

## INTRODUCTION

Older adults were the segment of the population most affected by the COVID-19 pandemic. Type 2 diabetes (DBT2) also has a high prevalence in this age group, and its preexistence increases susceptibility, severity, and mortality from COVID-19. The objectives of this work were to calculate and compare the main epidemiological variables, between groups with DBT2 and without DBT2 in the study population, before and during the COVID-19 pandemic.

**Aim:** To determine if there is an association of higher mortality from COVID-19 with the presence of DBT2 in this population of older adults.

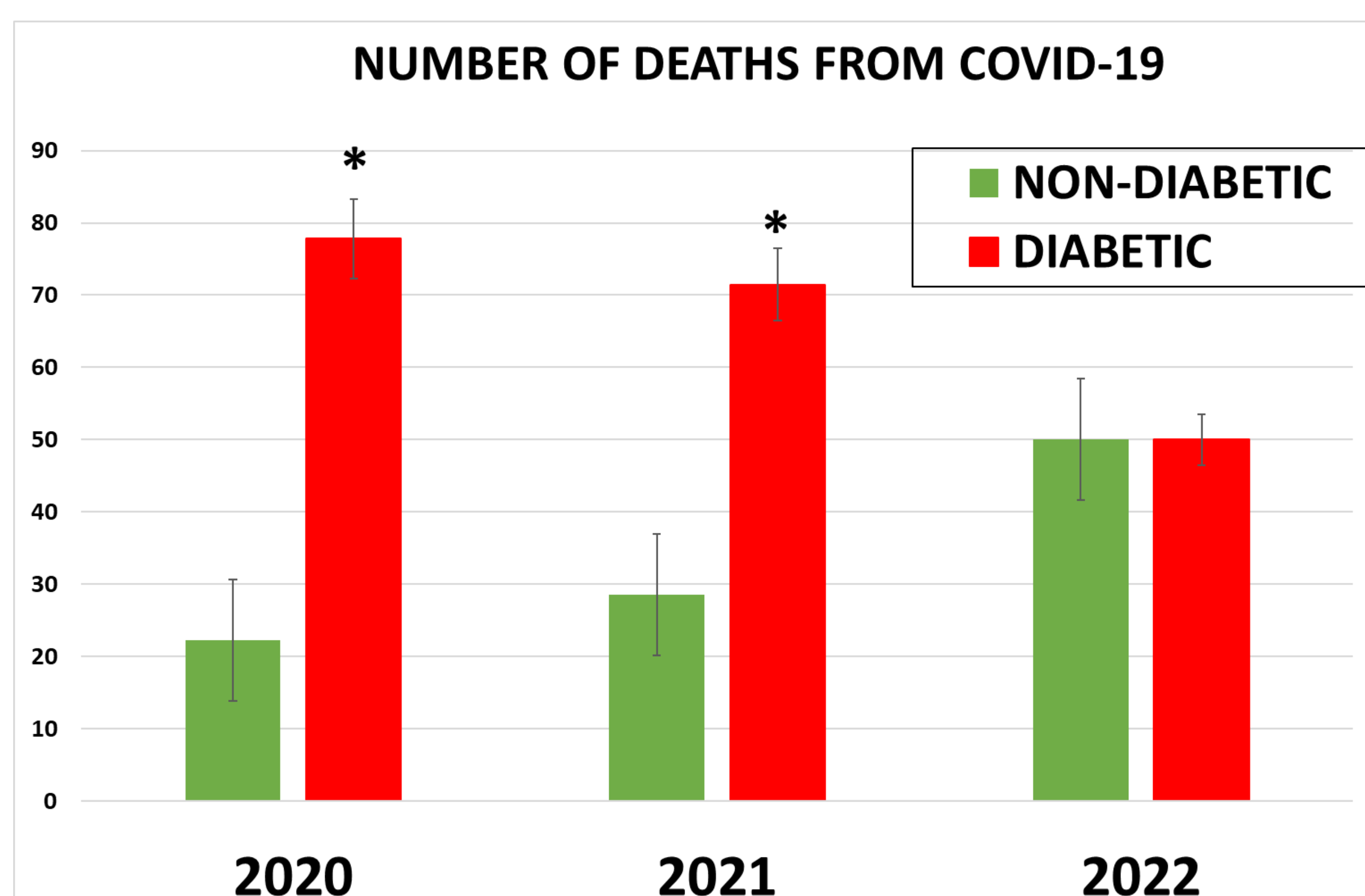
## METHOD

Retrospective observational study (2018-2022) of medical records (n=1020) of older adults (≥65 years) treated at the "San Ricardo Pampuri" Center in Villa Carlos Paz, Córdoba, Argentina. They were statistically analyzed by ANOVA test for quantitative data and Chi-square for categorical data using Infostat ( $\alpha=0.05$ ). The ethical norms of confidentiality and anonymity were respected.

## RESULTS

- ❖ **Population data:** Gender distribution=62% male/38% female. 47% of the population suffered from DBT2. Total COVID-19 prevalence: 46% of the population (469 cases) during the study period.
- ❖ **COVID-19 incidences:** The incidences of COVID-19 were higher in the group of diabetic patients during the 3 years of the study (see Table 1).
- ❖ **COVID-19 mortality (%):** Total Average=0.63; in Diabetic= 1.00 vs. Non-Diabetic =0.32. 72% of the deceased had DBT2. Annual mortality and fatalities from COVID-19 were higher for those with DBT2. In 2020 and 2021 COVID-19 was the leading cause of death in the population studied.
- ❖ **COVID-19 lethality:** The lethality of COVID-19 were higher in the group of diabetic patients during the 3 years of the study (see Table 2).
- ❖ **Excess Mortality:** Average General Mortality (%) pre-pandemic (2018-2019)=1.86 vs pandemic (2020-2022)=2.72 (42.3% increment). 24 more people died than expected by this population.
- ❖ **Average age of death from COVID-19:** Diabetic =76.4 vs Non-Diabetic =84.1
- ❖ **Vaccination:** 83% of deceased diabetic patients (2020-2022) were not vaccinated against SARS-COV-2. In 2022, coverage of more than 80% of the population was achieved with vaccines (≥ 2 doses) against SARS-COV-2.

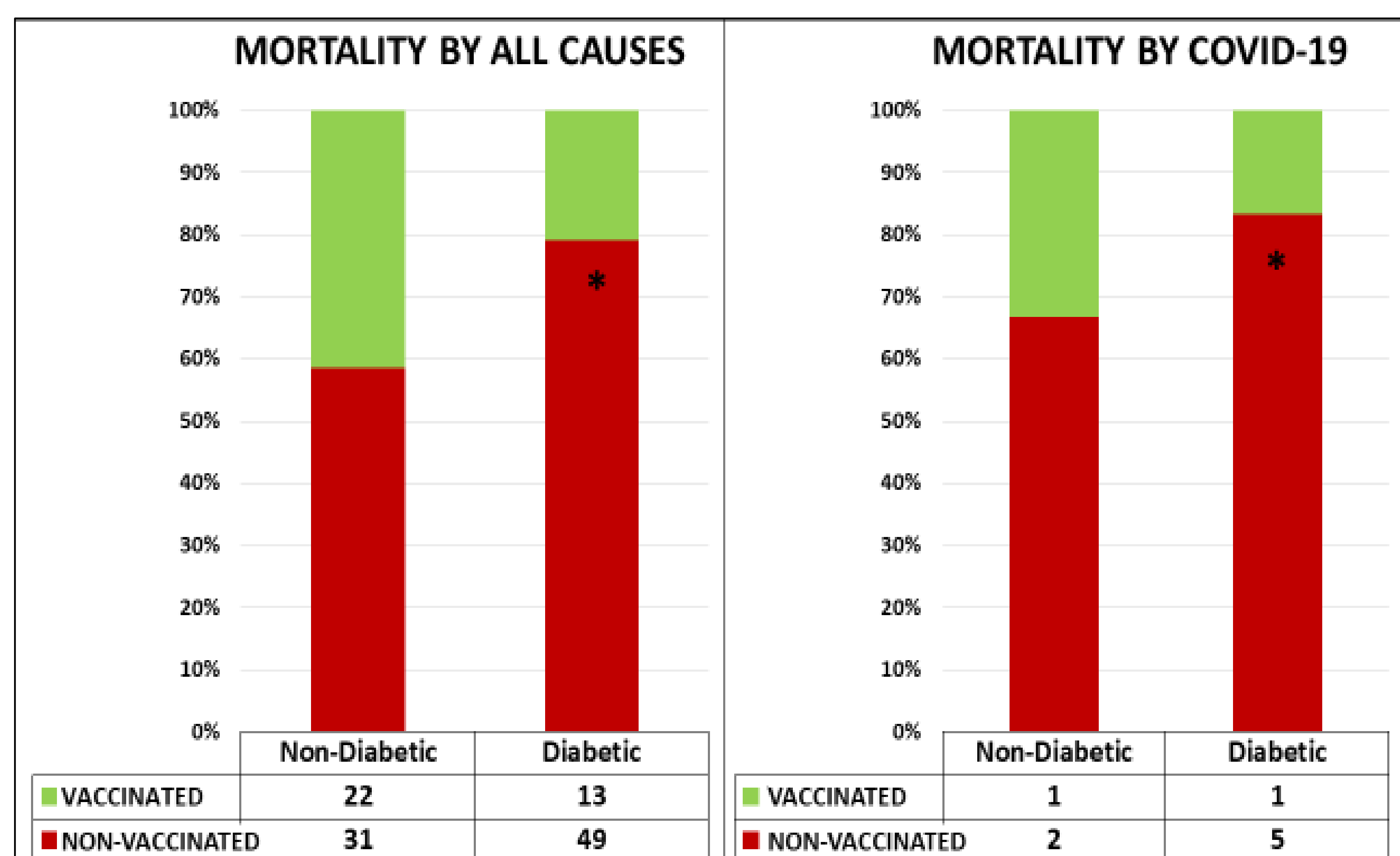
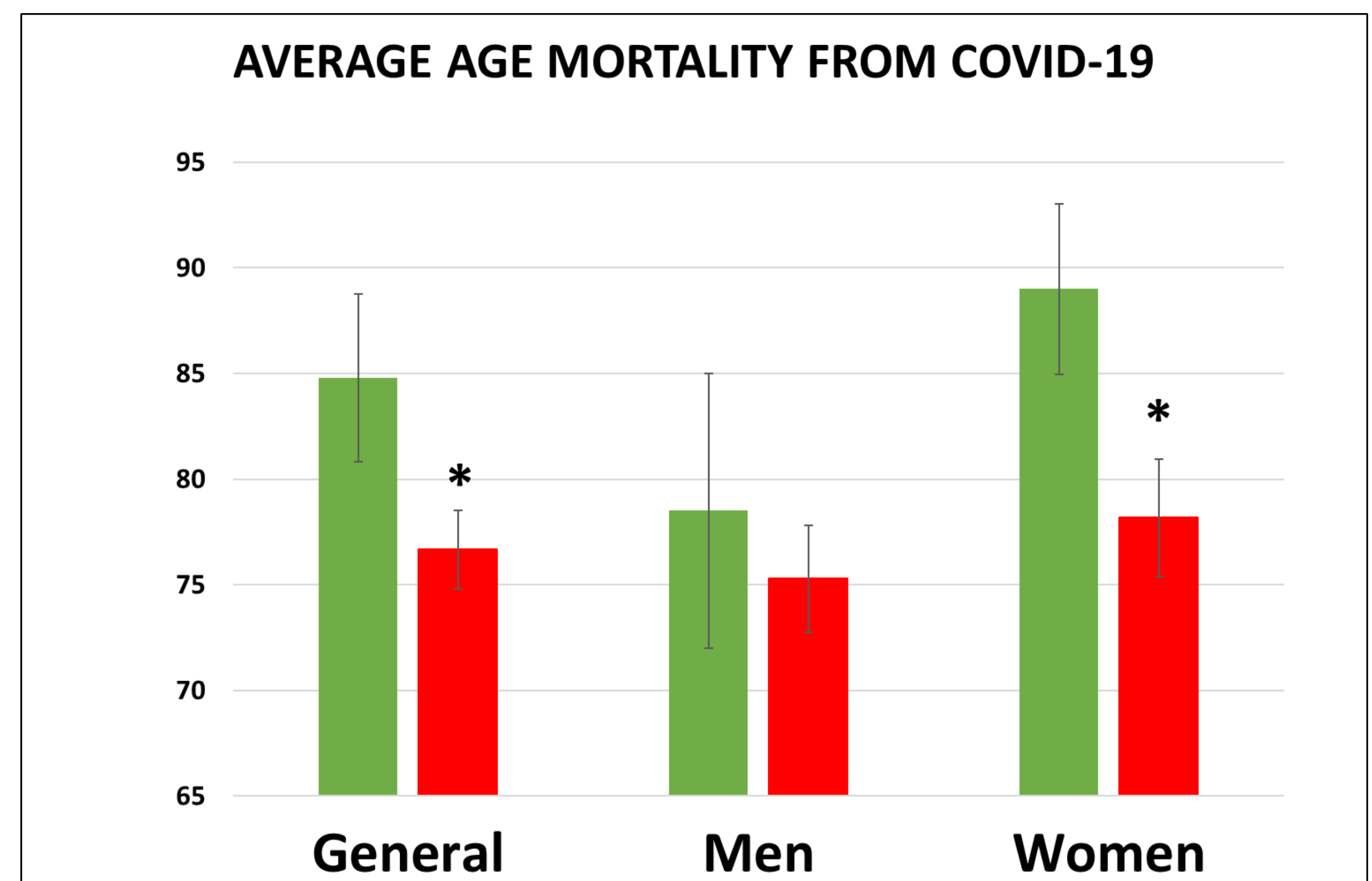
Table 1	Incidence COVID-19 (%)	
Year	Diabetic	Non-Diabetic
2020	25.15	15.78
2021	22.95	14.73
2022	11.26	5.38



## CONCLUSION

The COVID-19 pandemic had a negative impact on the population parameters studied, with these increases being greater in the group with DBT2. An increased mortality risk for COVID-19 was observed in patients with T2DM. In 2022, there was a large decrease in incidence, mortality, and lethality (general and specific for COVID-19) compared to 2021. The improvement of the variables recorded in 2022 can be associated with the great coverage achieved in vaccination campaigns.

Table 2	Lethality COVID-19 (%)		
Year	General	Diabetic	Non-Diabetic
2020	4.59	1.56	10.29
2021	3.80	1.70	7.58
2022	2.25	1.67	3.45



## ACKNOWLEDGMENTS

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