

## Corrigendum



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

Mobasseri M, Shirmohammadi M, Amiri T, Vahed N, Hosseini Fard H, Ghojzadeh M. *Health Promot Perspect*. 2020 Mar 30;10(2):98-115. doi: 10.34172/hpp.2020.18

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Received: April 27, 2024, Accepted: April 27, 2024, ePublished: July 29, 2024

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,<sup>1</sup> Ekehalt et al,<sup>2</sup> Erikson et al,<sup>3</sup> Evans et al,<sup>4</sup> and Lopez Siguero et al<sup>5</sup> are 57, 110, 270, 220, and 78, respectively.

Furthermore, Moussa et al<sup>6,7</sup> 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,<sup>6</sup> the reference

of the study considering type 2 diabetes was cited.<sup>7</sup> In addition, Peter had two studies, within which the trend of type 1 diabetes,<sup>8</sup> and the prevalence and incidence of type 1 diabetes in the Bahamas<sup>9</sup> 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,<sup>10</sup> Kemper et al,<sup>11</sup> Ashner et al,<sup>12</sup> and Garancini et al,<sup>13</sup> 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,<sup>11</sup> the errors were corrected and the type 1 diabetes data were extracted; the study of Dabelea et al<sup>10</sup> was replaced with another publication with more complete information<sup>14</sup>; for the study of Garancini et al,<sup>13</sup> 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,<sup>12</sup> 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 al<sup>15</sup> 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*

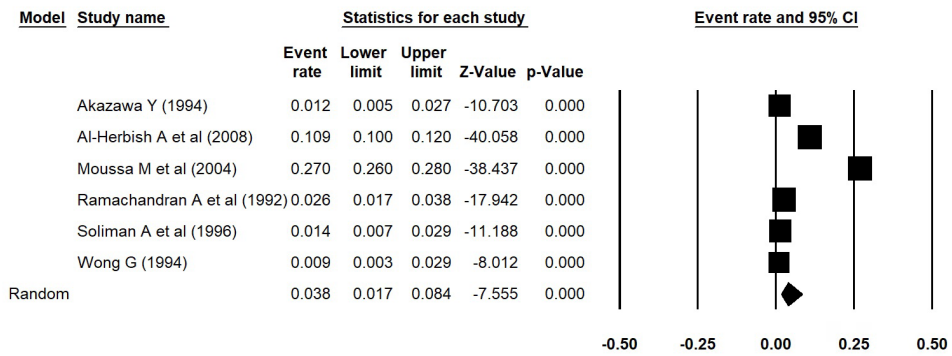


Figure 1. Prevalence of type 1 diabetes in Asia (the corrected form of Figure 2-B in the original article)

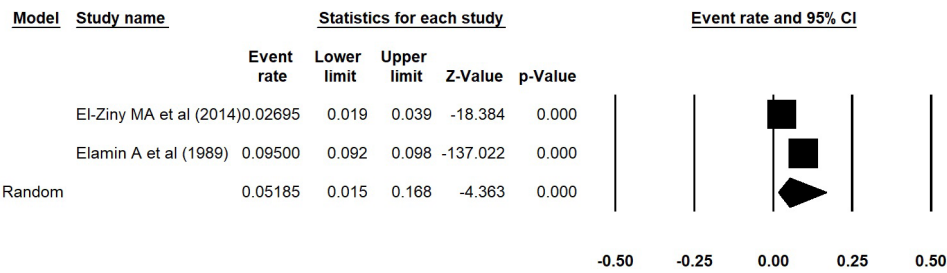


Figure 2. Prevalence of type 1 diabetes in Africa (the corrected form of Figure 3-B in the original article)

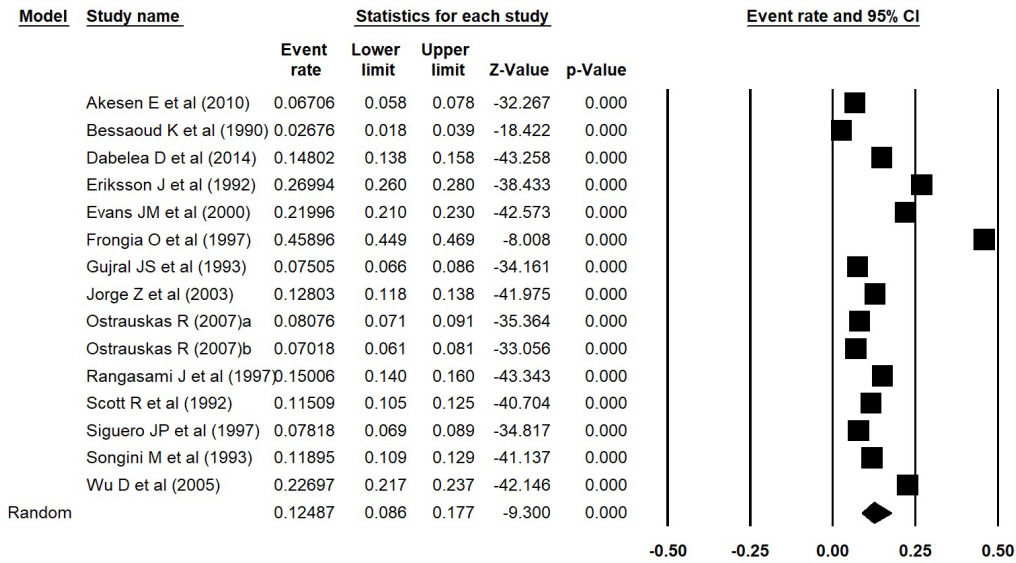


Figure 3. Prevalence of type 1 diabetes in Europe (the corrected form of Figure 5 in the original article)

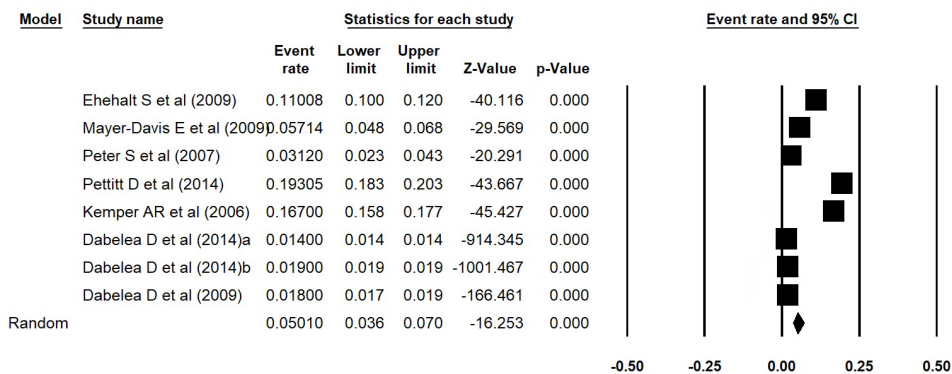


Figure 4. Prevalence of type 1 diabetes in America (the corrected form of Figure 6-B in the original article)

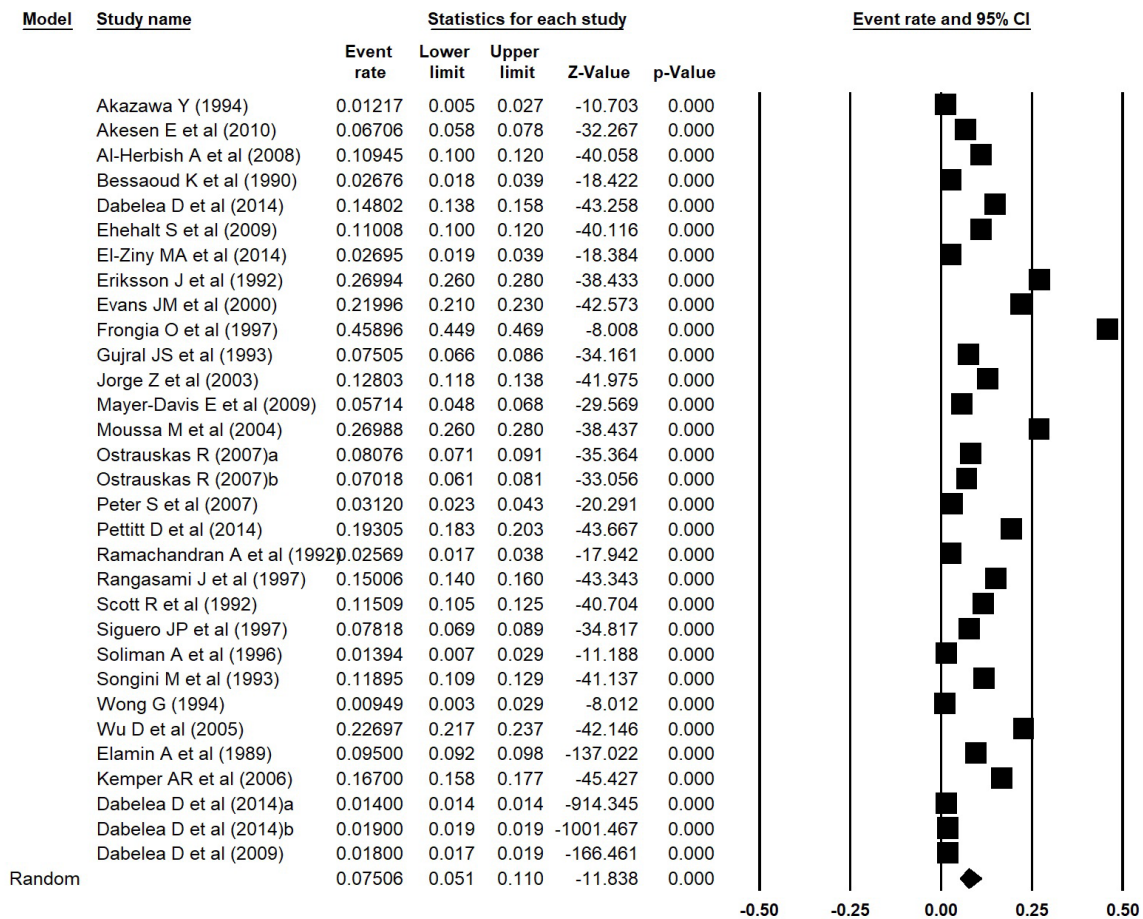


Figure 5. Prevalence of type 1 diabetes in the world (the corrected form of Figure 7 in the original article)

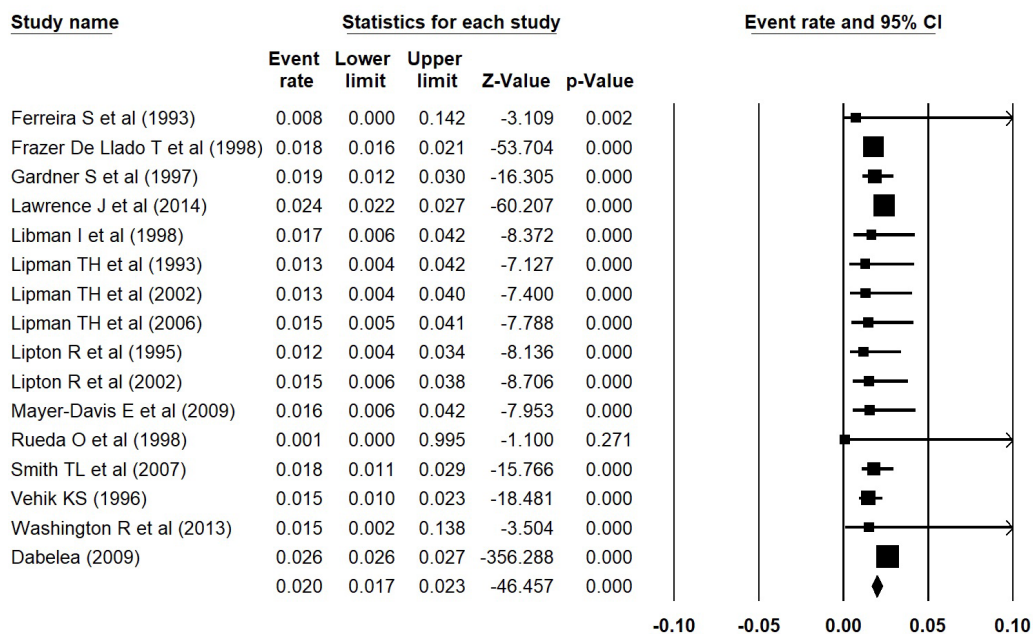


Figure 6. Incidence of type 1 diabetes in America (the corrected form of Figure 6-A in the original article)

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