

## Questions

### 1. Basic reporting

#### 1. Clarity and Professional Language

While the manuscript is generally well-written, there are instances where the language could be more concise and professional. For example, in the **Introduction** section, some sentences are overly complex and could be simplified for better readability. Specifically, the sentence: *"Saudi Arabia has experienced extensive changes in lifestyle patterns. These changes include urbanization, shifts in dietary habits, and increased sedentary behavior—all of which are risk factors for prediabetes and diabetes (Munawir Alhejely et al., 2023)."* could be rephrased for clarity. Consider breaking it into shorter sentences or restructuring for better flow.

**Suggestion:** Please review the manuscript for clarity and ensure that the language is concise and unambiguous, especially in the introduction and discussion sections. Consider having a native English speaker or professional editor review the text for language improvements.

#### 2. Figures and Tables

The figures and tables are generally well-presented, but there are areas where additional clarity could be beneficial. For instance, in **Figure 2**, the forest plot is informative, but the confidence intervals for some studies are quite wide (e.g., Al Shehri et al., 2022). This could be further explained in the text to help readers understand why these intervals are so broad and whether this affects the overall interpretation of the results.

**Suggestion:** Please provide a brief explanation in the discussion section regarding the wide confidence intervals observed in some studies and how this might impact the robustness of the pooled prevalence estimate.

#### 3. Raw Data Availability

The manuscript mentions that raw data are provided in the supplementary files, but it is not entirely clear how accessible or well-organized these data are. For example, the supplementary files should include clear metadata identifiers and descriptions to ensure that future researchers

can easily interpret and use the data.

**Suggestion:** Please ensure that the supplementary files are well-organized and include detailed metadata descriptions for each dataset. This will enhance the reproducibility and usability of your research.

## 2. Experimental design

### 1.Consistency of Diagnostic Criteria:

The article mentions the use of ADA and WHO diagnostic criteria but does not provide detailed information on whether there are differences in how these criteria were applied across studies.

**Suggestion:** It is recommended to add an explanation in the methods section on how data from different diagnostic criteria were standardized.

### 2.Sensitivity of Diagnostic Methods:

The article mentions differences in results between FBG and HbA1c diagnostic methods but does not discuss the impact of these differences on the findings.

**Suggestion:** It is recommended to elaborate on the influence of different diagnostic methods on the results in the discussion section.

## 3. Validity of the findings

### 1.Explanation of Heterogeneity:

The heterogeneity is high ( $I^2 = 99.1\%$ ).

**Suggestion:** It is suggested to further explore the potential sources of heterogeneity in the discussion section, such as differences in lifestyle across regions or sample selection bias.

## 4. Additional comments

### 1.Study Limitations:

The article does not provide a detailed discussion of the study's limitations.

**Suggestion:** It is suggested to add a discussion of the limitations in the discussion section, such as the timeliness of the data or potential sample selection bias.