

EMERGENCY ADMISSIONS FOR HLI DURING THE FIRST COVID-19 LOCKDOWN IN FRANCE

Annabel Rigou, Nathalie Beltzer, Santé publique
France, Saint Maurice, France

- ❑ In order to fight Covid-19 → total lockdown implemented between March 17th and May 11th 2020 in France.
 - Restriction of travel as strictly necessary (food shopping, medical care)
 - Restriction of travel close to home
 - Closure of schools

- ❑ **Emergency department (ED) have reported**
 - ❑ ↘ in the use of ED for home and leisure injuries (HLI) for mild cases
 - ❑ and ↑ for severe cases
 - ❑ particularly among young children and elderly



Implementation of a study on HLI during the lockdown period

To describe the impact of the first lockdown (17th March to 11th May 2020) on the admissions in ED **for HLI** in France

→ Comparison of the frequencies and characteristics of emergency admissions recorded between March 17th and May 11th 2020, with those recorded over the same period in 2019

□ *Permanent Survey on Injuries in Everyday Life (EPAC)*

- HLI : any unintentional accident including domestic, school and home, with the exception of work and traffic accidents
- 9 French ED : six general ED and three paediatrics French ED in 8 regions among 13.
- Exhaustive daily collection of data on admissions in each ED for HLI of all ages

□ Results presented by age, sex, place of accident and mechanism

- For all HLI emergency visits : number and percentage
- Hospitalization: indicator of severe cases
- Hospitalization rates were calculated

□ Focus on two subgroups: children under 15 years and adults over 45 years

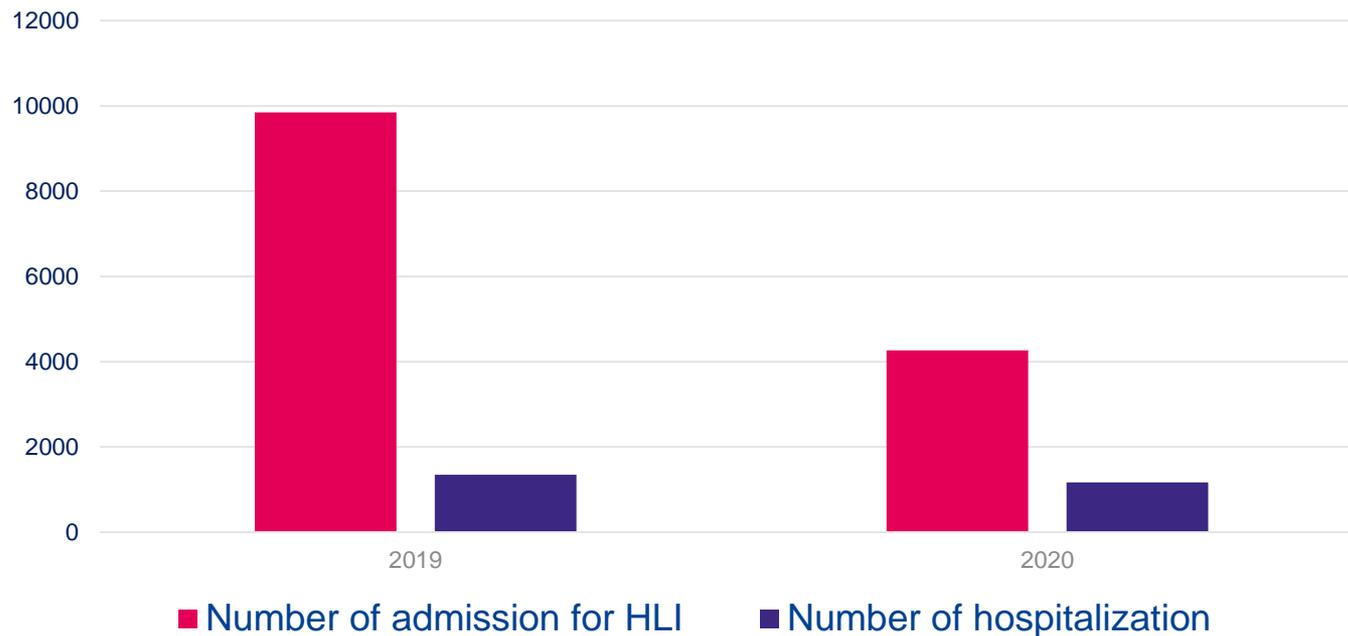
RESULTS:

Number of admissions for HLI and hospitalization rates in 2020 and 2019 (March 17th – May 11th)

	2019	2020	
Nb of admission for HLI	15,881	7,115	-55%
Number of hospitalizations	1,344	1,164	-13%
<i>Hospitalization rate</i>	8.5%	16.3%	

-  Number of HLIs treated in ED by almost 50% during the lockdown period
- Slight  Number of hospitalization, indicator for severe HLI
-  in Hospitalization rates = nb of hospitalization/nb of admissions.

Number of Admissions and Hospitalization



- ↓ Nb of HLIs treated in ED by almost 60% during the lockdown period
- ↓ Slight decrease in the Nb of hospitalization, indicator for severe HLI: 26%
- ↑ in Hospitalization rates: 13.6% to 27.3%

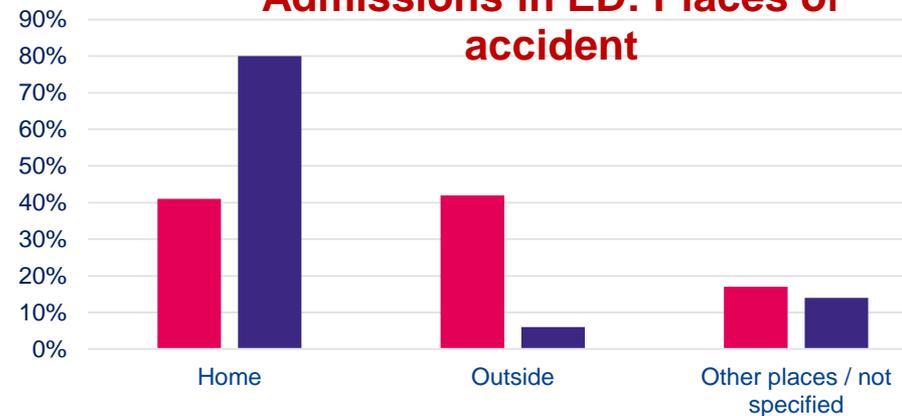
RESULTS: CHILDREN UNDER 15 YRS

- **Decrease in ED admissions intensified with age**
 - Except for children under 2 yrs:
 - stability in admissions
 - and strong increase in admissions for ingestion
- **Decrease in the number of admissions for all mechanisms and places**
 - But proportion of falls and domestic accidents has increased

Admissions in ED: Mechanisms



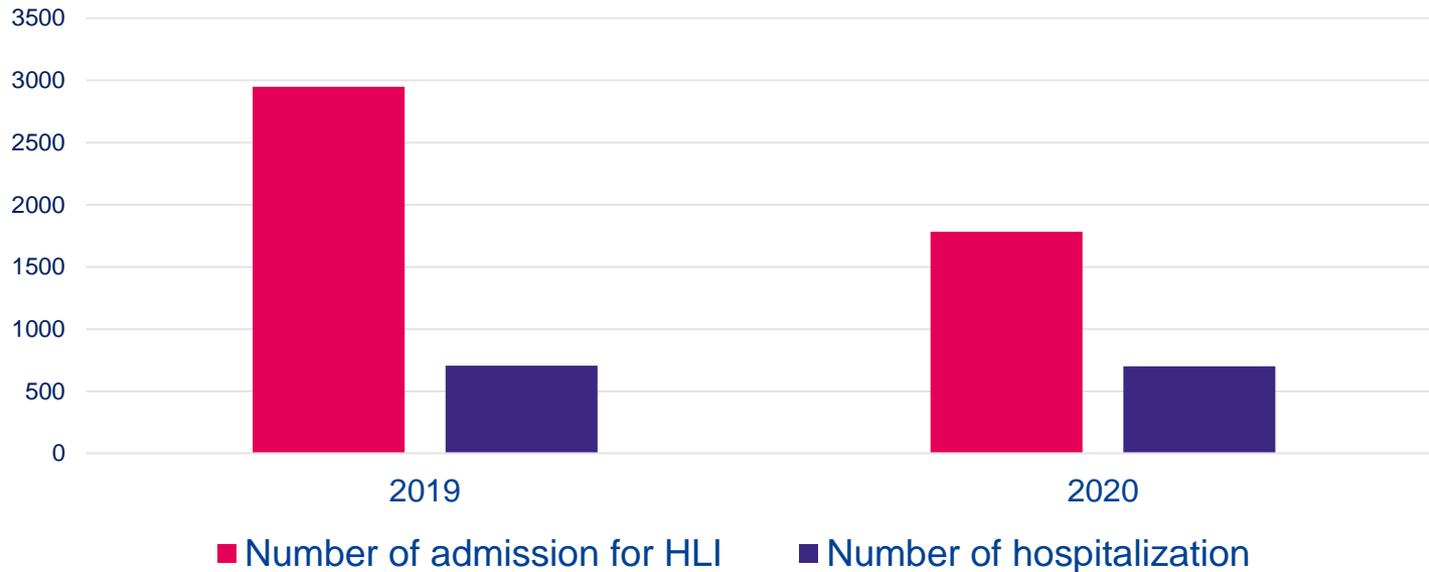
Admissions in ED: Places of accident



Hospitalization: decrease for all mechanisms and places

- Increase in the number of hospitalization for domestic accident (+20%)
 - Especially for children over 5 yrs: hospitalization rate ~ 10% in 2020 vs. 5% in 2019
 - Stability in young children under 4 yrs: hospitalization rate ~ 8% in 2019 and 2020
- Increase in hospitalization for falls for children 2-4 yrs: (+12%)

Number of Admissions and hospitalization

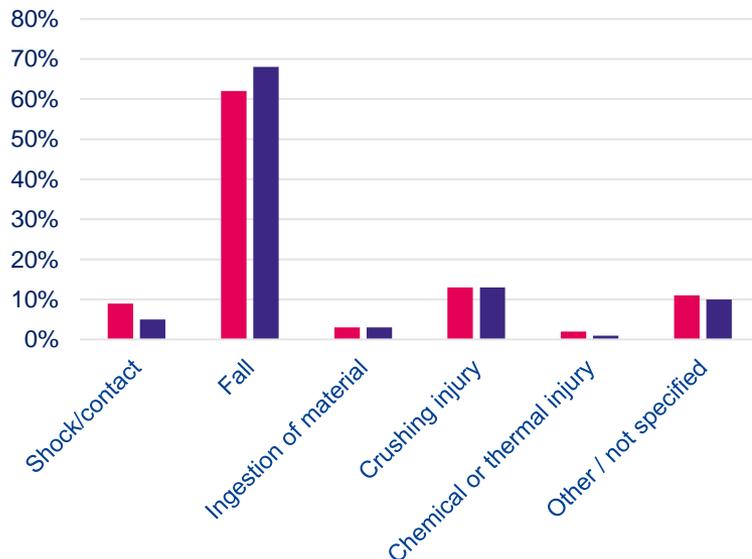


- **↓** Nb of HLIs treated in ED by almost 50%
- **Stability** in the number of hospitalization, indicator for severe HLI
- **↑** in Hospitalization rates: 24% to 39%

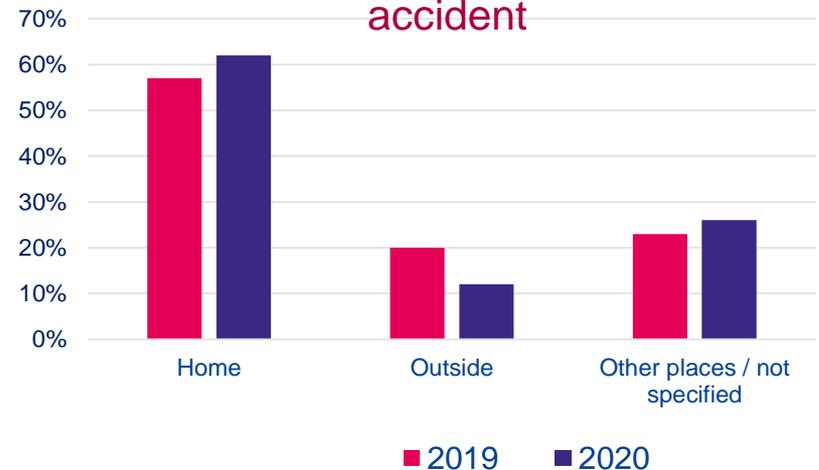
RESULTS: ADULTS OVER 45 YRS

- **Decrease in the number of admissions**
 - More significant decline among adults 45-64 years old: -49%
- **Decrease in the Nb of admissions for all mechanisms and places of accident**
 - But proportion of falls and domestic accidents increase in ED admissions

Admissions in ED: Mechanisms



Admissions in ED: places of accident



- Increase in the number of hospitalization
 - In adults 65-84 yrs (decrease for adults 45-64 yrs)

- Increase in the hospitalization rate

For all mechanism and place of accident but more specifically

- for adults over 65 yrs at home because of falls: +15%
- for adults 45-64 yrs during gardening activities: + 25%

Results showed

- ❑ A decrease in ED admissions during lockdown period but an increase in the part of severe cases
 - ❑ Confirmed what ED observed

 - ❑ Fear of contracting COVID, as shown with other pathologies (stroke¹)
 - ❑ Consultation of other professionnel
 - ❑ Less risk of HLI due to lockdown

- ❑ More specifcally
 - ❑ An increase in hospital for falls in young children and in older adults
 - ❑ Lack of parent's supervision and isolation of elderly with comorbidities
 - ❑ An increase in severe case for domestic accident in older children
 - ❑ Consequences of closing schools
 - ❑ Increase in severe domestic accident for adults over 45 yrs, especially during gardening activities

❑ Limitations

- Small number of ED → Representative sample ?
- Difficult to extrapolate the results to all the population.

❑ Strengths of the study

- Continuous collection of accurate information on the circumstances of HLI
- Quality of the data: quality analysis and homogeneous coding
- Reactivity of the ED

❑ Only few studies at the time of the study

- Based on one hospital or a specific population and with less data
- Confirmed our results;
 - increase in pediatrics accidents (Italy, China, Israël),
 - Increase in falls and ingestion and burns

Results published in Rigou A, Beltzer N, Réseau Enquête permanente sur les accidents de la vie courante (EPAC). Surveillance des accidents de la vie courante pendant la période de confinement de la pandémie de Covid-19. Bull Epidemiol Hebd. 2020;(20):402-9.

http://beh.santepubliquefrance.fr/beh/2020/20/2020_20_1.html



**THANK YOU FOR YOUR
ATTENTION !**

