

Administrative incidence and prevalence of Multiple Myeloma using Administrative Claims Data from a large Health Maintenance Organization in Colombia, 2015-2023

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BACKGROUND

- Myeloma multiple (MM) is a malignancy of plasma cells which is rising in incidence in the developed world. MM is characterized by a monoclonal proliferation of plasma cells resulting in the production of monoclonal antibodies and end-organ damage¹.
- In Latin America and the Caribbean, the age-standardized incidence for MM reported by Globocan in 2022 was 1.8 cases per 100,000 habitants². For the same year in Colombia, Globocan reported 2.1 cases per 100,000 habitants².
- However, the evolution of incidence during the time after COVID pandemic from data of electronic health records in Colombia has not been studied.

OBJECTIVE

- This study aims to estimate the administrative incidence and prevalence of multiple myeloma (MM) from a Colombian Health Maintenance Organization (HMO) between 2015-2023.

METHODS

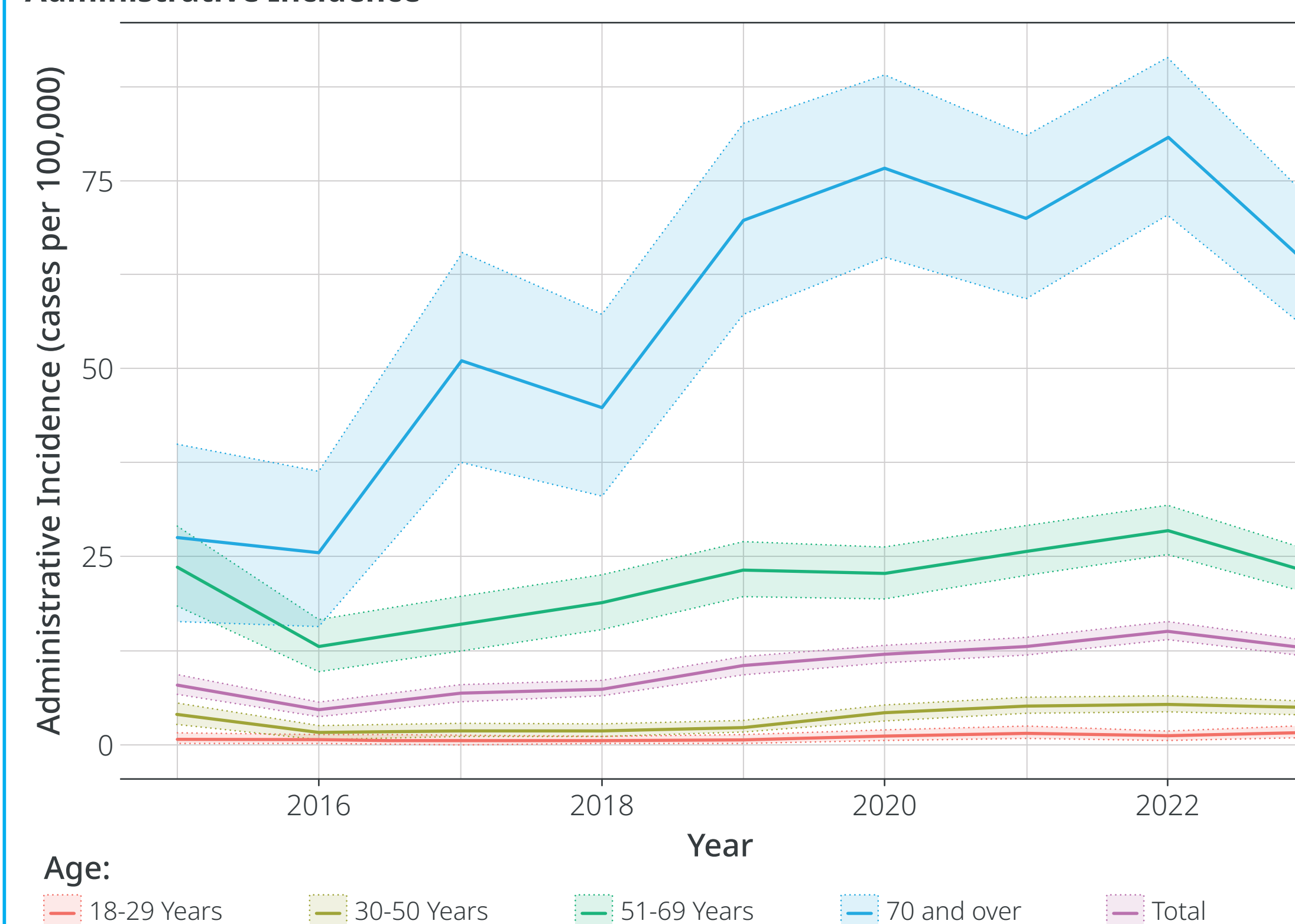
- An observational, secondary data collection without sites, retrospective dynamic cohort study was conducted to identify patients with MM in the Colombian population under clinical practice affiliated to an HMO with nationwide coverage for more than 5 million members in Colombia.
- MM was defined by cross-linking data in the HMO records using the ICD-10th code for MM (C90.0). The first recorded MM diagnosis was defined as the index date and conducted by one clinical oncologist. The period of study was from 01 January 2015 to 31 December 2023. The study period was split annually.
- The inclusion criteria were: 1) confirmed diagnosis of MM, 2) ≥ 18 years, 3) ≥ 1 claim or administration of treatment for MM, 4) treated by the HMO between January 2015 and December 2023, and 5) medical records are available ≥ 1 year before and after the index date.
- Databases including but not limited to EHR, claims records, laboratory, diagnostic imaging records, and clinical records were used.
- The relative frequency of events was estimated using the number of cases reported by the number of affiliates in the HMO over the study period. This estimation was also calculated by the different age previously diagnosed in the medical records.
- Administrative prevalence and incidence were estimated based on the number of cases and new cases each year from the consultation register in the database over the total number of insured adults in the HMO per 100,000 members. The number of members was extracted from the national public database of affiliates (BDUA for its acronym in Spanish).

RESULTS

- Administrative incident cases ranged from 89 (observed in 2016) to 624 cases (observed in 2022). Per 100,000 adults, the incidence was 7.93 cases in 2015. After a decrease to 4.69 cases in 2016, the incidence rose every year until 2022 (15.14 cases) before falling slightly to 12.82 in 2023, between 2015 and 2023 a 61.7% increase was observed (Figure 1).
- By age groups, adults over 50 years old presented the highest administrative incidence; in particular, the incidence was for those ≥ 70 years was always in excess of 25 per 100,000 adults (eg, 80.84 in 2022).

Figure 1. Incidence of multiple myeloma from 2015 to 2023

Administrative Incidence

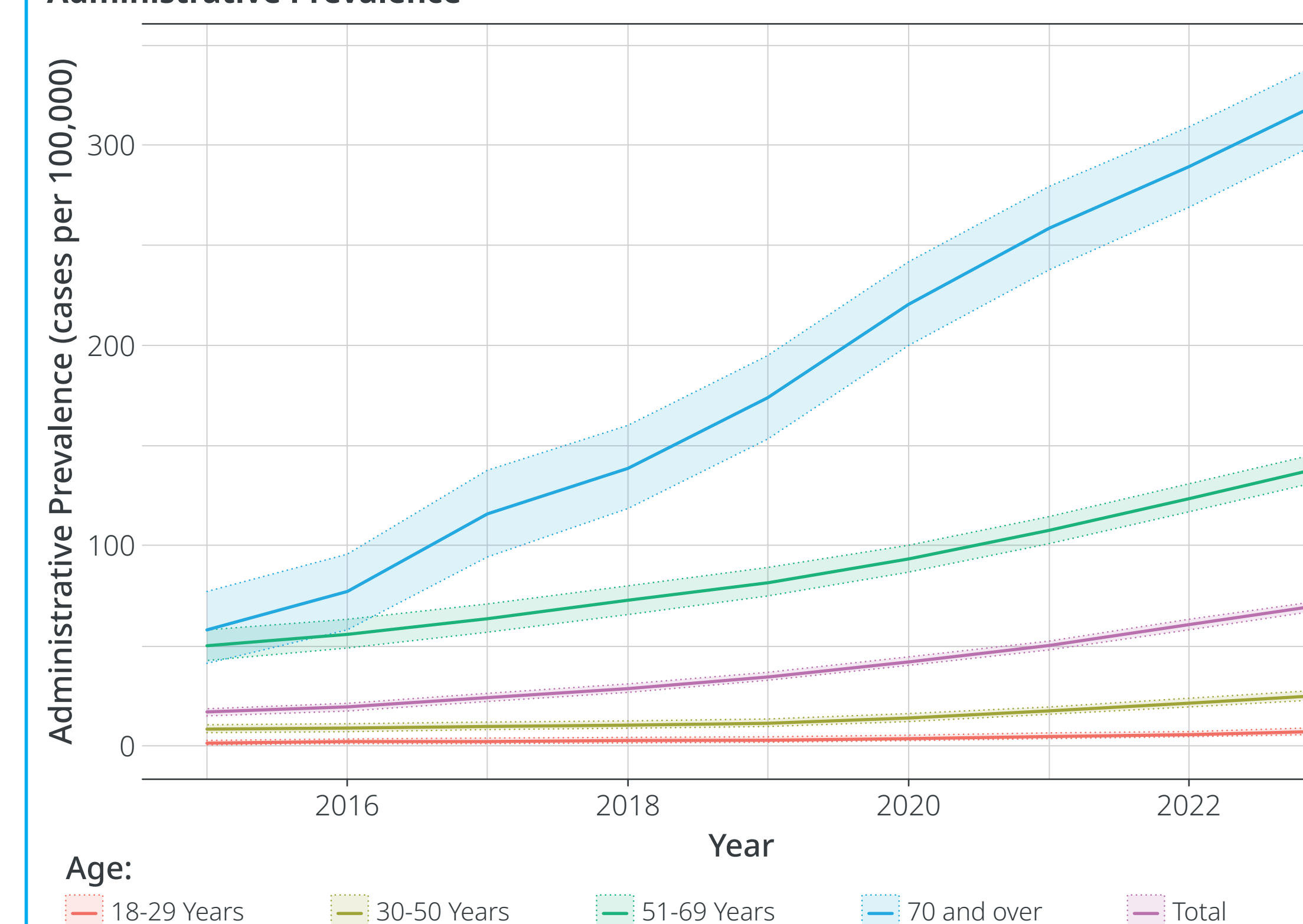


- Administrative prevalence cases surged from 282 cases in 2015 to 3,061 cases in 2023. This sharp increase in administrative prevalence, resembles the behavior of a concave pattern, considering it started with 16.80 cases in 2015 and ended at 70.83 cases per 100,000 adults, which represents a 321% increase (Figure 2).
- When broken down into age groups, a trend similar to the administrative incidence was observed, with older adults showing the highest rates. However, the slope was much steeper for those ≥ 70 years. For this group, the administrative prevalence ranged between 58.46 in 2015 to 323.34 per 100,000, representing an increase of 453%.

RESULTS (cont)

Figure 2. Prevalence of multiple myeloma from 2015 to 2023

Administrative Prevalence



CONCLUSION

- Trends in incidence and administrative prevalence of MM between 2015 and 2023 in Colombia have been increasing, with a more marked pattern in prevalence, which has tripled since 2015.
- Adults over 50 years old presented the higher rates of prevalence and incidence of MM.

REFERENCE

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DISCLAIMERS

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