

DIABETES MELLITUS IN ARGENTINA: A SYSTEMATIC REVIEW FOR CONSTRUCTING ITS ECONOMIC PROFILE

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Background & Objective:

- Diabetes mellitus (DM) is estimated to affect 1.8 million people in Argentina, with an age-adjusted comparative prevalence of 5.4% in the adult population.
- Currently reported data for the Argentinian population is insufficient to conduct solid economic evaluations.
- The economic burden that DM poses on patients and the Argentinian healthcare system calls for *ad-hoc* localized analyses, which need to be based on well-grounded evidence.

► **The objective is to construct the economic profile of DM in Argentina, focusing on key economic dimensions that are currently available in the literature.**

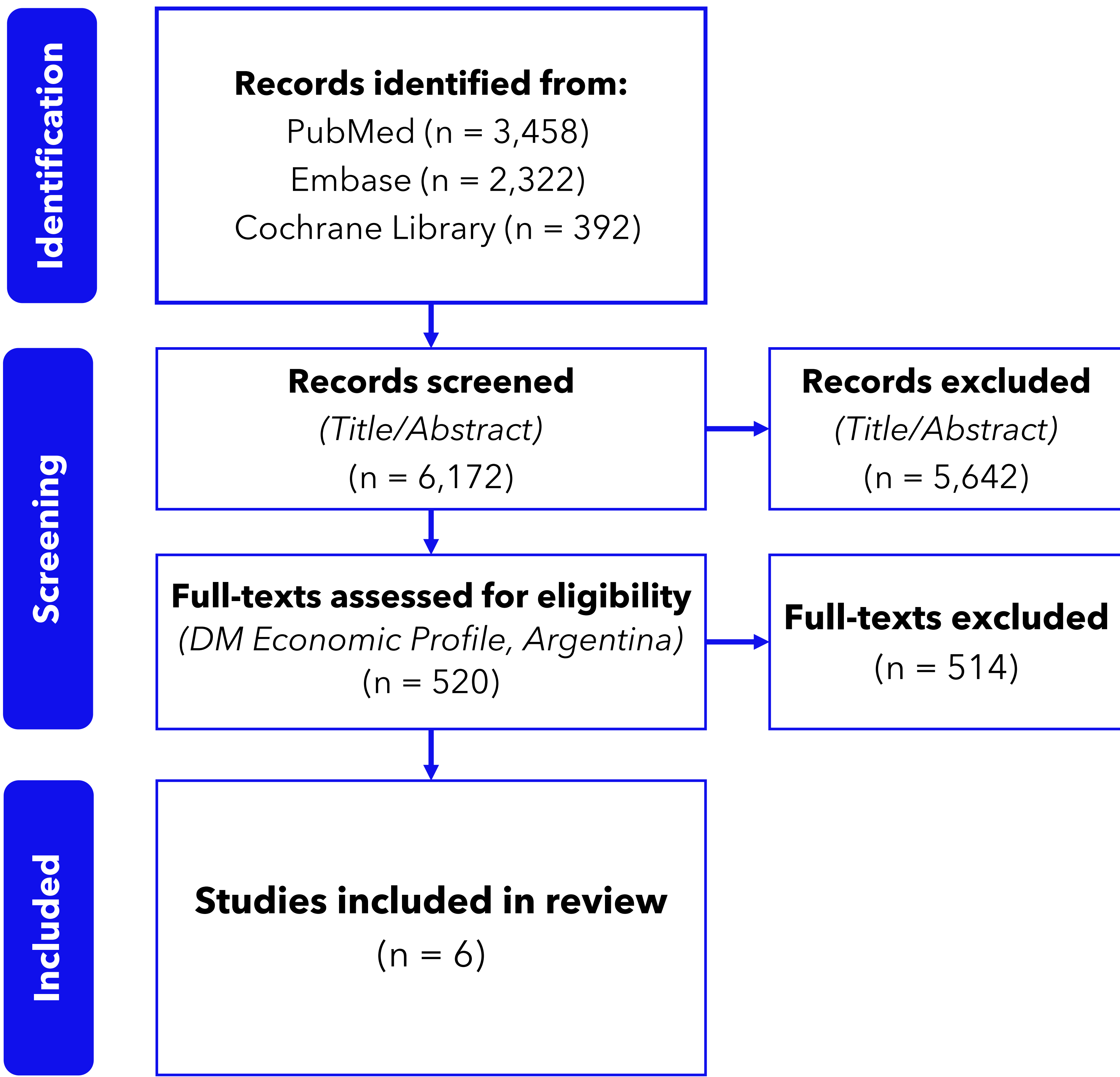
Methods:

- **Study design:** Systematic Literature Review.
- **Data Source:** PubMed, Embase, Cochrane Library.
- **Population:** People with insulin-dependent DM in LatAm.
- **Inclusion criteria:** 1) Quantitative studies reporting complication rates and/or healthcare resource utilization and costs associated with DM in LatAm. 2) Quantitative studies focusing on the Argentinian population.
- **Exclusion criteria:** Non-human studies, non-systematic reviews, qualitative studies and opinion pieces.
- **Identification, screening, review** and **selection** were performed by two independent reviewers.
- **Quality check, data extraction** and **synthesis** were performed by one independent reviewer.
- A conversion and inflation rate was applied where relevant to **2022 USD**.

Table 2: Study description

Author	Title	Year	Design	Sample Size	Population	Conclusion
Gagliardino et al.	Hospitalization and re-hospitalization of people with and without diabetes in La Plata, Argentina: Comparison of their clinical characteristics and costs	2004	Cohort study	127, 18+	DM	The combination of higher and longer hospitalization rates and frequent re-hospitalizations resulted in increased costs for diabetic population.
Caporale et al.	Health care costs of persons with diabetes prior to and following hospitalization in Argentina.	2006	Retrospective study	2,760	DM	Ambulatory care expenditures increase significantly in the prehospitalization and posthospitalization periods.
Elgart et al.	Type-2 diabetes: Burden of the disease and out-of-pocket expenditures in Argentina	2013	Case-control study	774, 18+	T2D	This report shows objectively the heavy burden of diabetes and its complications for the patient, its family, the health systems and the overall society in Argentina
Milrad et al.	Poor glycemic control is associated with cognitive dysfunction in older adults with type 2 diabetes	2011	Prospective study	427, 65+	T2D	Cognitive dysfunction was found to be a common occurrence in a sample of older diabetic individuals. In this population, the A1c >7 was associated with CD.
Gonzalez et al.	The burden of diabetes in Argentina	2015	DALY Analysis	n/a	DM	Disabilities are a key component of diabetes burden; regular and systematic estimation would allow to design effective prevention strategies, assess the impact of implementation and optimize resource allocation.
Elgart et al.	Direct and indirect costs associated to type 2 diabetes and its complications measured in a social security institution of Argentina	2014	Retrospective study	1,548	T2D	T2DM and the development of its complications are positively associated with higher direct costs in Argentina.

Table 1. PRISMA Flowchart



Results

- **N = 6** studies were identified and included in the analysis.
- Burden of diabetes is 1.3 million DALYs, 85% deriving from disabilities.
- Direct expenditure for complications in patients with DM is 3.6 times higher compared with patients without DM.
- A DM hospitalization is estimated to cost \$2,566.56 and is more frequent in patients with comorbidities (e.g., CD) and acute/chronic complications.
- Absenteeism is higher in T2D with complications (16.2 vs. 8.48 days).

Conclusion

DM is a condition associated with a high burden of disease in Argentina, exerting a significant pressure on the healthcare system both from a direct and indirect cost perspective, particularly when comorbid.