

Access and Utilization of Healthcare Service and COVID- 19

Dr Enayatollah Homaie Rad

Assistant Professor of Health Economics

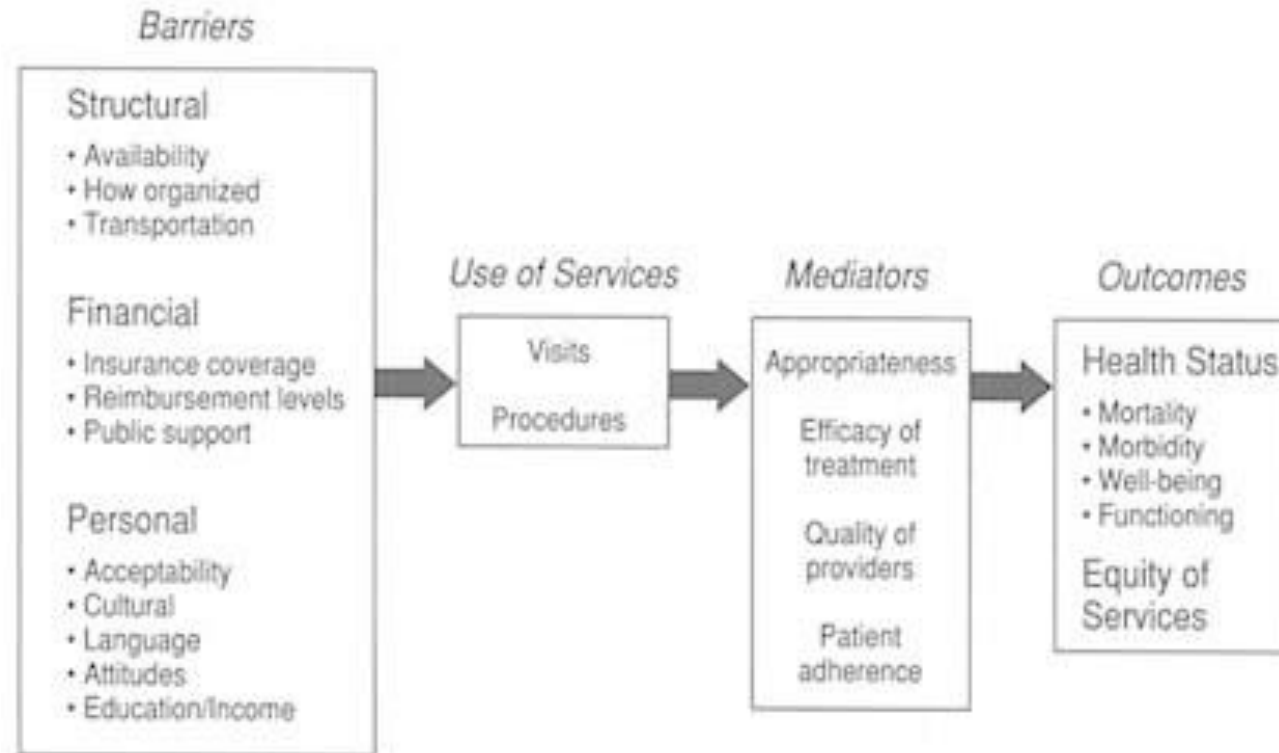
**Social Determinants of Health Research Center, Guilan University of
Medical Sciences**

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); 4th edition 2016

دسترسی (Availability (Access)

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

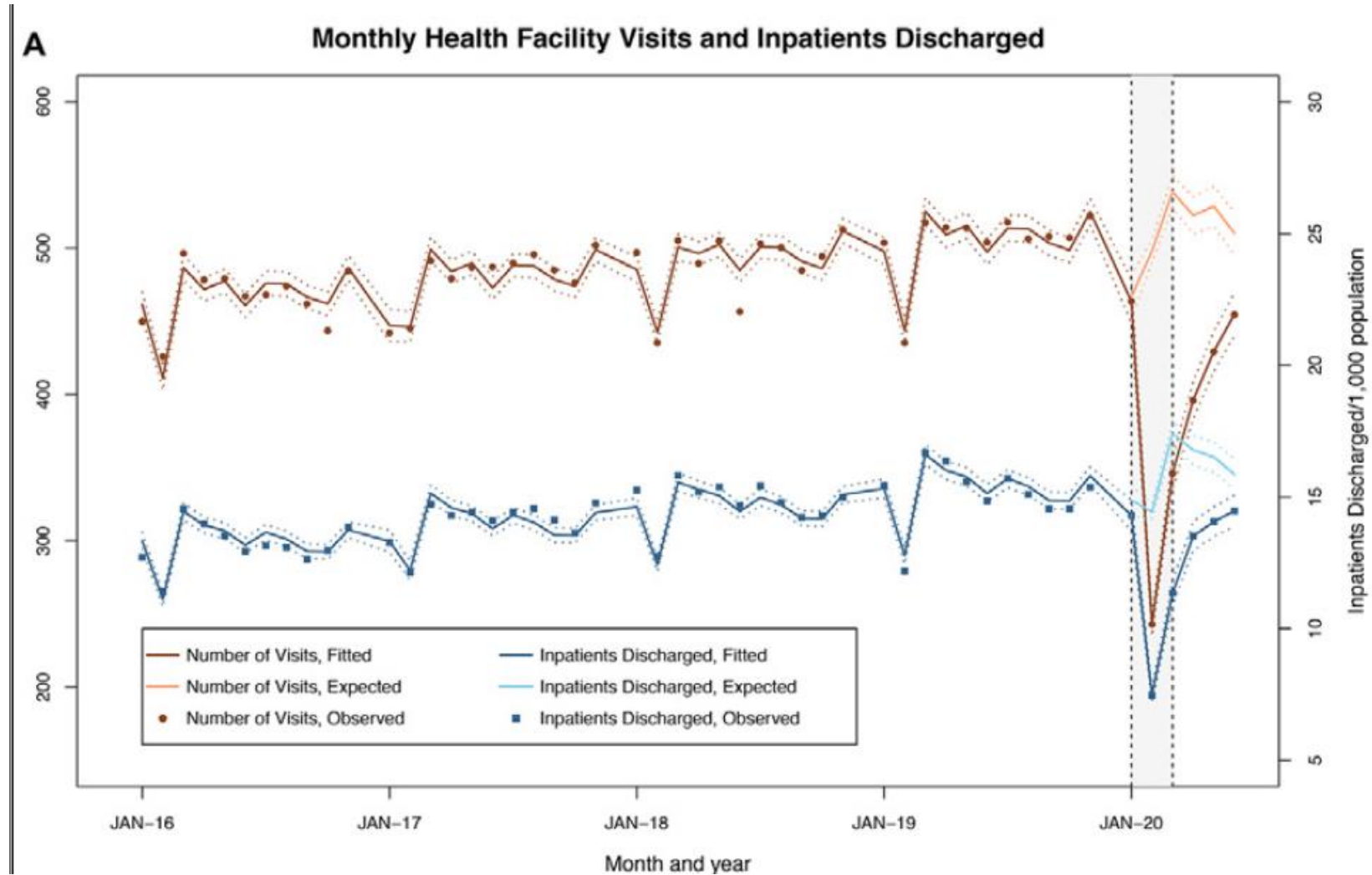
- Overcrowding
- Number of health professionals
- Number of hospital beds
- Cutting edge technologies
- Diagnostic tests sensitivity and specificity
- Using non-related staffs

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

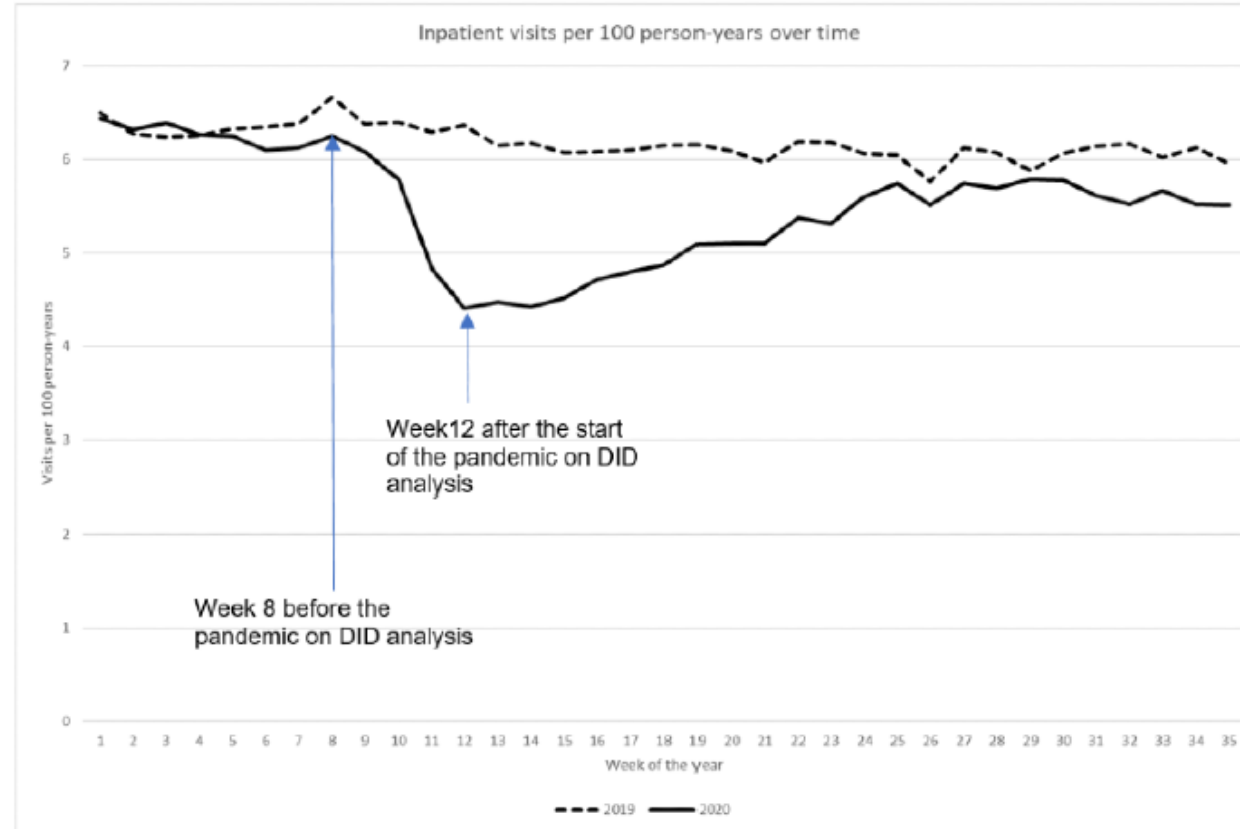
Monthly health facilities visit in China



Xiao H, Dai X, Wagenaar BH, Liu F, Augusto O, Guo Y, Unger JM. The impact of the COVID-19 pandemic on health services utilization in China: Time-series analyses for 2016-2020. *Lancet Reg Health West Pac.* 2021 Mar 24;9:100122. doi: 10.1016/j.lanwpc.2021.100122. PMID: 34327438; PMCID: PMC8315657.

Monthly inpatient visit in USA

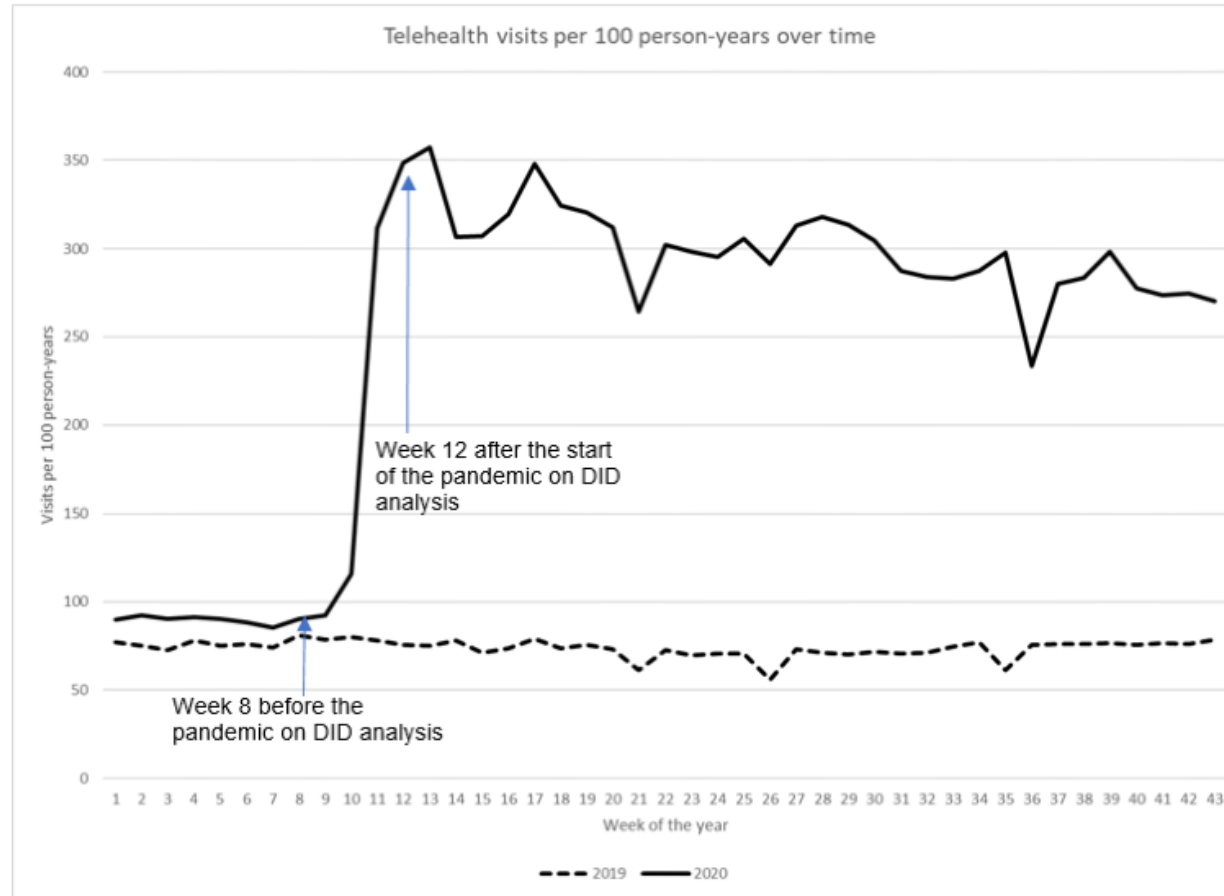
Figure 2. Inpatient visit rate over time. DID: difference in difference.



Monthly outpatient visit in USA

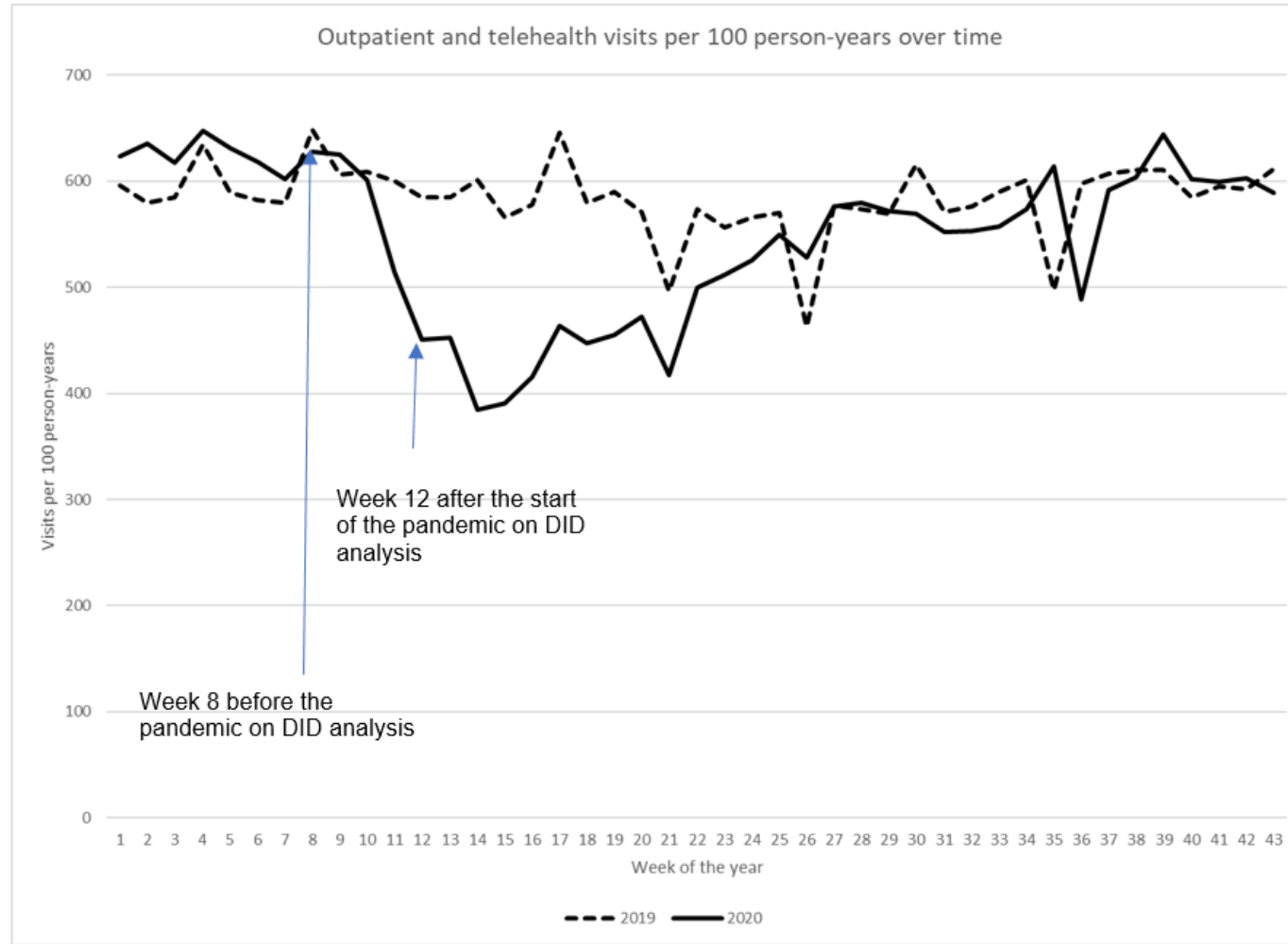


Monthly Telemedicine visit in USA



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



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.

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