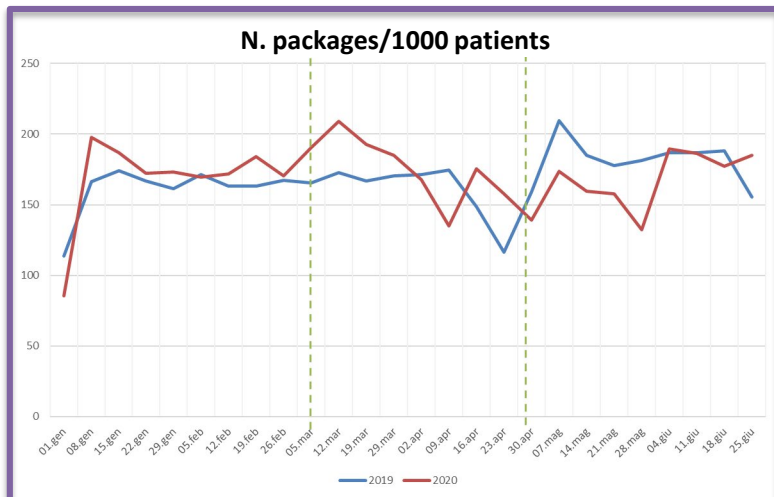




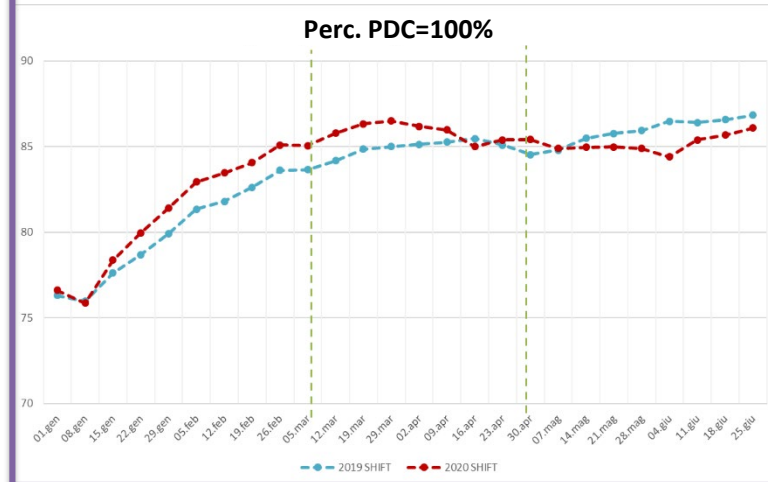
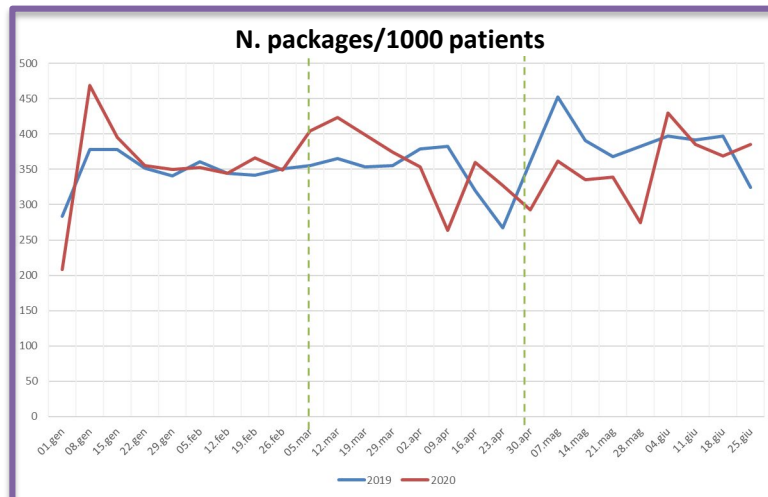
RESULTS

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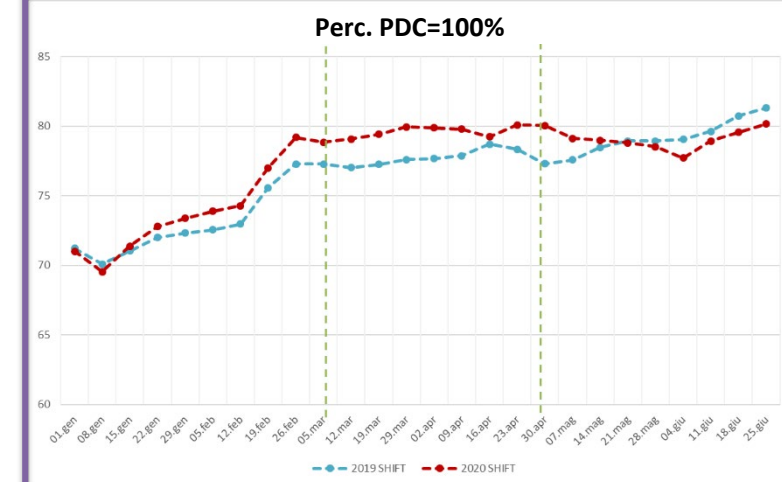
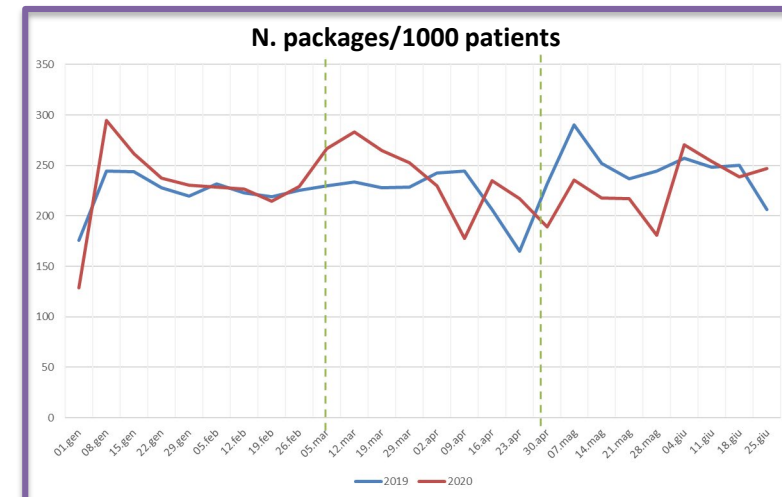
Treatment for hypothyroidism



Treatment for prostatic hypertrophy



Lipid-lowering treatment

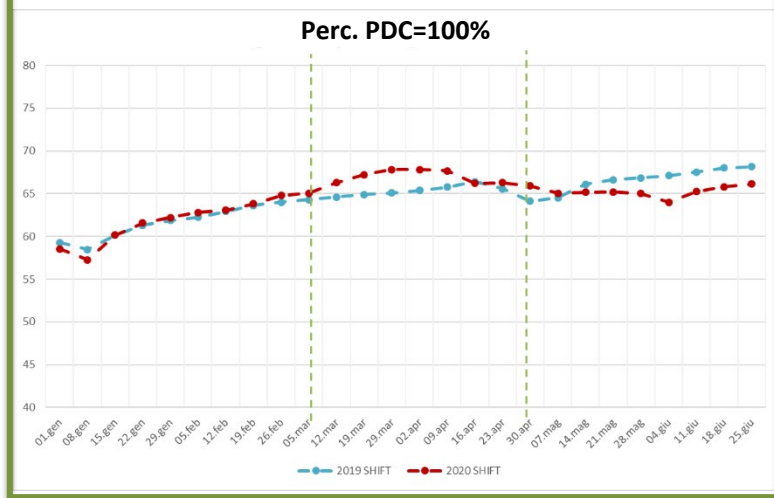
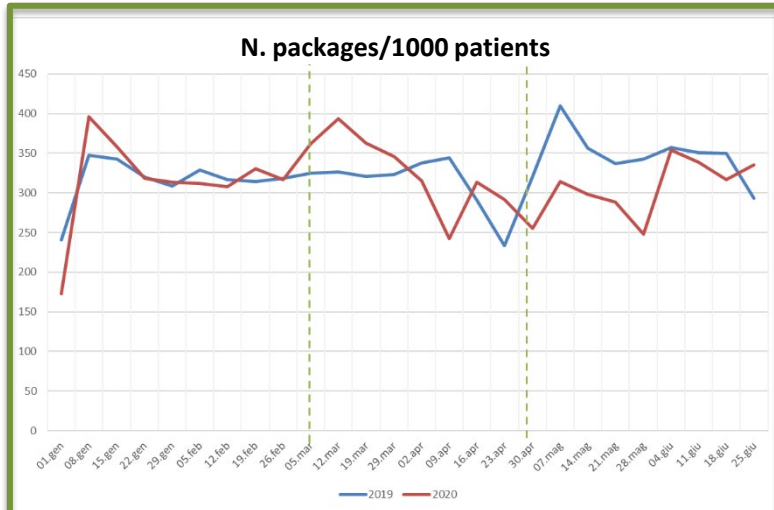




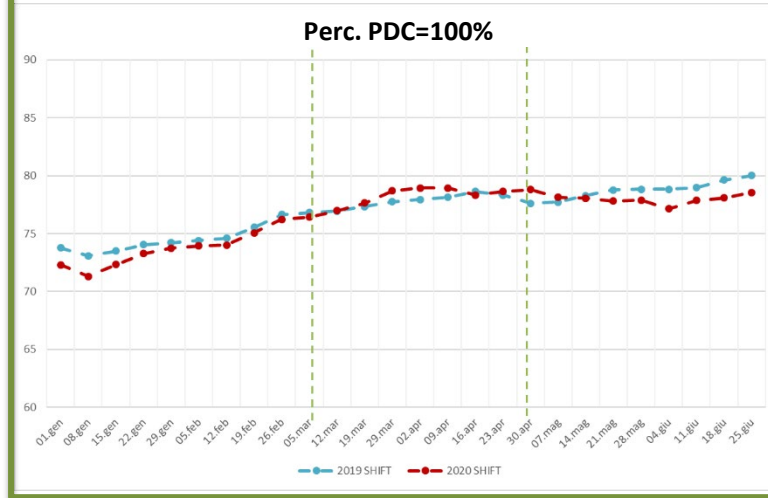
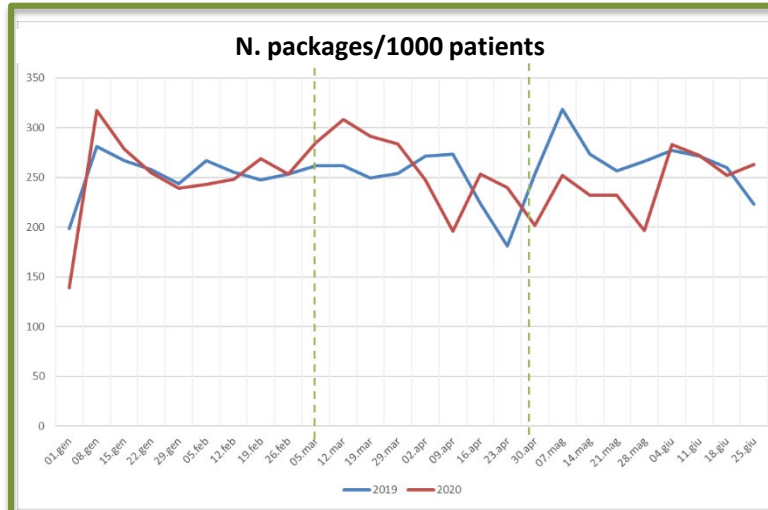
RESULTS - focus on antidiabetic drugs

Fonte DWH Regionale Regione Lombardia

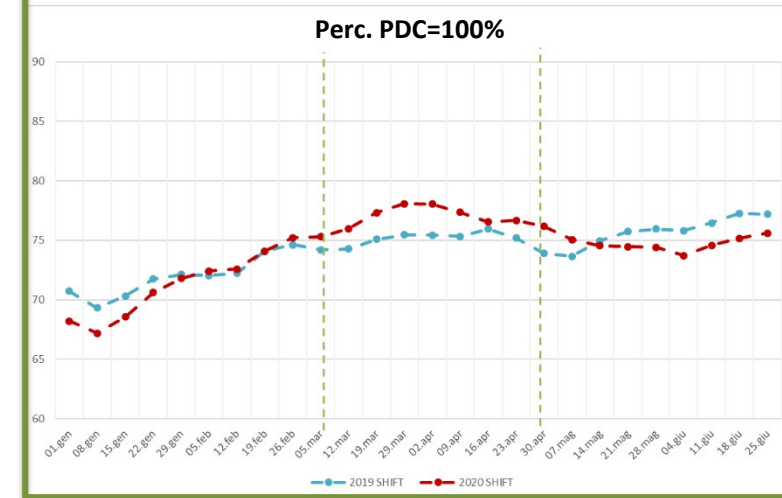
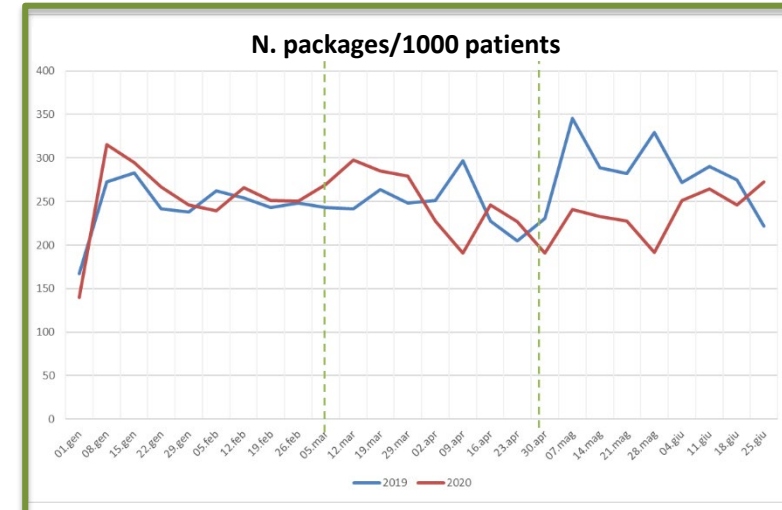
Biguanides



Sulfonilureas



Thiazolidinediones



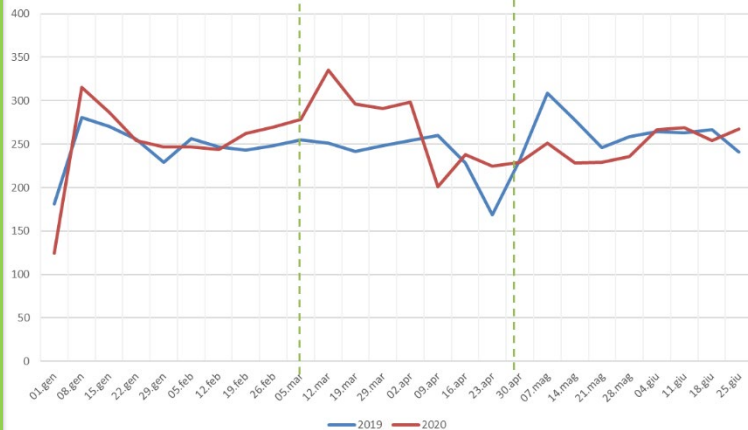


RESULTS - focus on antidiabetic drugs

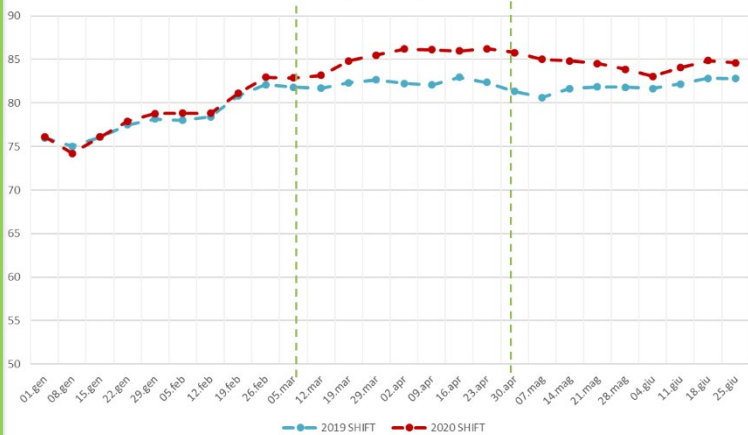
Fonte DWH Regionale Regione Lombardia

DPP-4 inhibitors

N. packages/1000 patients



Perc. PDC=100%

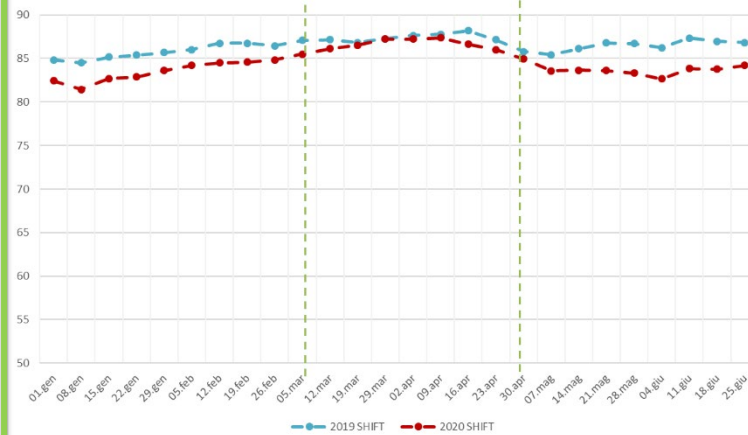


GLP-1 analogues

N. packages/1000 patients

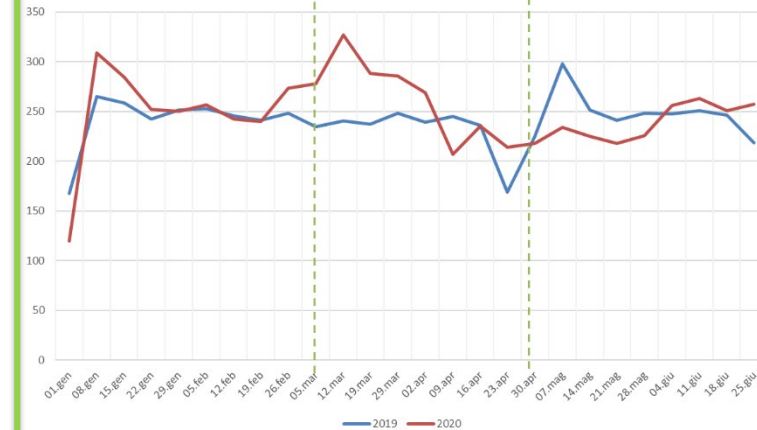


Perc. PDC=100%

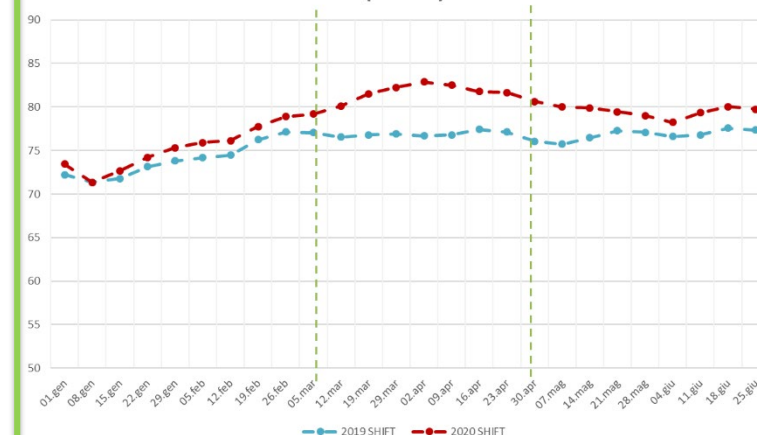


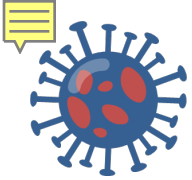
SGLT2 inhibitors

N. packages/1000 patients



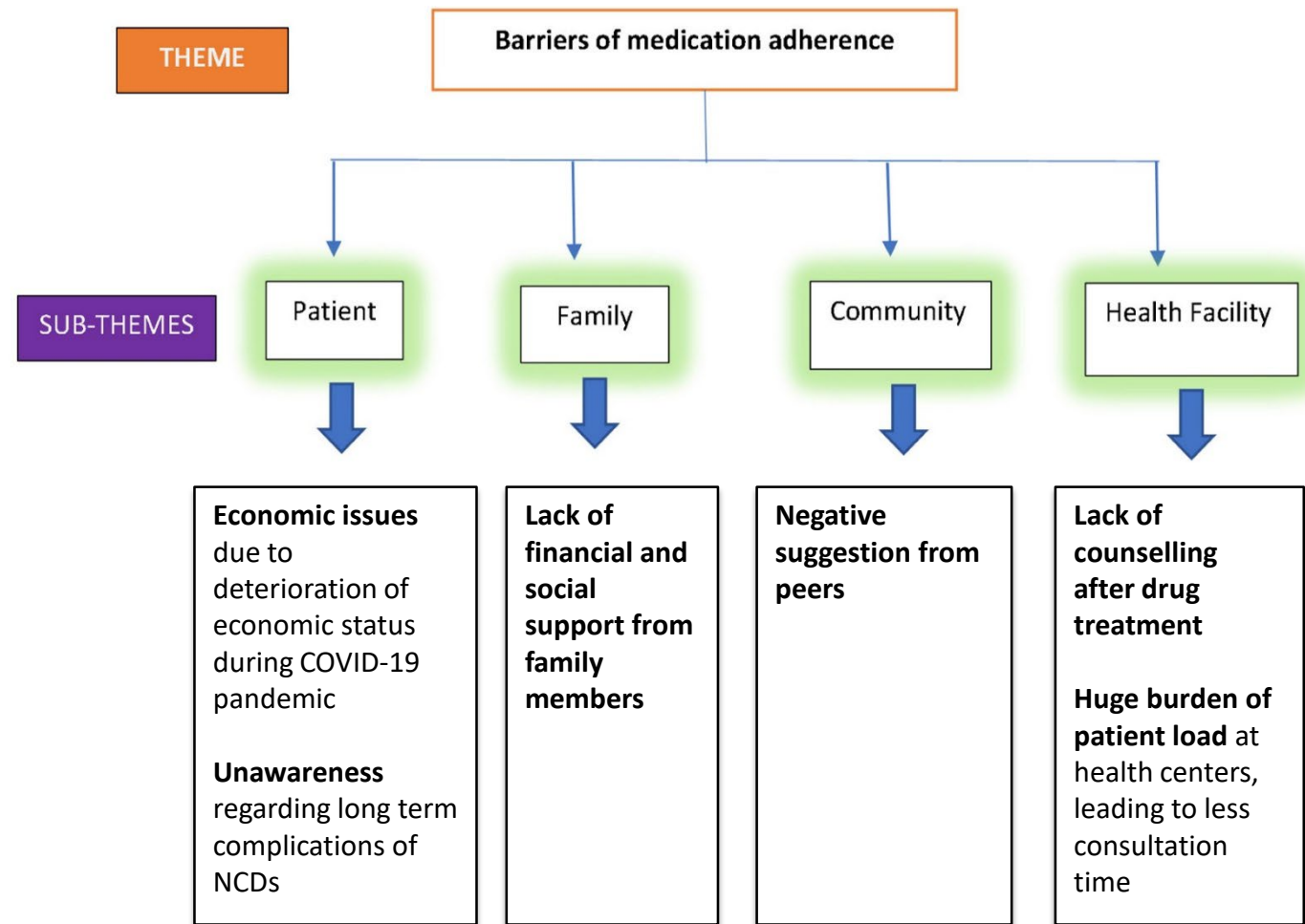
Perc. PDC=100%





CONCLUSIONS

- ✓ The COVID-19 pandemic has **profoundly affected** the use of healthcare services
- ✓ Evaluating drug covering, we found that the high number of dispensed packages at the beginning of the lockdown period resulted in **a good coverage until April/May**, while **suboptimal in the following months**
- ✓ Our results suggest the need to **evaluate and optimize the approach to chronic patients**, both immediately and in a future scenario after COVID-19



Banerjee A, et al. J Patient Exp. 2021 Sep 7;8:23743735211039330





THANKS

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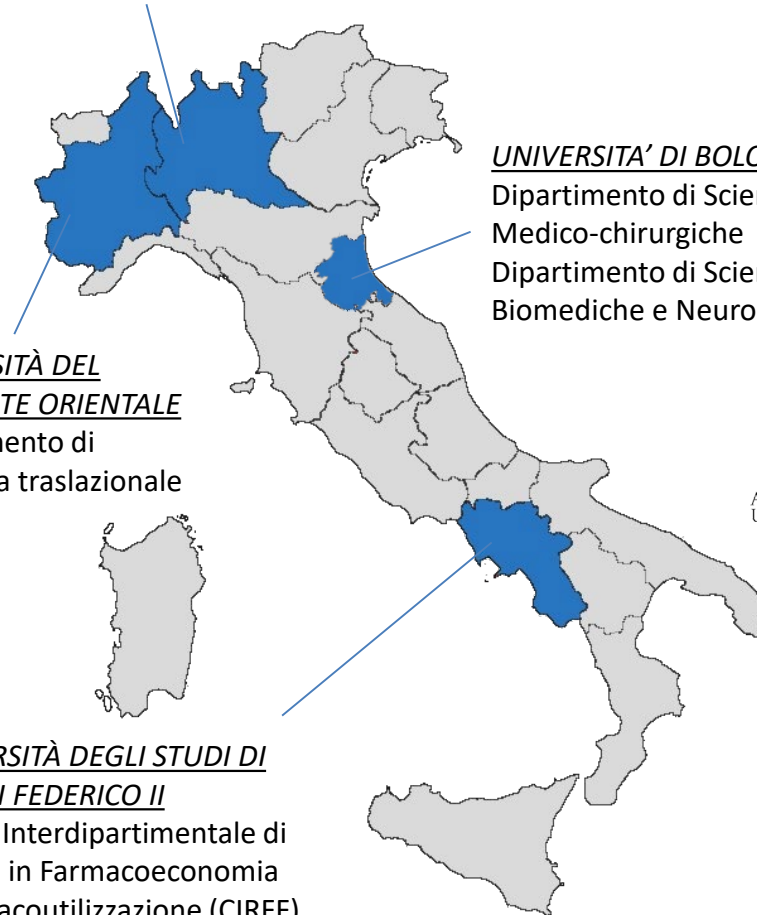
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