

# What medicines are used for diabetes in Brazil: Data from national survey

Micheline MMA Meiners<sup>1</sup>, Noemia UL Tavares<sup>1</sup>, Sotero S Mengue<sup>2</sup> Pedro FC Vieira<sup>1</sup>, Andreia T Fontanella<sup>2</sup>, Edgar Hamann-Mérchan<sup>1</sup> <sup>1</sup>Universidade de Brasília, <sup>2</sup>Universidade do Rio Grande do Sul



### Introduction

Brazil has set up from 2002 health policies for prevention and care of people with diabetes, seeking to ensure, among others, access to medicines. In the last decade occur a improvement by the implementation of a National Law for persons with diabetes<sup>1</sup>. Our objective is to describe the medicines used to treat diabetes, among people with diabetes in Brazil.

## Materials and Methods

During 2013-2014 the National Survey on Access, Use and Promotion of the Rational Use of Medicines in Brazil, with acronym PNAUM, was realized. The prevalence rates from the survey were weighted to ensure national and regional representation. Overall participants of the survey, we selected for this study that which self-reported diabetes. The prevalence of diabetes was 6.8% among participants with 20 years old or more. The medicines in use for diabetes among the sample are described by ATC (A10; N=8,978,937) using chemical subgroups – 4<sup>th</sup> level<sup>2</sup>.

## Results

Most participants (85.8%) had indication for treatment with Blood glucose lowering medicines (excluded insulin), among these, 92.7% reported the use of one or more medicines. The prescription of insulin was reported by

#### Results

18,1%, however, only 87,9% these were in regular use. This probably is related with clinical inertia or fear/ myth associated with insulin use by people with diabetes<sup>3,4</sup>.

Considering all medicines used for treatment with Blood glucose lowering medicines, the Biguanides was the most reported, alone (52%) or in fixed dose associations (2.2%), than, the Sulfonylureas (29,1%). The insulin and analogues was used by 13,9% of participants. The utilization of new medicines was low among the participants.

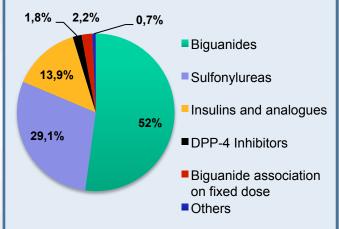


Figure 1 – Frequency of Reported Medicines for Diabetes in Use (N=8,978,937). PNAUM, Brazil, 2013-14.

### Conclusions

The Brazilian government finances metformin, glibenclamide, glicazide and insulin (regular and NPH) for people with diabetes in the country. We observed a high rate of treatment, what indicate a good access to medicines, however a low rate of insulin use need improvement.

## References

<sup>1</sup>Brazil. Federal Government. Law 11.347, Nov 27<sup>th</sup> 2006: Free distribution of drugs and materials needed for its application and monitoring of capillary glycaemia for people with diabetes.

<sup>2</sup>WHO Collaborating Centre for Drug Statistics. Anatomical Therapeutic Chemical (ATC) classification system. 2017; Available at: https://www.whocc.no/atc\_ddd\_index/?code=A10B

<sup>3</sup>Vaag A, Lund SS. Insulin initiation in patients with type 2 diabetes mellitus: treatment guidelines, clinical evidence and patterns of use of basal vs premixed insulin analogues. Eur J Endocrinol 2012; 166: 159–170.

<sup>4</sup>Khunti K, Nikolajsen A, Thorsted BL, et al. Clinical inertia with regard to intensifying therapy in people with type 2 diabetes treated with basal insulin. Diabetes Obes Metab, 2016; 18: 401–409. doi:10.1111/dom.12626