# Study of the Epidemiological Profile of Confirmed Covid-19 Cases in the Saint Louis Region from March 21 to December 31, 2020

P3-G10

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Covid-19 in Saint Louis was more pronounced in those ***over 60 years old***, and factors strongly associated with the presence of symptoms were ***urban residence and community case type***, as well as travel history.

## BACKGROUND

COVID-19 is similar to Severe Acute Respiratory Syndrome Coronavirus. It was declared a public health emergency of international concern by the WHO on January 30, 2020. In Senegal, the first imported case was identified and reported to the WHO on March 2. In the Saint Louis region, the first case was recorded in the district on March 21, 2020.

## METHODS

This is a cross-sectional study with an analytical aim. A comprehensive sampling of confirmed cases was conducted. Sociodemographic, environmental, and clinical data were collected through the central level database. Analysis was done using Epi Info7 software. Proportions, measures of central tendency, and dispersion were calculated. A cross-tabulation by bivariate analysis was performed between the presence of symptoms and various sociodemographic and environmental characteristics.

## RESULTS

A total of 428 confirmed cases of Covid-19 were surveyed. The most affected age group was those over 60 years old at 32.01%. Males were predominant at 63.08%. More than half of the Covid-19 cases were recorded at the Saint Louis health district at 58.64%. The incidence of Covid-19 in the region was 0.39‰. Factors related to the presence of symptoms were: type of case (community or contacts) (OR = 3.899; 95% CI [2.3031 - 6.6515]; P = 0.000), area of residence (urban or rural) (OR = 1.903; 95% CI [1.1502 - 3.2511]; P = 0.007), case outcome (death or survivors) (OR = 0.2593; [00.0798 - 0.8419]; P = 0.031), and travel history (OR = 0.1331 [0.0443 - 0.3939]; P = 0.000).

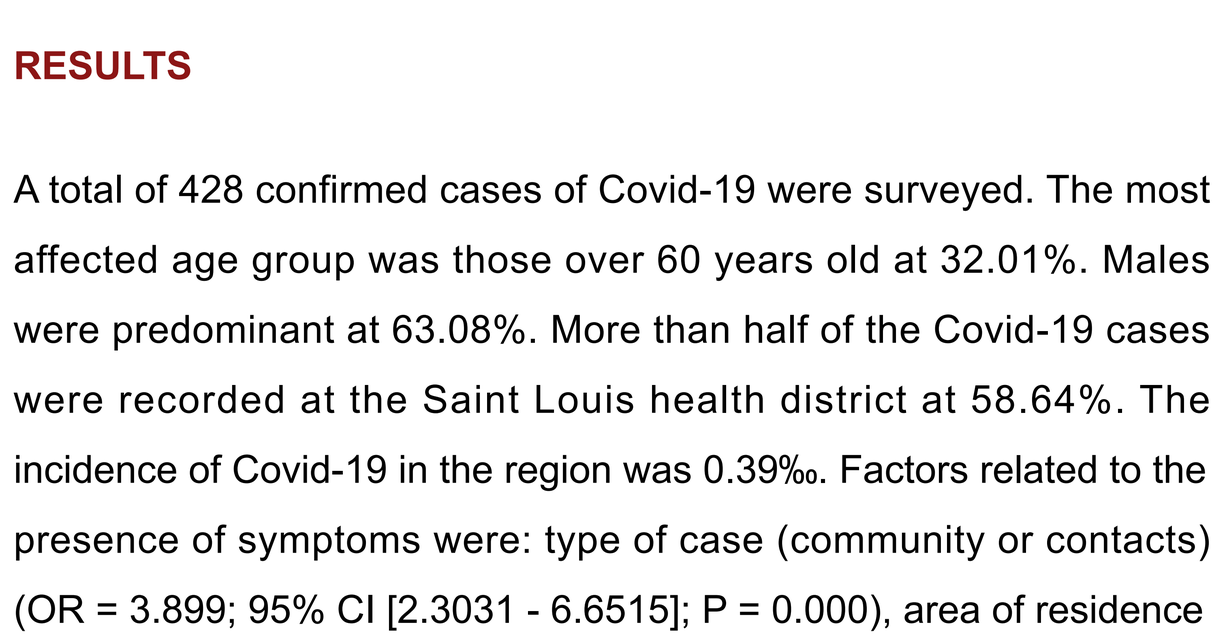


**Figure 1** : Courbe de l'évolution des cas confirmés de Covid 19 selon la semaine épidémiologique dans la région de Saint Louis du 21 mars au 31 décembre 2020

## RESULTS CONTINUED

**Table 1:** Distribution of age groups according to confirmed cases of Covid-19 by district in the Saint Louis region from March 21 to December 31, 2020

| District | [0 à 4] | [5 à 14] | [15 à 39] | [40 à 59] | [+60] | Total |
|---|---|---|---|---|---|---|
| Pété | 0,00% | 0,00% | 0,47% | 0,47% | 0,47% | 1,40% |
| Podor | 0,00% | 0,00% | 3,04% | 1,40% | 5,61% | 10,05% |
| Dagana | 0,00% | 0,00% | 0,23% | 0,00% | 0,70% | 0,93% |
| Richard Toll | 0,47% | 0,47% | 11,21% | 7,94% | 8,88% | 28,97% |
| Saint Louis | 0,23% | 2,10% | 25,47% | 14,49% | 16,36% | 58,64% |
| RM | 0,70% | 2,57% | 40,42% | 24,30% | 32,01% | 100,00% |

**Table 2:** Distribution of confirmed cases of Covid-19 according to the presence of symptoms according to the type of case in the Saint Louis region from March 21 to December 31, 2020

| | Cas Communautaire | Cas non communautaire | Total |
|---|---|---|---|
| **Symptomatique** | 263<br>73,46% | 95<br>26,54% | 358<br>100,00% |
| **Non Symptomatique** | 29<br>41,43% | 41<br>58,57% | 70<br>100,00% |
| **Total** | 292<br>68,22% | 136<br>31,78% | 428<br>100,00% |

OR= 3,899 [2, 3031 - 6,6515] P= 0,0000002

**Table 3:** Distribution of confirmed cases of Covid-19 according to the presence of symptoms according to the area of residence in the Saint Louis region from March 21 to December 31, 2020

| | Zone Urbaine | Zone Rurale | Total |
|---|---|---|---|
| **Symptomatique** | 245<br>68,44% | 113<br>31,56% | 358<br>100,00% |
| **Non Symptomatique** | 37<br>52,86% | 33<br>47,14% | 70<br>100,00% |
| **Total** | 282<br>65,89% | 146<br>34,11% | 428<br>100,00% |

OR= 1,903 [1, 1502 - 3,2511] P= 0,00705

## CONCLUSIONS

At the end of the study, male sex predominated with a sex ratio of 1.7; two phases noted in the evolution of cases; more than 95.79% with notion of travel; 65.89% of cases resided in urban areas; main signs were cough and fever; community cases were 75.72%.

Recommendations were made: respect preventive measures; respect standard operating procedures; fully manage simple cases at home; develop active case search strategies; monitor activities at the community level

## ADDITIONAL KEY INFORMATION

Keywords: Covid-19; Community cases; Contact cases; Area of residence

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No Conflicts of Interest

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