Applications for social security benefits related to diabetes in the working age in Italy between 2009 and 2019: a nationwide retrospective study

Supplementary file

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Table S1. Content of Italian Law no. 222/84 (7)

Both OIB and DP require at least 260 weekly contributions (5 years of contributions and insurance), of which 156 (3 years of contributions and insurance) in the 5 years prior to the date of the submitted claim. Given the partial loss of working capacity, no cessation of working activity is needed to access the OIB. The DP, instead, due to the total and permanent inability of who submit the claim, requires: cessation of any kind of working activity, removal from worker category lists, cancellation of membership of professional bodies, renouncing of payments covered by obligatory unemployment insurance and any other replacement or supplement to your salary. Following an overall assessment of the physical and mental health of the applicant, the Medical Legal Centres of the INPS approve the request, providing the benefit based on the presence of one or more disabling diseases.

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Table S2. The RECORD statement – checklist of items, extended from the STROBE statement, that should be reported in observational studies using routinely collected health data.

	Item No.	STROBE items	Location in manuscript where items are reported	RECORD items	Location in manuscript where items are reported
Title and abstract					
	1	(a) Indicate the study's design with a commonly used term in the title or the abstract (b) Provide in the abstract an informative and balanced summary of what was done and what was found		RECORD 1.1: The type of data used should be specified in the title or abstract. When possible, the name of the databases used should be included. RECORD 1.2: If applicable, the geographic region and timeframe within which the study took place should be reported in the title or abstract. RECORD 1.3: If linkage between databases was conducted for the study, this should be clearly stated in the title or abstract.	1-2 1-2 NA
Introduction					
Background rationale	2	Explain the scientific background and rationale for the investigation being reported			4-5
Objectives	3	State specific objectives, including any prespecified hypotheses			5
Methods					

Study Design	4	Present key elements of study design early in the paper			5
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection			5-6
Participants	6	*(a) Cohort study* - Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up *Case-control study* - Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study* - Give the eligibility criteria, and the sources and methods of selection of participants *(b) Cohort study* - For matched studies, give matching criteria and number of exposed and unexposed *Case-control study* - For matched studies, give matching		RECORD 6.1: The methods of study population selection (such as codes or algorithms used to identify subjects) should be listed in detail. If this is not possible, an explanation should be provided. RECORD 6.2: Any validation studies of the codes or algorithms used to select the population should be referenced. If validation was conducted for this study and not published elsewhere, detailed methods and results should be provided. RECORD 6.3: If the study involved linkage of databases, consider use of a flow diagram or other graphical display to demonstrate the data linkage process, including the number of individuals with linked data at each stage.	5-6 NA NA

		criteria and the number of controls per case			
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable.		RECORD 7.1: A complete list of codes and algorithms used to classify exposures, outcomes, confounders, and effect modifiers should be provided. If these cannot be reported, an explanation should be provided.	5
Data sources/ measurement	8	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group			5-6
Bias	9	Describe any efforts to address potential sources of bias			6
Study size	10	Explain how the study size was arrived at			6-7
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen, and why			5-6
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding			5-6

		(b) Describe any methods used to examine subgroups and interactions (c) Explain how missing data were addressed (d) *Cohort study* - If applicable, explain how loss to follow-up was addressed *Case-control study* - If applicable, explain how matching of cases and controls was addressed *Cross-sectional study* - If applicable, describe analytical methods taking account of sampling strategy (e) Describe any sensitivity analyses			5-6 5-6 7 NA NA 7-8
Data access and cleaning methods		..		RECORD 12.1: Authors should describe the extent to which the investigators had access to the database population used to create the study population. RECORD 12.2: Authors should provide information on the data cleaning methods used in the study.	5-6 5-6
Linkage		..		RECORD 12.3: State whether the study included person-level, institutional-level, or other data linkage across two or more databases. The methods of linkage and methods of	6

				linkage quality evaluation should be provided.	
Results					
Participants	13	(a) Report the numbers of individuals at each stage of the study (*e.g.*, numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed) (b) Give reasons for non-participation at each stage. (c) Consider use of a flow diagram		RECORD 13.1: Describe in detail the selection of the persons included in the study (*i.e.,* study population selection) including filtering based on data quality, data availability and linkage. The selection of included persons can be described in the text and/or by means of the study flow diagram.	7
Descriptive data	14	(a) Give characteristics of study participants (*e.g.*, demographic, clinical, social) and information on exposures and potential confounders (b) Indicate the number of participants with missing data for each variable of interest (c) *Cohort study* - summarise follow-up time (*e.g.*, average and total amount)			8 7-8 7
Outcome data	15	*Cohort study* - Report numbers of outcome events or			7-8

		summary measures over time *Case-control study* - Report numbers in each exposure category, or summary measures of exposure *Cross-sectional study* - Report numbers of outcome events or summary measures			NA NA
Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (e.g., 95% confidence interval). Make clear which confounders were adjusted for and why they were included (b) Report category boundaries when continuous variables were categorized (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period			7-8 7-8 7-8
Other analyses	17	Report other analyses done—e.g., analyses of subgroups and interactions, and sensitivity analyses			7-8
Discussion					

Key results	18	Summarise key results with reference to study objectives			8-9
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias		RECORD 19.1: Discuss the implications of using data that were not created or collected to answer the specific research question(s). Include discussion of misclassification bias, unmeasured confounding, missing data, and changing eligibility over time, as they pertain to the study being reported.	11
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence			8-11
Generalisability	21	Discuss the generalisability (external validity) of the study results			10
Other Information					
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based			NA
Accessibility of protocol, raw data,		..		RECORD 22.1: Authors should provide information on how to access any supplemental information	12

and programming code				such as the study protocol, raw data, or programming code.	

Table S2. Number of applications accepted for social security benefits with diabetes as primary diagnosis in Italy in the period 2009-2019 according to gender.

	Total number of claims	**Average number claims per year**	**Percentage of variation between 2009-2010**
Female	2697	245	51%
Male	10677	971	58%
Total	13374	1216	57%

Table S3. Number and percentage weight of applications accepted for social security benefits with diabetes as primary diagnosis in Italy in the period 2009-2019 according to gender.

	Total claims	**Average number of claims per year**	**% weight**
Legislators, entrepreneurs and top managers	157	14	2%
Intellectual, scientific and highly specialized professions	61	6	1%
Technical professions	281	26	4%
Executive desk job professions	497	45	7%
Commercial activities and services professions	1035	94	15%
Artisans, specialized workers and farmers	1848	168	27%
Plant operators, stationary and moveable machinery staff and drivers of vehicles	1026	93	15%
Unskilled professions	2002	182	29%
Total	6907	628	100%