



**A DROUGHT BROUGHT ABOUT BY THE  
PANDEMIC:  
A Cross-sectional Study to Compare the  
Pediatric Emergency Room Census in UERM  
Memorial Medical Center from March 2019-  
February 2020 and March 2020- February 2021**



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# BACKGROUND OF THE STUDY

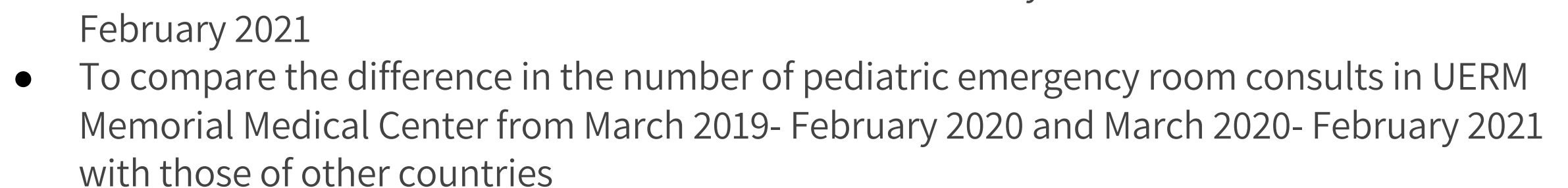
- A State of Public Health Emergency was declared throughout the Philippines last March 8, 2020. Schools were closed and work was suspended. Everybody was advised to stay at home in order to prevent contracting and transmitting COVID-19.
- The COVID-19 pandemic led to multiple adjustments in healthcare delivery.
- Hospital beds were reduced to implement physical distancing and majority of them were allotted for COVID-19 cases.
- Outpatient clinics were closed and patients were seen thru telemedicine.
- Elective surgeries were suspended and emergency rooms remained open for both COVID-19 and non-COVID related concerns.



# OBJECTIVES OF THE STUDY

To determine the difference in the number of pediatric emergency room consults in UERM Memorial Medical Center from March 2019- February 2020 and March 2020- February 2021. Specifically, the study aims to:

## **SPECIFIC OBJECTIVES:**

- To compare the quantity of patients seen in the Pediatric Emergency Room of the UERM Memorial Medical Center from March 2019- February 2020 and March 2020- February 2021
  - To determine the outcome of patients seen in the Pediatric Emergency Room of the UERM Memorial Medical Center from March 2019- February 2020 and March 2020- February 2021
  - To determine the top 10 diseases encountered in the Pediatric Emergency Room of the UERM Memorial Medical Center from March 2019- February 2020 and March 2020- February 2021
  - To compare the difference in the number of pediatric emergency room consults in UERM Memorial Medical Center from March 2019- February 2020 and March 2020- February 2021 with those of other countries
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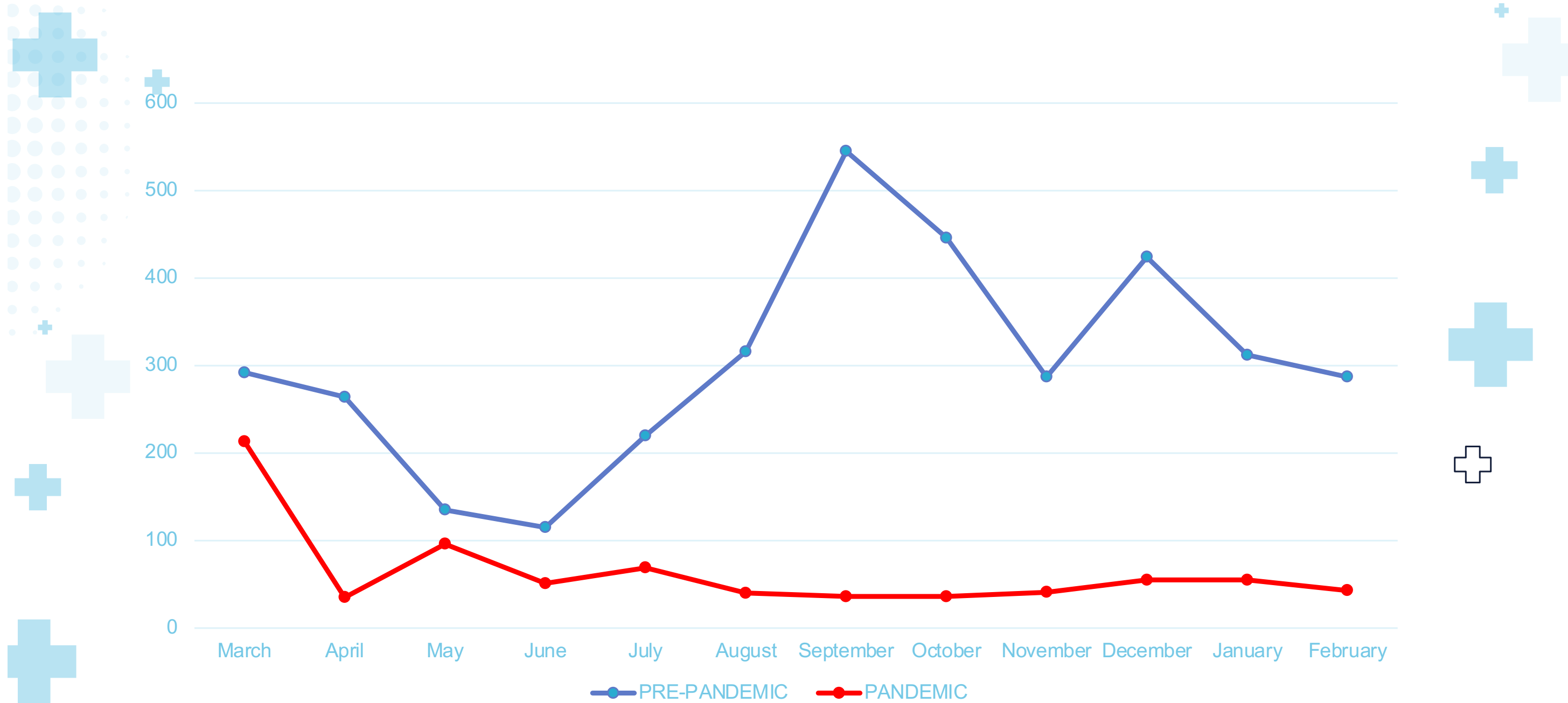
# METHODOLOGY

**Study Design:** Cross-sectional

**Data Processing and Analysis:** Frequencies were encoded to Microsoft Office Excel 2013 to be able to describe the population. Categorical data were summarized as counts and percentages. Tables and figures were used to present the data.

**Data Collection:** Chart review of all pediatric emergency room consults in UERM Memorial Medical Center within the time frame. Monthly census from March 2019 to February 2021 were reviewed for the number of consults and admissions, as well as the demographics and subspecialty diagnosis of each patient.





**Monthly Census of pediatric patients seen at the University of the East Ramon Magsaysay Memorial Medical Center Emergency Room**

Characteristic	Pre-Pandemic Period		Pandemic Period	
	Frequency	Percentage	Frequency	Percentage
Age				
<28 days	28	0.8%	10	1.3%
1-11 months	305	8.4%	67	8.7%
1-5 years	1492	41%	320	41.5%
6-10 years	800	22%	160	20.8%
11-18 years	1018	28%	213	27.7%
Sex				
Male	1858	51%	430	56%
Female	1785	49%	340	44%

**Demographic characteristic of pediatric patients seen at the UERM ER**

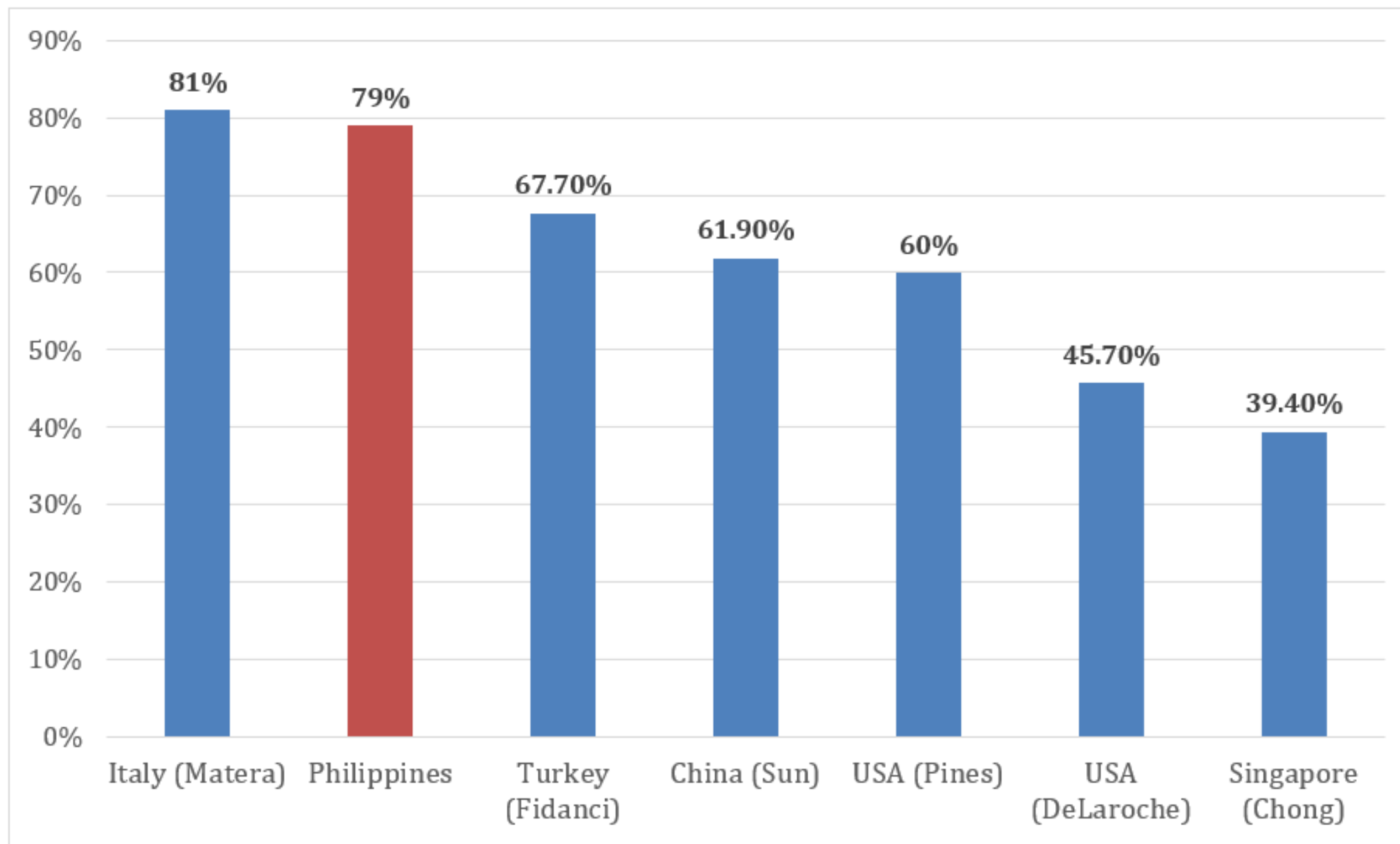
	Pre-Pandemic Period	Pandemic Period	Reduction Rate
Total Number of Patients	3643	770	79%
Disposition			
Admitted	580 (16%)	121 (16%)	79%
THOC	110 (3%)	23 (3%)	79%
DAMA/HAMA	86 (2%)	23 (3%)	77%
Discharged	2867 (79%)	600 (78%)	79%
Expired	0	3 (0.4%)	

**Total number of pediatric patients seen and their disposition at the UERM ER**

Subspecialty	Pre-Pandemic Period		Pandemic Period	
	Frequency	Percentage	Frequency	Percentage
Allergology	94	2.6%	18	2.3%
Cardiology	9	0.25%	4	0.52%
Gastroenterology	660	18.1%	134	17.4%
Hematology/Oncology	5	0.14%	15	1.9%
Infectious	1140	31.3%	150	19.5%
Neonatology	6	0.16%	8	1%
Nephrology	146	4%	39	5.1%
Neurology/Neurosurgery	126	3.5%	55	7.1%
Ophthalmology	83	2.3%	26	3.4%
Otorhinolaryngology	380	10.4%	110	14.3%
Psychiatry	28	0.77%	15	1.95%
Pulmonology	714	19.6%	70	9.1%
Surgery	190	5.2%	106	13.8%
Toxicology	15	0.41%	5	0.65%
Urology	8	0.22%	4	0.52%

<b>Top 10 Diseases seen in the ER during the Pre-Pandemic Period</b>	<b>Top 10 Diseases seen in the ER during the Pandemic Period</b>
1. Acute Viral Illness	1. Acute Gastroenteritis
2. Acute Gastroenteritis	2. Acute Viral Illness
3. Community Acquired Pneumonia	3. Laceration
4. Upper Respiratory Tract Infection	4. Urinary Tract Infection
5. Dengue Fever	5. Dengue Fever
6. Urinary Tract Infection	6. Community Acquired Pneumonia
7. Acute Tonsillopharyngitis	7. Animal Bite
8. Acute Otitis Media	8. Foreign Body Obstruction
9. Acute Otitis Externa	9. Acute Appendicitis
10. Febrile Seizure	10. Upper Respiratory Tract Infection





**Reduction rates of emergency department visits during the pandemic period**

# CONCLUSION

- There was a **79%** reduction in the number of pediatric patients seen in the University of the East Ramon Magsaysay Memorial Medical Center prior to the pandemic and during the pandemic.
- There was **no difference** in terms of admission rates.
- There was a marked reduction in the percentage of patients being seen for Infectious and Pulmonology service.
- There was also an increase in the percentage of patients being seen under Surgery service.
- The study's reduction rate of **79%** was similar to the study done by Madera et al in **Italy** which was one of the epicenters of the pandemic.

# RECOMMENDATIONS

- Acquire data from other regions in the country especially those considered as COVID referral centers during the pandemic
- Characterize further the emergency room visits using measures such as the **emergency severity index** to stratify priority levels of the consults
- Investigate the **psychologic impact** of the pandemic on the pediatric population as well as their families by using different tools of assessment at each health visit