

Corrigendum



Corrigendum to: Prevalence and incidence of type 1 diabetes in the world: a systematic review and meta-analysis

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Based on the comments we received from the readers of our article entitled “Prevalence and incidence of type 1 diabetes in the world: a systematic review and meta-analysis”, published in *Health Promotion Perspectives*, we rechecked the whole of the article and its associated data set, and identified a set of errors and missing attributions that should be corrected as follows:

In the results section, heterogeneity between studies for the prevalence of type 1 diabetes in Asia, Africa, and Europe was incorrectly written as non-significant, while it should have been reported as significant. Also, heterogeneity between the studies in Africa was written as non-significant in the main text, which should have been reported as statistically significant.

In terms of the incidence of type 1 diabetes in America, there is a non-significant heterogeneity, which was incorrectly written as significant in the text. Additionally, in the published paper, there are some incorrect values in Table 3; however, the values used for the meta-analysis are correct. In this table, the correct prevalence values per 100 000 reported from the studies of Mayer-Davis et al,¹ Ekehalt et al,² Erikson et al,³ Evans et al,⁴ and Lopez Siguero et al⁵ are 57, 110, 270, 220, and 78, respectively.

Furthermore, Moussa et al^{6,7} conducted two studies to investigate the prevalence of type 1 and type 2 diabetes among Kuwaiti children, and in our article, instead of the reference of the study on type 1 diabetes,⁶ the reference

of the study considering type 2 diabetes was cited.⁷ In addition, Peter had two studies, within which the trend of type 1 diabetes,⁸ and the prevalence and incidence of type 1 diabetes in the Bahamas⁹ were determined. In our meta-analysis, the first study was mistakenly cited instead of the second study.

In the studies conducted by Dabelea et al,¹⁰ Kemper et al,¹¹ Ashner et al,¹² and Garancini et al,¹³ the prevalence estimates reported were for overall diabetes, type 1 diabetes, or type 2 diabetes. In our study, however, those estimates were incorrectly extracted as the estimates for overall diabetes or type 2 diabetes. So, the corrections were as follow: for the study of Kemper et al,¹¹ the errors were corrected and the type 1 diabetes data were extracted; the study of Dabelea et al¹⁰ was replaced with another publication with more complete information¹⁴; for the study of Garancini et al,¹³ the data on type 1 diabetes were unclear and insufficient to be included in our analysis, and was therefore excluded from the meta-analysis; in the study of Ashner et al,¹² the prevalence estimate of type 1 diabetes was not reported, and was thus excluded from our analysis.

In addition, the estimated prevalence of type 1 diabetes reported by Elamin et al¹⁵ in Sudan, was extracted incorrectly. We thus corrected the errors and repeated the meta-analyses, and found that the estimated prevalence of type 1 diabetes was 0.038 (95% CI: 0.017 to 0.084, *P*

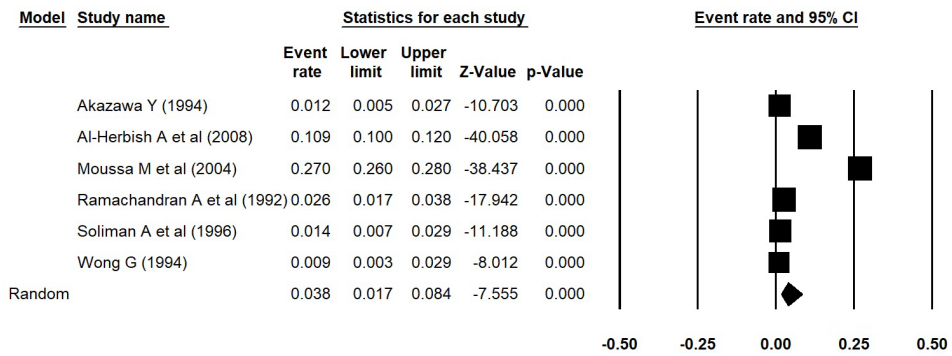


Figure 1. Prevalence of type 1 diabetes in Asia (the corrected form of Figure 2-B in the original article)

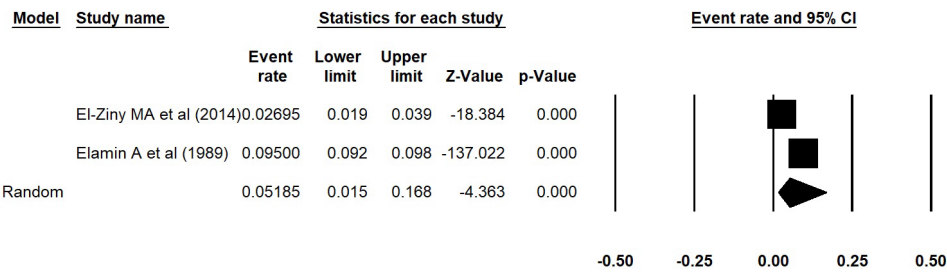


Figure 2. Prevalence of type 1 diabetes in Africa (the corrected form of Figure 3-B in the original article)

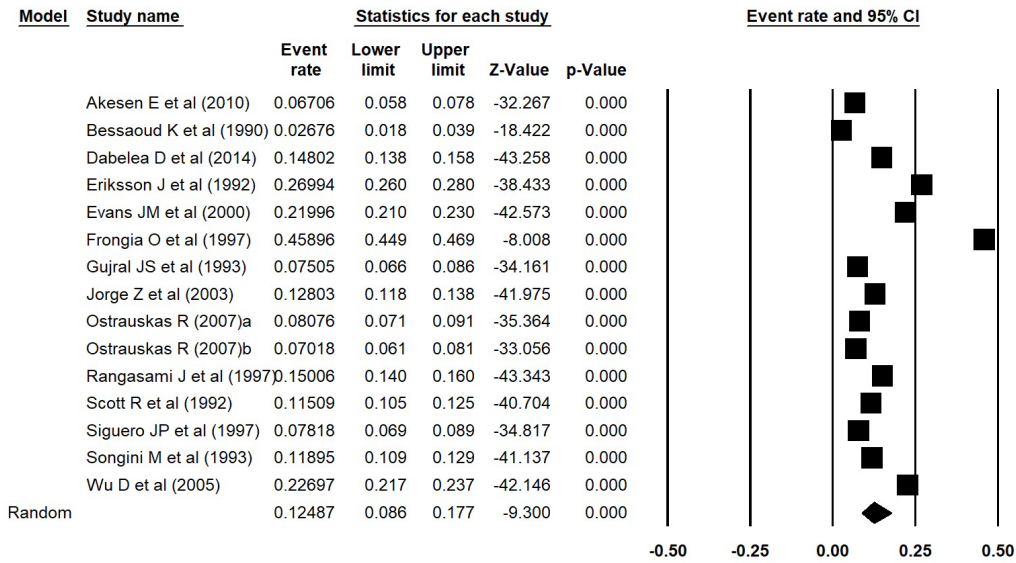


Figure 3. Prevalence of type 1 diabetes in Europe (the corrected form of Figure 5 in the original article)

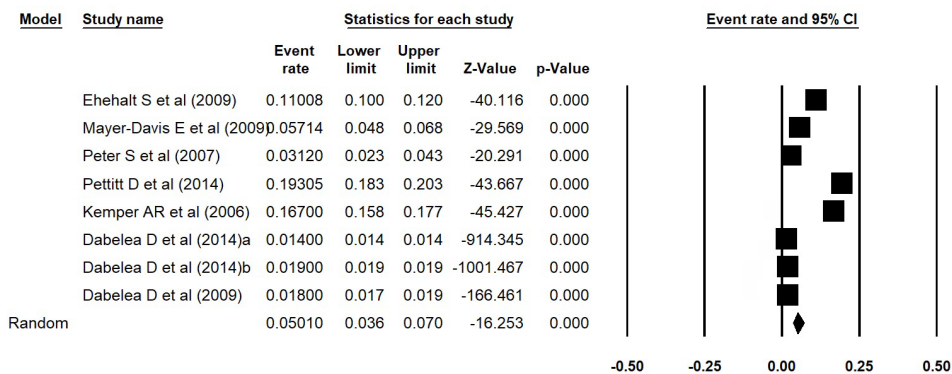


Figure 4. Prevalence of type 1 diabetes in America (the corrected form of Figure 6-B in the original article)

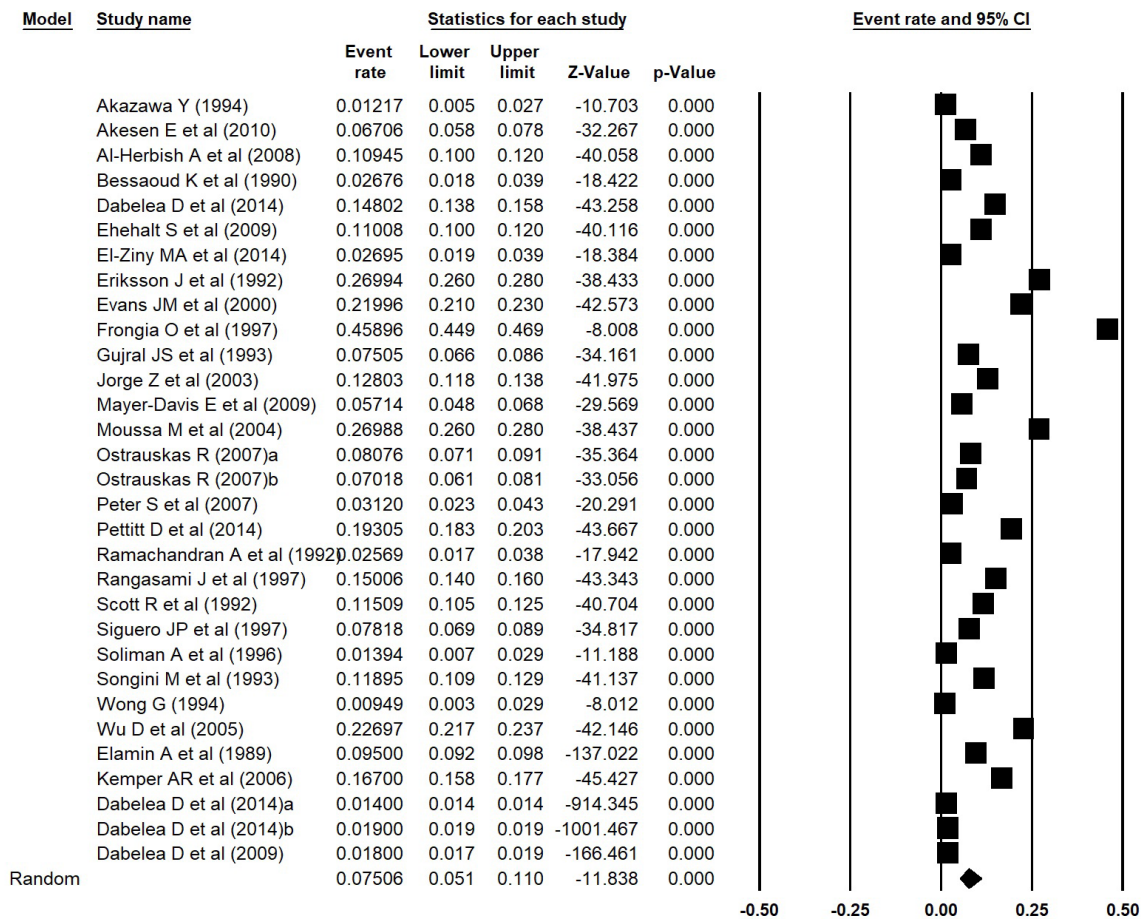


Figure 5. Prevalence of type 1 diabetes in the world (the corrected form of Figure 7 in the original article)

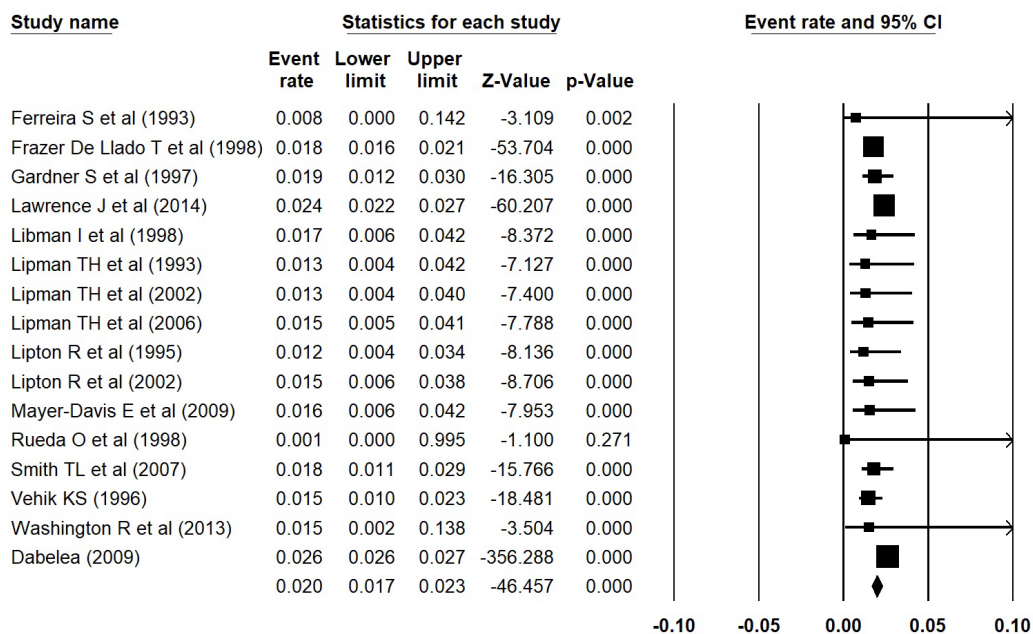


Figure 6. Incidence of type 1 diabetes in America (the corrected form of Figure 6-A in the original article)

< 0.001) in Asia (Figure 1 [the corrected form of Figure 2-B in the original article]), 0.052 (95% CI: 0.015 to 0.168, $P < 0.001$) in Africa (Figure 2 [the corrected form of Figure 5-B in the original article]), 0.125 (95% CI: 0.086 to 0.177, $P < 0.001$) in Europe (Figure 3 [the corrected form

of Figure 3-B in the original article]), 0.050 (95% CI: 0.036 to 0.070, $P < 0.001$) in America (Figure 4 [the corrected form of Figure 6-B in the original article]), and 0.075 (95% CI: 0.051 to 0.110, $P < 0.001$) in the world (Figure 5 [the corrected form of Figure 7 in the original article]).

Table 3. Characteristics of studies prevalence of type 1 diabetes

Study	Country	Sample Size	Prevalence Per 100 000
Akazawa ¹⁹³	Japan	40	10
Akesen et al ¹⁹⁴	Turkey	26	67
Al-Herbish et al ¹⁹⁵	Saudi Arabia	42	109.5
Aschner et al ¹³	America	2827	8000
Bessaoud et al ¹⁸	Algeria	10	27
		40	11
Dabelea et al ⁴⁵	Navajo nation	31	81
		106	278
Dabelea et al ¹⁹⁶	USA	57	148
Ehehalt et al ⁵¹	Italy	3761	110
Elamin et al ¹⁹⁷	Sudan	17	42.98
El-Ziny et al ⁵³	Egypt	10	26.8
Eriksson et al ¹⁹⁸	Finland	1009	270
Evans et al ¹⁹⁹	Scotland	6592	220
Frongia et al ⁵⁹	Italy	176	459
Garancini et al ²⁰⁰	Italy	31	80
Gujral et al ²⁰¹	UK	29	75
Jorge et al ²⁰²	Portugal	49	128
Kemper et al ²⁰³	USA	70	183
Mayer-Davis et al ¹⁰⁰	USA	218	57
Moussa et al ²⁰⁴	Kuwait	103	269.9
Ostrauskas ²⁰⁵	Lithuania	31	80.64
Ostrauskas and Žalinkevičius ²⁰⁶	Lithuania	27	70.23
Peter et al ¹¹⁶	Bahamas	12	31
Pettitt et al ²⁰⁷	USA	74	193
Ramachandran et al ²⁰⁸	India	10	26
Rangasami et al ¹²⁷	Scotland	58	150
Scott et al ¹⁴⁰	New Zealand	44	115
López Sigüero et al ¹⁴⁶	Malaga	297	78
Soliman et al ²⁰⁹	Oman	50	13.25
Songini et al ²¹⁰	Sardinia	46	119
Wong ¹⁸⁵	China	30	8.3
Wu et al ²¹¹	New Zealand	87	227

Also, the corrected estimated incidence of type 1 diabetes was 0.020 (95% CI: 0.017 to 0.023, $P < 0.001$) in America (Figure 6 [the corrected form of Figure 6-A in the original article]). Moreover, in the abstract section of our paper, the estimate for the prevalence of type 1 diabetes should be 0.075% (95% CI: 0.051 to 0.110), instead of 9.5% (95% CI: 0.07 to 0.12). In summary, the overall results for the prevalence of type 1 diabetes in the world had a marginal change, and thus the conclusions drawn in our article are not changed.

Disclosure

As the team of authors, we take full responsibility for the errors and missing attributions, and appreciate the opportunity to prepare this corrigendum.

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