

# Access and Utilization of Healthcare Service and COVID- 19

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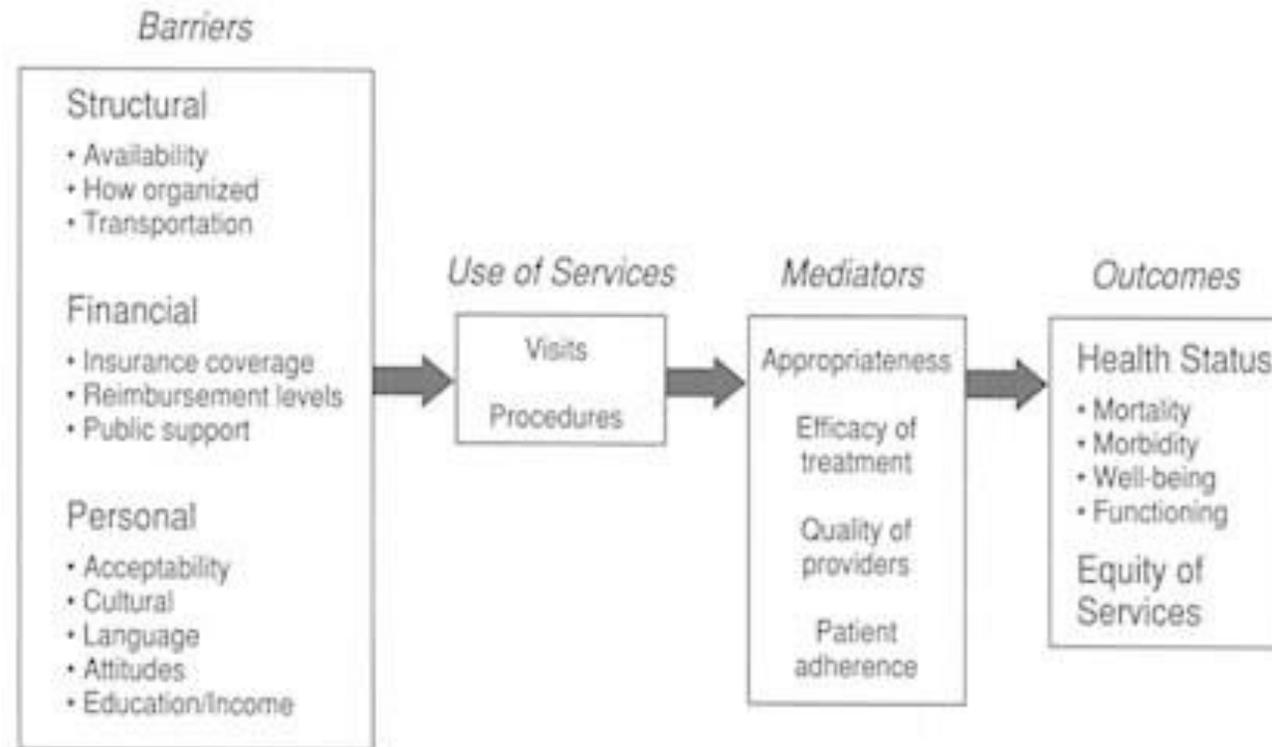
**Social Determinants of Health Research Center, Guilan University of  
Medical Sciences**

# Access and utilization

- Access to COVID-19 related services
- The effects of COVID-19 on utilization of other health and medical services
- Access to vaccines

# Access to COVID-19 related services

## A Model for Monitoring Access



Institute of Medicine (US) Committee on Monitoring Access to Personal Health Care Services; Millman M, editor. Washington (DC): National Academies Press (US); 4<sup>th</sup> edition 2016

# availability (Access) دسترسی

1- Adequate supply of services

Related to:

- **availability of healthcare facilities**

Not available at the start of COVID-19

Overcrowding of hospital beds in overflows

Lack of drugs

Lack of ventilators

Lack of ICU beds

- cutting edge technologies

## دسترسی (Access)

1- Adequate supply of services

Related to:

- cutting edge technologies

Not confirmed guidelines

Not confirmed drugs

Not confirmed preventive methods

Not confirmed health technologies

Diagnostic services

## دسترسی (Access)

1- Adequate supply of services

Related to:

- reasonable number of healthcare professionals
- Emergency department physicians
- Nurses
- General physicians
- Over crowding : 1 minute earlier WTP : 0.417US\$ in Iran

# دسترسی (Access) how organized and transportation

## 2- Geographical distribution of services:

Referral system

Urban and Rural family physicians as the gatekeepers

Suddenly overflow of COVID-19 in the regions

Decision-making authority was concentrated

Geographical inequality in access to services before COVID-19

Developed and less developed regions

# دسترسی (Access)

## 3. Financial access:

Drugs

Private hospital beds

Private ICU beds

Results:

- Pro-rich inequity and inequality
- COVID-19 related catastrophic costs

Preventive catastrophic costs (for total of the population: income loss due to lockdown, herbs, masks...)

Catastrophic costs due to treatment (for patients)

## دسترسی (Access)

### 3. Financial access and need:

Identifying need for health services in COVID-19 is not hard for the population.

The poor need more COVID-19 Health care services (cultural and economic factors): financial access less to services.

# دسترسی (Access)

## 3. Personal factors

**Culture:** lack of trust (modern medical care, physicians...)

**The power of alternatives:** social media, traditional services.

**Fear of using health services :** fear of COVID-19

**Stigma**

**Attitudes**

# Mediators

## Appropriateness

- Not effective drugs
- Clinical guidelines in both medical services and prevention
- Information about the complementary medicine

# Mediators

## Efficacy of treatment and quality

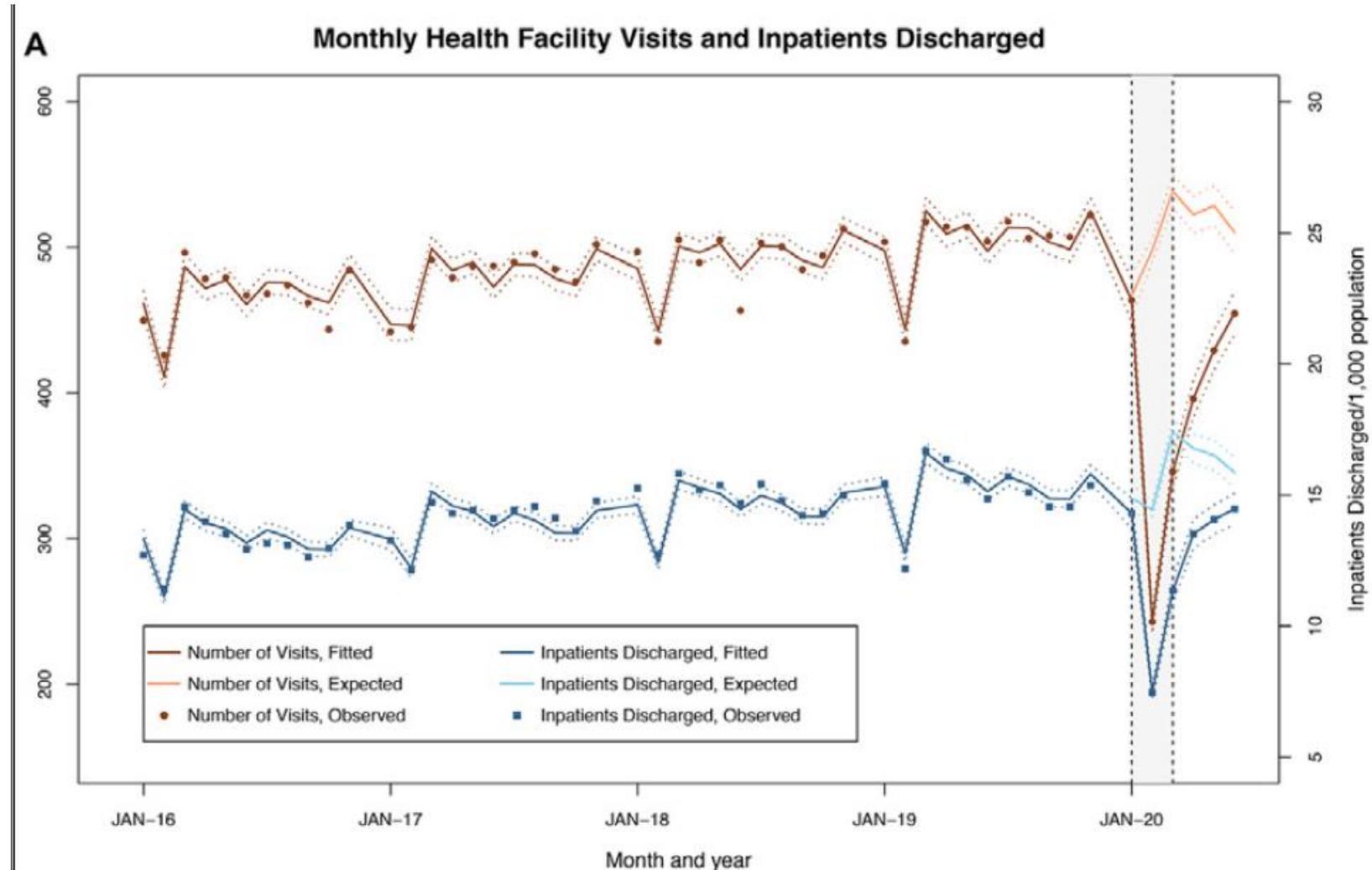
- Overcrowding
- Number of health professionals
- Number of hospital beds
- Cutting edge technologies
- Diagnostic tests sensitivity and specificity
- Using non-related staffs

# Mediators

- **patient adherence**
- Adherence to guidelines after treatment
- Isolation after COVID-19 infection : WTA 7 days of isolation was US\$ 51.71
- Health system follow up
- Medical technologies (Following the patient)

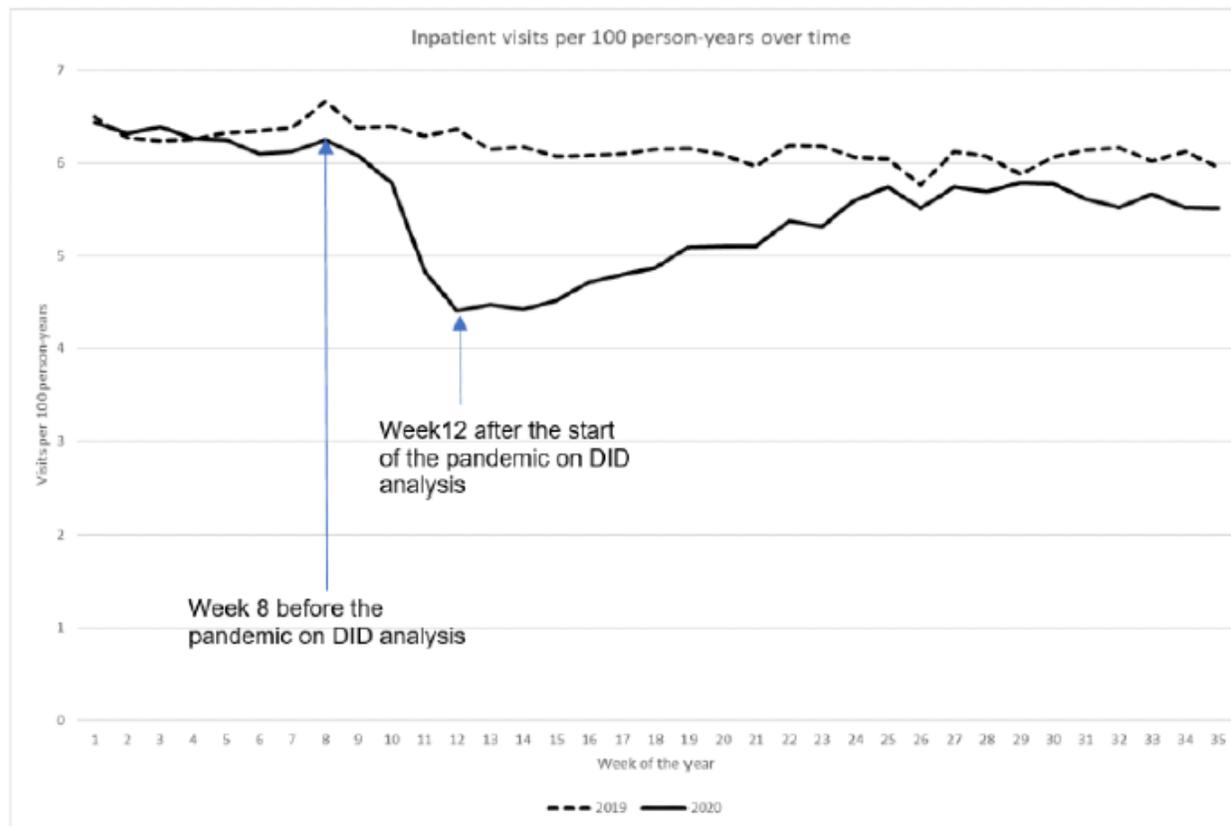
# The effects of COVID-19 on utilization of other health services

# Monthly health facilities visit in China

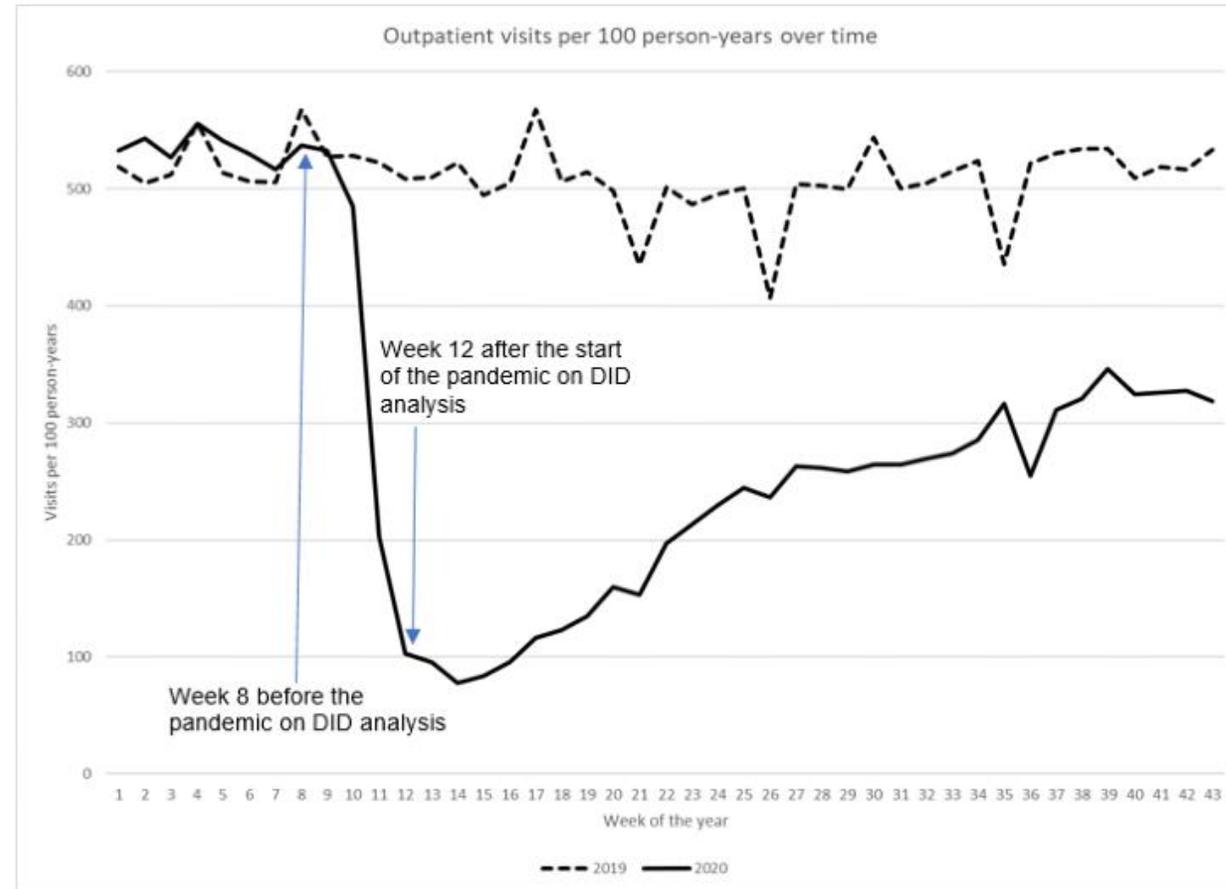


# Monthly inpatient visit in USA

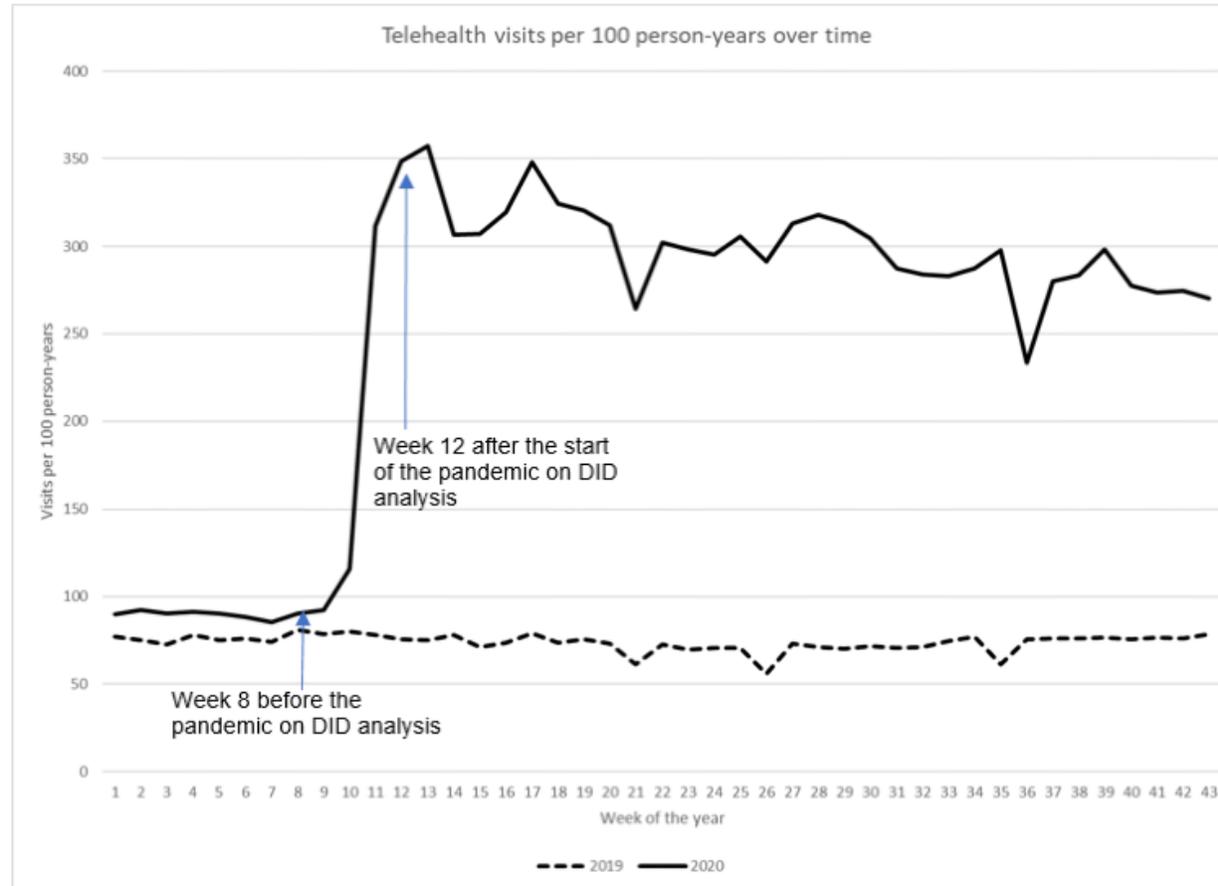
Figure 2. Inpatient visit rate over time. DID: difference in difference.



# Monthly outpatient visit in USA

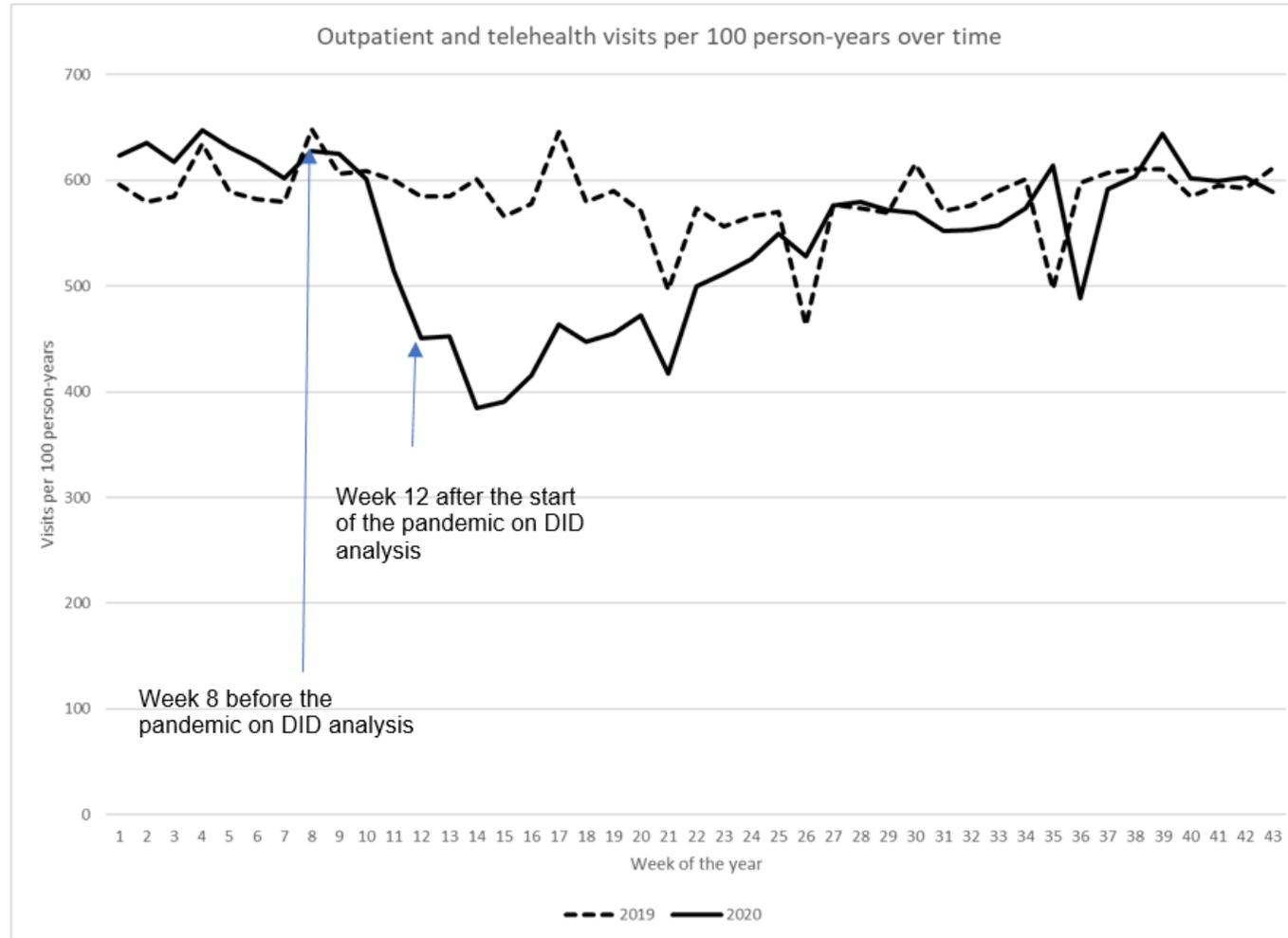


# Monthly Telemedicine visit in USA



Xu S, Glenn S, Sy L, Qian L, Hong V, Ryan DS, Jacobsen S. Impact of the COVID-19 Pandemic on Health Care Utilization in a Large Integrated Health Care System: Retrospective Cohort Study. J Med Internet Res. 2021 Apr 29;23(4):e26558. doi: 10.2196/26558. Erratum in: J Med Internet Res. 2021 May 5;23(5):e30101. PMID: 33882020; PMCID: PMC8086778.

# Monthly overall visit in USA



# Reason

- Fear of pandemic
- Lockdown
- Health care rationing- lack of health facilities and personnel
- Fatigue and decrease in work motivation for health professions
- Highly related to the elasticity of demand (cosmetic, dental, mental health services utilization declined higher than others)
- Even decrease in low price elastic health services
- Decrease in case findings (suicide!)

# Evidences from Iran? and lessons learned

- Rural family physician services
  - Suicide data
  - Road traffic injury data
  - Fertility rates
- 
- Increase in chronic disease ( exp. end stage cancers ) is inevitable.
  - Universal Health Coverage barriers
  - Catastrophic costs of COVID-19

# Evidences from Iran?

- Rural family physician services
- Suicide data
- Road traffic injury data

# Access and Utilization of vaccination

- Overcrowding in the first months of vaccinate services delivery
- Physical and geographical access is appropriate
- Financial access is not applicable to be discussed
- Barriers for utilization of vaccine are:

1-cultural factors

2-knowledge and attitudes

3-trust to the vaccines

A pro-rich inequity seems to be found in COVID-19 vaccination.

Thank you for your attention