

Supplementary Appendix

Global Incidence and Prevalence of Autoimmune Hepatitis, 1970–2022: A Systematic Review and Meta-Analysis

Jong Woo Hahn,^{1,2} Hye Ran Yang,² Jin Soo Moon,¹ Ju Young Chang,¹ Kwanjoo Lee,³ Gi Ae Kim,⁴ Masoud Rahmati,^{5,6} Ai Koyanagi,⁷ Lee Smith,⁸ Min Seo Kim,⁹ Guillermo F López Sánchez,¹⁰ Dragioti Elena,^{11,12} Ju-Young Shin,¹³ Jae Il Shin,¹⁴ Rosie Kwon,^{15,16} Soeun Kim,^{15,16} Hyeon Jin Kim,^{15,16} Hojae Lee,^{15,16} Jae Sung Ko,^{1*} Dong Keon Yon, MD, FACAAI, FAAAAI^{15,16,17*}

¹ Department of Pediatrics, Seoul National University College of Medicine, Seoul, Republic of Korea

² Department of Pediatrics, Seoul National University Bundang Hospital, Seongnam, Republic of Korea

³ Digestive Disease Center, CHA Bundang Medical Center, CHA University School of Medicine, Republic of Korea

⁴ Department of Internal Medicine, Kyung Hee University School of Medicine, Seoul, South Korea

⁵ Department of Physical Education and Sport Sciences, Faculty of Literature and Human Sciences, Lorestan University, Khoramabad, Iran

⁶ Department of Physical Education and Sport Sciences, Faculty of Literature and Humanities, Vali-E-Asr University of Rafsanjan, Rafsanjan, Iran

⁷ Research and Development Unit, Parc Sanitari Sant Joan de Deu, Barcelona, Spain

⁸ Centre for Health, Performance and Wellbeing, Anglia Ruskin University, Cambridge, UK

⁹ Cardiovascular Disease Initiative, Broad Institute of MIT and Harvard, Cambridge, MA, USA

¹⁰ Division of Preventive Medicine and Public Health, Department of Public Health Sciences, School of Medicine, University of Murcia, Murcia, Spain

¹¹ Pain and Rehabilitation Centre, and Department of Medical and Health Sciences, Linköping University, Linköping, Sweden

¹² Research Laboratory Psychology of Patients, Families, and Health Professionals, Department of Nursing, School of Health Sciences, University of Ioannina, Ioannina, Greece

¹³ School of Pharmacy, Sungkyunkwan University, Suwon, South Korea

¹⁴ Department of Pediatrics, Yonsei University College of Medicine, Seoul, South Korea

¹⁵ Center for Digital Health, Medical Science Research Institute, Kyung Hee University College of Medicine, Seoul, South Korea

¹⁶ Department of Regulatory Science, Kyung Hee University, Seoul, South Korea

¹⁷ Department of Pediatrics, Kyung Hee University Medical Center, Kyung Hee University College of Medicine, Seoul, South Korea

***Corresponding author**

Dong Keon Yon, MD, FACA AI, FAAAAI

Department of Pediatrics, Kyung Hee University College of Medicine 23 Kyunghedae-ro, Dongdaemun-gu, Seoul 02447, South Korea.

Phone: +82-2-6935-2476

Fax: +82-504-478-0201

Email: yonkkang@gmail.com

Jae Sung Ko, MD, PhD

Division of Pediatric Gastroenterology, Hepatology and Nutrition, Department of Pediatrics

Seoul National University College of Medicine

Seoul National University Children's Hospital

101 Daehak-ro, Jongno-Gu, Seoul, 03080, Korea

Phone; +82-2-2072-2197

Email: kojs@snu.ac.kr

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AIH, autoimmune hepatitis.

Supplementary Table 1. Eligibility Criteria

| |
|---|
| Cross-sectional studies |
| Recruited all age groups (Children, adults, and elderly) |
| Participants recruited from the general population or community |
| Reported incidence or prevalence of AIH (according to appropriate diagnostic guideline) |
| Sample size of >50 participants |
| Published only in English |

AIH: autoimmune hepatitis.

Supplementary Table 2. National pooled incidence of AIH included in our systematic review.

| | Number of studies | Number of participants | Patients with EoE | Pooled estimates (95% CI)* |
|-------------|-------------------|------------------------|-------------------|----------------------------|
| Nation | | | | |
| Argentina | 1 | 10,017,106 | 56 | 0.56 (0.43 to 0.73) |
| Canada | 2 | 70,927,839 | 198 | 0.42 (0.12 to 1.51) |
| Denmark | 2 | 5,696,536 | 1,395 | 2.45 (0.87 to 7.08) |
| Finland | 1 | 6,202,797 | 887 | 1.10 (0.86 to 1.42) |
| France | 1 | 10,761,625 | 47 | 0.03 (0.01 to 0.08) |
| Iceland | 2 | 567,556 | 110 | 1.58 (0.22 to 2.93) |
| Israel | 1 | 995,024 | 109 | 0.67 (0.31 to 1.43) |
| Japan | 1 | 187,205 | 48 | 2.23 (2.10 to 2.36) |
| New Zealand | 2 | 1,094,070 | 286 | 1.87 (1.51 to 2.22) |
| Norway | 2 | 4,247,647 | 74 | 1.21 (0.88 to 1.54) |
| Singapore | 1 | 567,685 | 24 | 0.60 (0.21 to 1.74) |
| South Korea | 1 | 50,008,453 | 12,447 | 1.12 (1.03 to 1.22) |

| | | | | |
|-----------------|---|------------|--------|---------------------|
| Spain | 2 | 1,886,739 | 32 | 1.03 (0.57 to 1.48) |
| Sweden | 2 | 7,992,279 | 1,107 | 1.02 (0.68 to 1.36) |
| Taiwan | 1 | 1,846,464 | 48 | 0.52 (0.28 to 0.98) |
| The Netherlands | 1 | 799,000 | 146 | 1.10 (0.50 to 2.00) |
| United Kingdom | 6 | 8,601,972 | 1,880 | 1.61 (1.29 to 2.02) |
| United States | 5 | 56,945,729 | 15,142 | 2.94 (1.64 to 4.23) |

AIH: autoimmune hepatitis.

Supplementary Table 3. National pooled prevalence of AIH included in our systematic review.

| | Number of studies | Number of participants | Patients with EoE | Pooled estimates (95% CI)* |
|-------------------|-------------------|------------------------|-------------------|----------------------------|
| Nation | | | | |
| Brunei Darussalam | 1 | 459,016 | 28 | 6.10 (4.21 to 8.83) |
| Denmark | 2 | 5,696,536 | 1,395 | 40.90 (13.92 to 120.15) |
| Finland | 1 | 6,202,797 | 887 | 14.30 (13.39 to 15.27) |
| France | 1 | 10,761,625 | 47 | 0.44 (0.33 to 0.58) |
| Germany | 1 | 7,391,304 | 1,700 | 23.00 (22.00 to 24.00) |
| Iceland | 2 | 567,556 | 110 | 14.97 (4.56 to 49.16) |
| Israel | 1 | 995,024 | 109 | 10.95 (9.08 to 13.22) |
| Japan | 1 | 187,205 | 48 | 23.40 (21.50 to 25.30) |
| New Zealand | 2 | 1,094,070 | 286 | 26.07 (23.02 to 29.11) |
| Norway | 1 | 130,000 | 25 | 16.92 (11.14 to 25.70) |
| Singapore | 1 | 567,685 | 24 | 4.23 (2.83 to 6.31) |
| South Korea | 1 | 50,008,453 | 12,447 | 4.98 (4.79 to 5.18) |

| | | | | |
|-----------------|---|-------------|--------|------------------------|
| Spain | 1 | 112,003 | 13 | 11.61 (6.74 to 19.99) |
| Sweden | 2 | 7,992,279 | 1,107 | 14.17 (7.93 to 20.42) |
| The Netherlands | 1 | 799,000 | 146 | 18.30 (17.30 to 19.40) |
| United Kingdom | 2 | 6,869,972 | 1,807 | 26.62 (12.11 to 41.12) |
| United States | 5 | 125,734,165 | 35,578 | 29.55 (27.82 to 31.28) |

AIH: autoimmune hepatitis.

Supplementary Table 4. Time trends in AIH pooled incidence included in our systematic review.

| | Number of studies | Number of participants | Patients with EoE | Pooled estimates (95% CI)* | I ² (%) | <i>P</i> value for I ² |
|----------------------|-------------------|------------------------|-------------------|----------------------------|--------------------|-----------------------------------|
| Time trends(year) | | | | | | |
| -1999 | 13 | 15,532,702 | 355 | 1.05 (0.79 to 1.32)) | 65.55 | <0.0001 |
| 2000-2004 | 13 | 24,325,072 | 451 | 1.60 (1.24 to 1.96) | 78.70 | <0.0001 |
| 2005-2009 | 19 | 36,731,142 | 736 | 1.74 (1.42 to 2.06) | 80.10 | <0.0001 |
| 2010-2014 | 15 | 90,024,049 | 2,700 | 2.10 (1.74 to 2.47) | 91.42 | <0.0001 |
| 2015-2022 | 5 | 43,043,672 | 11,773 | 3.26 (1.49 to 5.03) | 98.07 | <0.0001 |
| <i>P</i> trend value | | | | | | <0.0001 |

AIH: autoimmune hepatitis.

Supplementary Table 5. Time trends in AIH pooled prevalence included in our systematic review.

| | Number of studies | Number of participants | Patients with EoE | Pooled estimates (95% CI)* | I ² (%) | <i>P</i> value for I ² |
|----------------------|-------------------|------------------------|-------------------|----------------------------|--------------------|-----------------------------------|
| Time trends(year) | | | | | | |
| -1999 | 5 | 11,786,029 | 159 | 9.95 (4.77 to 15.13) | 95.58 | <0.0001 |
| 2000-2004 | 2 | 4,439,542 | 486 | 11.00 (8.94 to 13.05) | 0.00 | 0.85 |
| 2005-2009 | 4 | 6,185,188 | 909 | 16.00 (5.76 to 26.25) | 99.24 | <0.0001 |
| 2010-2014 | 7 | 71,235,088 | 7,352 | 16.90 (9.38 to 24.42) | 99.80 | <0.0001 |
| 2015-2022 | 8 | 136,088,373 | 37,830 | 27.91 (24.86 to 30.96) | 99.32 | <0.0001 |
| <i>P</i> trend value | | | | | | <0.0001 |

AIH: autoimmune hepatitis.

Supplementary Table 6. Subgroup differences in incidence of AIH.

| | Number of studies | Group A | Pooled estimates of group A (95% CI)* | Group B | Pooled estimates of group B (95% CI)* | Mean difference between group A and B, % (95% CI) | P-value |
|--------------------|-------------------|---------------|---------------------------------------|---------------|---------------------------------------|---|------------------|
| Income | 30 | HDI > 0.92 | 1.63 (1.28–2.07) | HDI < 0.92 | 0.73 (0.49–1.08) | 0.90 (0.41 to 1.39) | <0.001 |
| Gender | 17 | Female | 2.79 (2.14–3.64) | Male | 0.90 (0.65–1.24) | 1.89 (1.08 to 2.70) | <0.001 |
| Age | 21 | Children | 0.35 (0.24–0.52) | Adults | 1.45(1.22–1.73) | 1.10 (0.81 to 1.39) | <0.001 |
| | 12 | Children | 0.35 (0.24–0.52) | Elderly | 3.59 (2.76–4.68) | 3.24 (2.27 to 4.21) | <0.001 |
| Geographical areas | 10 | Asia | 0.99 (0.60–1.64) | North America | 3.35 (2.71–4.13) | 2.36 (1.48 to 3.24) | <0.001 |
| | 23 | Asia | 0.99 (0.60–1.64) | Europe | 1.38 (1.18–1.61) | 0.39 (-0.17 to 0.95) | 0.17 |
| | 8 | Asia | 0.99 (0.60–1.64) | Oceania | 1.90 (1.59–2.28) | 0.91 (0.29 to 1.53) | 0.0040 |
| | 23 | North America | 3.35 (2.71–4.13) | Europe | 1.38 (1.18–1.61) | 1.97 (1.23 to 2.71) | <0.001 |

| | | | | | | | |
|---------------------|----|----------------------|------------------|------------|------------------|----------------------------|------------------|
| | 8 | North America | 3.35 (2.71–4.13) | Oceania | 1.90 (1.59–2.28) | 1.45 (0.66 to 2.24) | <0.001 |
| | 21 | Europe | 1.38 (1.18–1.61) | Oceania | 1.90 (1.59–2.28) | 0.52 (0.11 to 0.93) | 0.012 |
| Geographic latitude | 30 | Above 45° | 1.83 (1.43–2.35) | Below 45° | 0.93 (0.67–1.31) | 0.90 (0.34 to 1.46) | 0.0020 |
| Data source | 28 | Researcher validated | 1.29 (1.02–1.63) | Code-based | 2.17 (1.48–3.17) | 0.88 (-0.02 to 1.78) | 0.055 |

Abbreviations: AIH: autoimmune hepatitis; *HDI*: human development index; *CI*, confidential interval.

The numbers in bold indicate a significant difference (P-value <0.05).

Supplementary Table 7. Subgroup differences in prevalence of AIH.

| | Number of studies | Group A | Pooled estimates of group A (95% CI)* | Group B | Pooled estimates of group B (95% CI)* | Mean difference between group A and B, % (95% CI) | P-value |
|--------------------|-------------------|------------|---------------------------------------|---------------|---------------------------------------|---|------------------|
| Income | 24 | HDI > 0.92 | 19.97 (17.00–23.44) | HDI < 0.92 | 9.15 (6.11–13.72)) | 10.82 (5.84 to 15.80) | <0.001 |
| Gender | 13 | Female | 28.04 (21.31–36.89) | Male | 8.05 (5.87–11.04) | 19.99 (11.78 to 28.20) | <0.001 |
| Age | 14 | Children | 2.04 (1.01–4.14) | Adults | 16.05 (13.01–19.80) | 14.01 (10.27 to 17.75) | <0.001 |
| | 8 | Children | 2.04 (1.01–4.14) | Elderly | 44.05 (33.65–57.67) | 42.01 (29.90 to 54.12) | <0.001 |
| Geographical areas | 8 | Asia | 8.06 (3.39–19.16) | North America | 29.57 (27.84–31.40) | 21.50 (13.41 to 29.58) | <0.001 |
| | 17 | Asia | 8.06 (3.39–19.16) | Europe | 16.56 (13.31–20.61) | 8.50 (-0.19 to 17.19) | 0.055 |
| | 7 | Asia | 8.06 (3.39–19.16) | Oceania | 26.22 (23.32–29.47) | 18.16 (9.70 to 26.62) | <0.001 |

| | | | | | | | |
|---------------------|----|----------------------|----------------------|------------|---------------------|------------------------------|------------------|
| | 15 | North America | 29.57 (27.84–31.40) | Europe | 16.56 (13.31–20.61) | 13.01 (8.95 to 17.07) | <0.001 |
| | 5 | North America | 29.57 (27.84–31.40) | Oceania | 26.22 (23.32–29.47) | 3.35 (-0.20 to 6.90) | 0.065 |
| | 14 | Europe | 16.56 (13.31–20.61) | Oceania | 26.22 (23.32–29.47) | 9.66 (4.89 to 14.43) | <0.001 |
| Geographic latitude | 24 | Above 45° | 23.09 (21.33–25.00) | Below 45° | 10.19 (4.99–20.79) | 12.90 (4.79 to 21.01) | 0.0020 |
| Data source | 23 | Researcher validated | 15.53 (12.94–18.64)) | Code-based | 20.55 (16.21–26.06) | 5.02 (-0.67 to 10.71) | 0.084 |

Abbreviations: AIH: autoimmune hepatitis; *HDI*: human development index; *CI*, confidential interval.

The numbers in bold indicate a significant difference (P-value <0.05).

Supplementary Table 8. Quality assessment checklist for prevalence studies (adapted from Hoy et al*)

| Study | Was the study's target population a close representation of the national population in relation to relevant variables, e.g. age, sex, occupation? | Was the sampling frame a true or close representation of the target population? | Was some form of random selection used to select the sample, OR, was a census undertaken? | Was the likelihood of non-response bias minimal? | Were data collected directly from the subjects (as opposed to a proxy)? | Was an acceptable case definition used in the study? | Was the study instrument that measured the parameter of interest (e.g. prevalence of low back pain) shown to have reliability and validity (if necessary)? | Was the same mode of data collection used for all subjects? | Were the numerator(s) and denominator(s) for the parameter of interest appropriate | Summary on the overall risk of study bias |
|-----------------------|---|---|---|--|---|--|--|---|--|---|
| Bjarnason et al, 1982 | No | Yes | No | Yes | No | No | Yes | Yes | No | Moderate |
| Hodges et al, 1982 | Yes | Yes | No | Yes | No | No | Yes | Yes | No | Moderate |
| Ritland et al, 1985 | Yes | Yes | No | Yes | No | No | No | Yes | No | Moderate |
| Homberg et al, 1987 | Yes | Yes | No | Yes | Yes | No | Yes | Yes | Yes | Low |
| Tanner et al, 1989 | No | Yes | No | Yes | No | No | Yes | Yes | Yes | Moderate |

| | | | | | | | | | | |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| Byron et al, 1996 | No | Yes | No | Yes | Yes | No | Yes | Yes | Yes | Low |
| Boberg et al, 1998 | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Low |
| Lee et al, 2001 | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Low |
| Hurlburt et al, 2002 | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Low |
| Primo et al, 2004 | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Low |
| Koay et al, 2006 | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Low |
| Whalley et al, 2007 | No | Yes | No | Yes | No | No | No | Yes | Yes | Moderate |
| Werner et al, 2008 | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Low |
| Primo et al, 2009 | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Low |
| Ngu et al, 2010 | No | Yes | No | Yes | Yes | Yes | Yes | No | Yes | Low |
| Delgado et al, 2013 | No | Yes | No | Yes | No | Yes | No | No | Yes | Moderate |
| Deneau et al, 2013 | No | Yes | No | Yes | No | Yes | Yes | No | Yes | Moderate |
| Gronbaek et al, 2014 | Yes | Yes | Yes | Yes | No | Yes | No | No | Yes | Low |
| Van Gerven et | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Low |

| | | | | | | | | | | |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| al, 2014 | | | | | | | | | | |
| Chong et al, 2015 | Yes | Yes | No | Yes | No | Yes | No | Yes | Yes | Low |
| Jimenez et al, 2015 | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Low |
| Yoshizawa et al, 2016 | No | Yes | No | Yes | No | Yes | No | No | Yes | Moderate |
| Danielsson et al, 2017 | Yes | Yes | Yes | Yes | No | Yes | Yes | No | Yes | Low |
| Kim et al, 2017 | Yes | Yes | Yes | Yes | No | No | No | Yes | Yes | Low |
| Sharma et al, 2017 | No | Yes | No | Yes | No | No | No | Yes | Yes | Moderate |
| Costaguta et al, 2018 | No | Yes | No | Yes | No | Yes | No | Yes | Yes | Moderate |
| Puustinen et al, 2019 | Yes | Yes | Yes | Yes | No | No | No | Yes | Yes | Low |
| Tanaka et al, 2019 | No | No | Yes | No | No | No | No | Yes | Yes | High |
| Valgeirsson et al, 2019 | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Low |
| Gronbaek et al, 2020 | Yes | Yes | Yes | Yes | No | No | No | Yes | Yes | Low |
| Sebode et al, 2020 | Yes | Yes | Yes | Yes | No | No | No | Yes | Yes | Low |
| Lamba et al, | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Low |

| | | | | | | | | | | |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| 2021 | | | | | | | | | | |
| Tunio et al, 2021 | Yes | Yes | Yes | Yes | No | No | No | Yes | Yes | Low |
| Webb et al, 2021 | Yes | Yes | Yes | No | No | No | No | Yes | Yes | Moderate |
| Bittermann et al, 2022 | Yes | Yes | Yes | Yes | No | No | No | Yes | Yes | Low |
| Sutton et al, 2022 | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Low |
| Nielsen et al, 2023 | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Low |
| Hitawala et al, 2023 | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Low |

*Hoy D, Brooks P, Woolf A, Blyth F, March L, Bain C, et al. Assessing risk of bias in prevalence studies: modification of an existing tool and evidence of interrater agreement. J Clin Epidemiol. 2012;65(9):934-9.

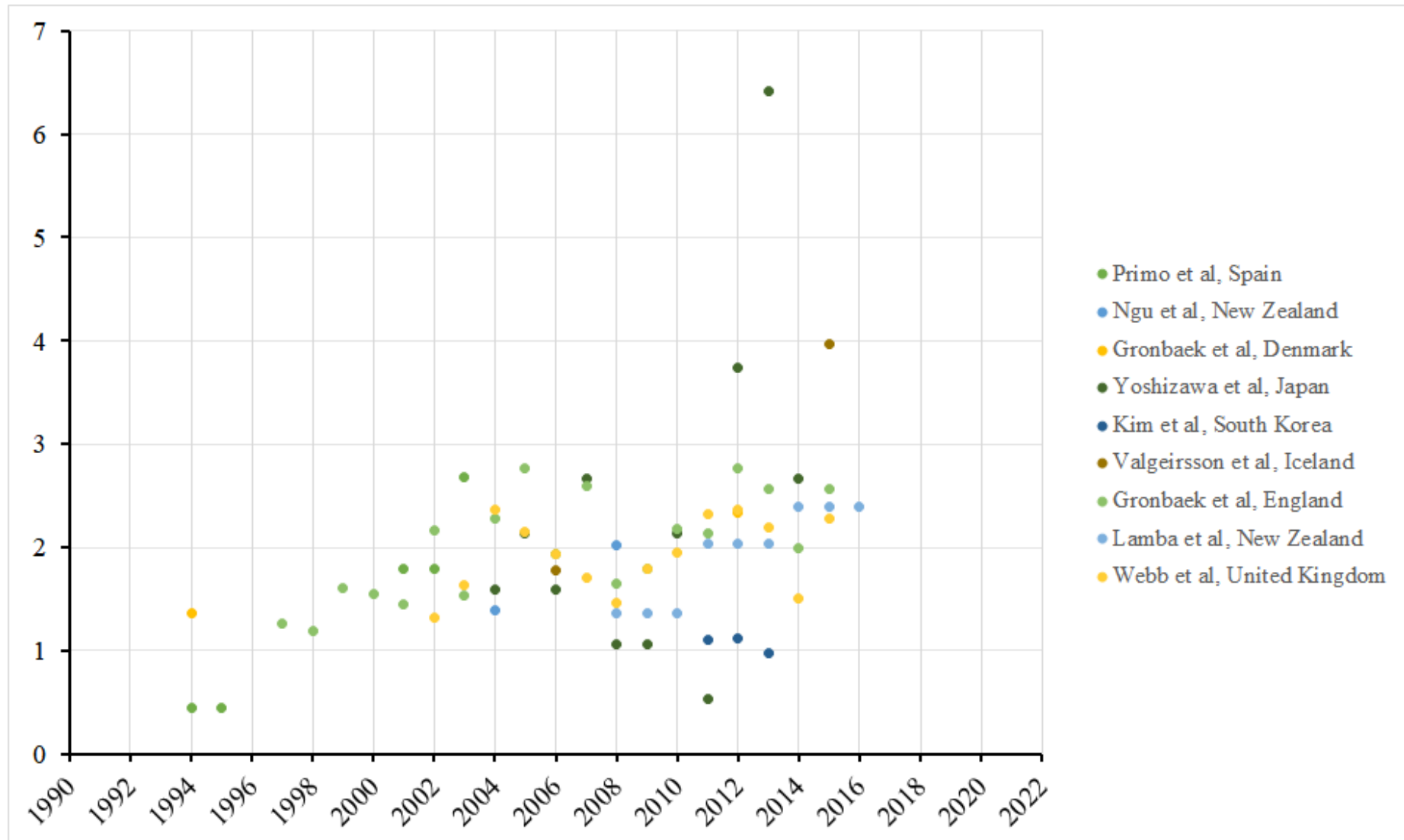
Supplementary Table 9. The change of pooled estimates before and after trim-and-fill.

| | Trim and fill | Number of studies | Pooled estimates (95% CI)* | <i>P</i> value | Egger's <i>P</i> value |
|----------------------------|---------------|-------------------|----------------------------|----------------|------------------------|
| Overall incidence | Before | 33 | 1.28 (1.01–1.63) | 0.079 | < 0.001 |
| | After | 41 | 1.72 (1.38–2.14) | | NA |
| HDI > 0.92 | Before | 26 | 1.63 (1.28–2.07) | 0.61 | 0.0040 |
| | After | 29 | 1.78 (1.41–2.24) | | NA |
| Male | Before | 17 | 0.90 (0.65–1.24) | 0.75 | 0.0090 |
| | After | 20 | 0.97 (0.72–1.34) | | NA |
| Female | Before | 17 | 2.79 (2.14–3.64) | 0.81 | 0.0050 |
| | After | 19 | 2.92 (2.25–3.78) | | NA |
| Adults aged under 65 years | Before | 17 | 1.45 (1.22–1.73) | 0.010 | < 0.001 |
| | After | 26 | 1.99 (1.70–2.34) | | NA |
| Adults aged over 65 years | Before | 8 | 3.59 (2.76–4.68) | 0.61 | < 0.001 |
| | After | 11 | 3.95 (3.06–5.10) | | NA |
| Above 45° | Before | 21 | 1.83 (1.43–2.35) | 0.81 | 0.013 |
| | After | 23 | 1.91 (1.50–2.44) | | NA |
| Before IAIHG | Before | 5 | 1.10 (0.85–1.41) | 0.81 | 0.0070 |
| | After | 8 | 1.15 (0.91–1.47) | | NA |
| Researcher validated | Before | 20 | 1.29 (1.02–1.63) | 0.32 | 0.011 |
| | After | 26 | 1.52 (1.22–1.88) | | NA |
| Code-based | Before | 8 | 2.17 (1.48–3.17) | 1 | 0.041 |
| | After | 8 | 2.17 (1.48–3.17) | | NA |
| Type I AIH | Before | 8 | 1.00 (0.55–1.82) | 1 | 0.027 |
| | After | 8 | 1.00 (0.55–1.82) | | NA |
| Overall prevalence | Before | 26 | 15.65 (13.42–18.24) | 0.42 | 0.030 |
| | After | 28 | 14.31 (12.32–16.63) | | NA |

AIH, autoimmune hepatitis; HDI, human development index; IAIHG, international autoimmune hepatitis group; PBC, primary biliary cholangitis; PSC, primary sclerosing cholangitis; NA, not available.

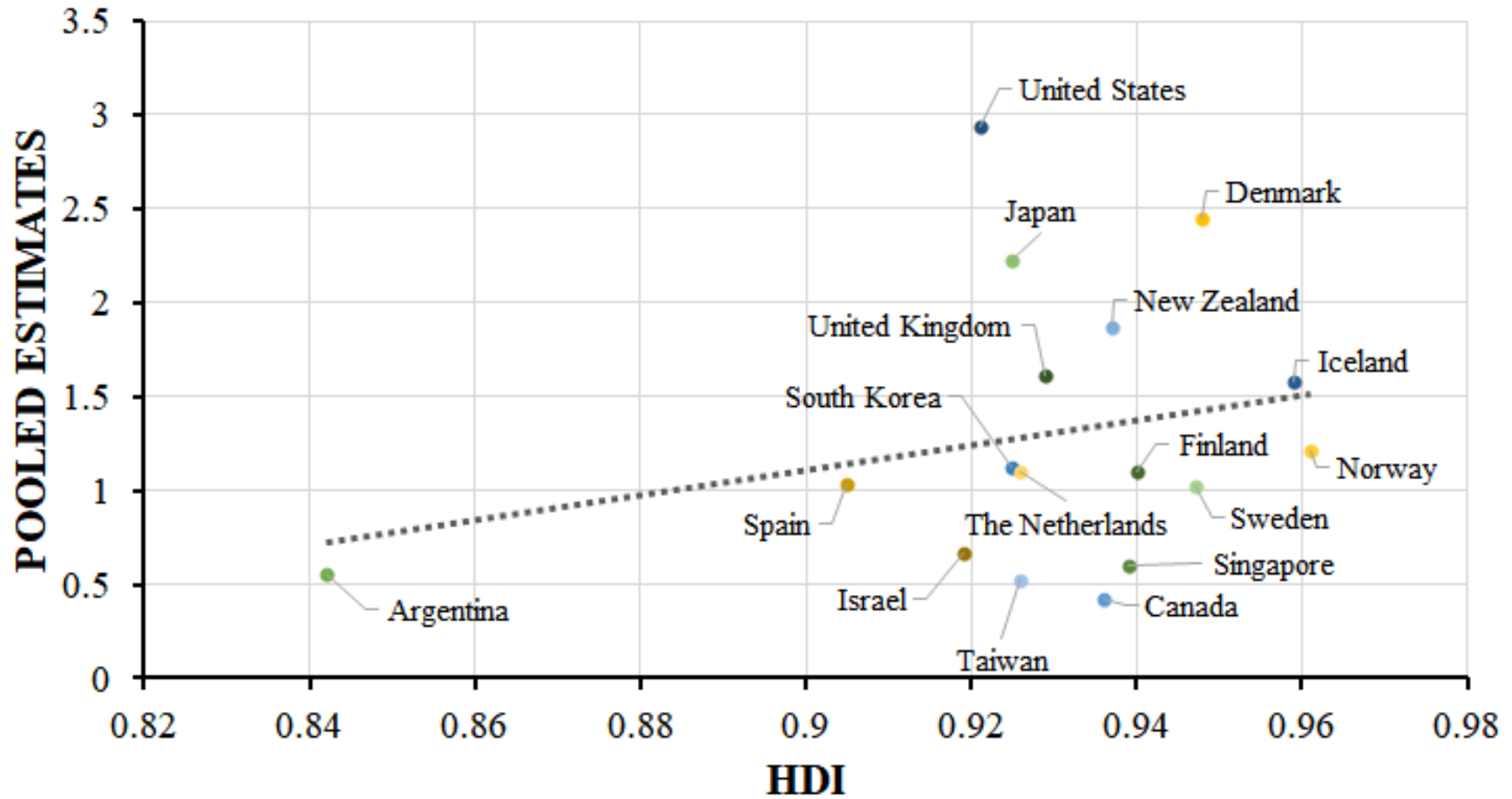
* These results were calculated and estimated using original data.

Supplementary Figure 1. Temporal trends of incidence rates of autoimmune hepatitis included in our systematic review.

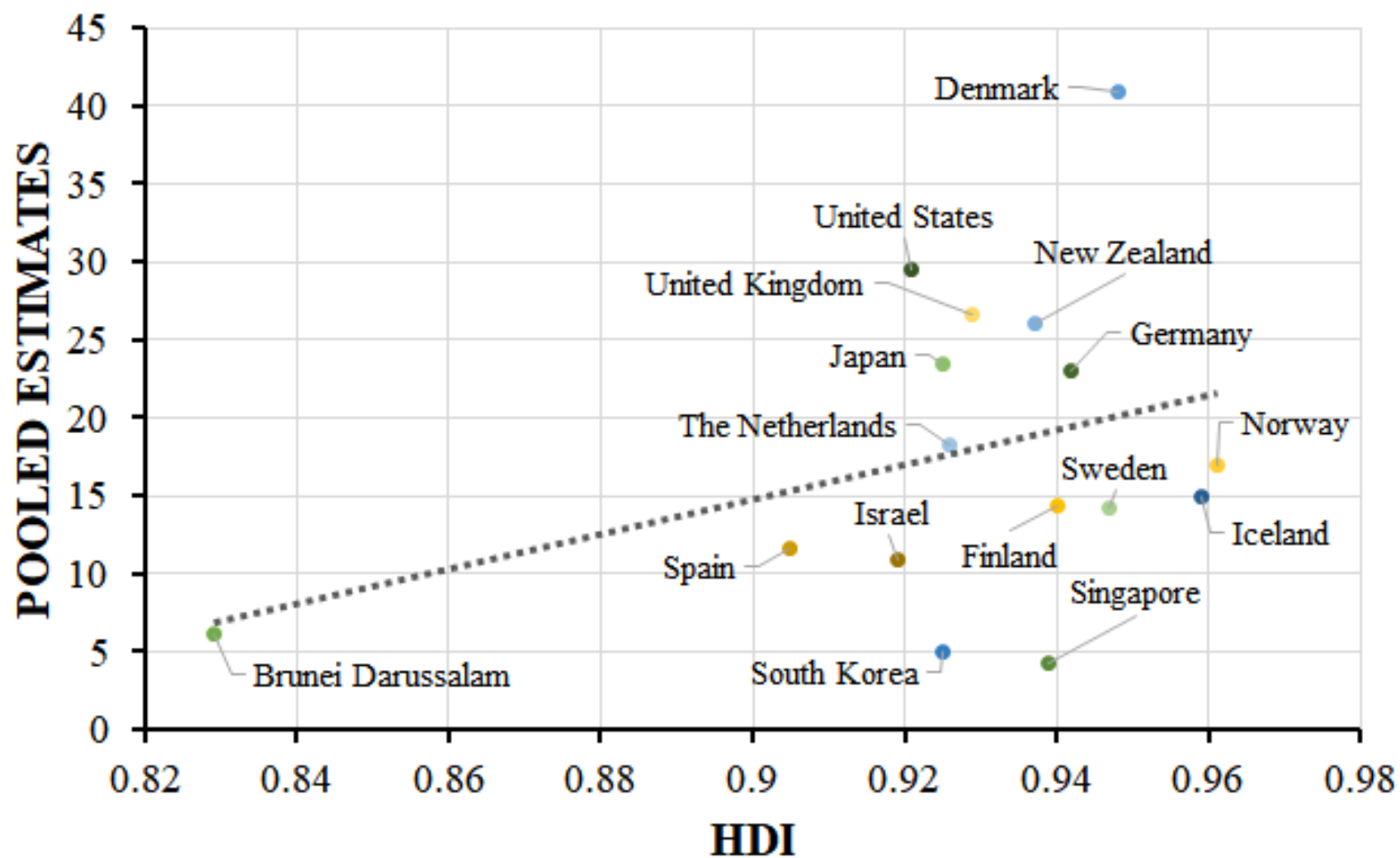


Supplementary Figure 2. Correlation between country-specific human development index and incidence and prevalence of autoimmune hepatitis.

1) Human development index and incidence of autoimmune hepatitis

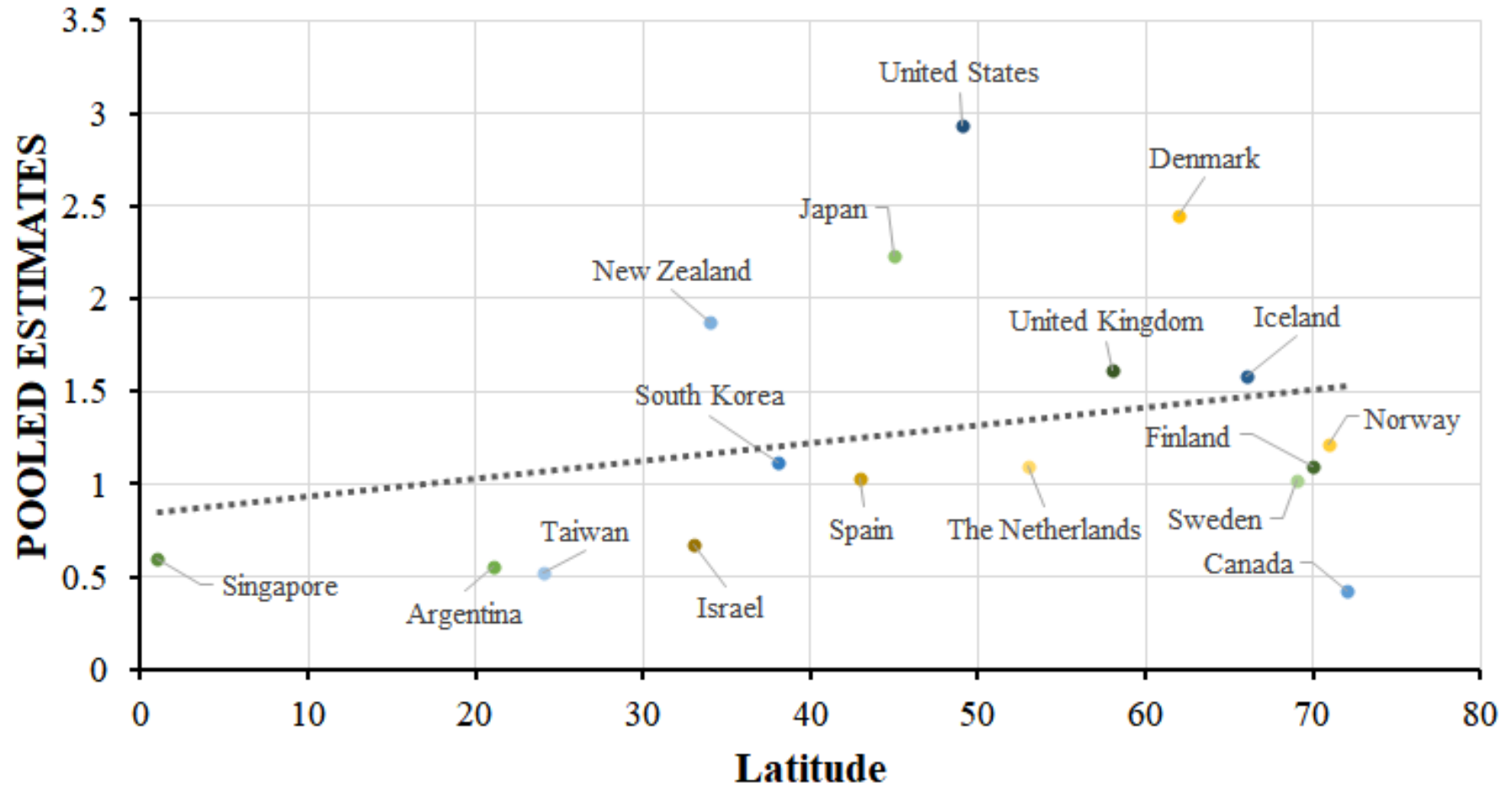


2) Human development index and prevalence of autoimmune hepatitis

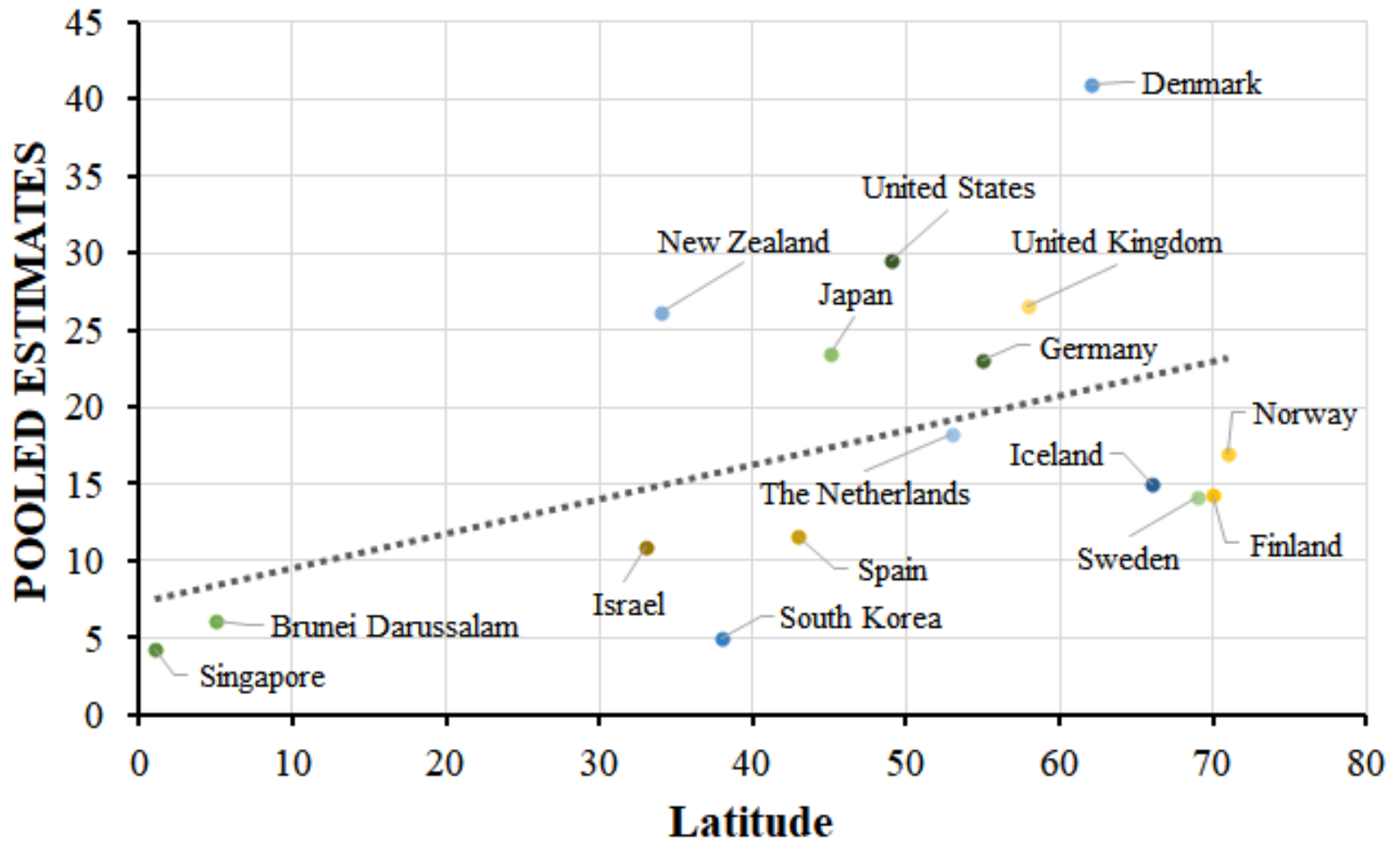


Supplementary Figure 3. Correlation between country-specific latitude and incidence and prevalence of autoimmune hepatitis.

1) Latitude and incidence of autoimmune hepatitis

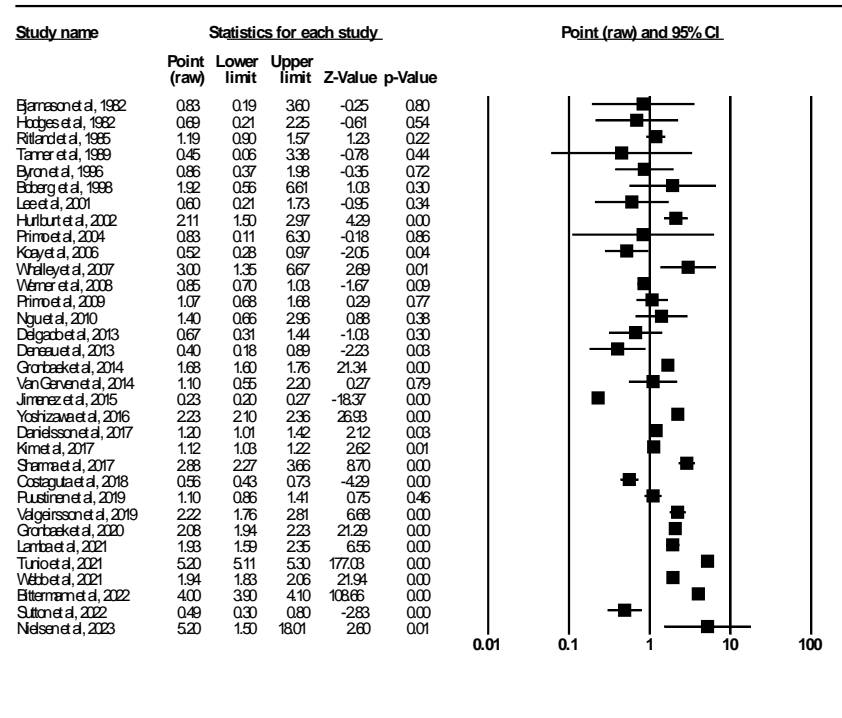


2) Latitude and prevalence of autoimmune hepatitis

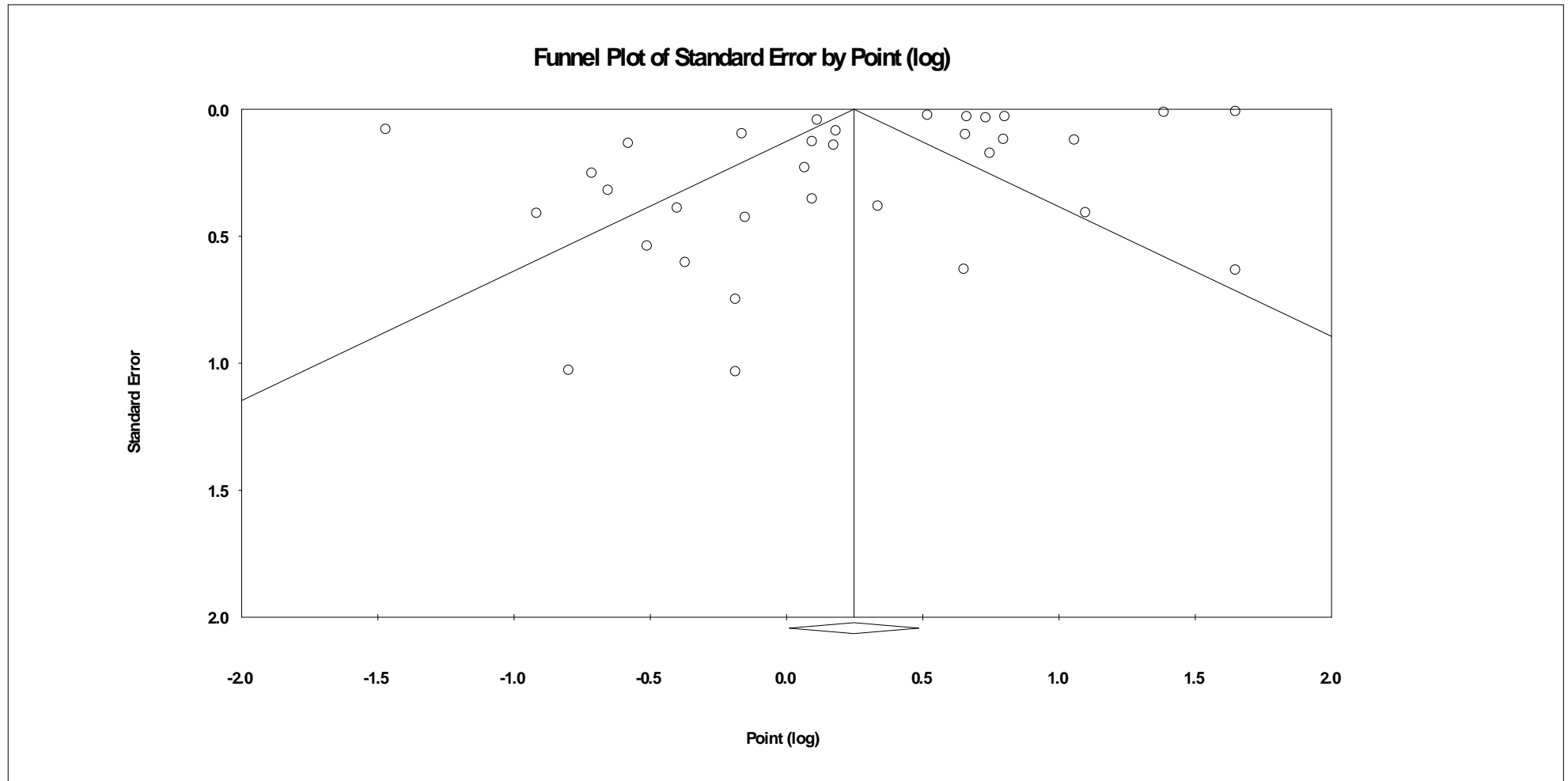


Supplementary Figure 4. Overall incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

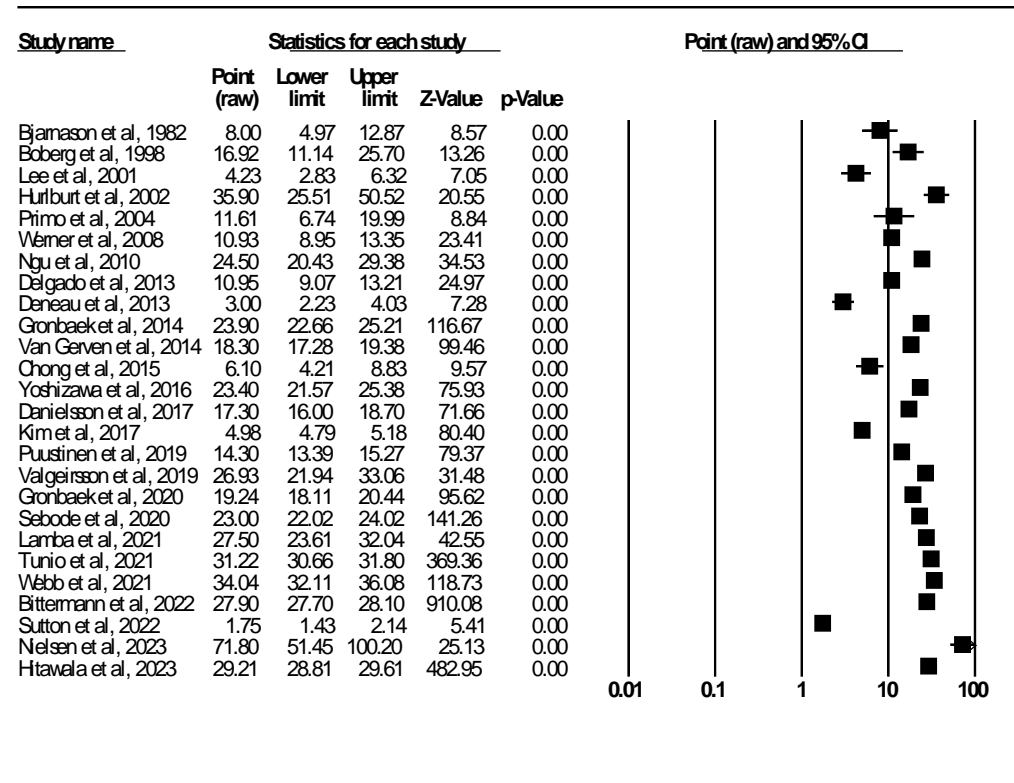


2) Funnel Plot

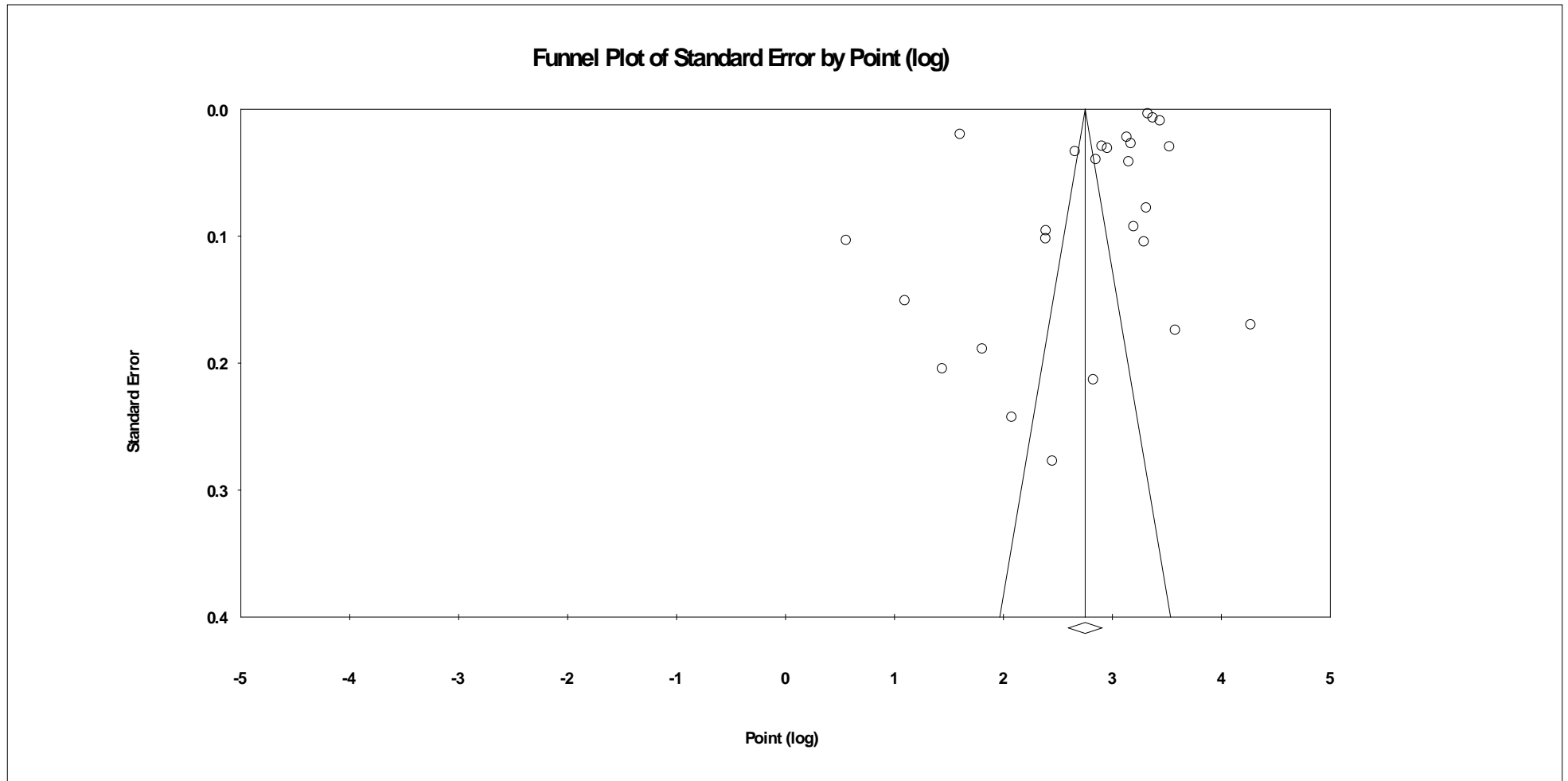


Supplementary Figure 5. Overall prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

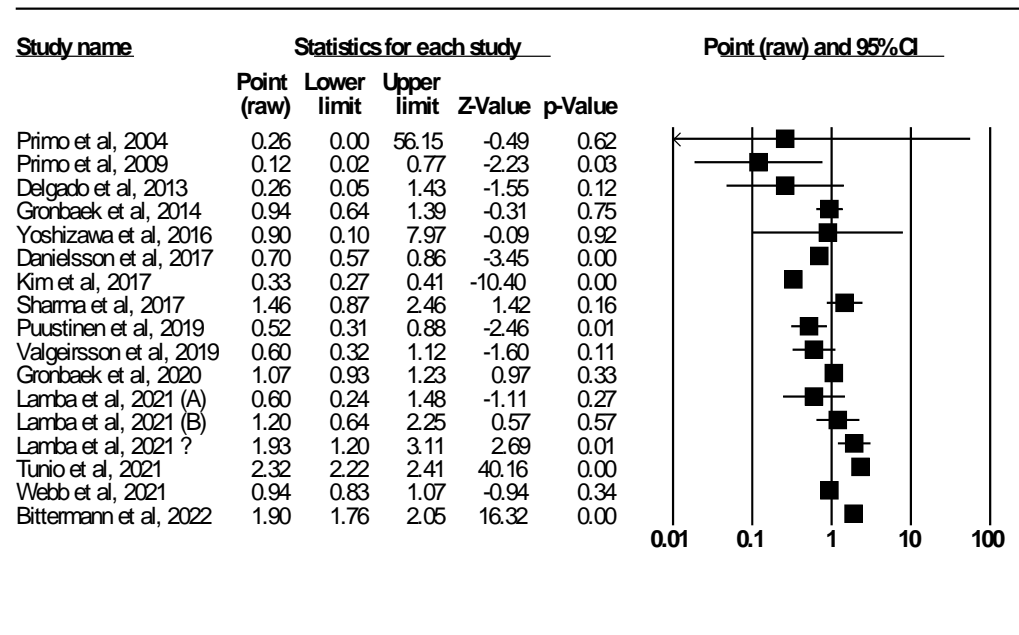


2) Funnel plot

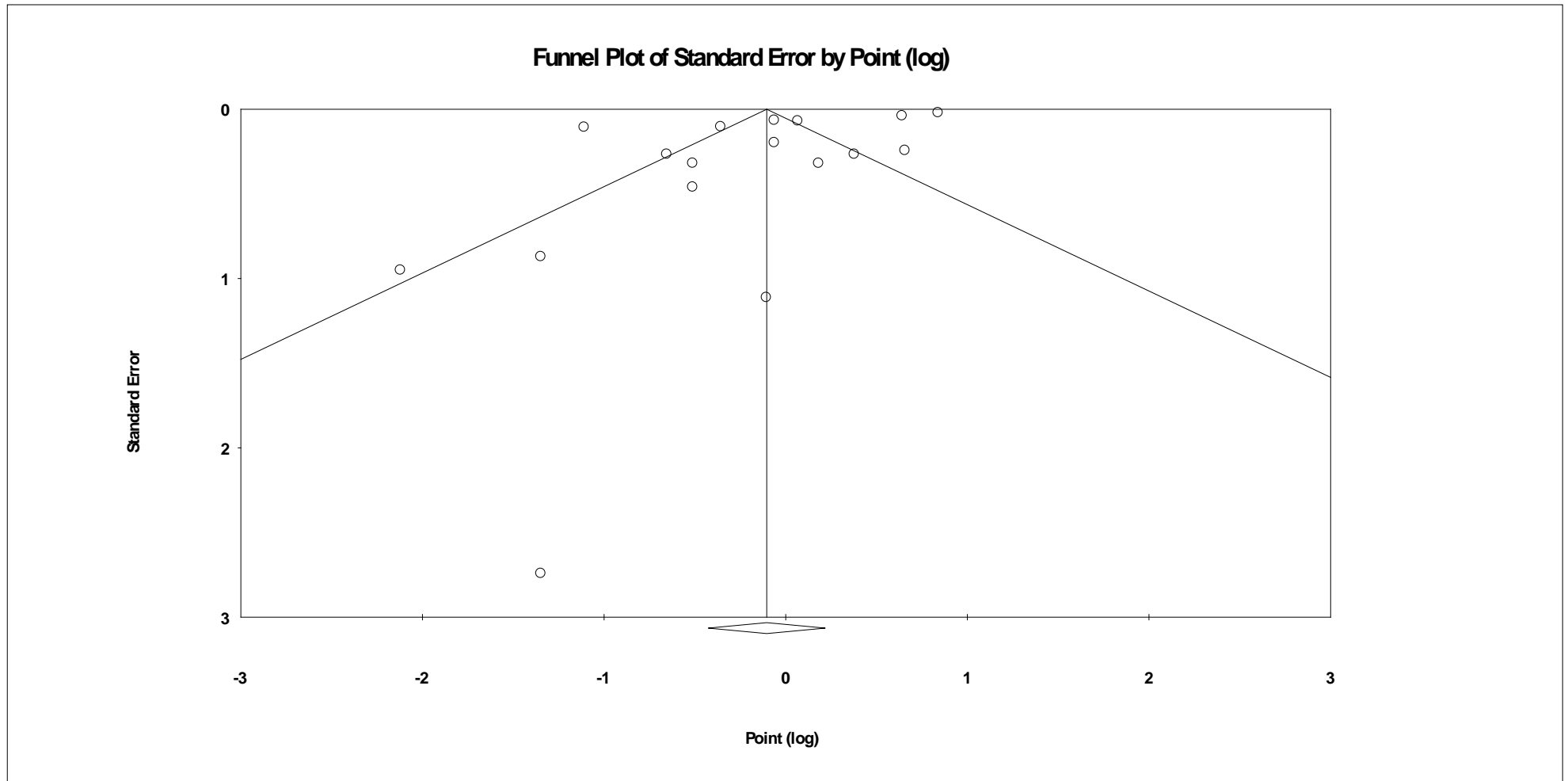


Supplementary Figure 6. Male incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

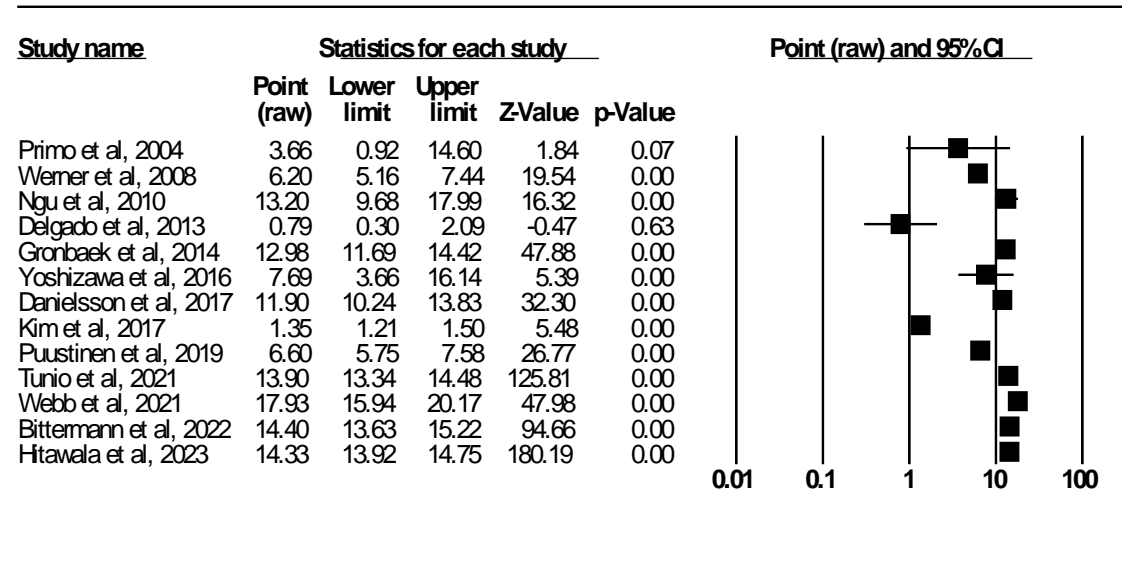


2) Funnel plot

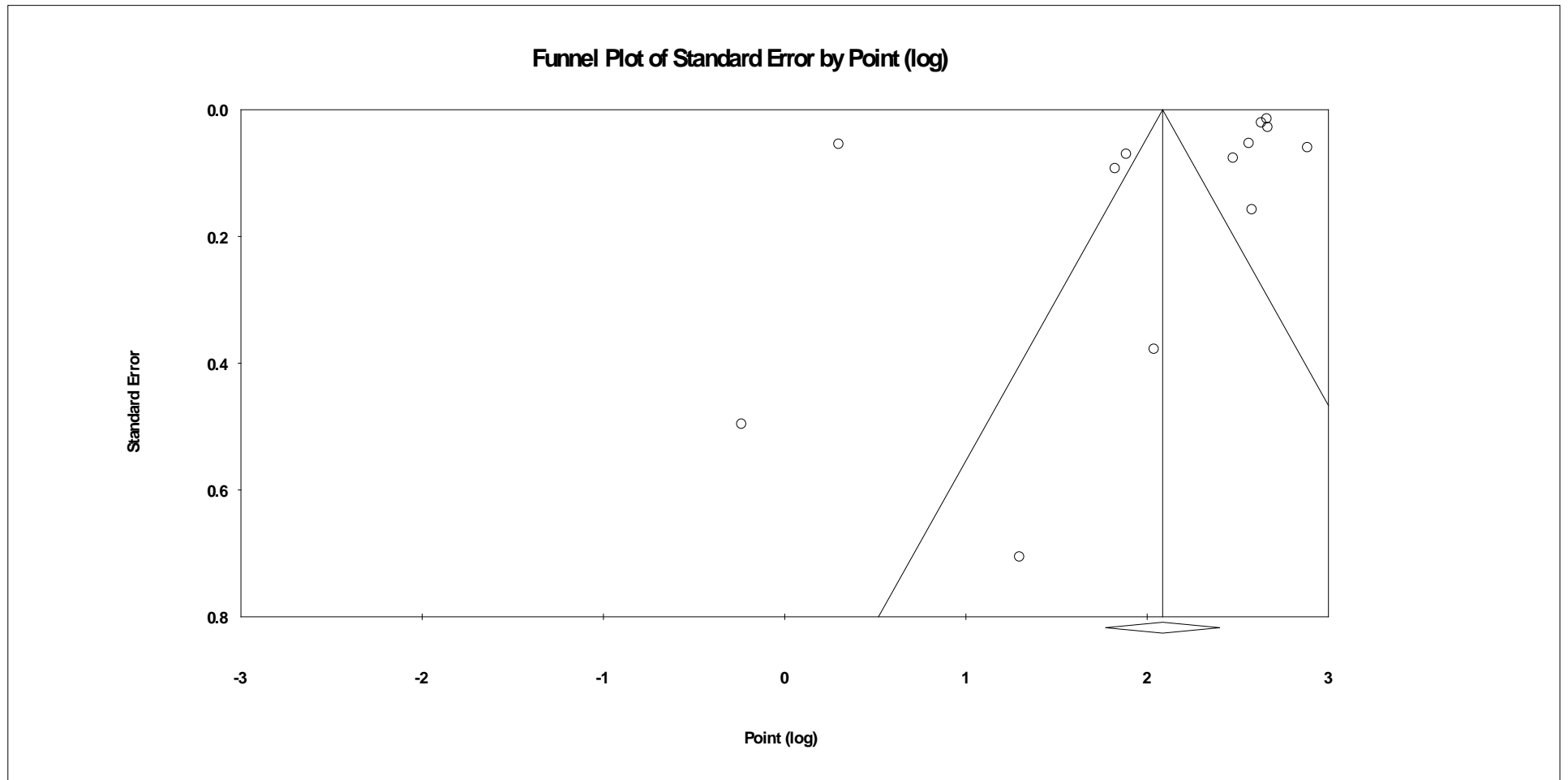


Supplementary Figure 7. Male prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

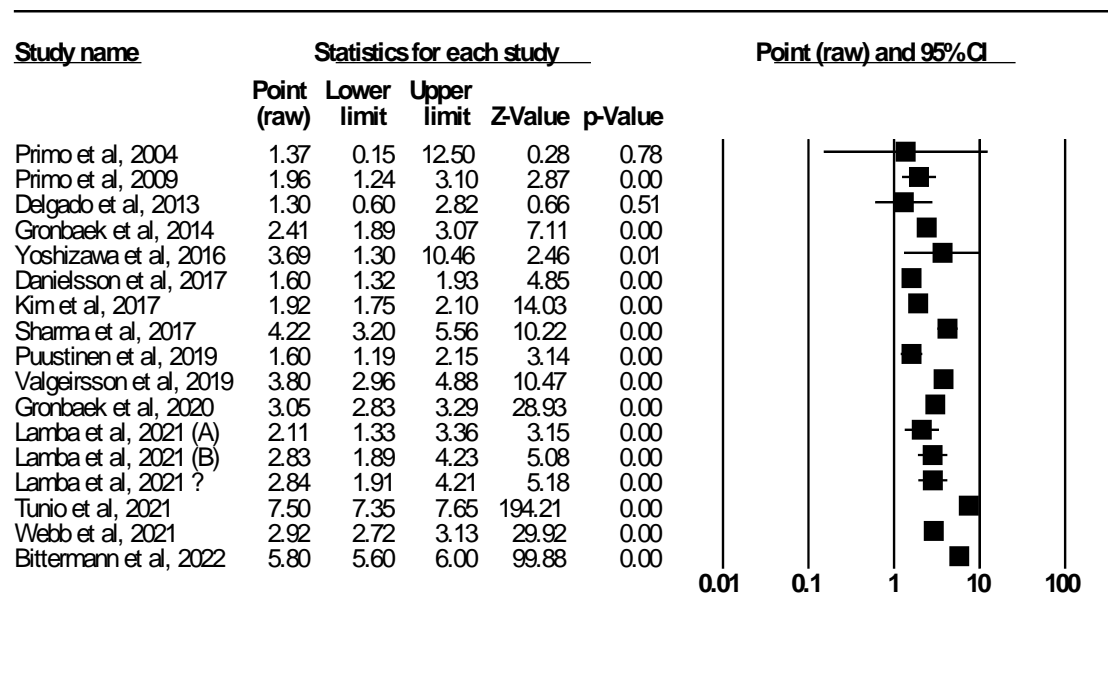


2) Funnel plot

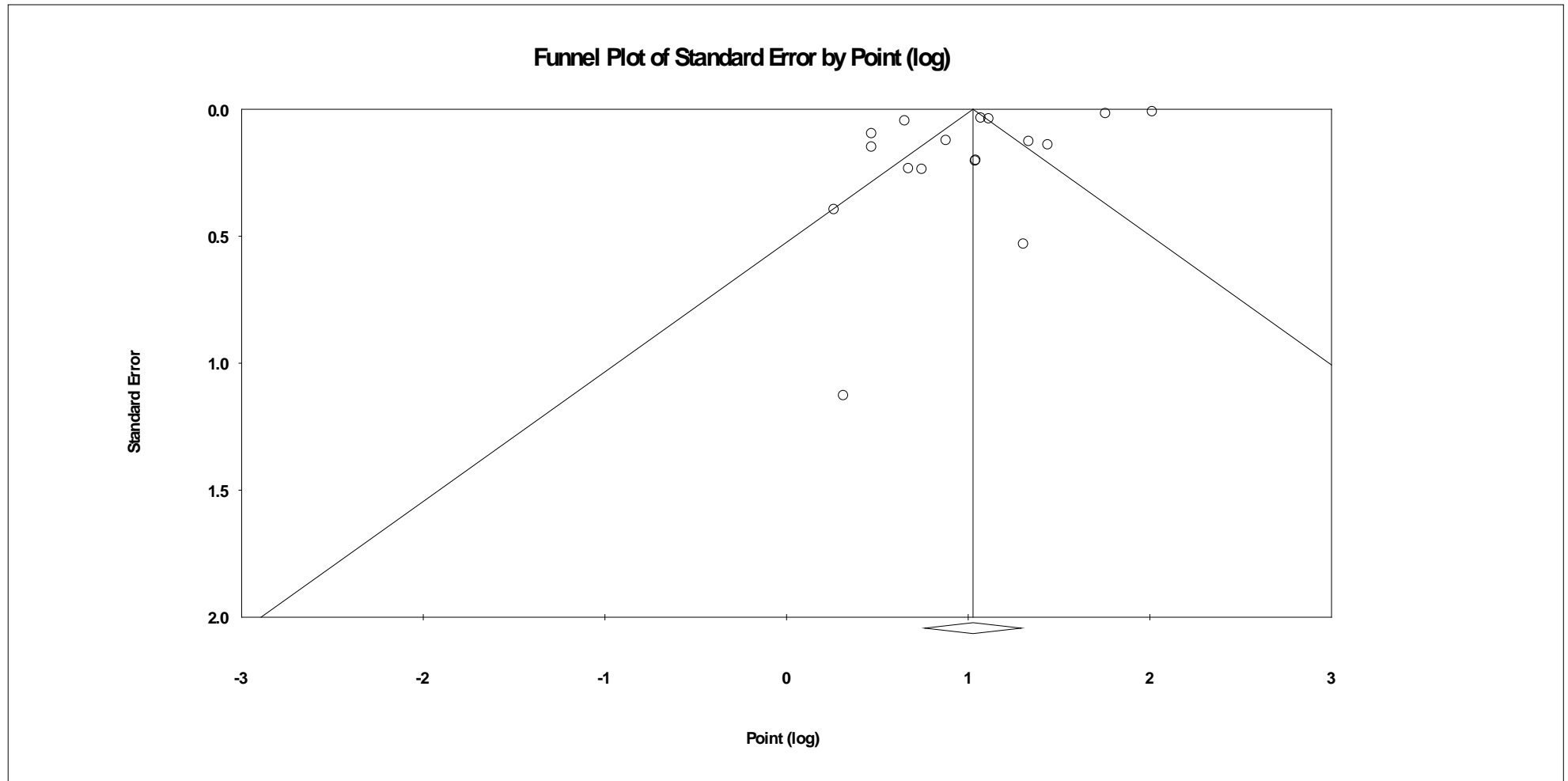


Supplementary Figure 8. Female incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

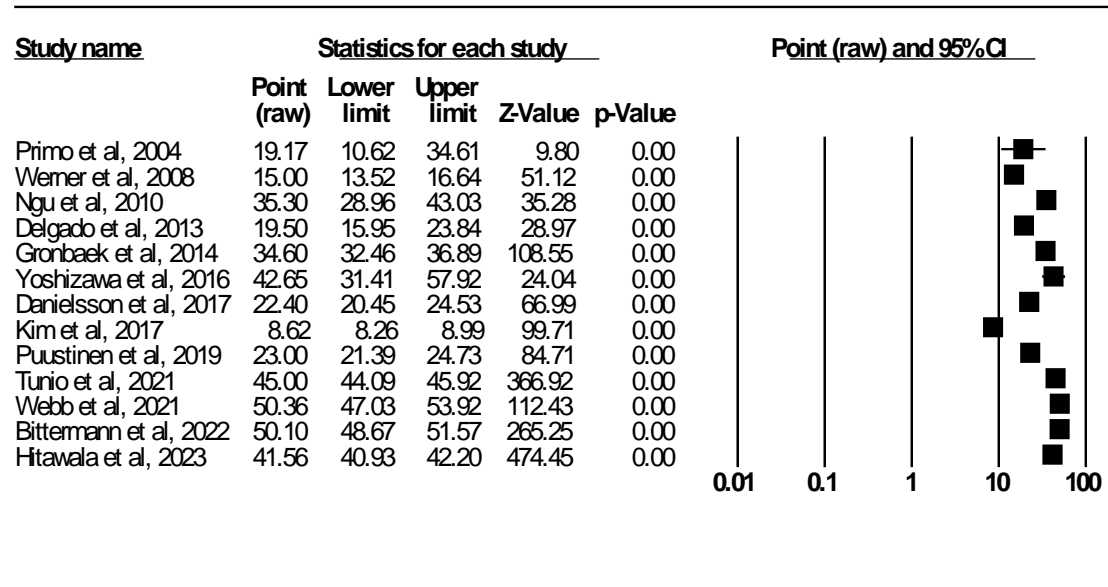


2) Funnel plot

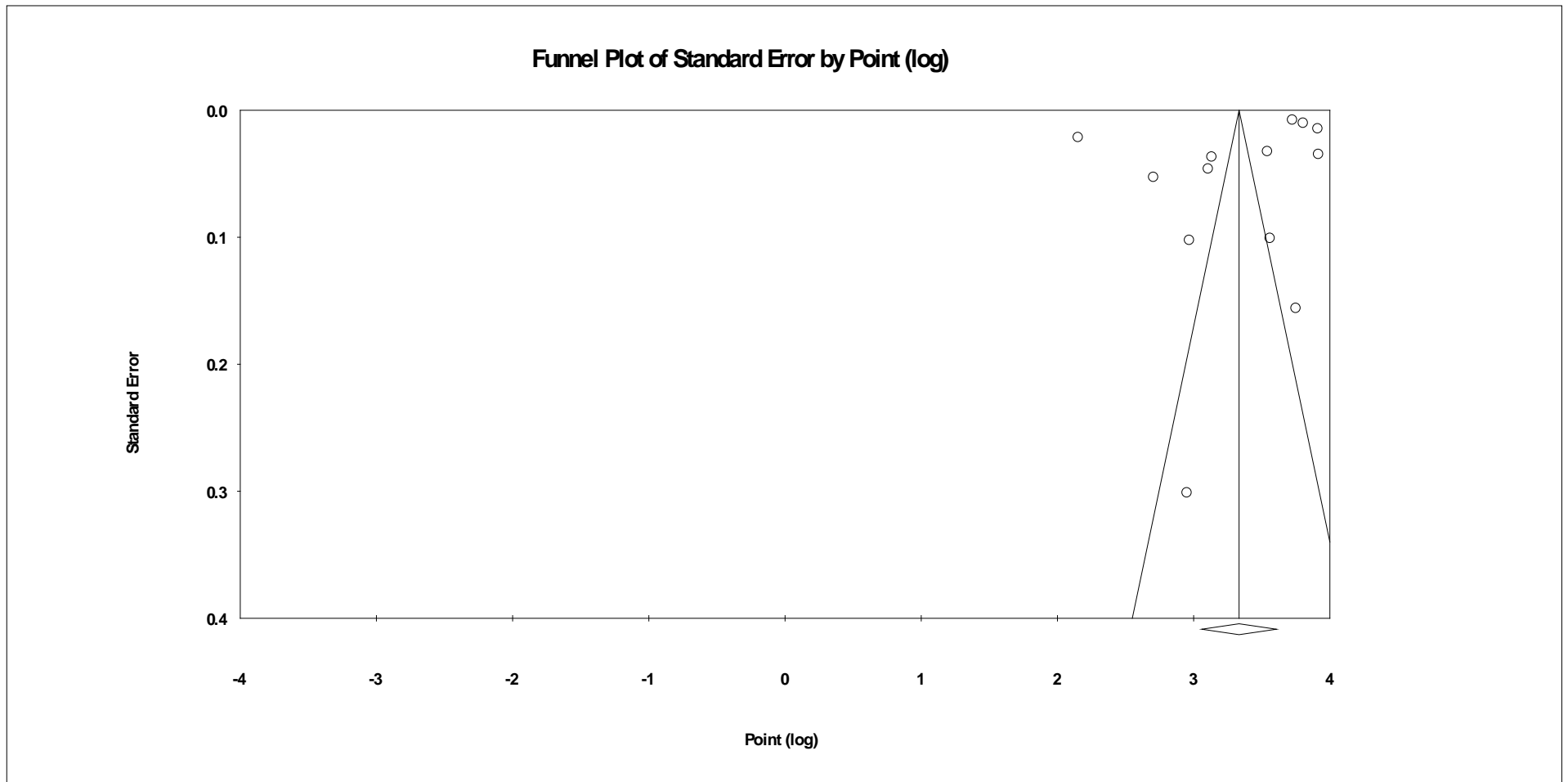


Supplementary Figure 9. Female prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

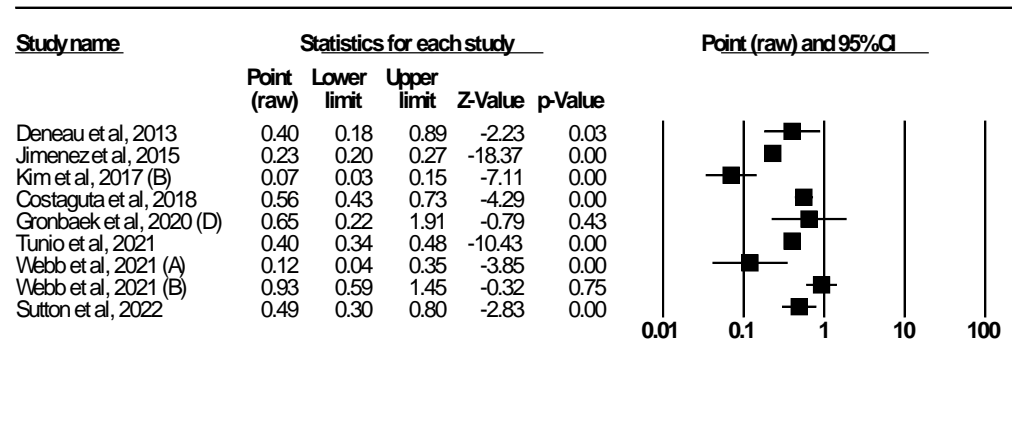


2) Funnel plot

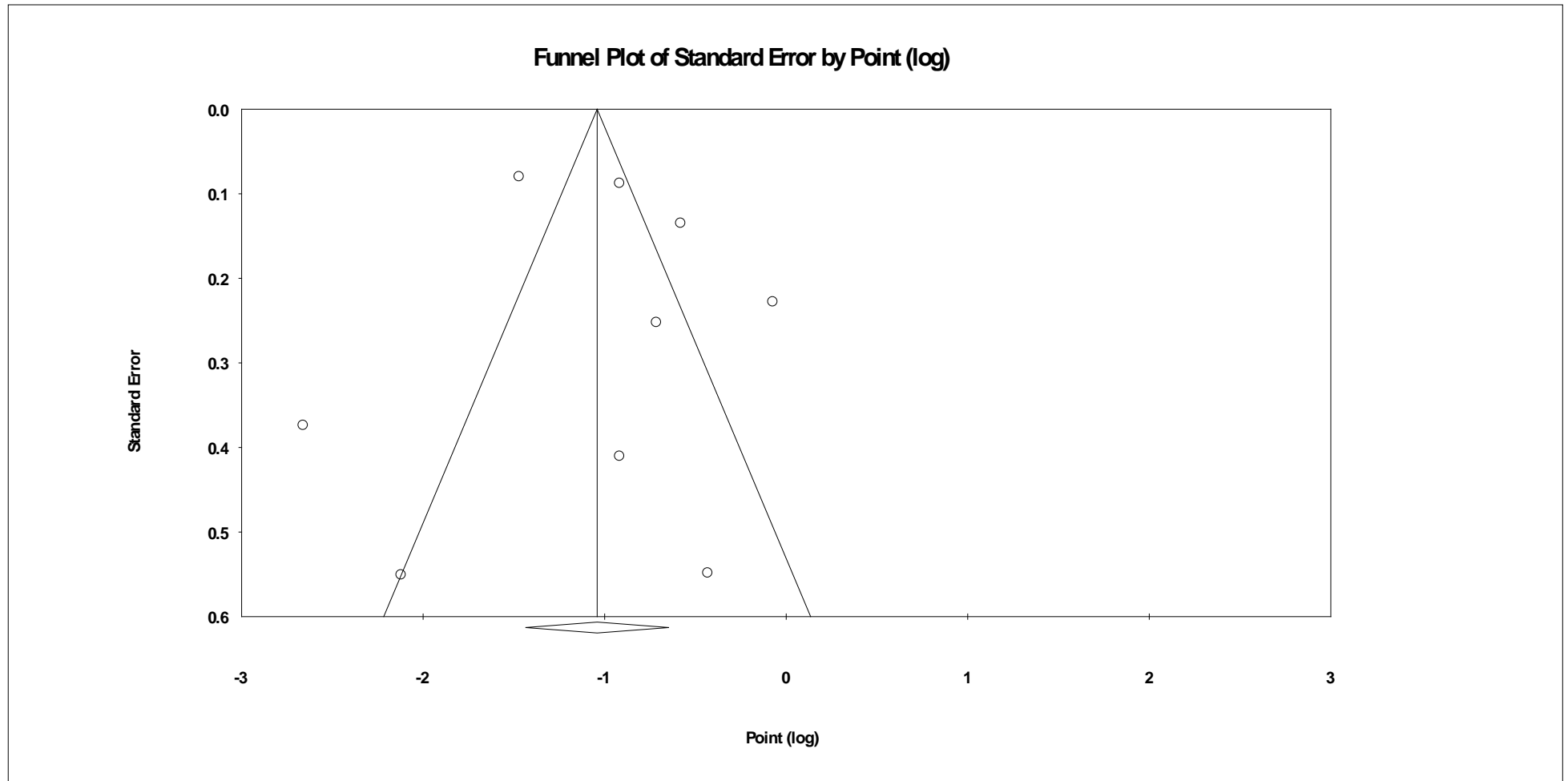


Supplementary Figure 10. Children incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

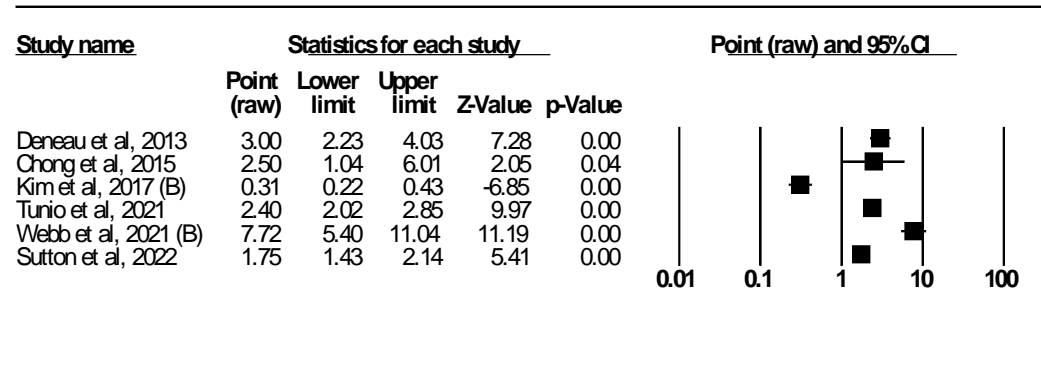


2) Funnel plot

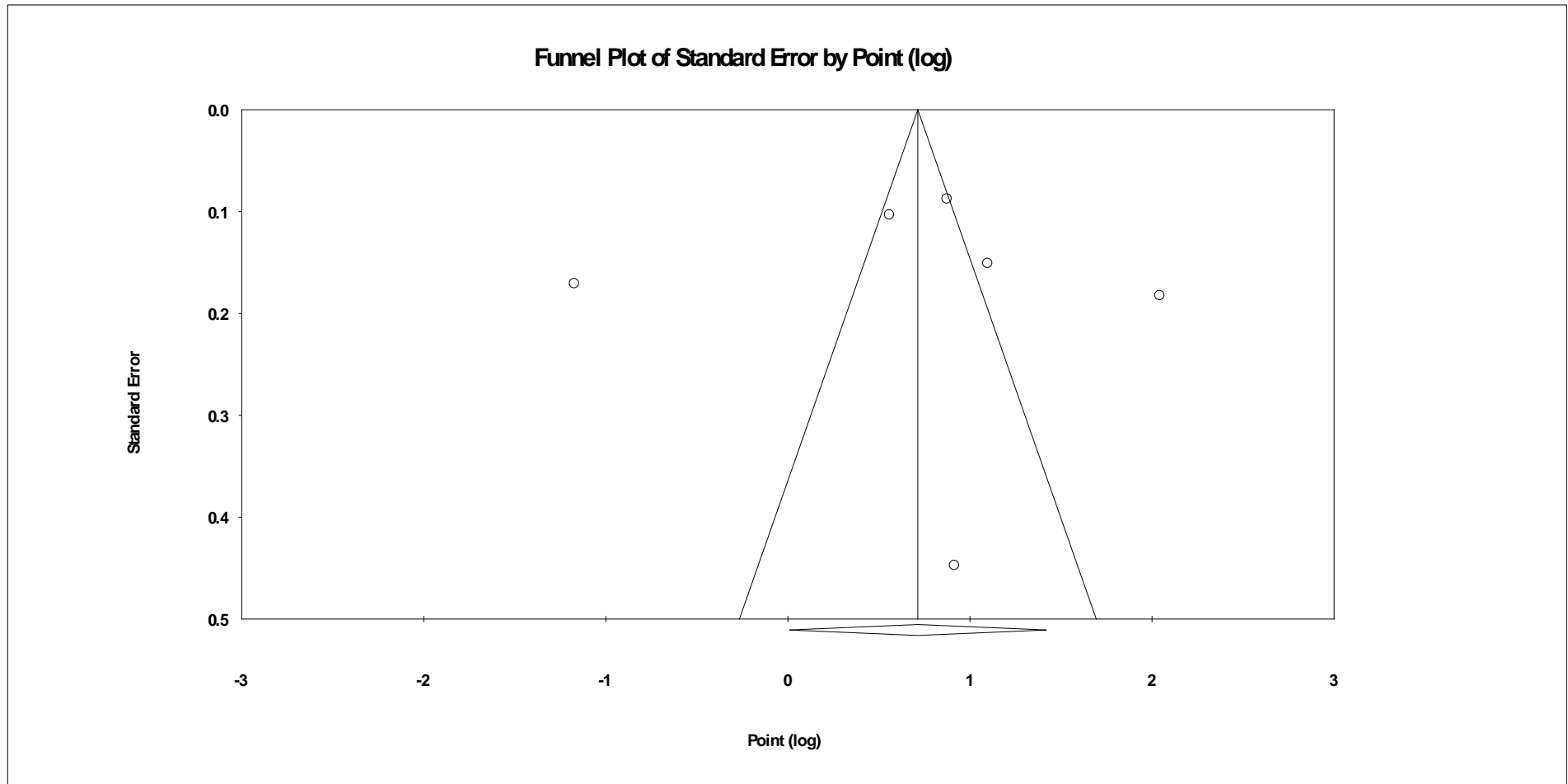


Supplementary Figure 11. Children prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

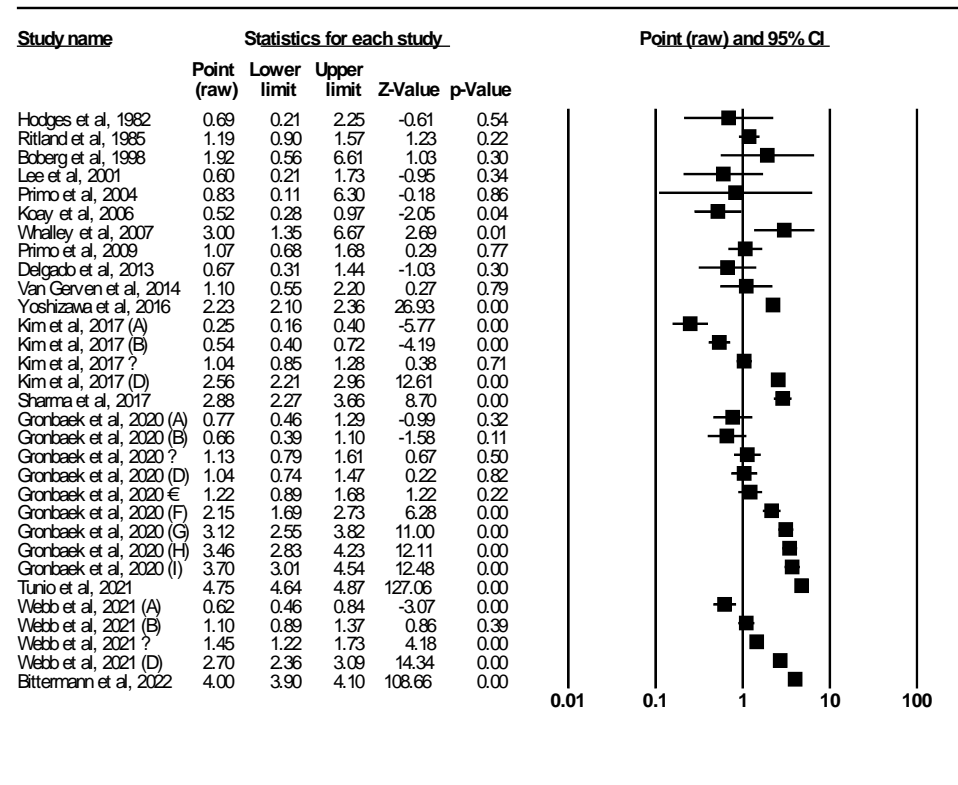


2) Funnel plot

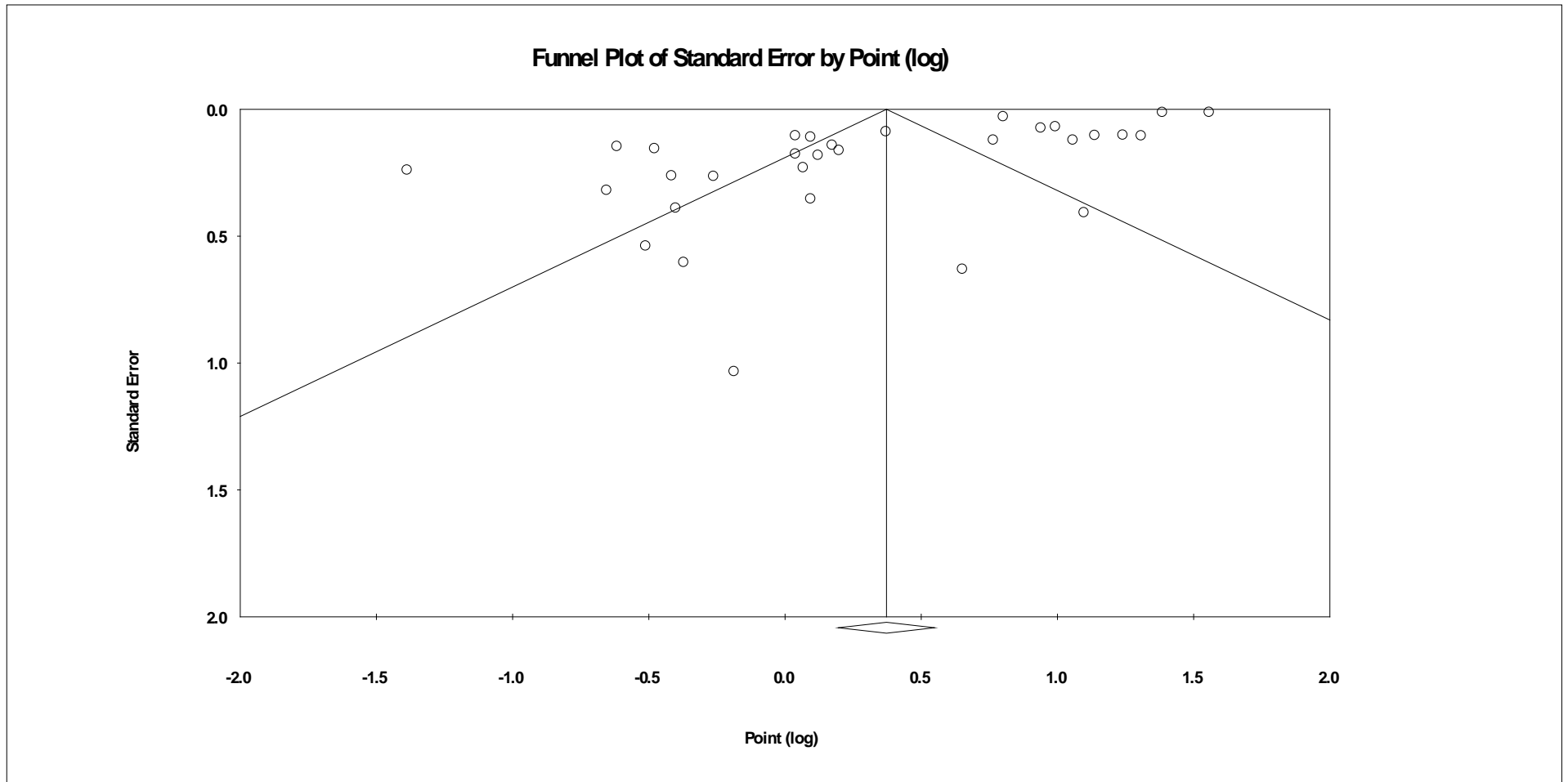


Supplementary Figure 12. Adults aged under 65 years incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

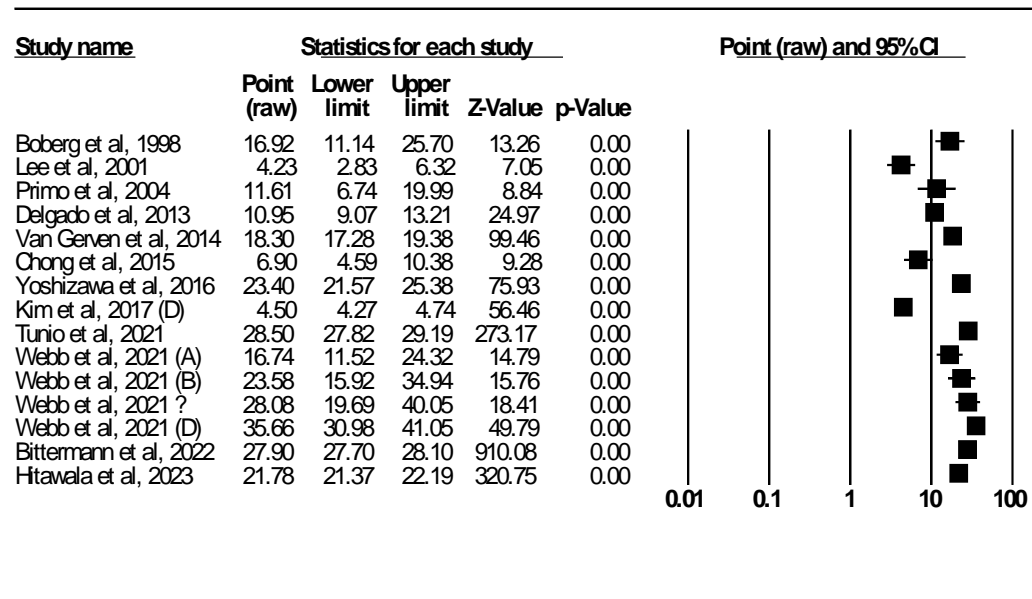


2) Funnel plot

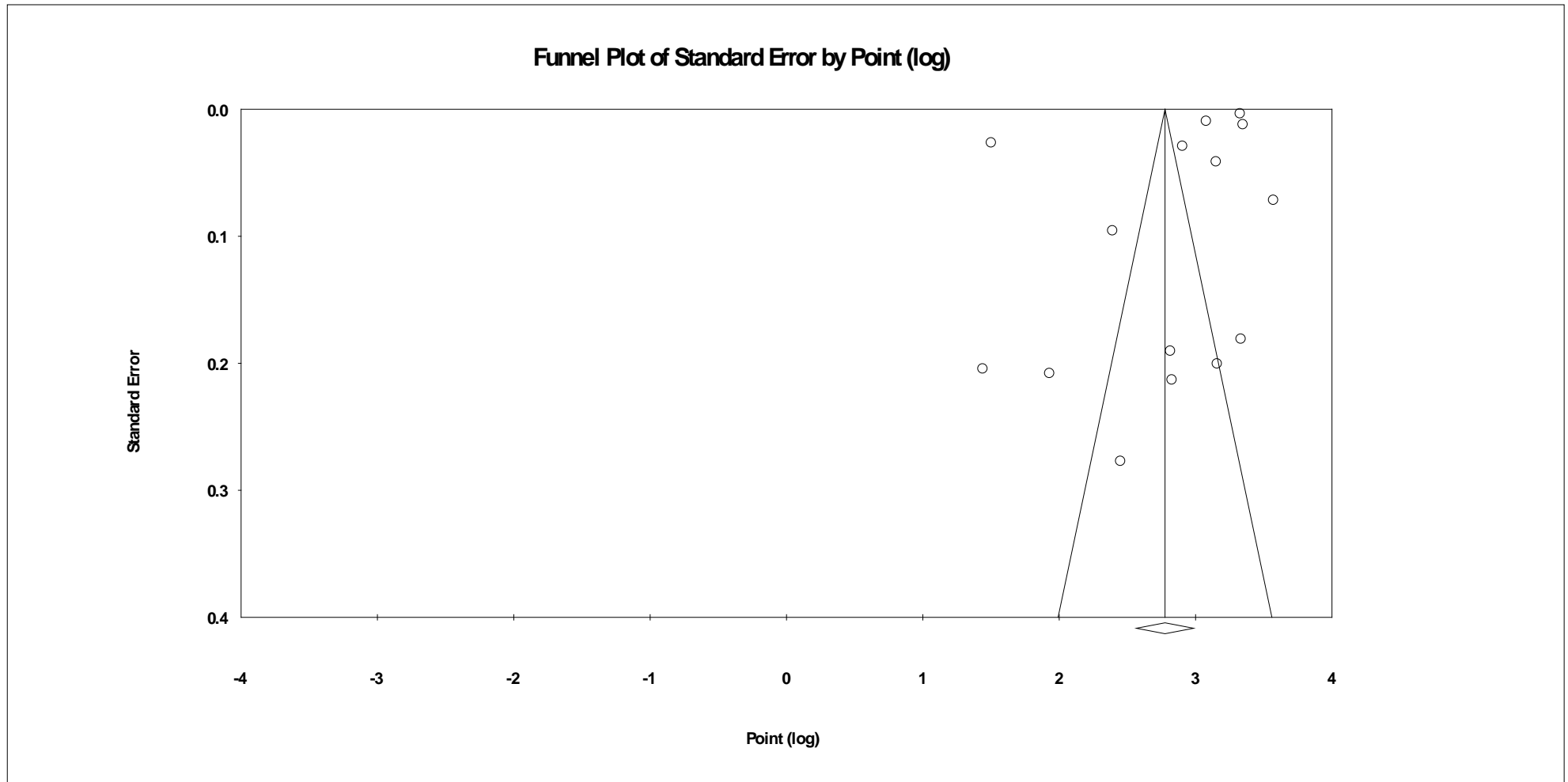


Supplementary Figure 13. Adults aged under 65 years prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

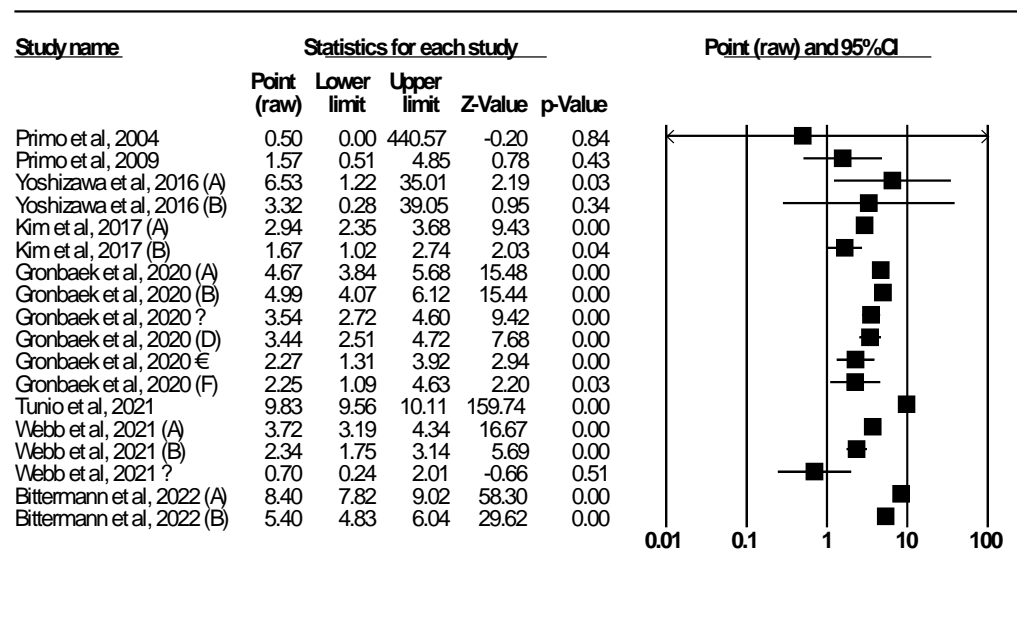


2) Funnel plot

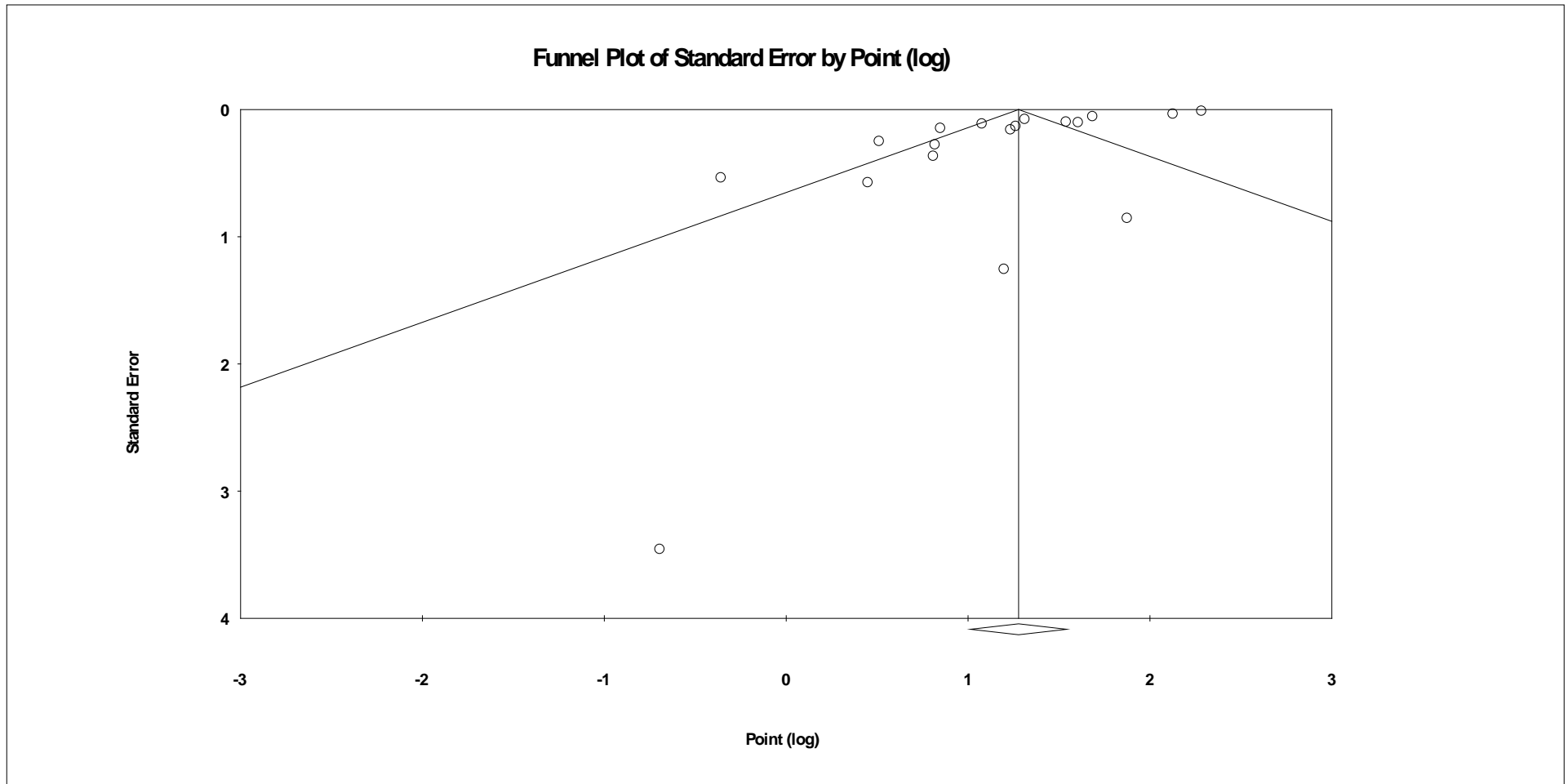


Supplementary Figure 14. Adults aged over 65 years incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

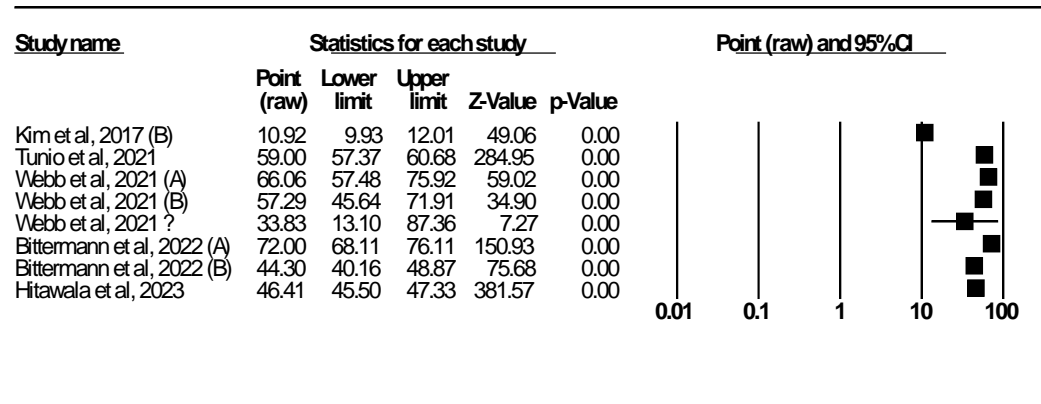


2) Funnel plot

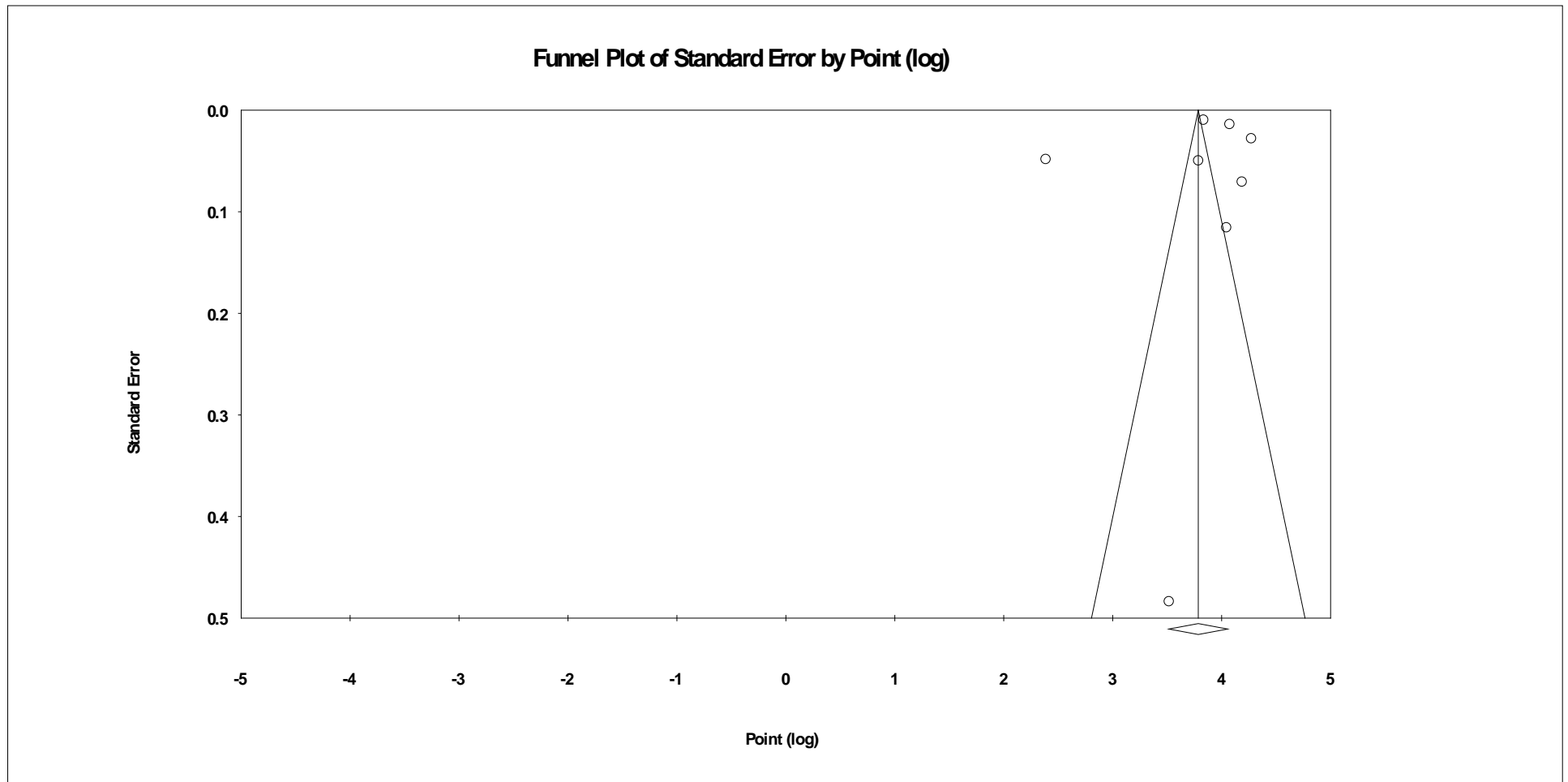


Supplementary Figure 15. Adults aged over 65 years prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

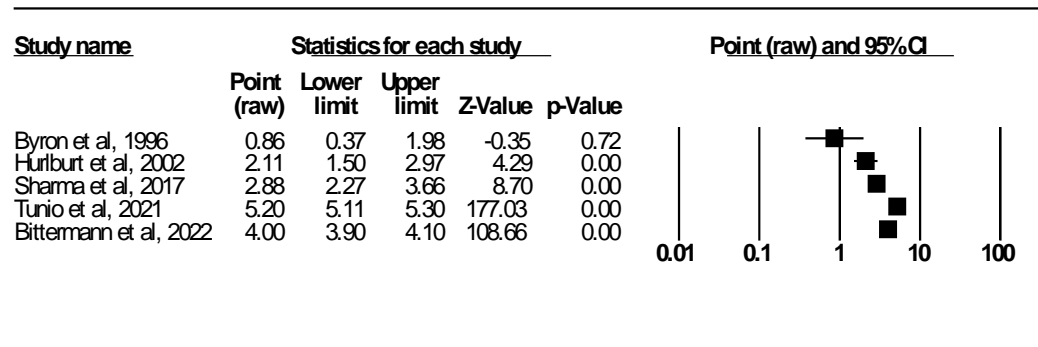


2) Funnel plot

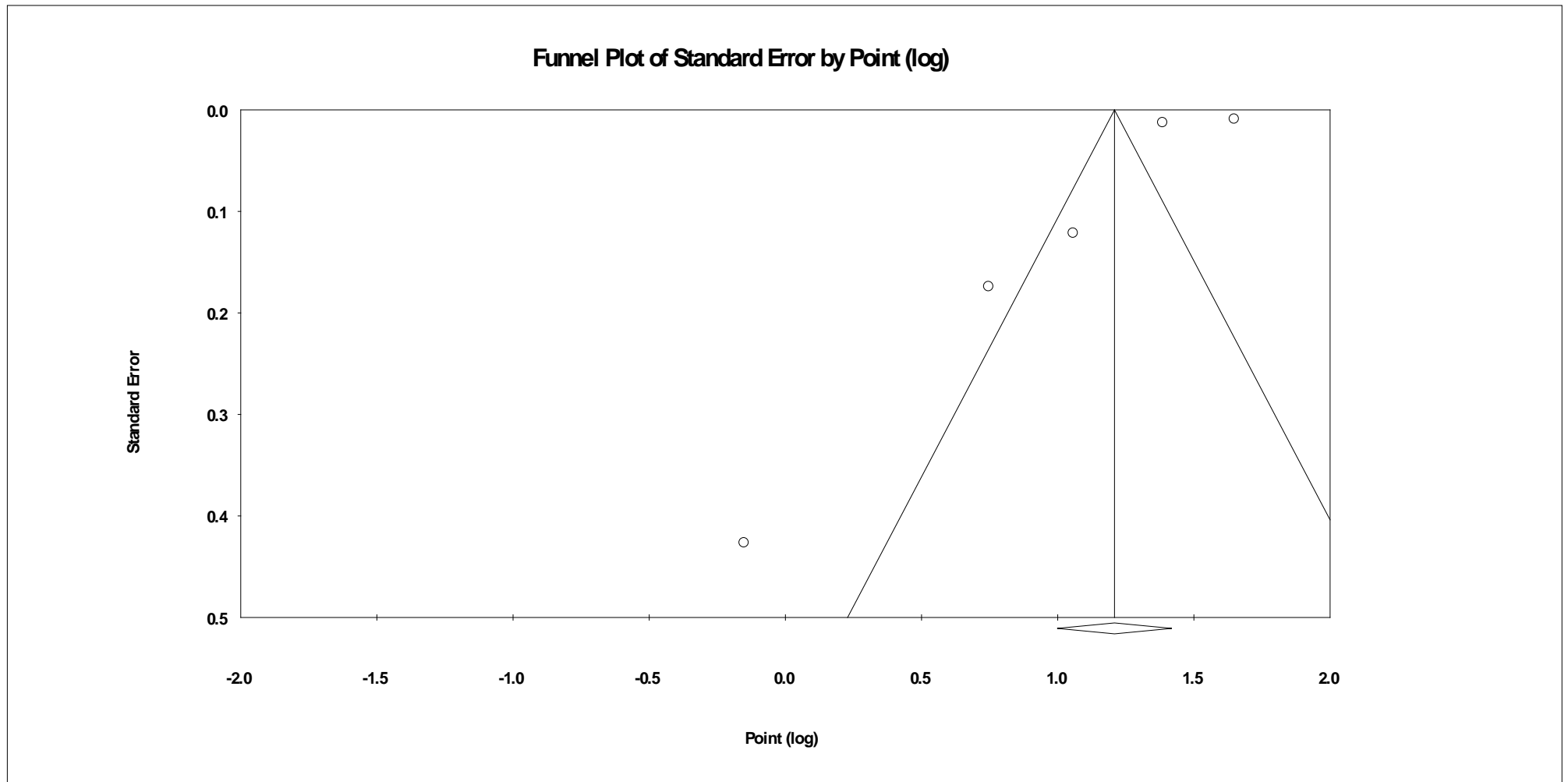


Supplementary Figure 16. North America incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

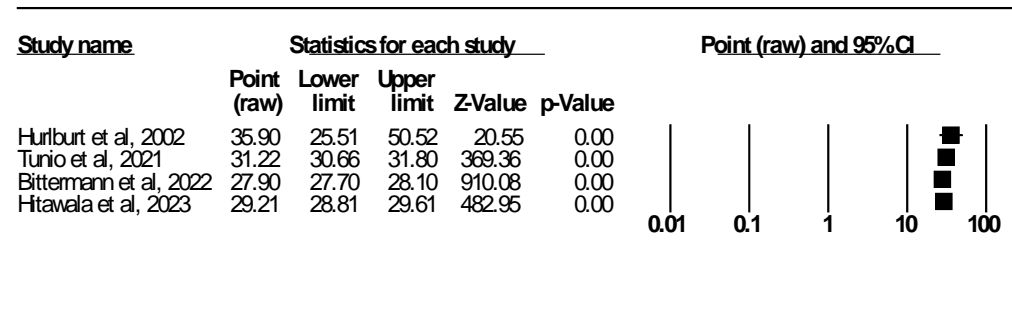


2) Funnel plot

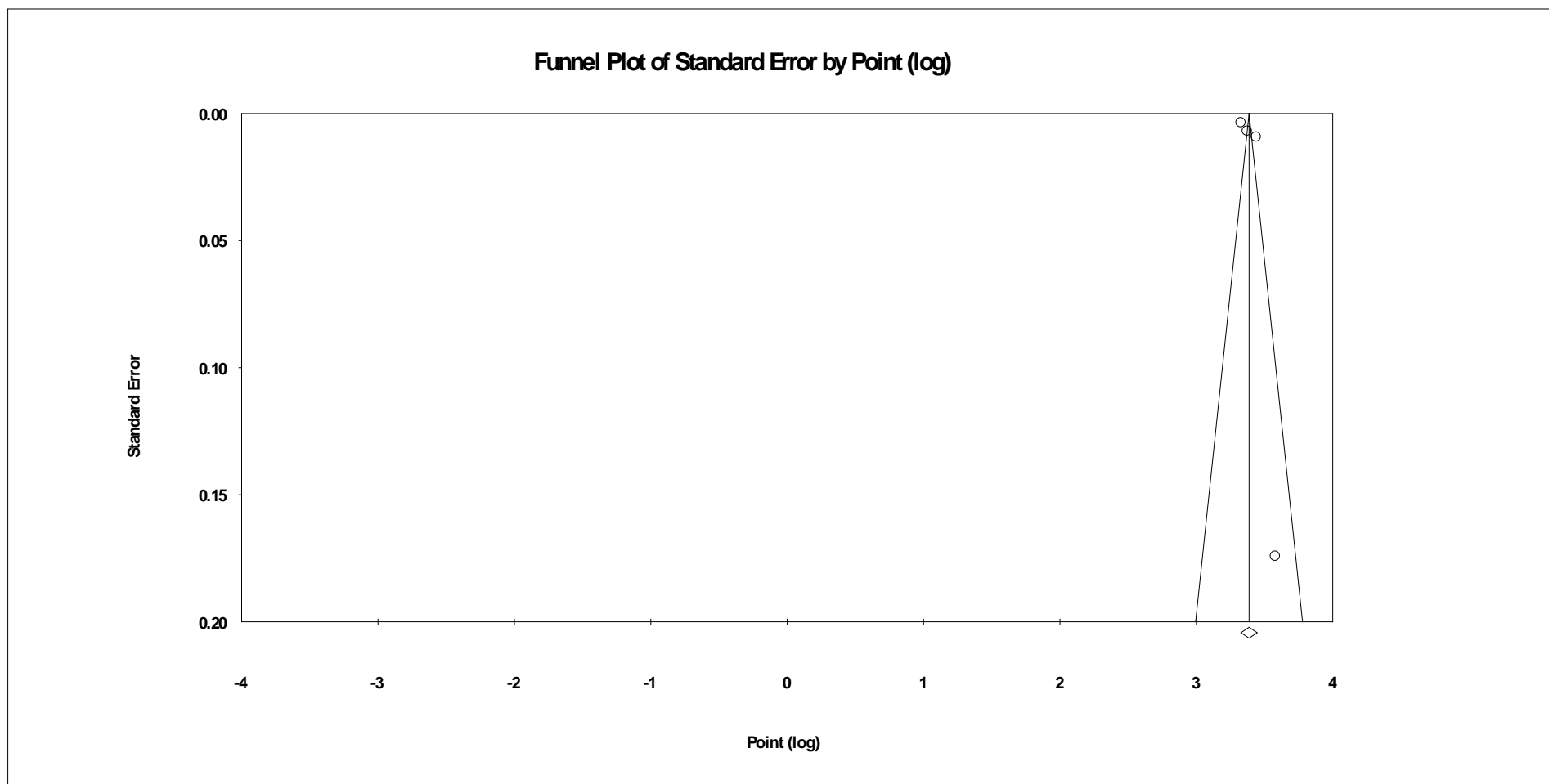


Supplementary Figure 17. North America prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

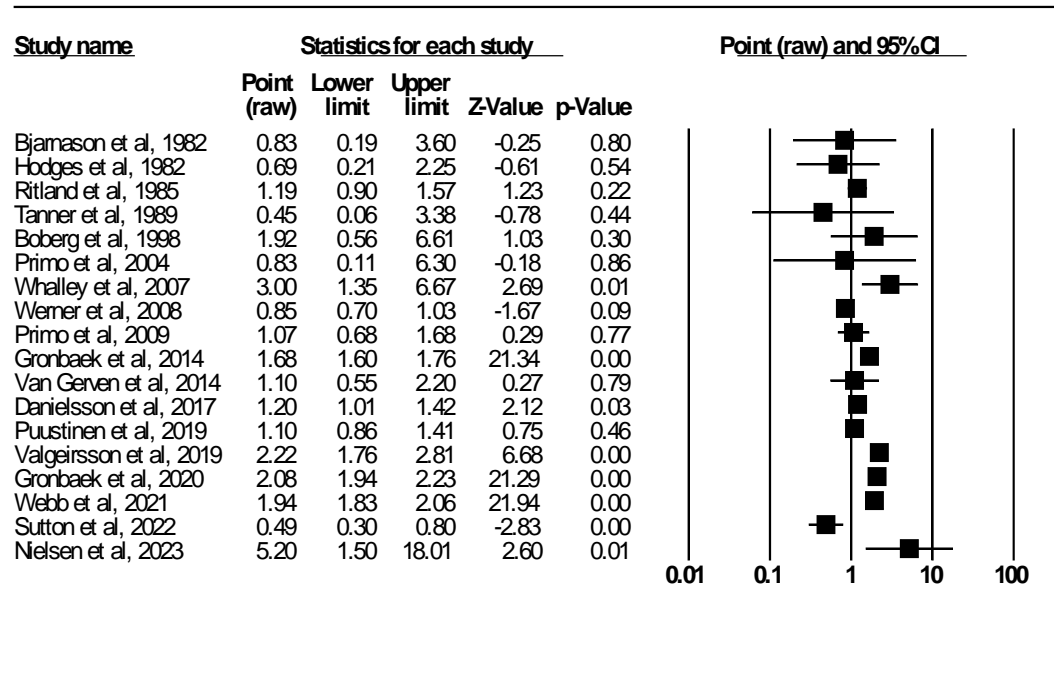


2) Funnel plot

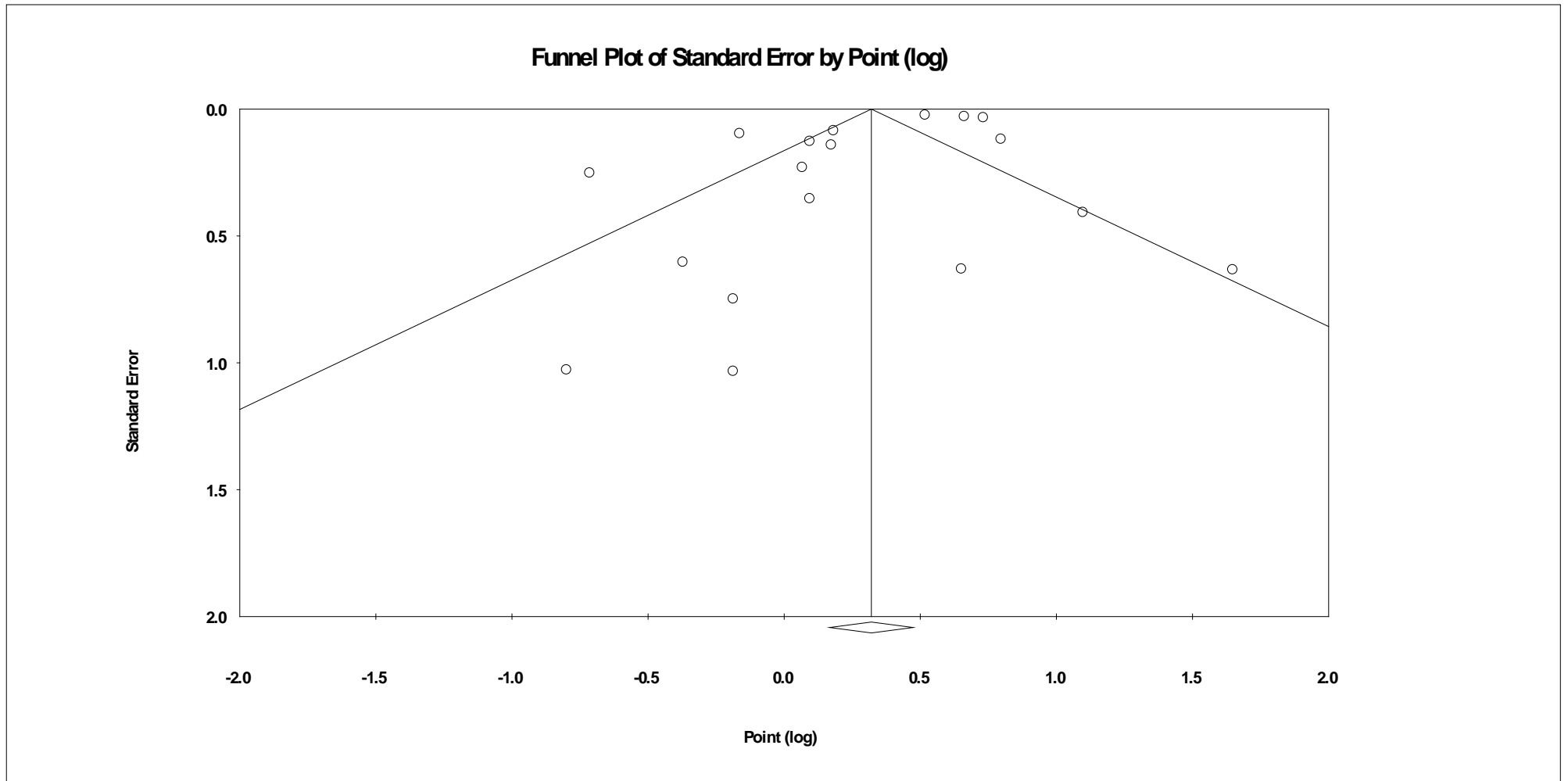


Supplementary Figure 18. Europe incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

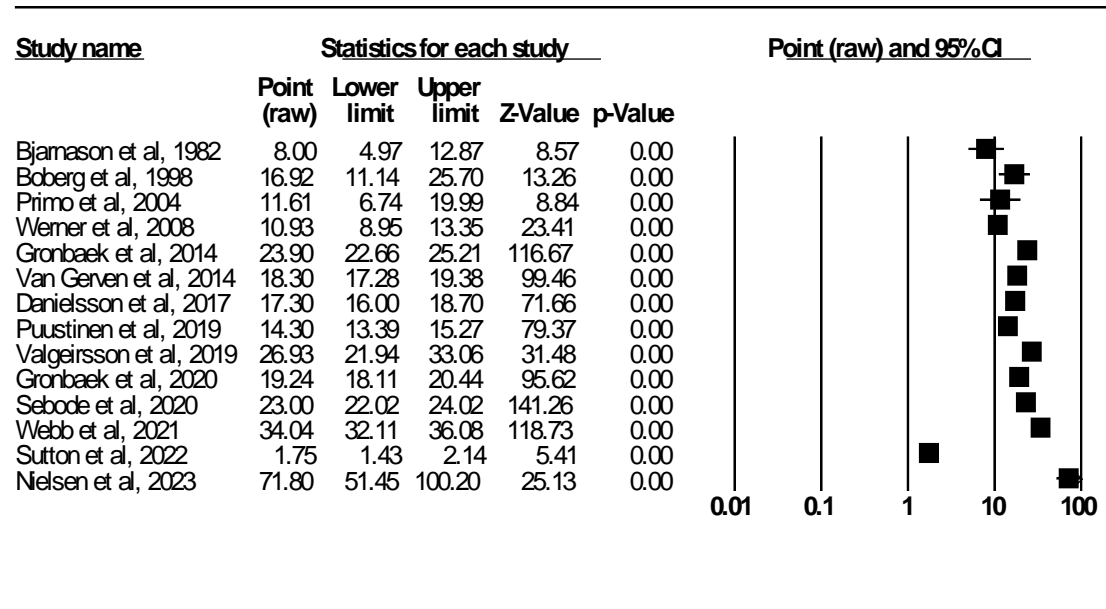


2) Funnel plot

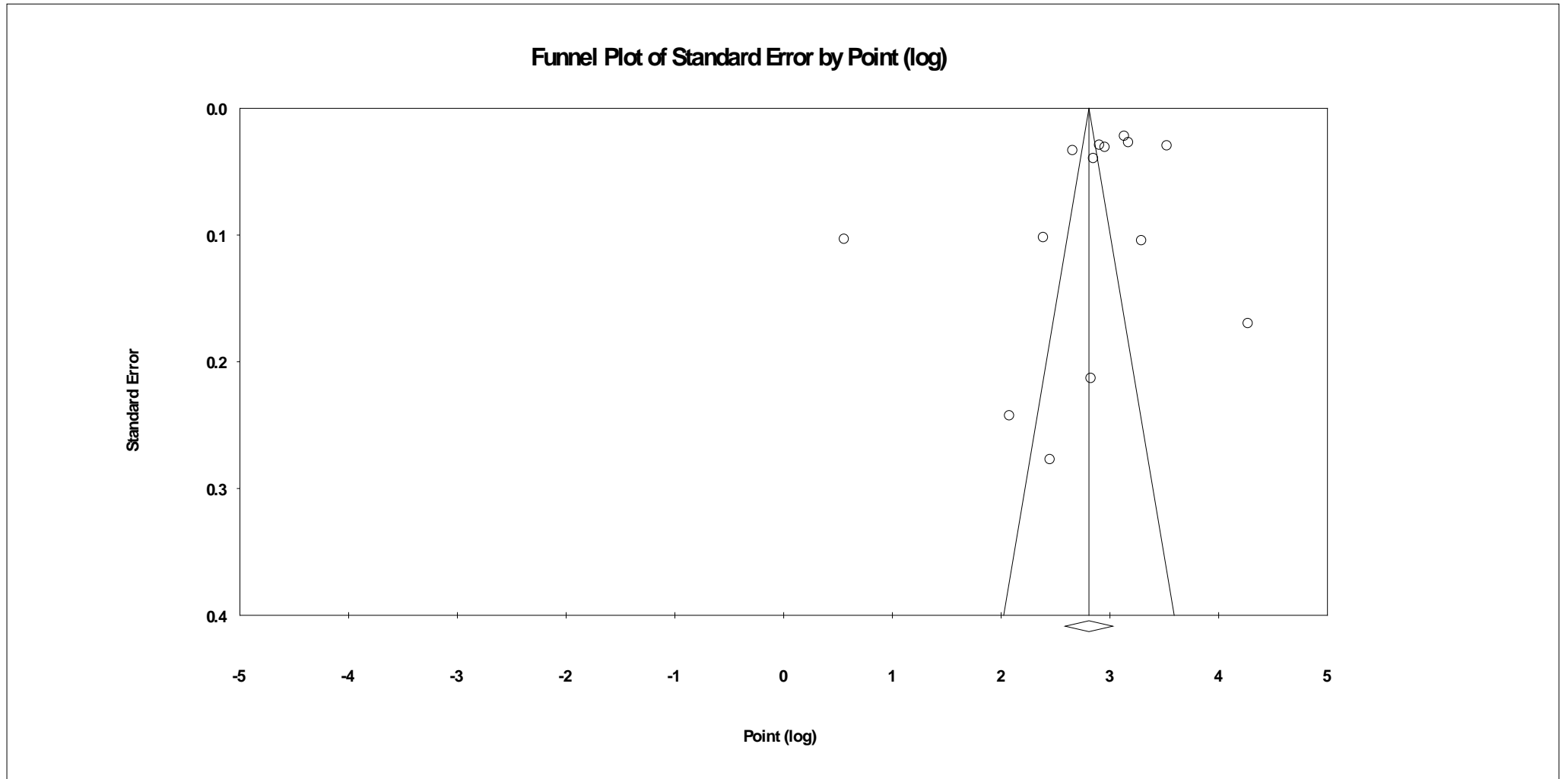


Supplementary Figure 19. Europe prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

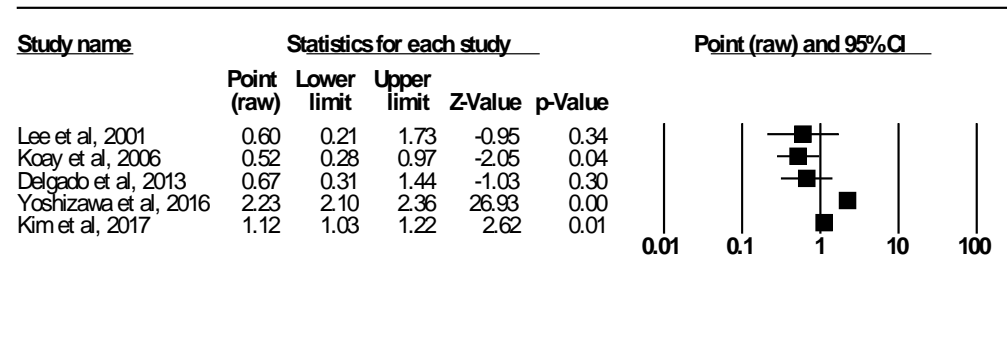


2) Funnel plot

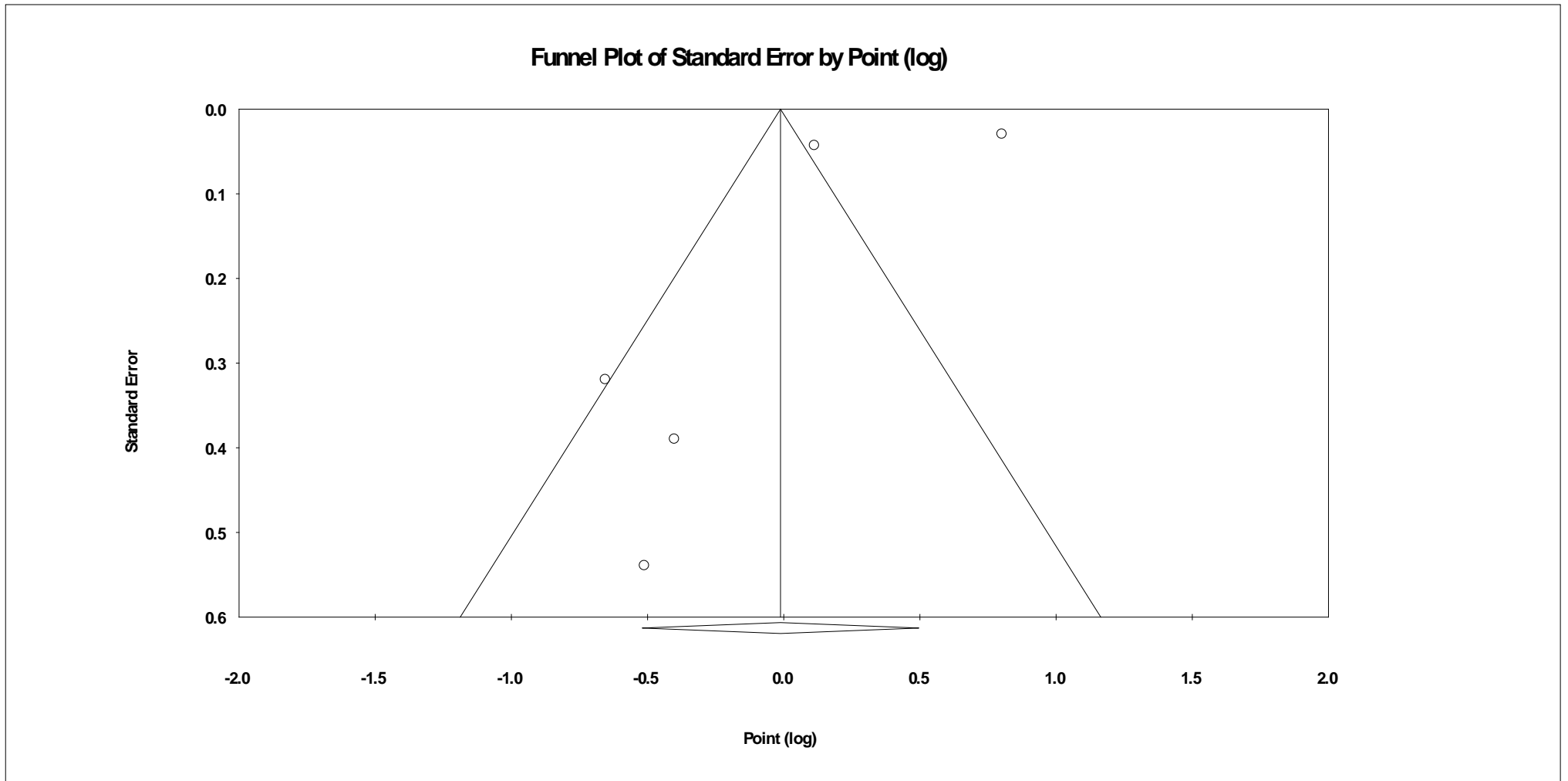


Supplementary Figure 20. Asia incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

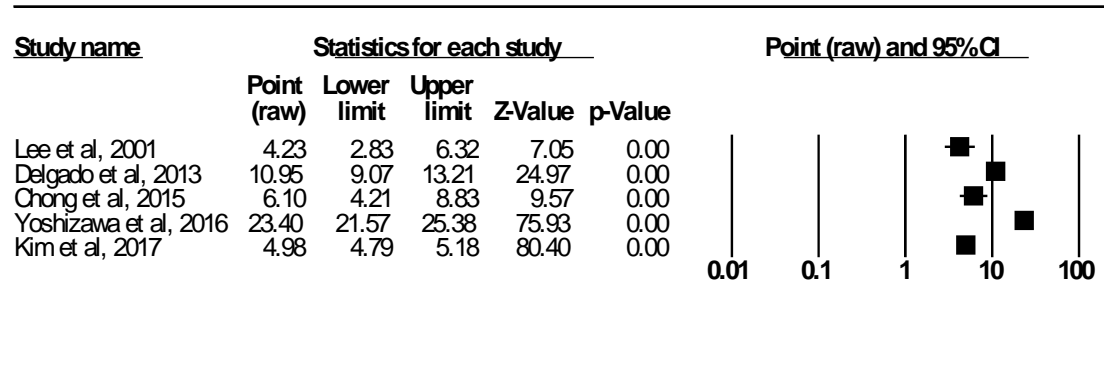


2) Funnel plot

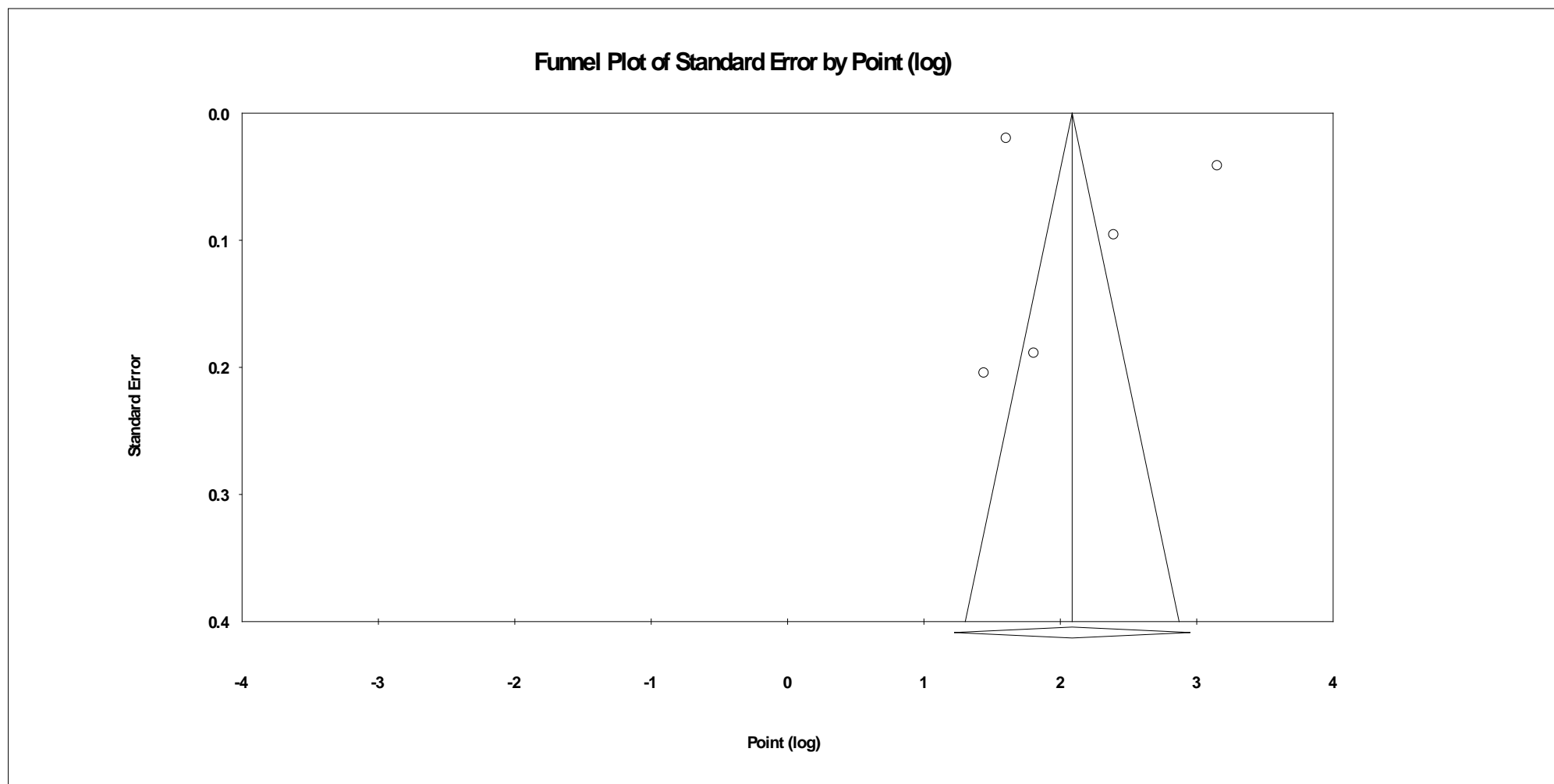


Supplementary Figure 21. Asia prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

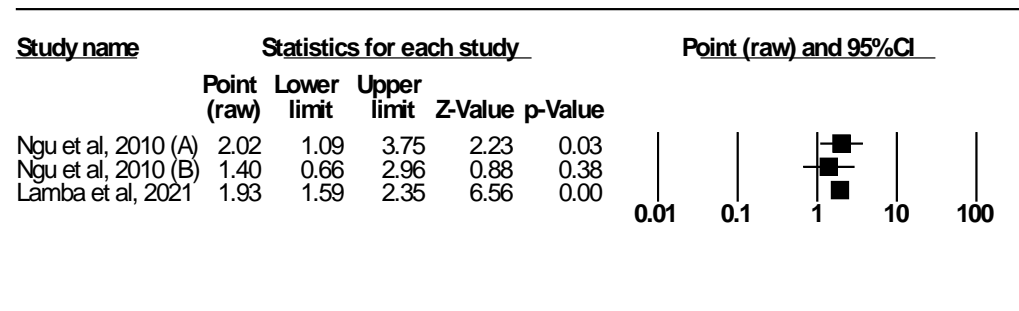


2) Funnel plot

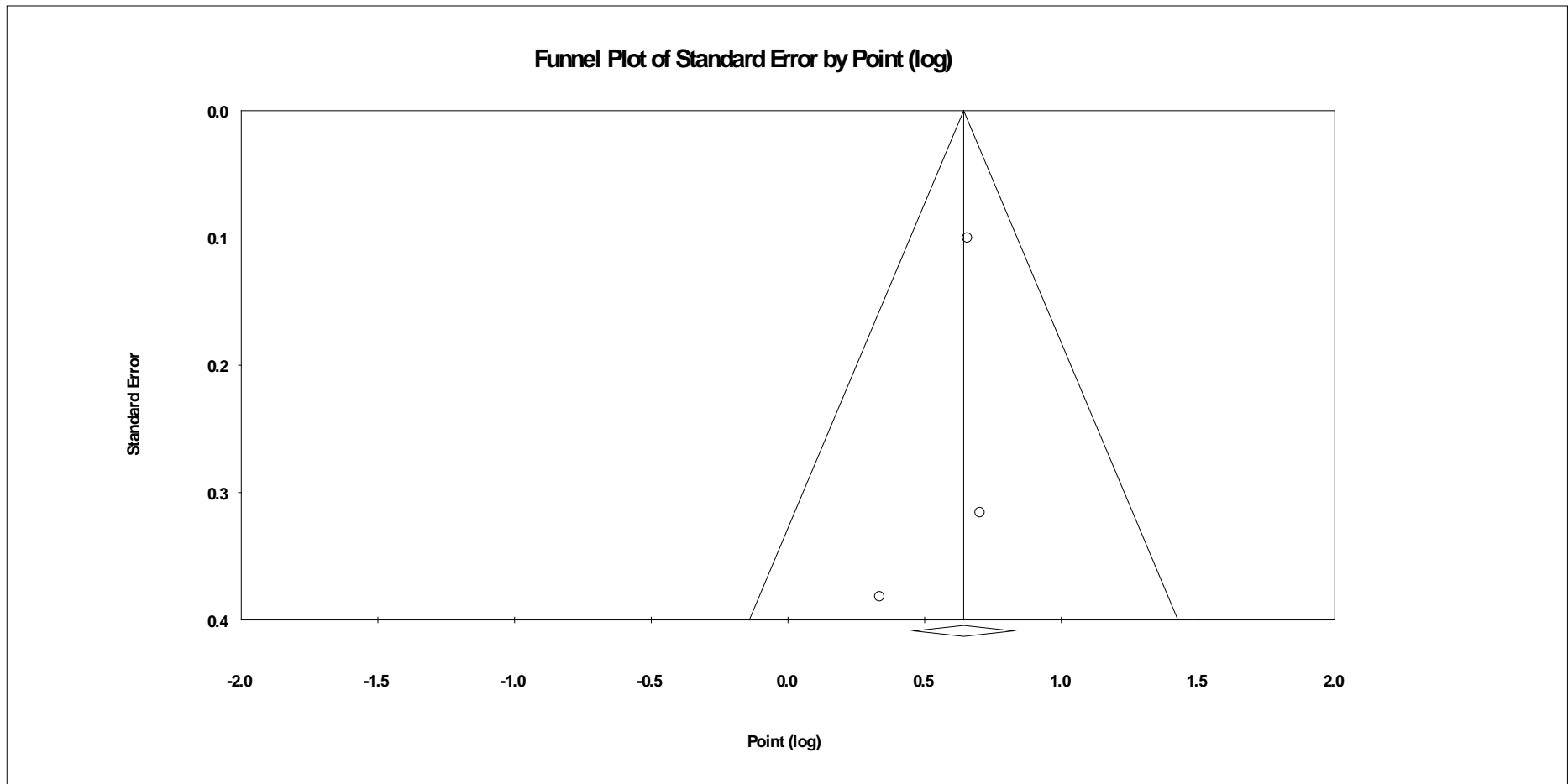


Supplementary Figure 22. Oceania incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forset plot

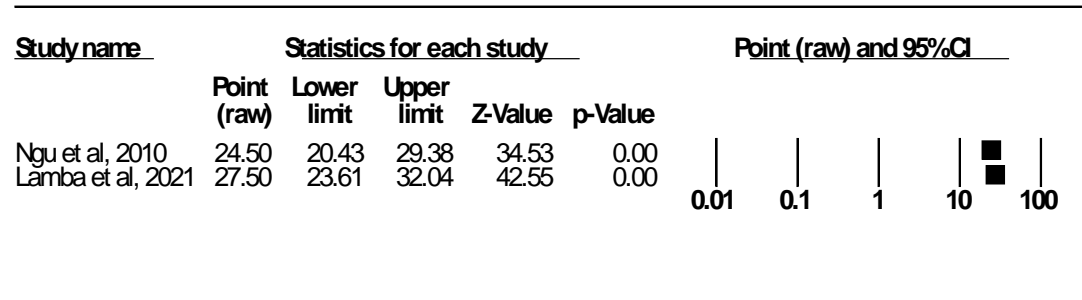


2) Funnel plot



Supplementary Figure 23. Oceania prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

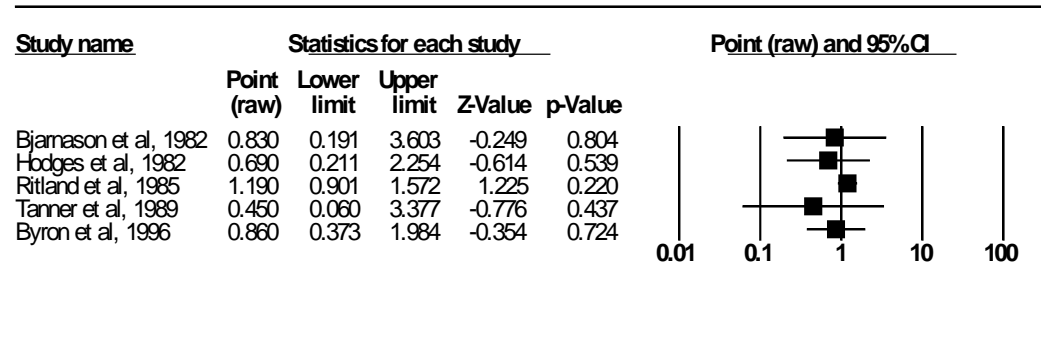
1) Forest plot



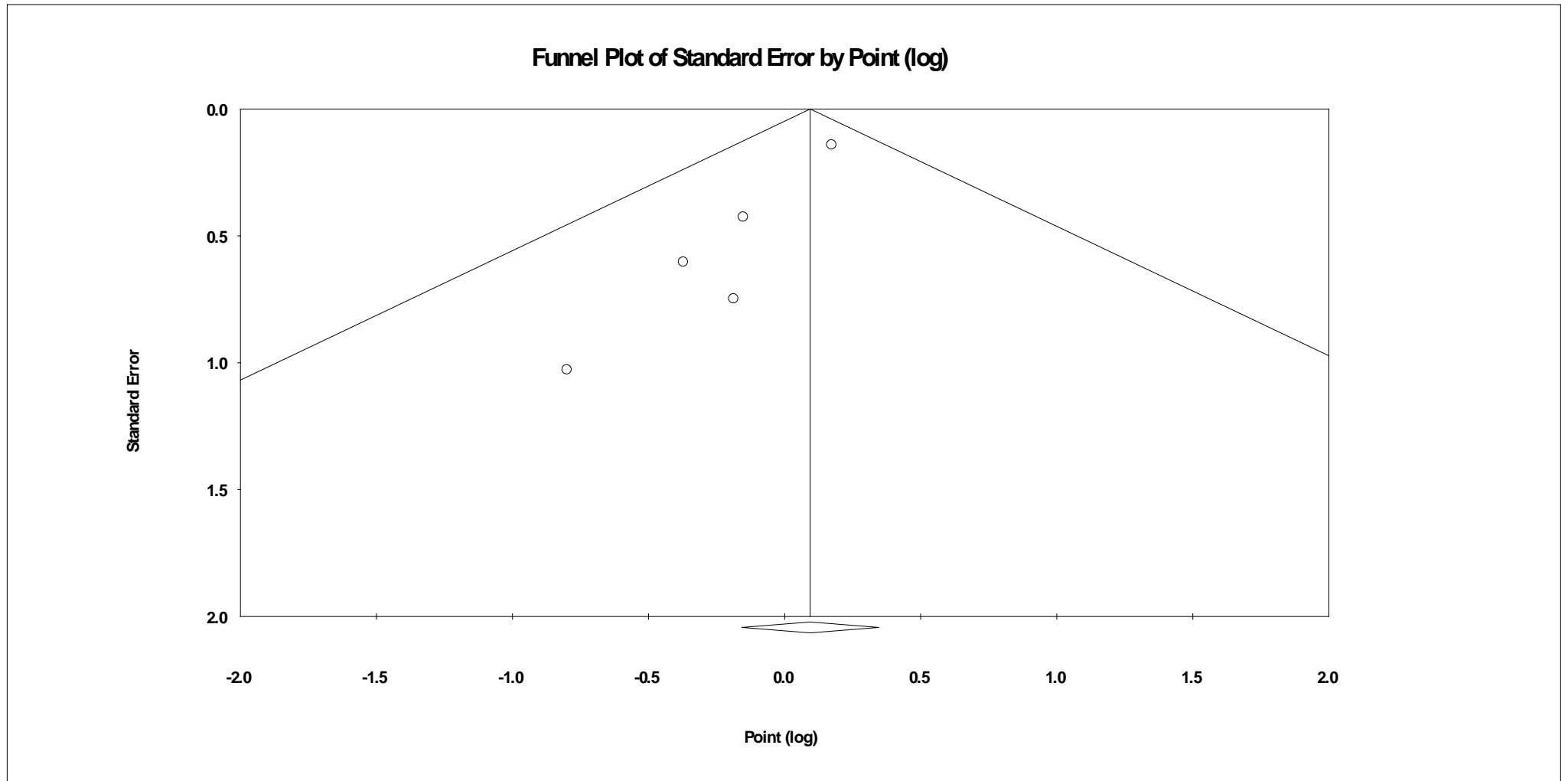
Supplementary Figure 24. Before International Autoimmune Hepatitis Group incidence of autoimmune hepatitis included in our systematic review.

Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot



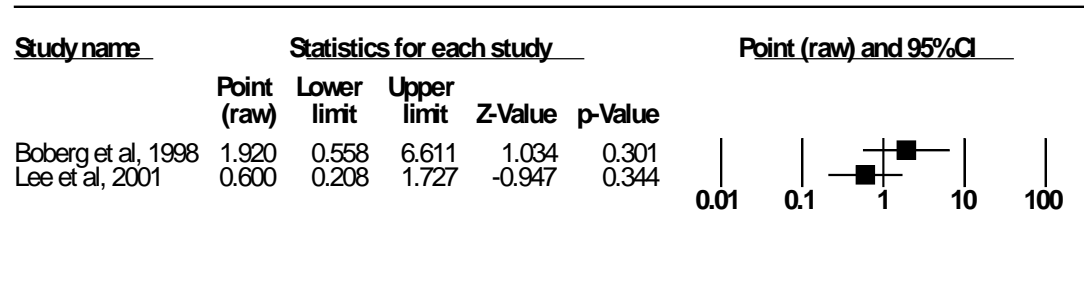
2) Funnel plot



Supplementary Figure 25. Original International Autoimmune Hepatitis Group incidence of autoimmune hepatitis included in our systematic review.

Pooled estimates, cases per 100,000 inhabitant-years.

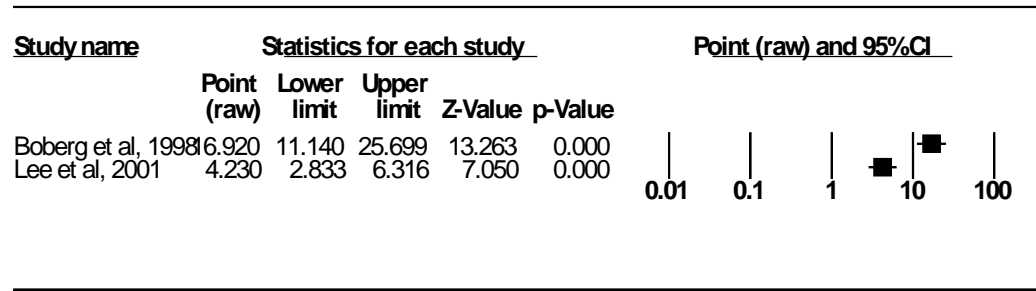
1) Forest plot



Supplementary Figure 26. Original International Autoimmune Hepatitis Group prevalence of autoimmune hepatitis included in our systematic review.

Pooled estimates, cases per 100,000 inhabitants.

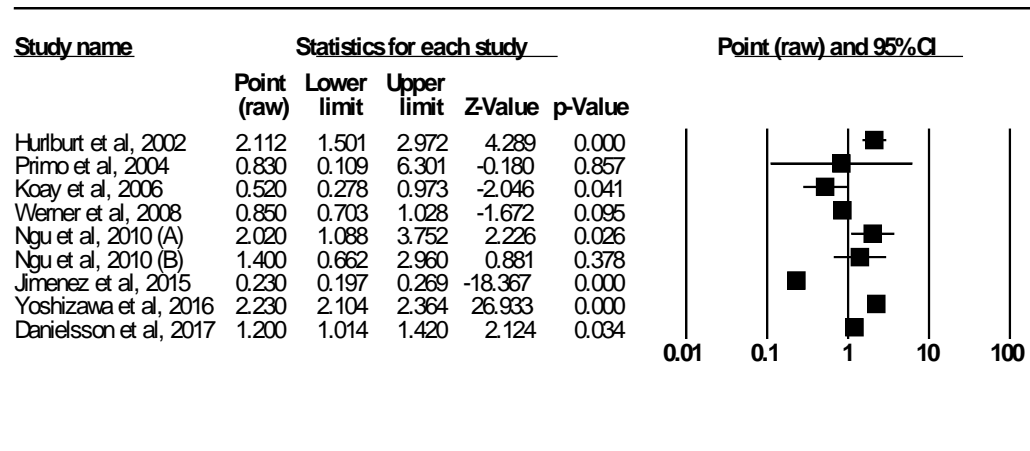
1) Forest plot



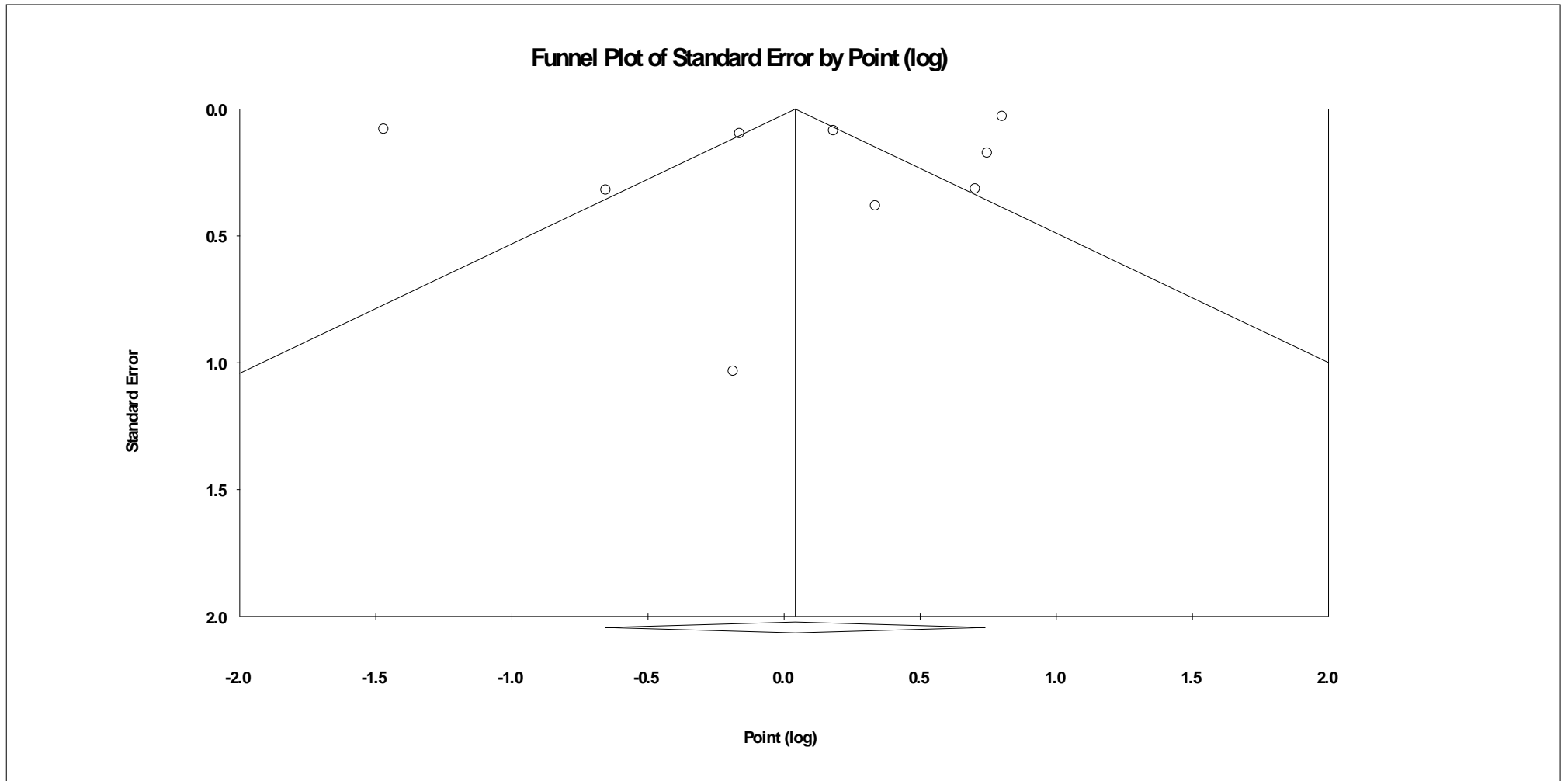
Supplementary Figure 27. Revised International Autoimmune Hepatitis Group incidence of autoimmune hepatitis included in our systematic review.

Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot



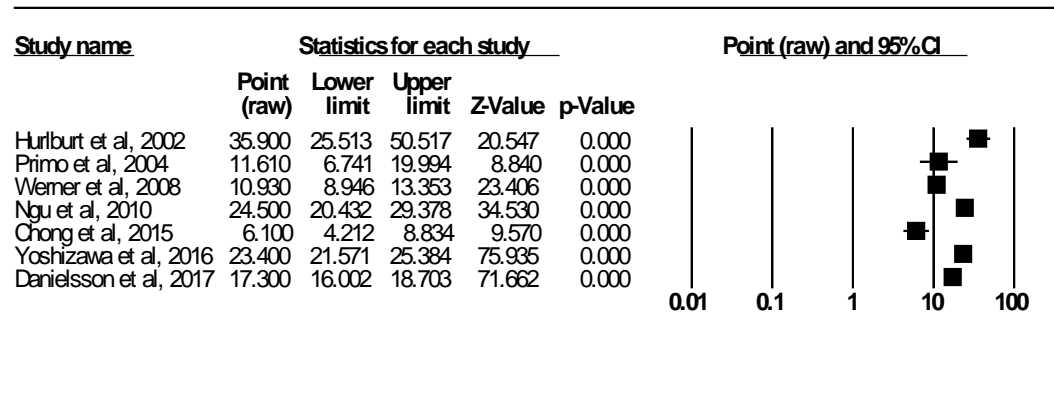
2) Funnel plot



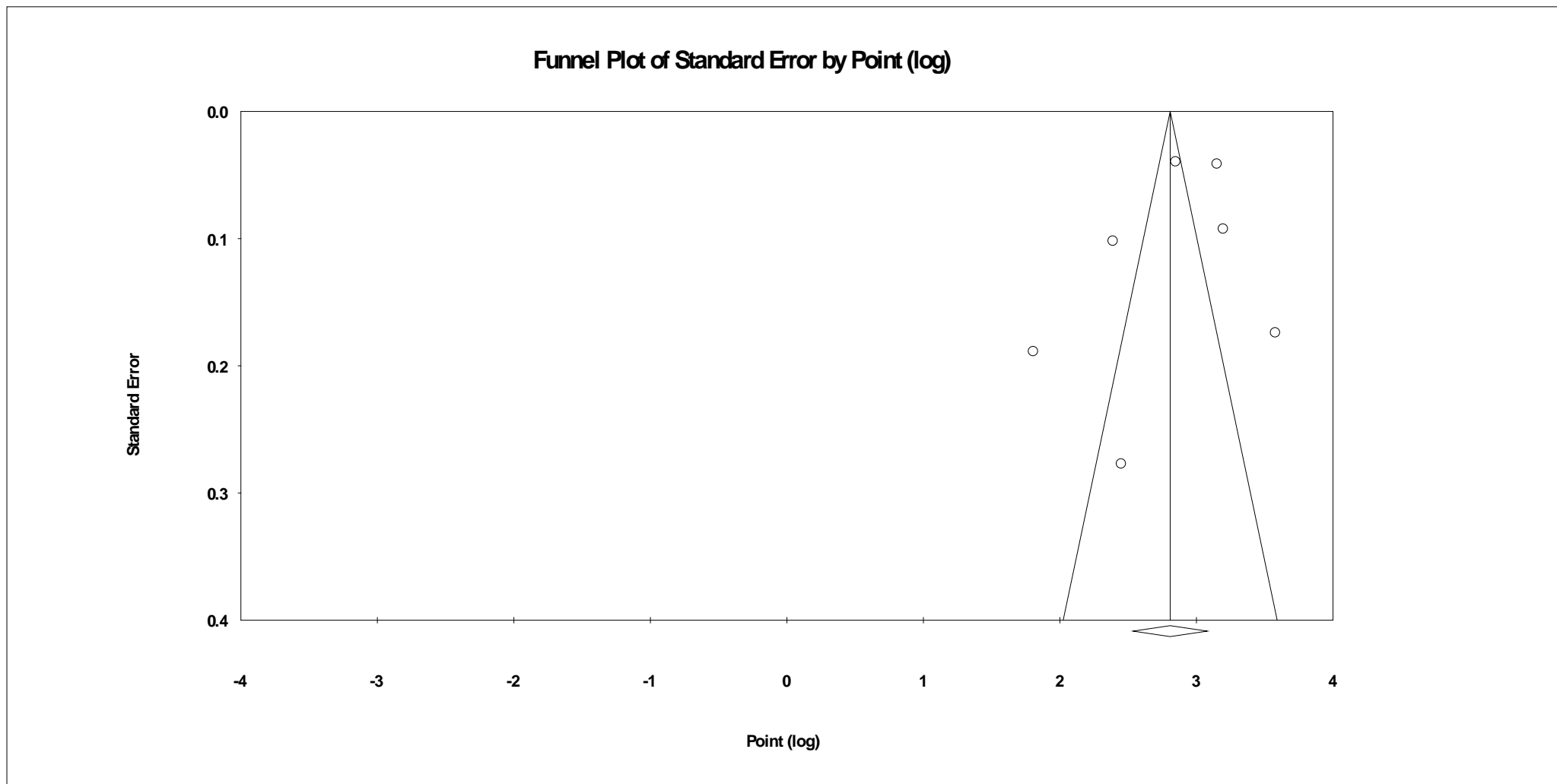
Supplementary Figure 28. Revised International Autoimmune Hepatitis Group prevalence of autoimmune hepatitis included in our systematic review.

Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot



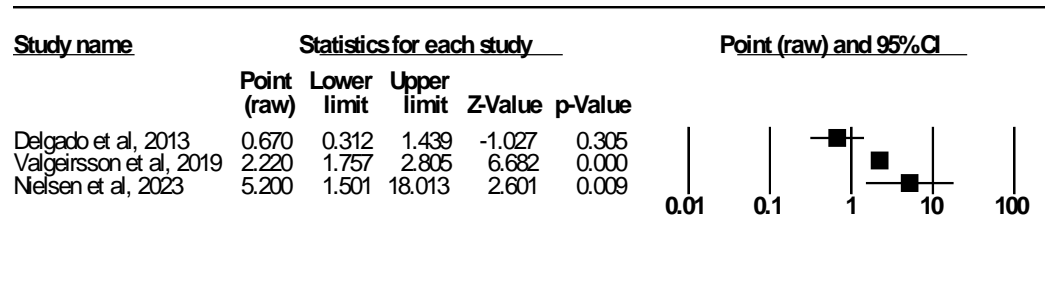
2) Funnel plot



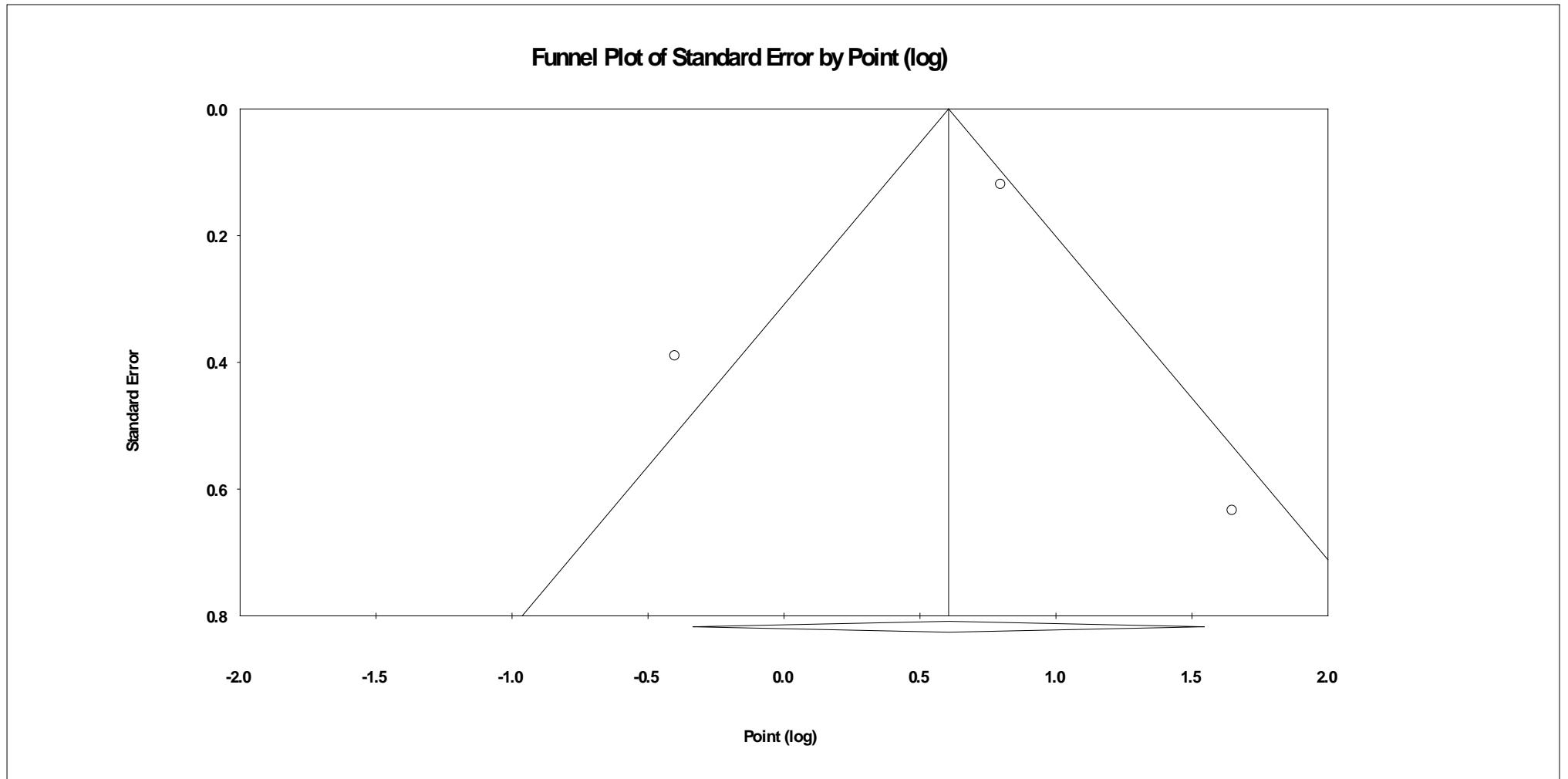
Supplementary Figure 29. Simplified International Autoimmune Hepatitis Group incidence of autoimmune hepatitis included in our systematic review.

Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot



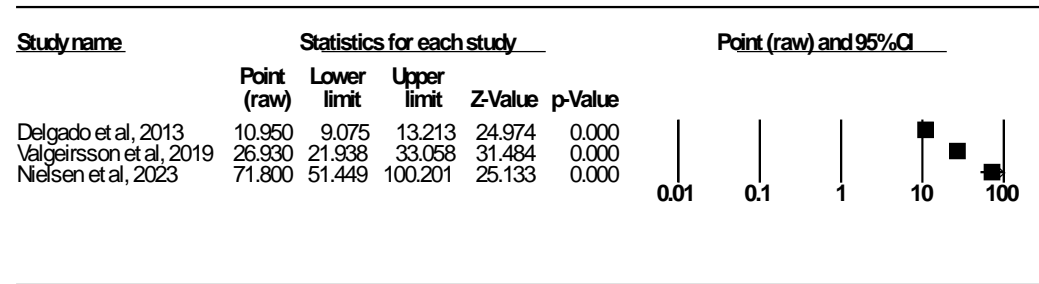
2) Funnel plot



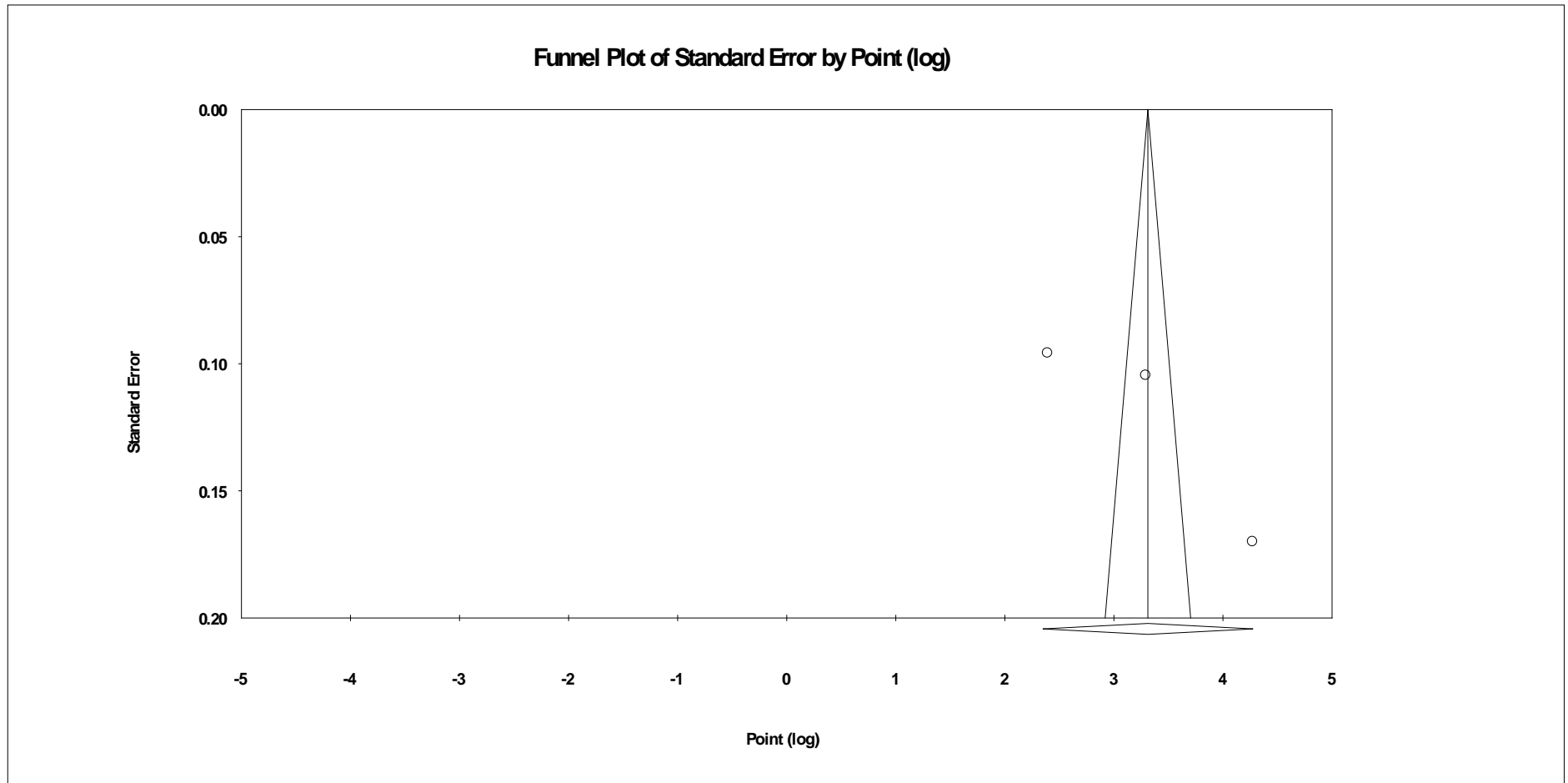
Supplementary Figure 30. Simplified International Autoimmune Hepatitis Group prevalence of autoimmune hepatitis included in our systematic review.

Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

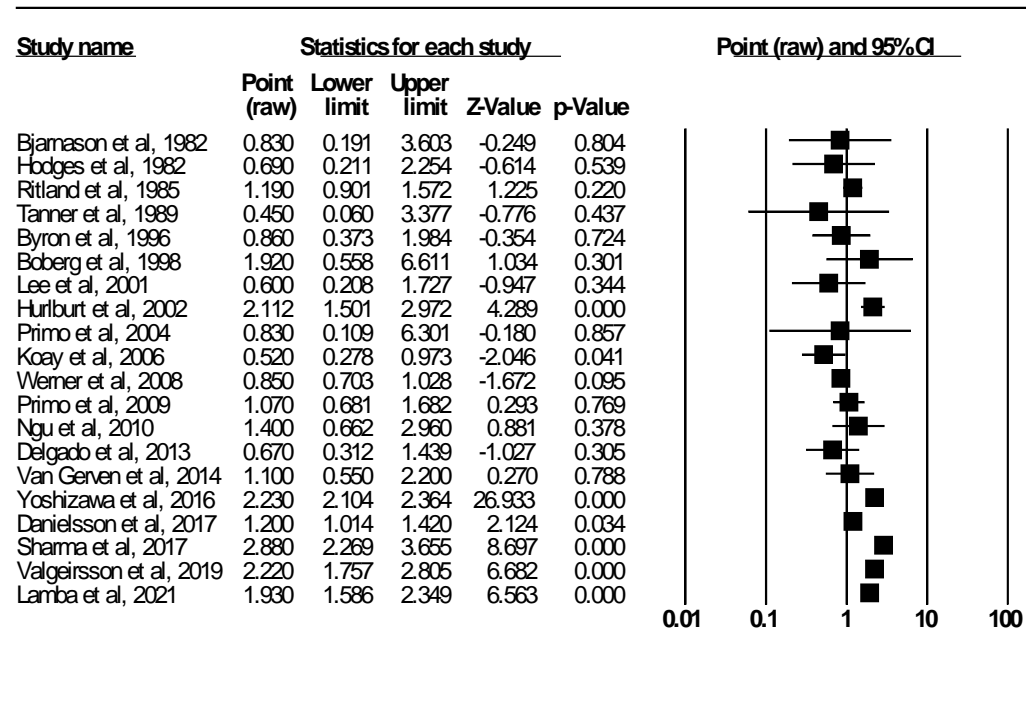


2) Funnel plot

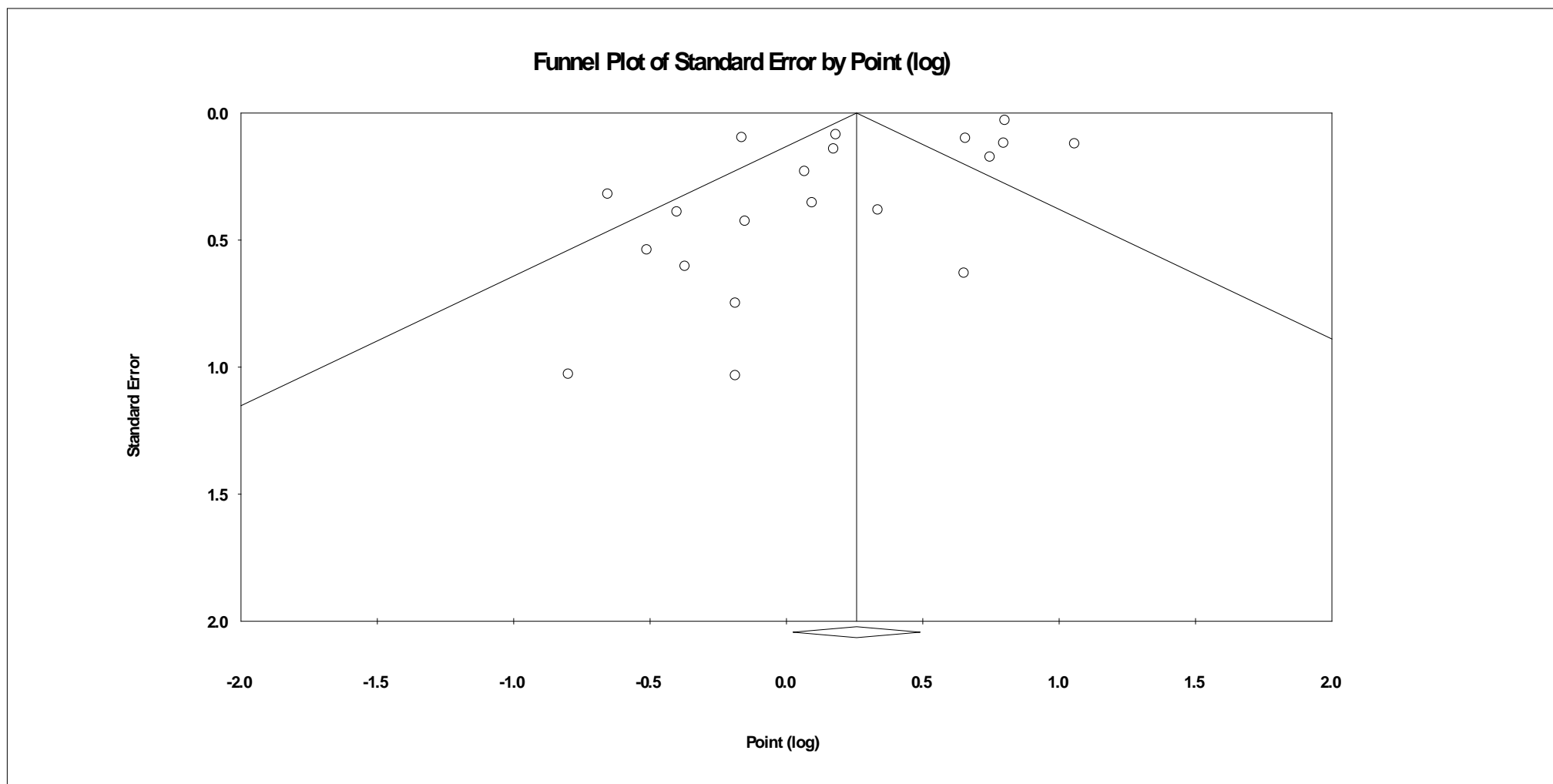


Supplementary Figure 31. Researcher validated incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

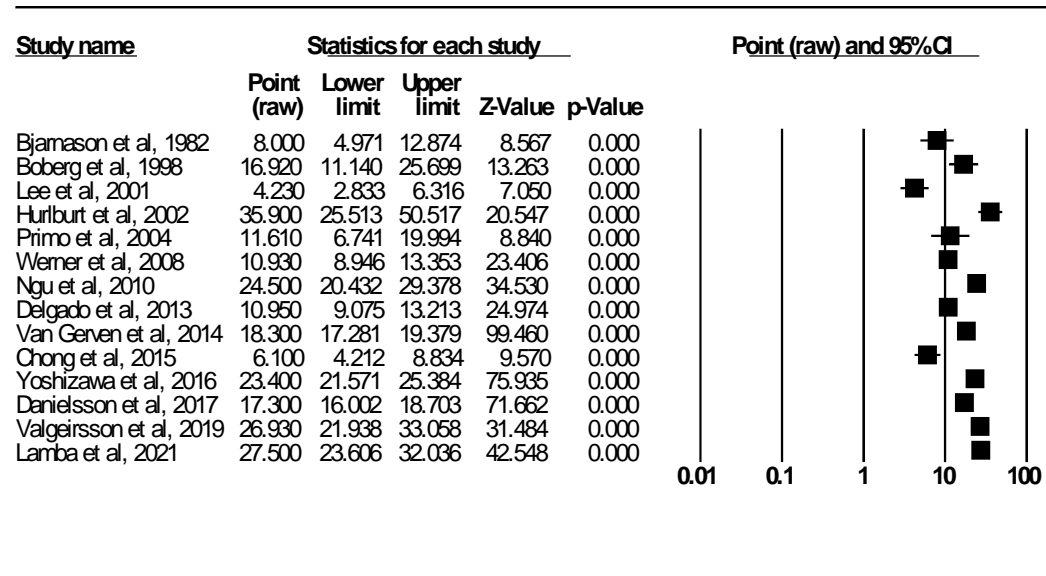


2) Funnel plot

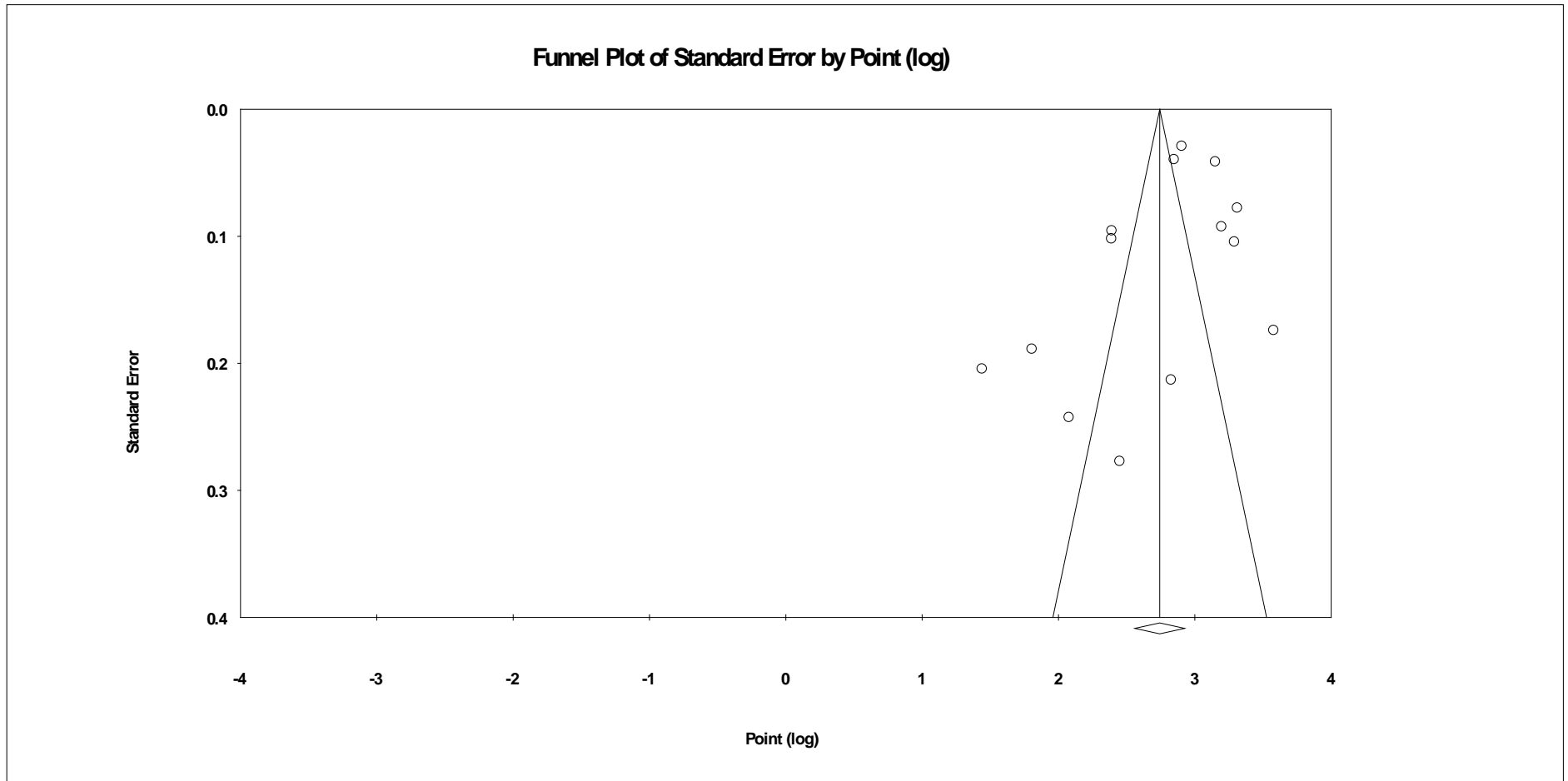


Supplementary Figure 32. Researcher validated prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

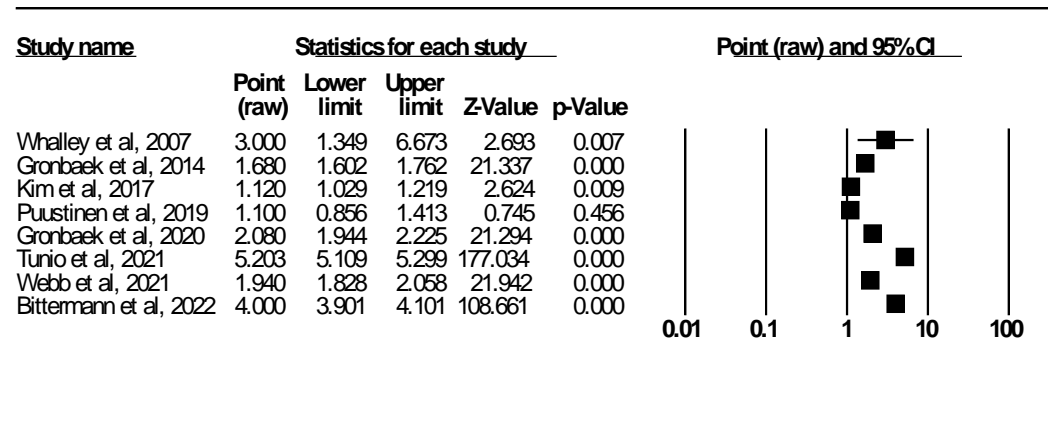


2) Funnel plot

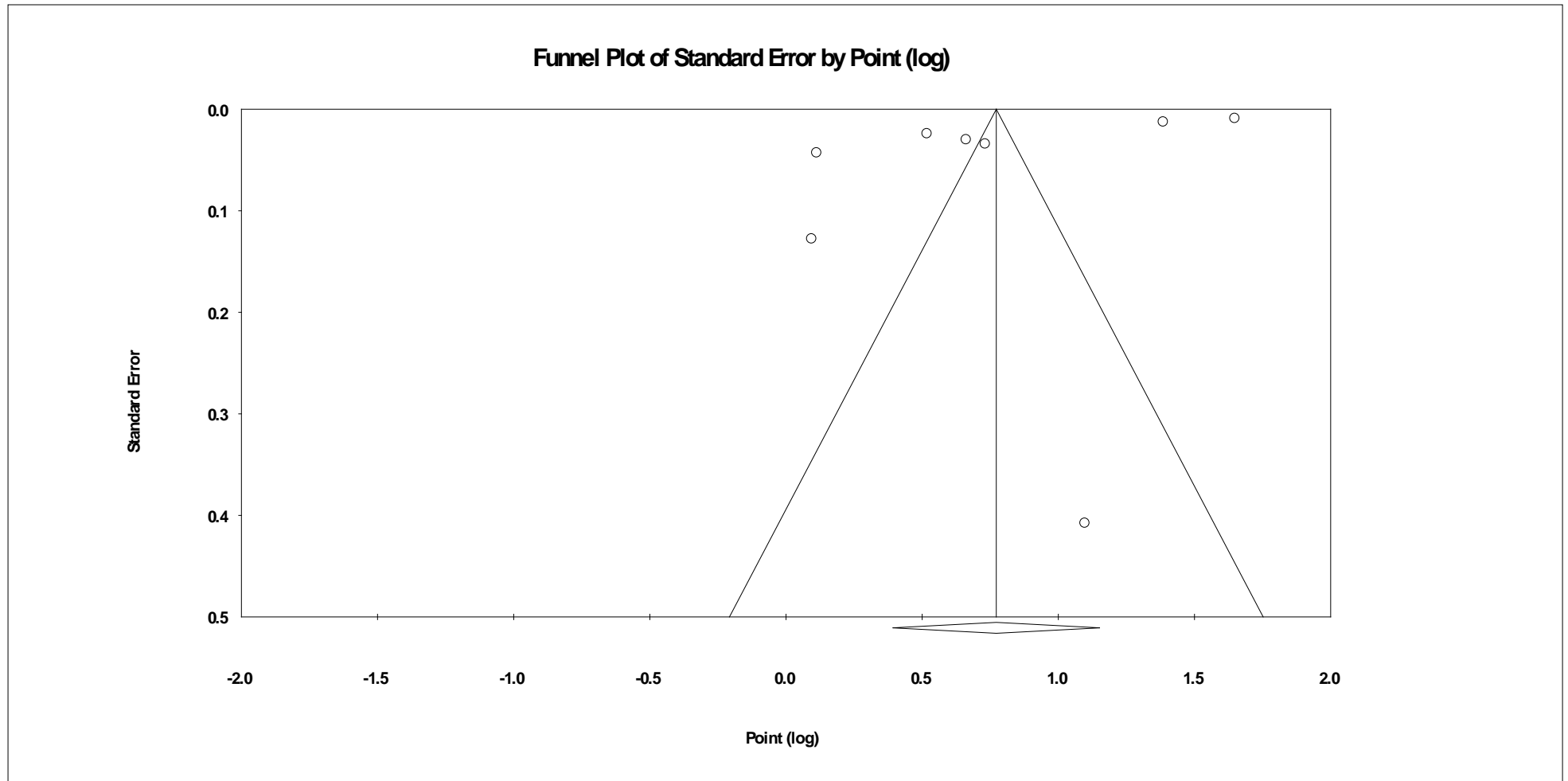


Supplementary Figure 33. Code-based incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

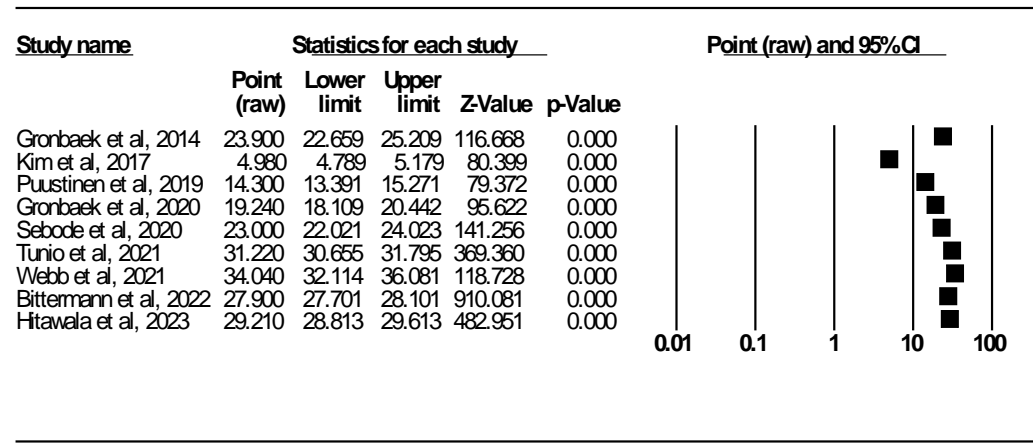


2) Funnel plot

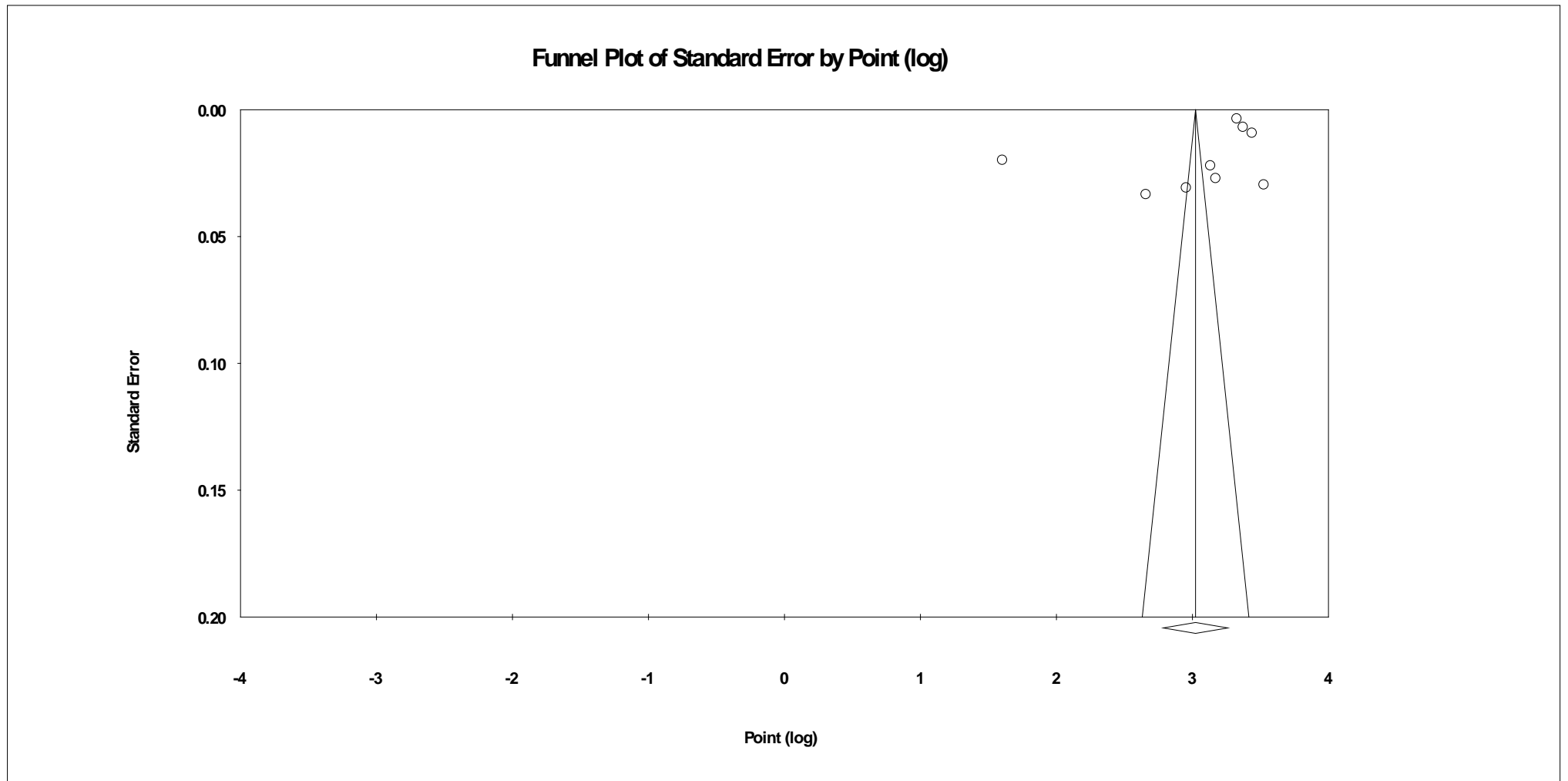


Supplementary Figure 34. Code-based prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

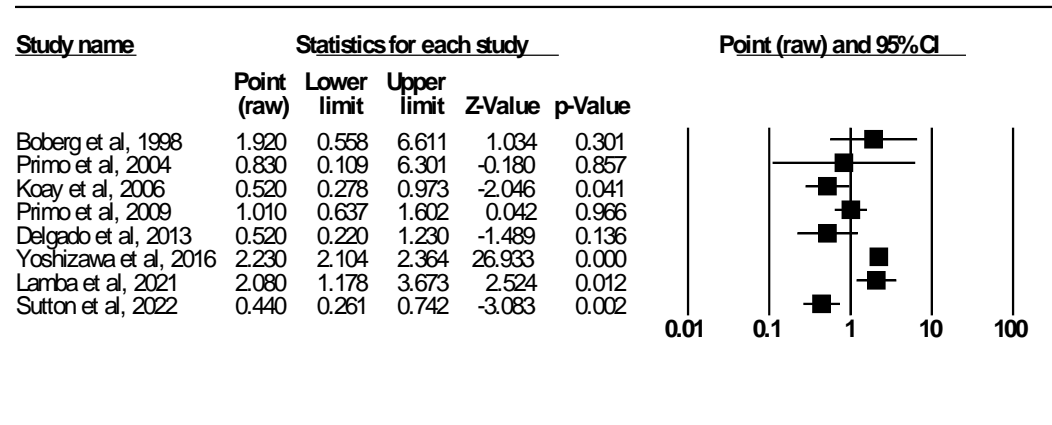


2) Funnel plot

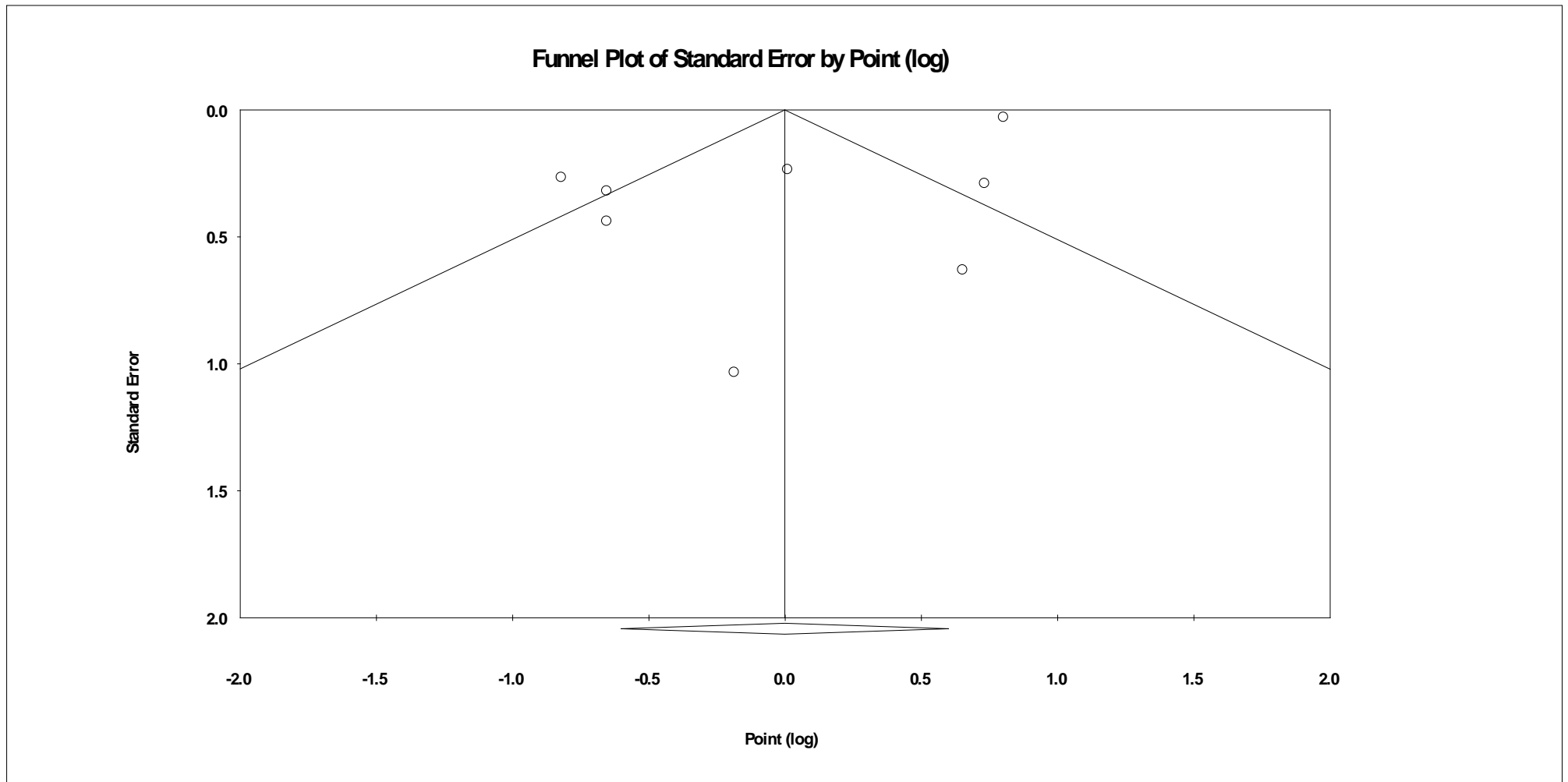


Supplementary Figure 35. Type I incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

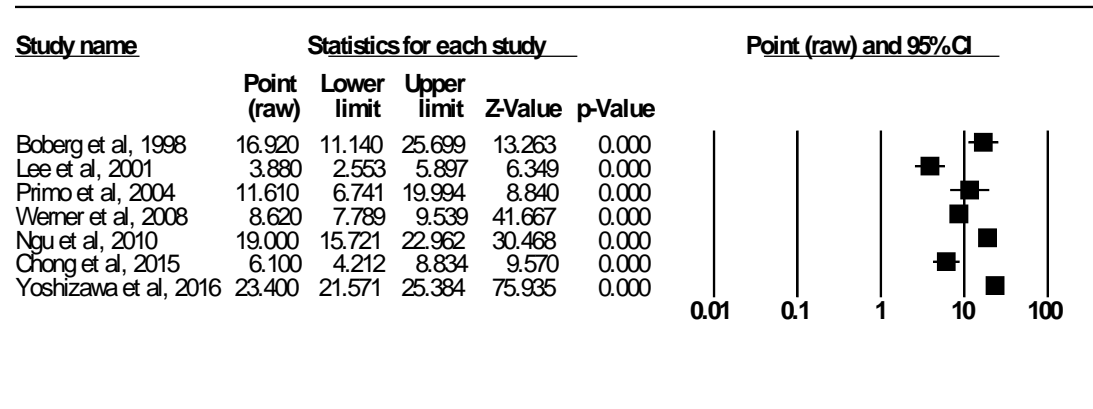


2) Funnel plot

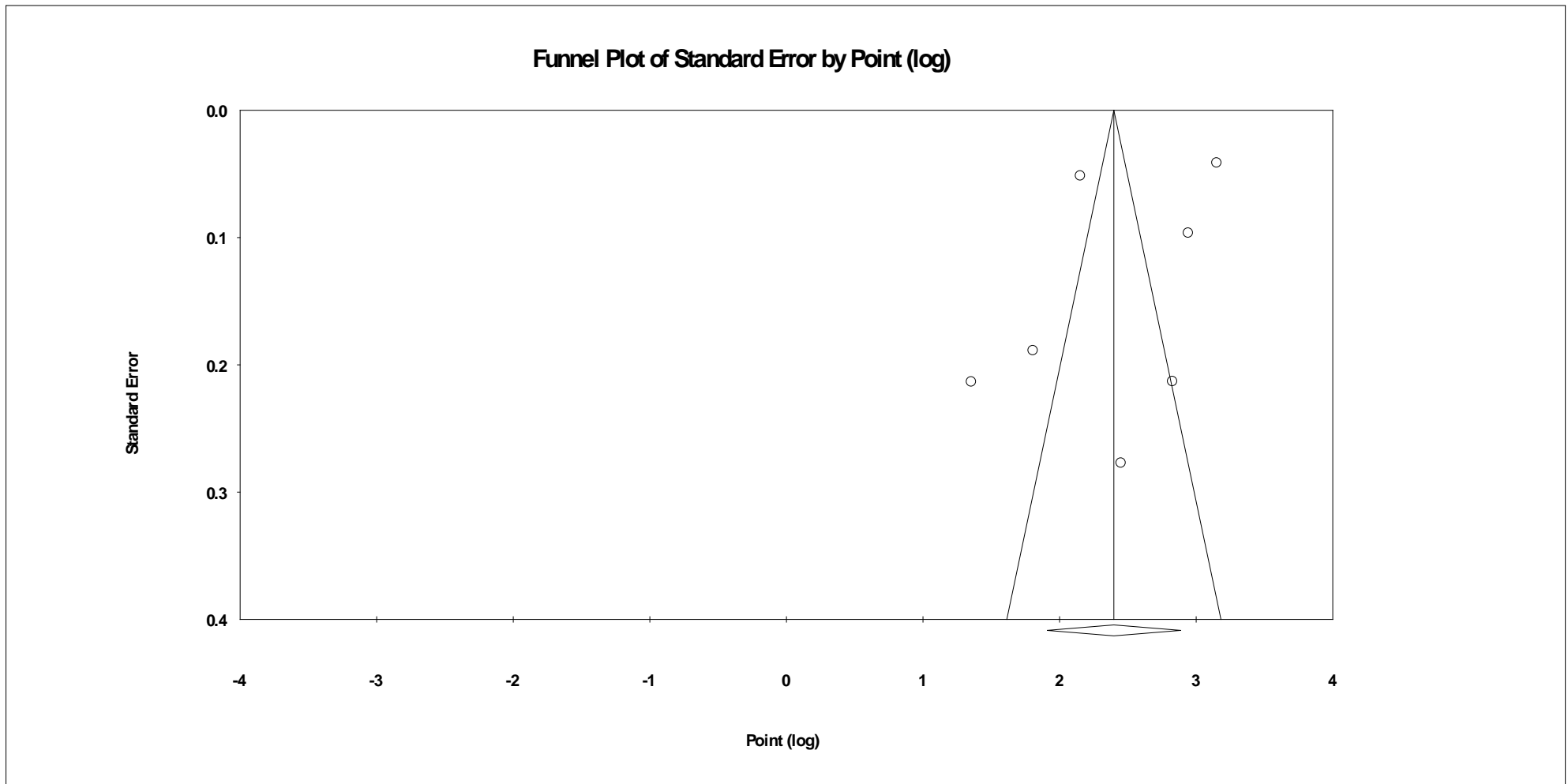


Supplementary Figure 36. Type I prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

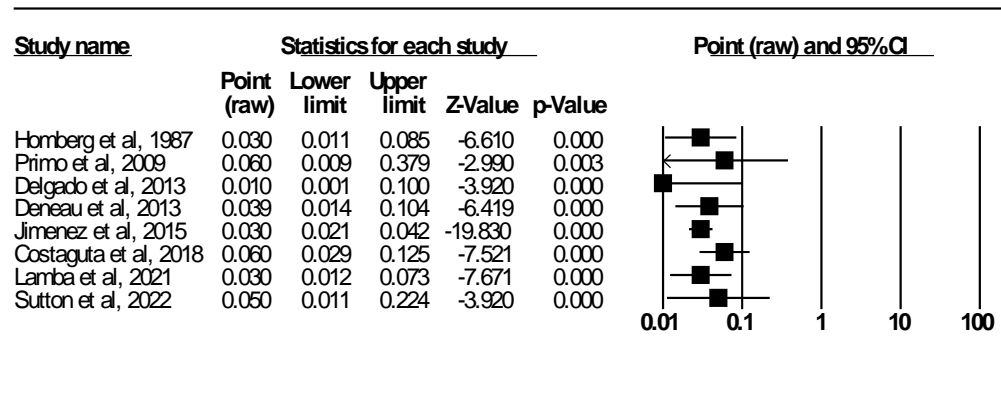


2) Funnel plot

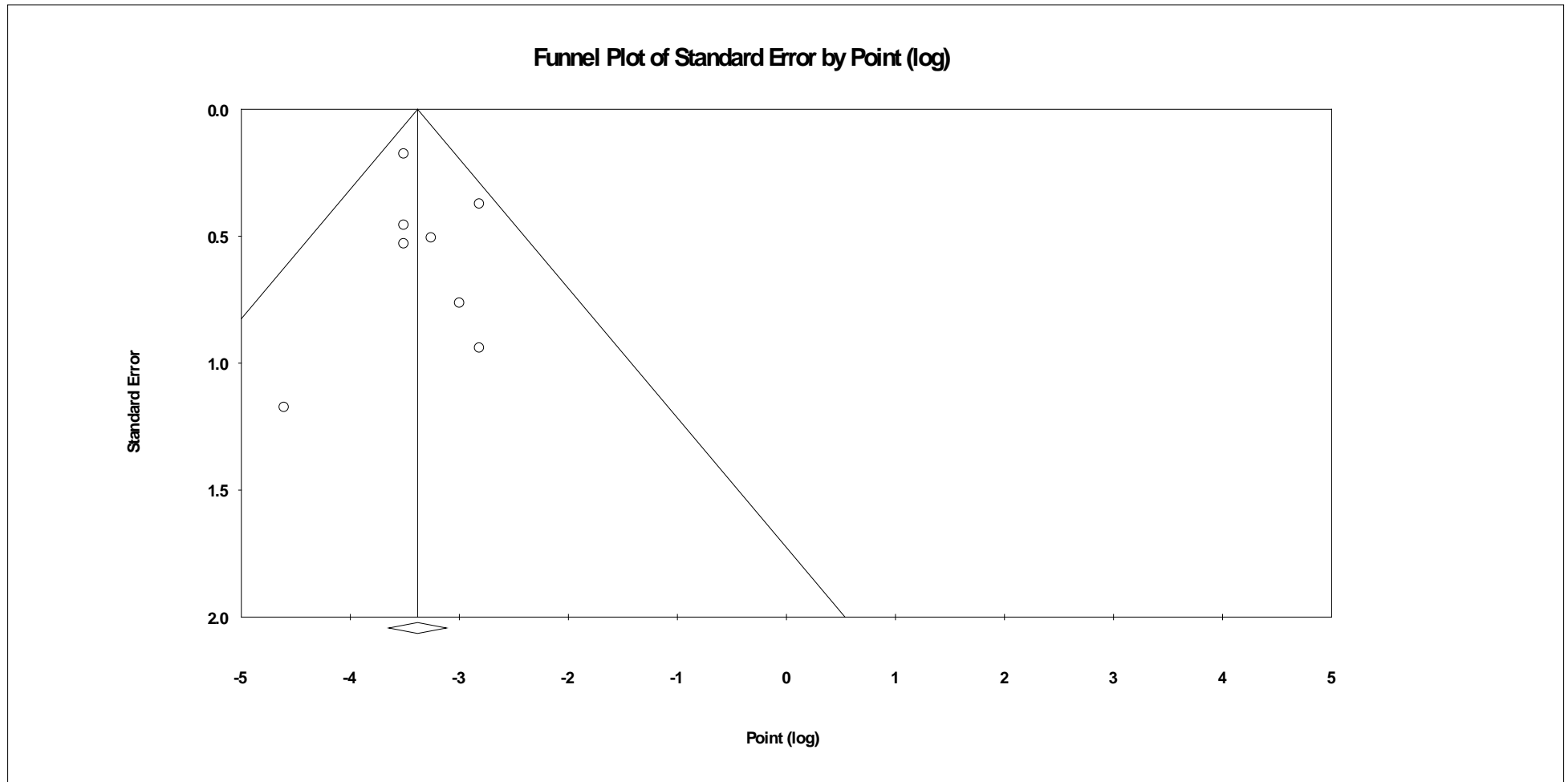


Supplementary Figure 37. Type II incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

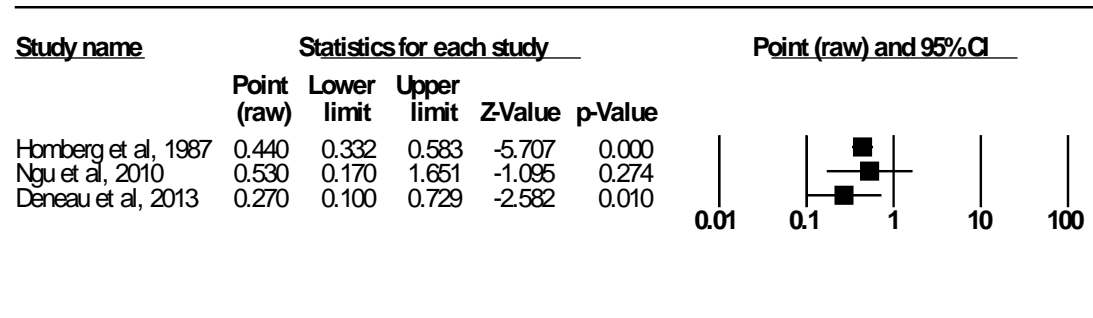


2) Funnel plot

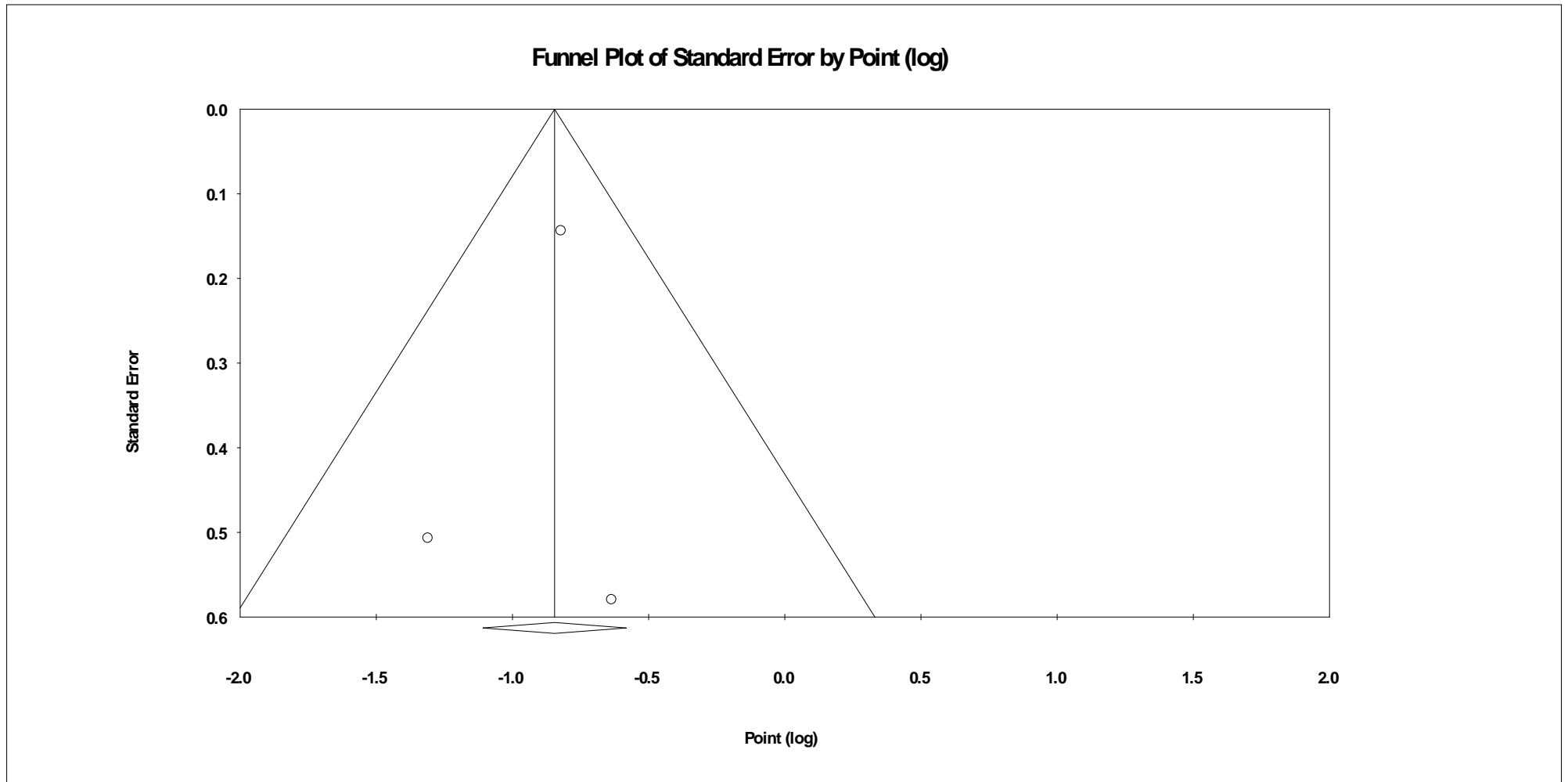


Supplementary Figure 38. Type II prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

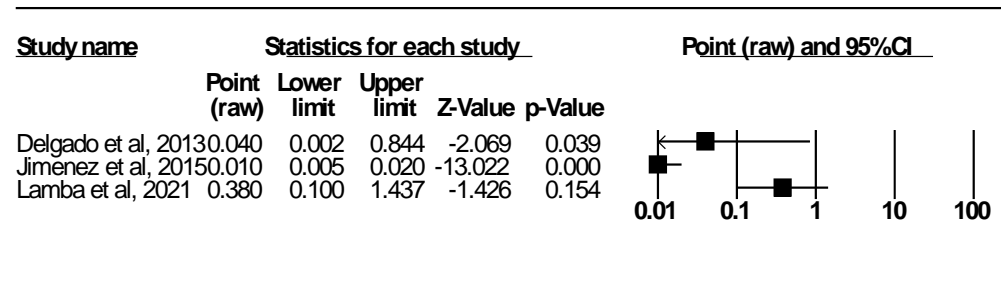


2) Funnel plot

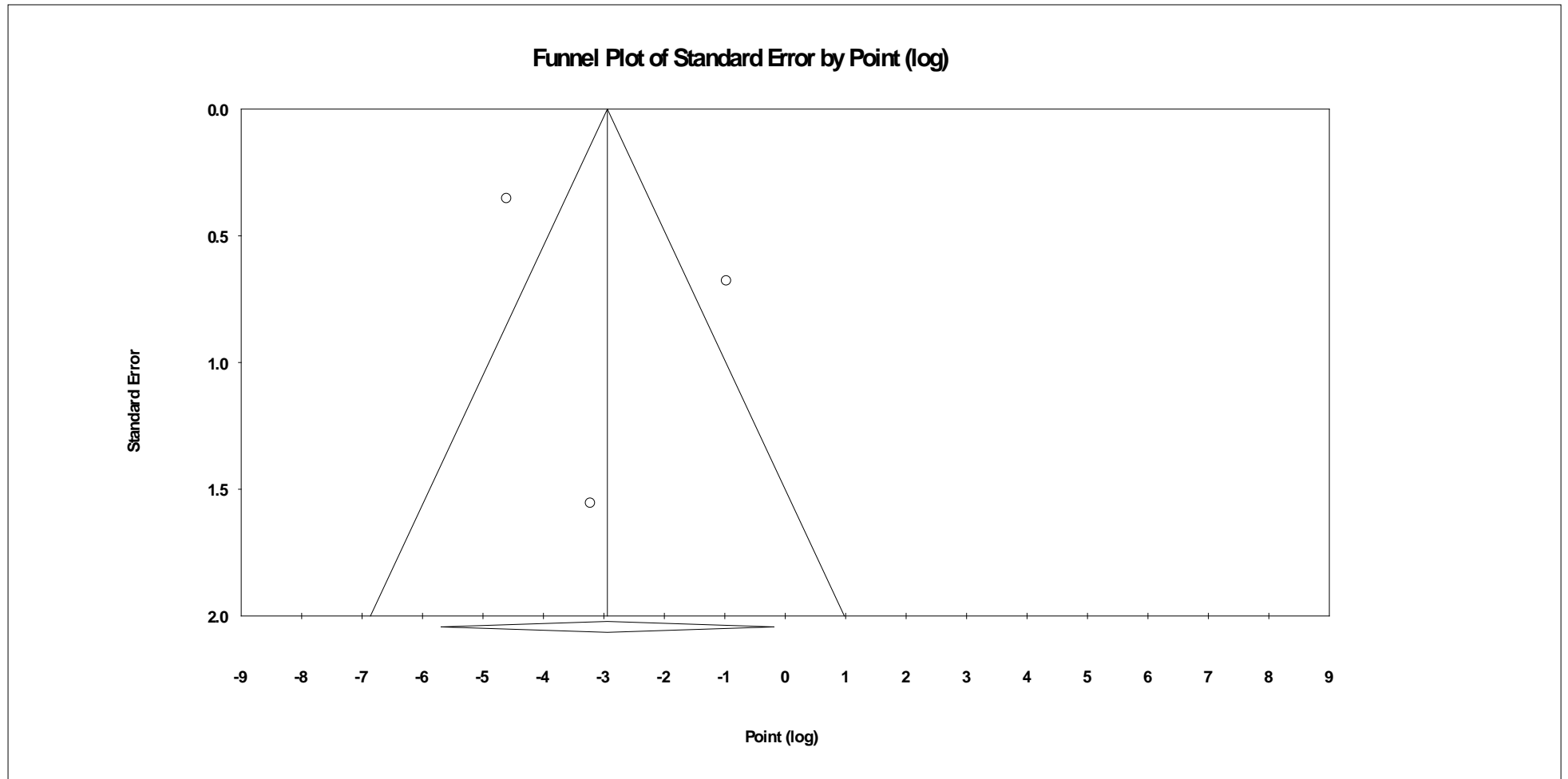


Supplementary Figure 39. Seronegative incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

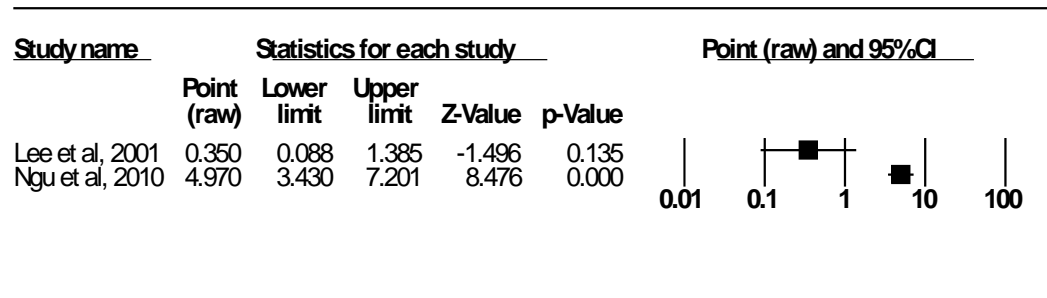


2) Funnel plot



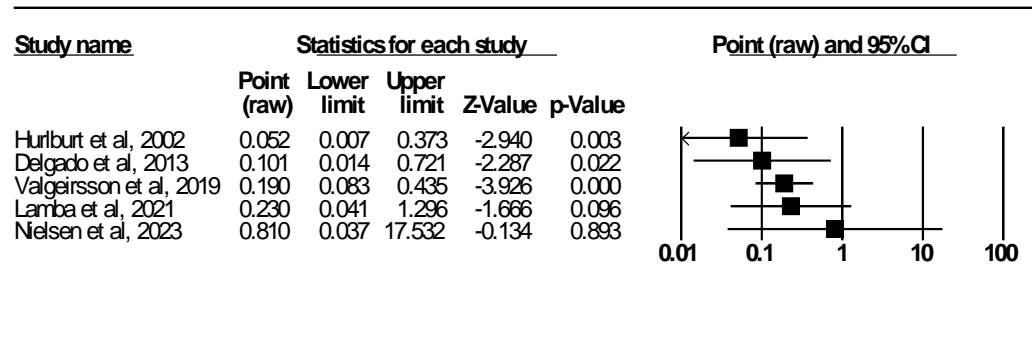
Supplementary Figure 40. Seronegative prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

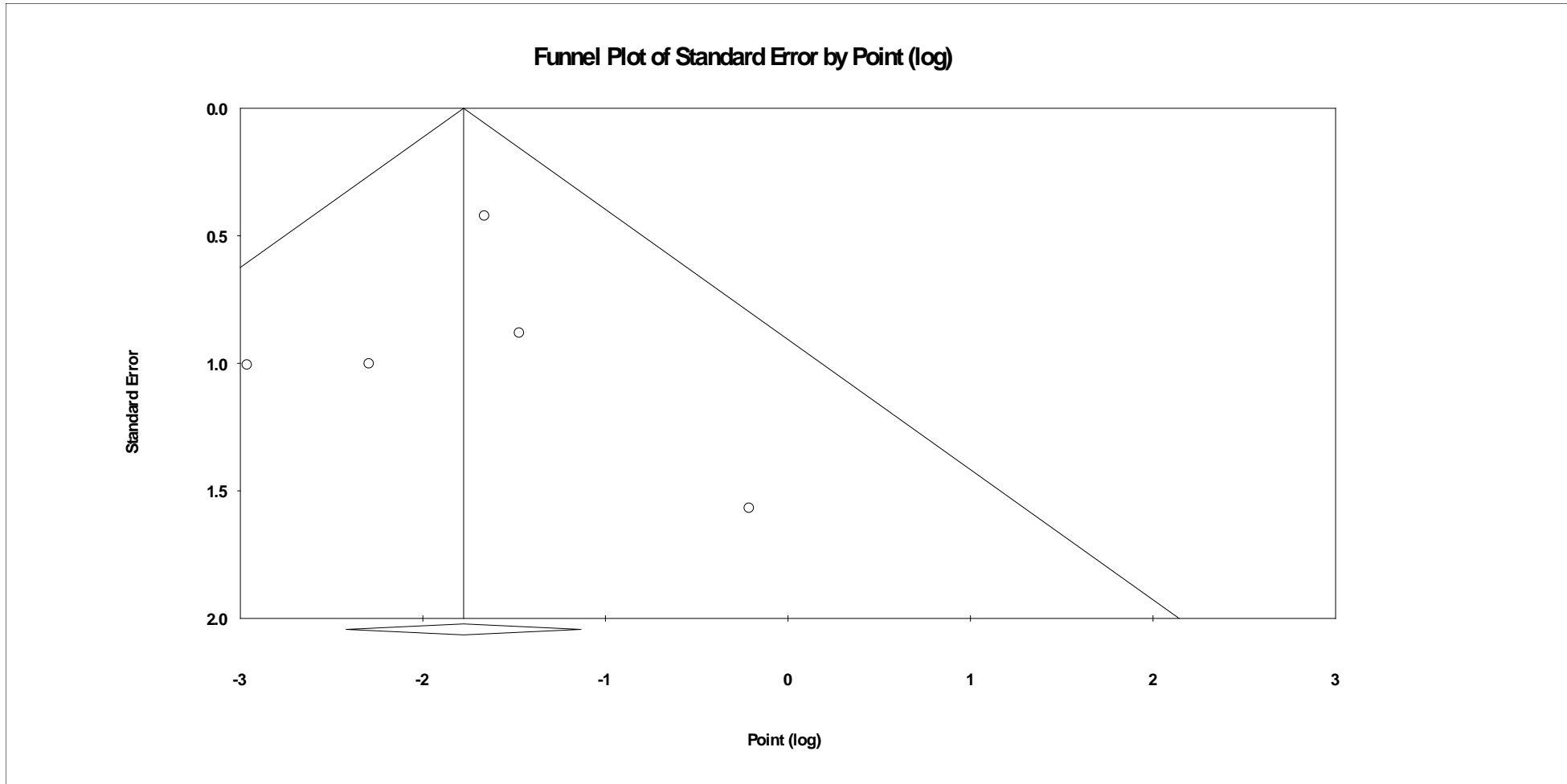


Supplementary Figure 41. Autoimmune hepatitis with primary biliary cirrhosis incidence included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

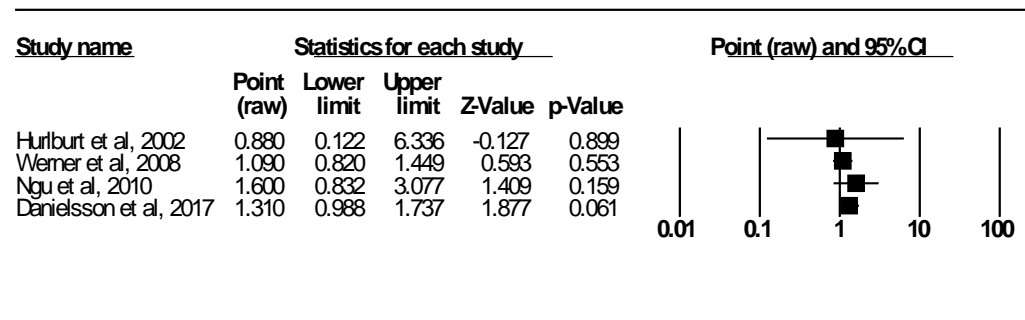


2) Funnel plot

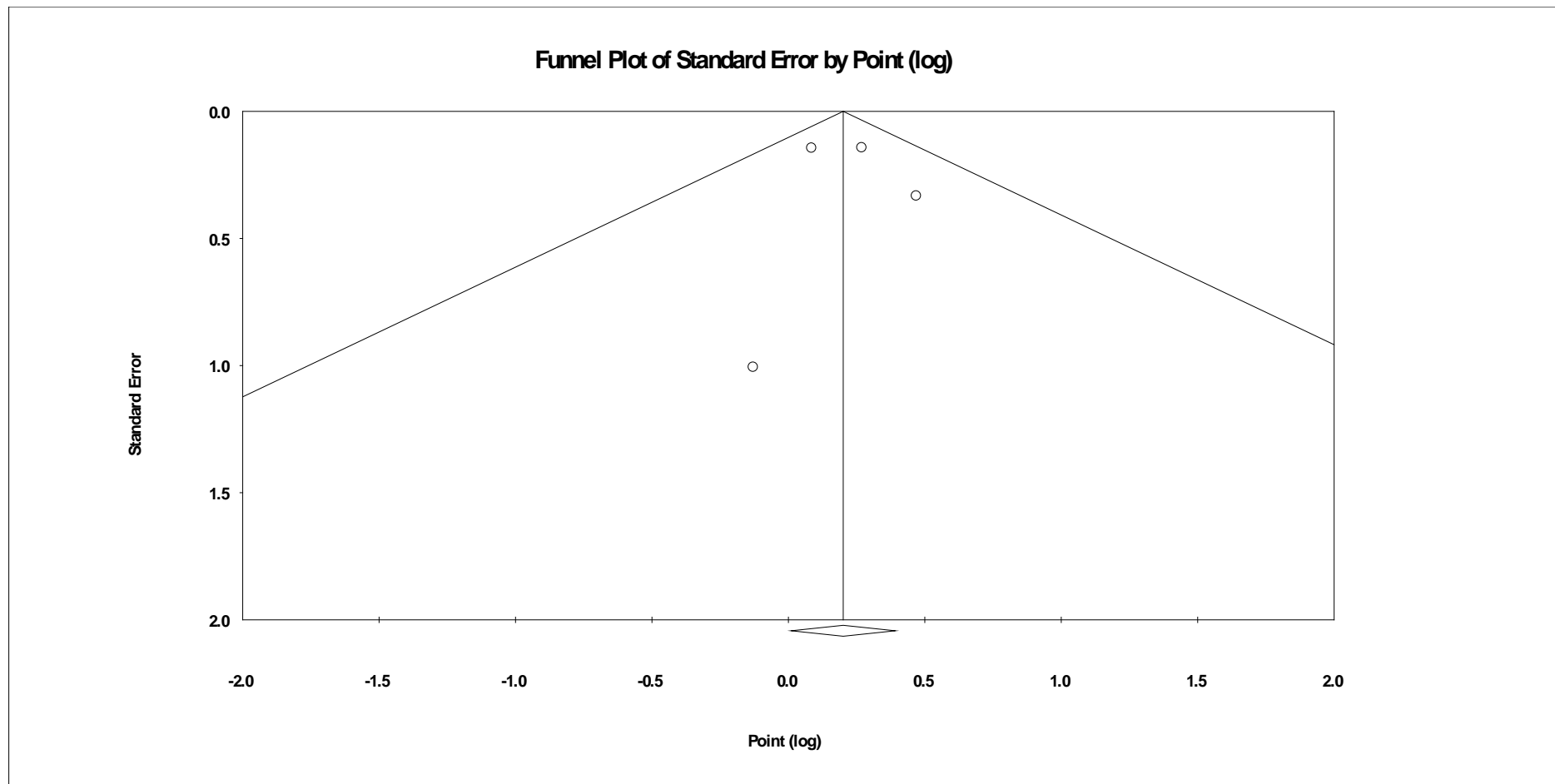


Supplementary Figure 42. Autoimmune hepatitis with primary biliary cirrhosis prevalence included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

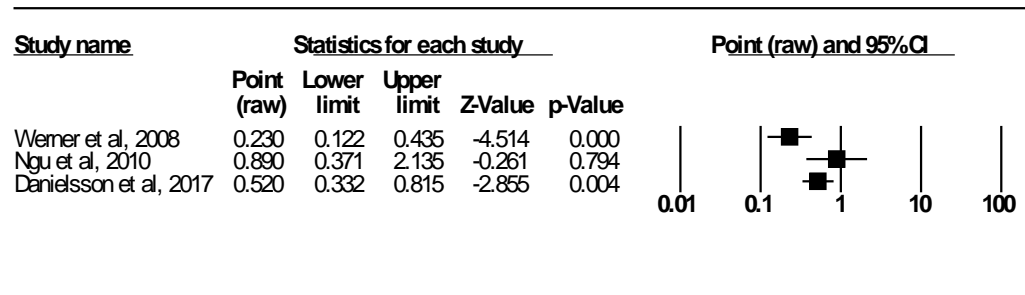


2) Funnel plot

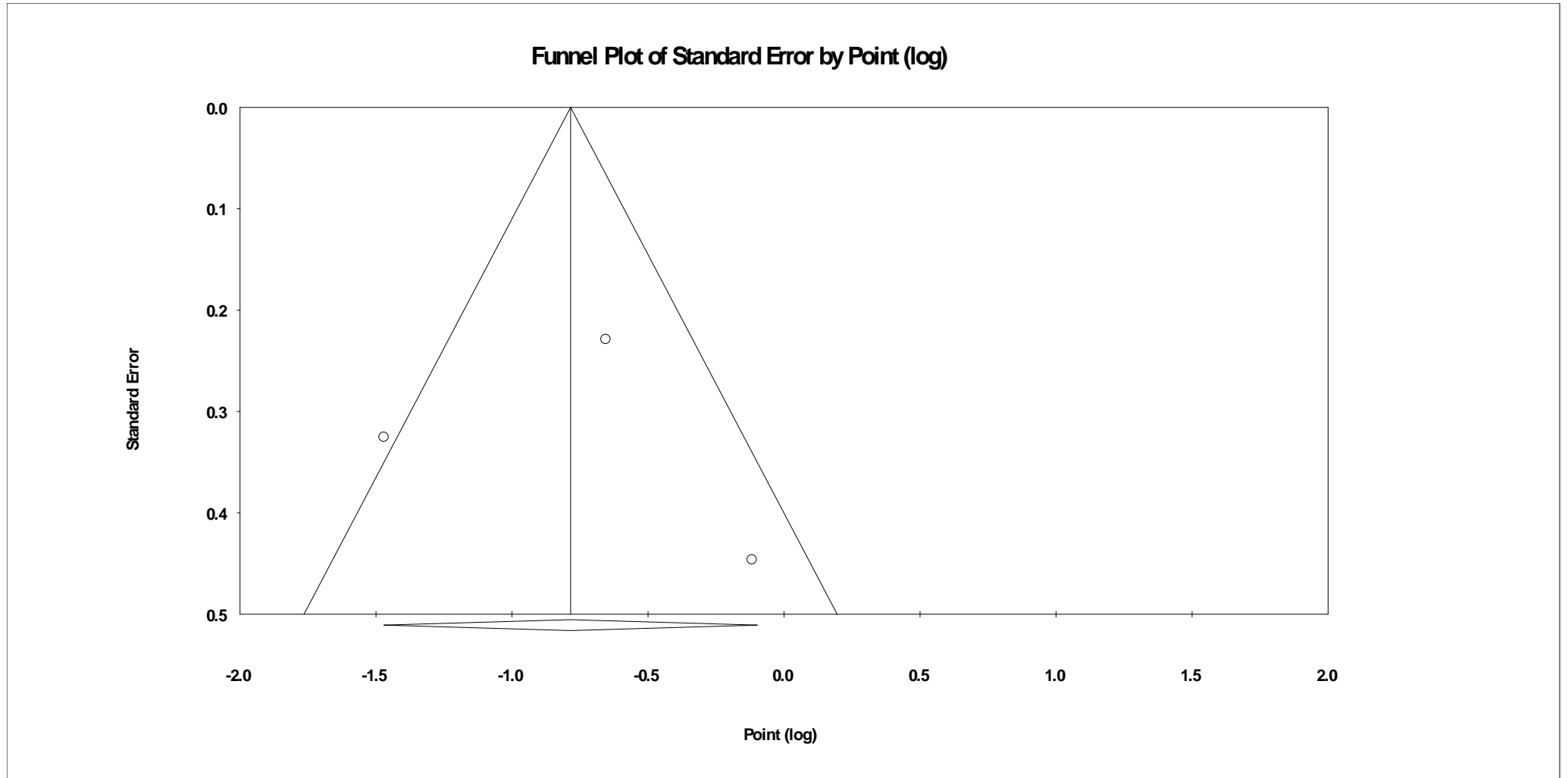


Supplementary Figure 43. Autoimmune hepatitis with primary sclerosing cholangitis prevalence included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

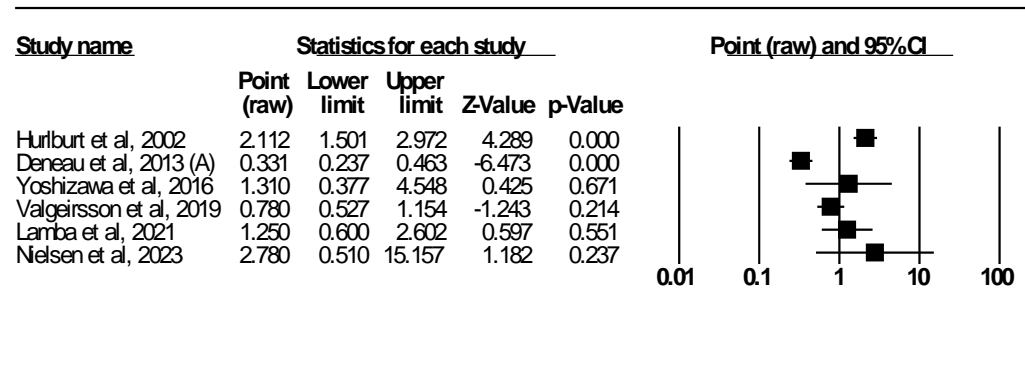


2) Funnel plot

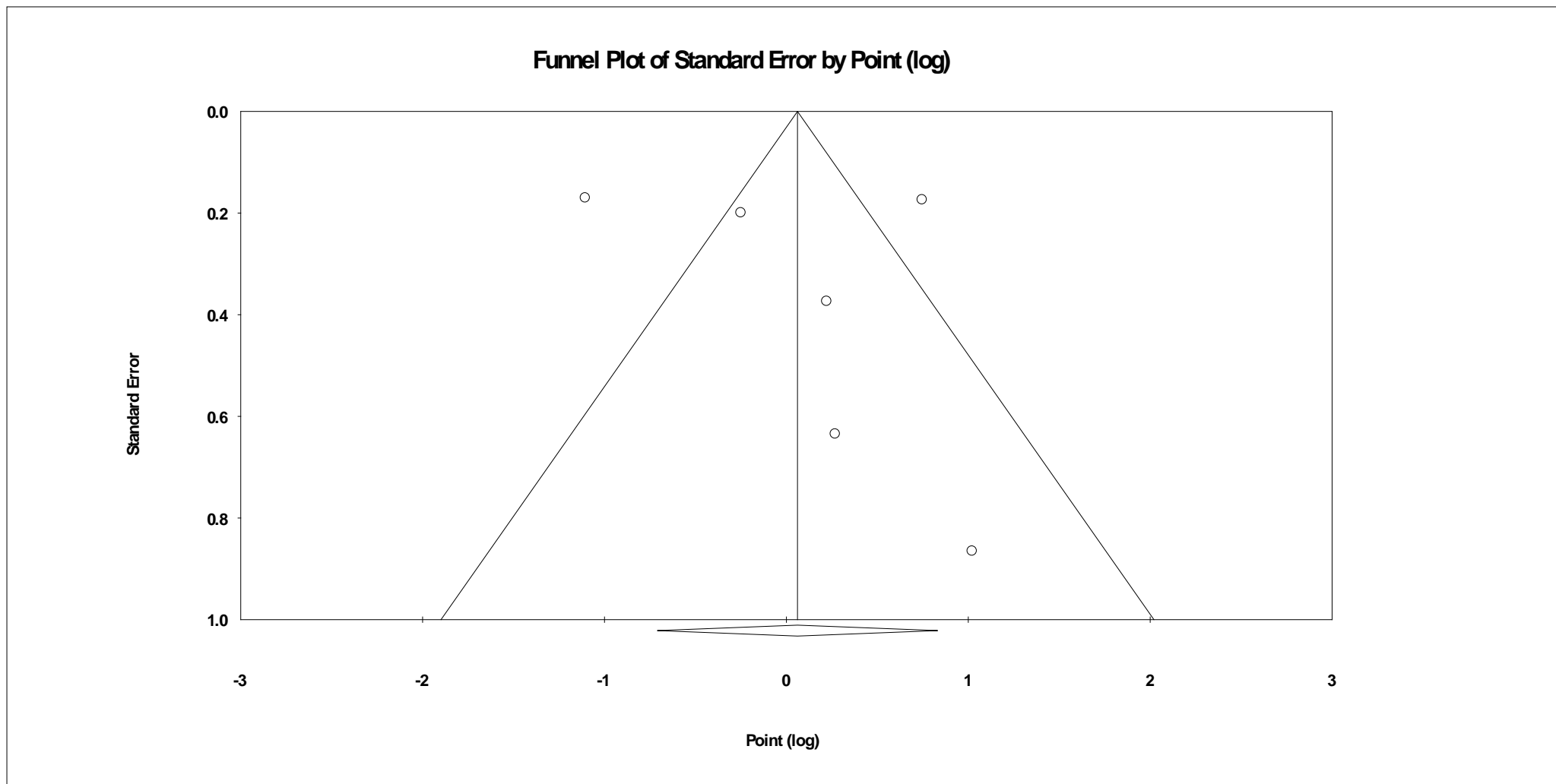


Supplementary Figure 44. Definite autoimmune hepatitis incidence included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

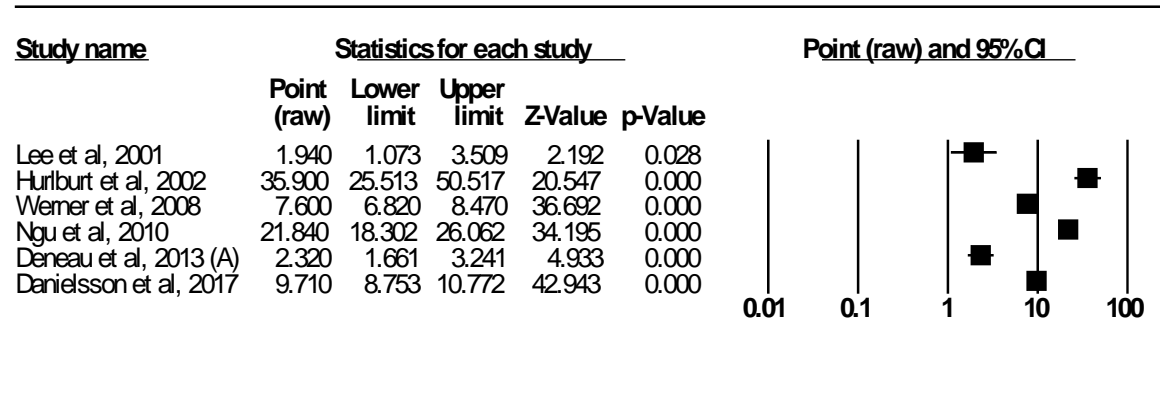


2) Funnel plot

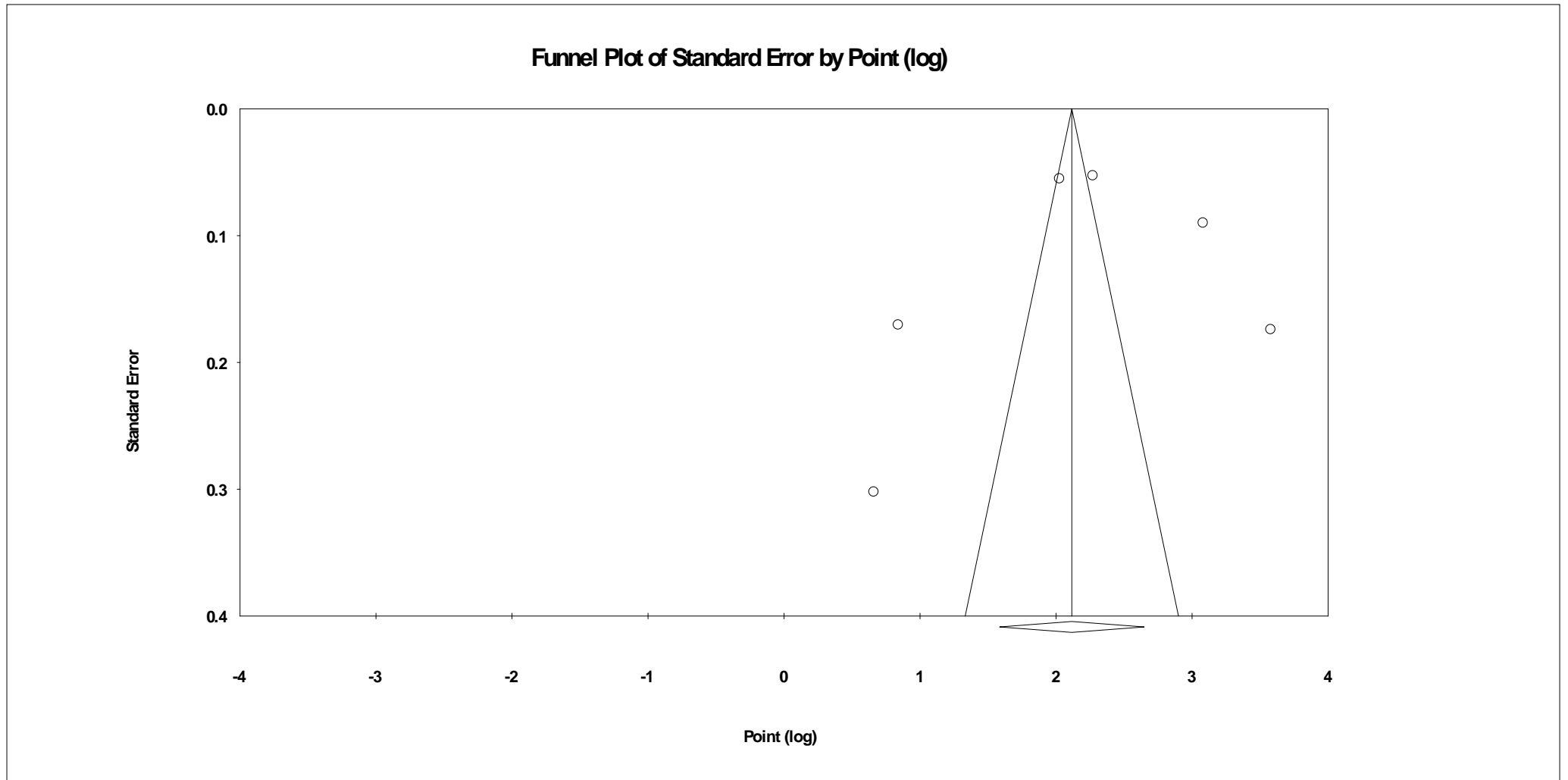


Supplementary Figure 45. Definite autoimmune hepatitis prevalence included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

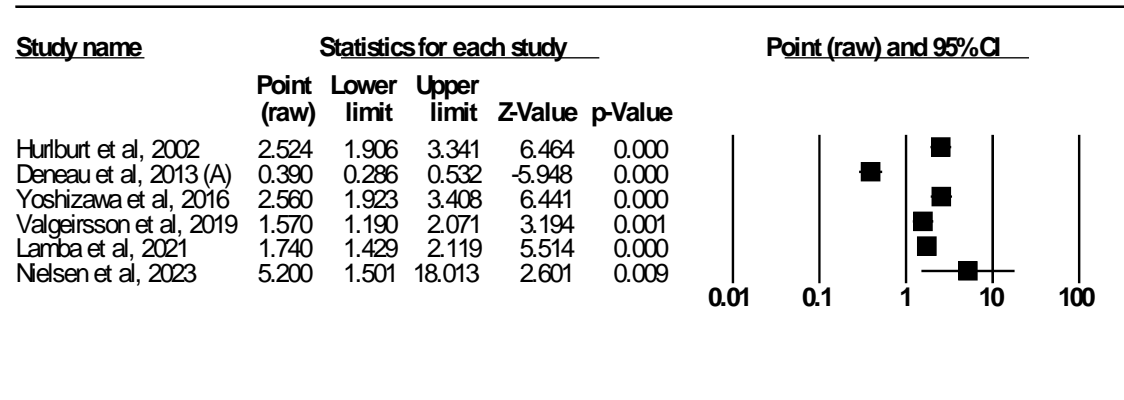


2) Funnel plot

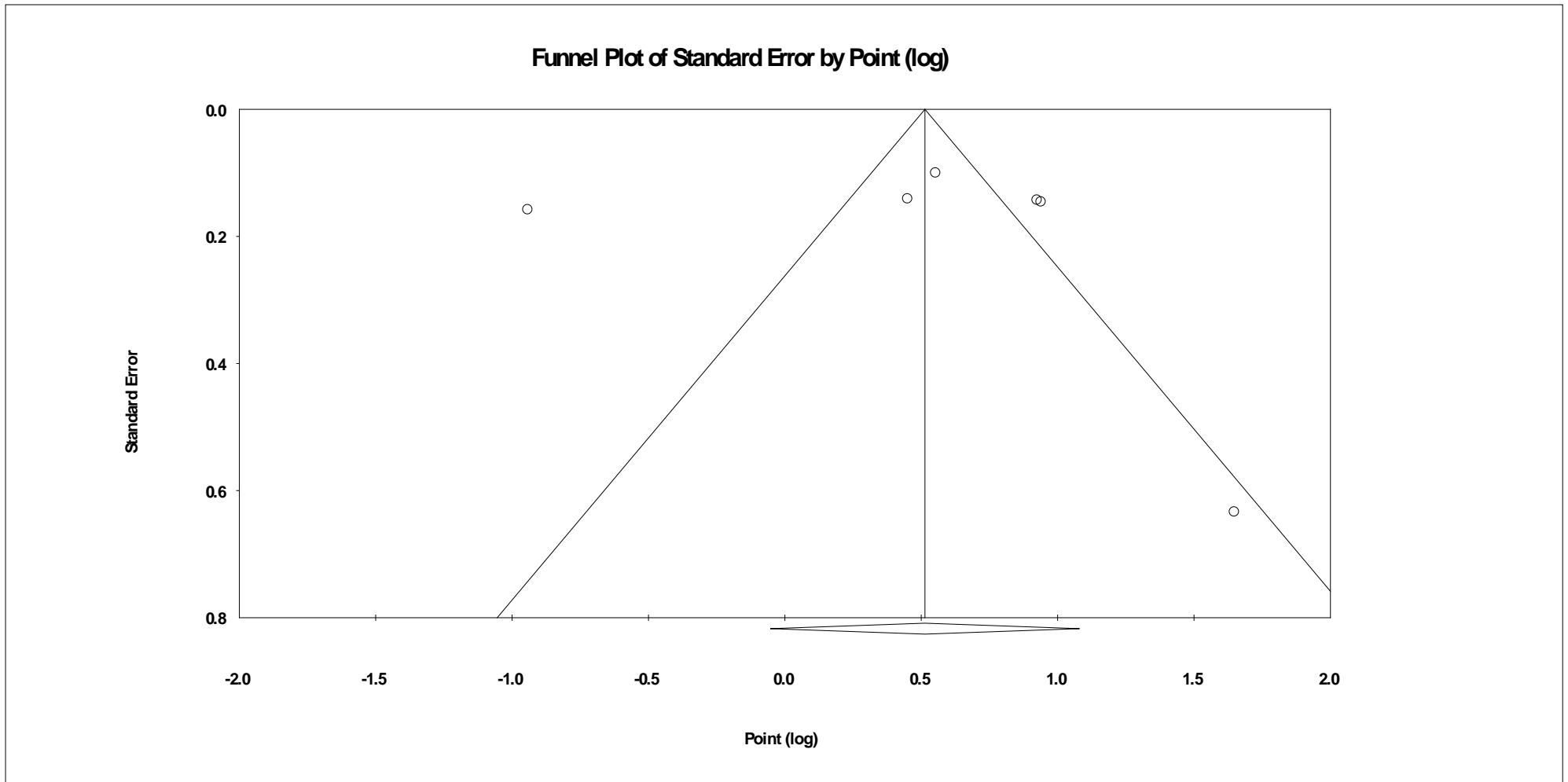


Supplementary Figure 46. Definite and probable autoimmune hepatitis incidence included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

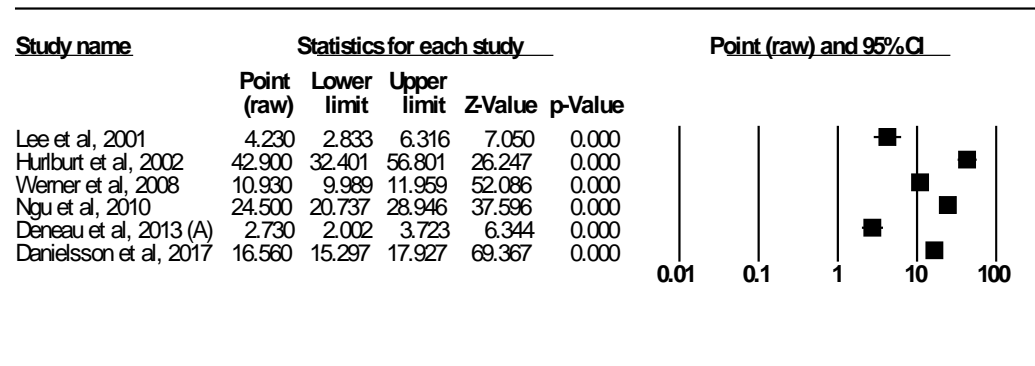


2) Funnel plot

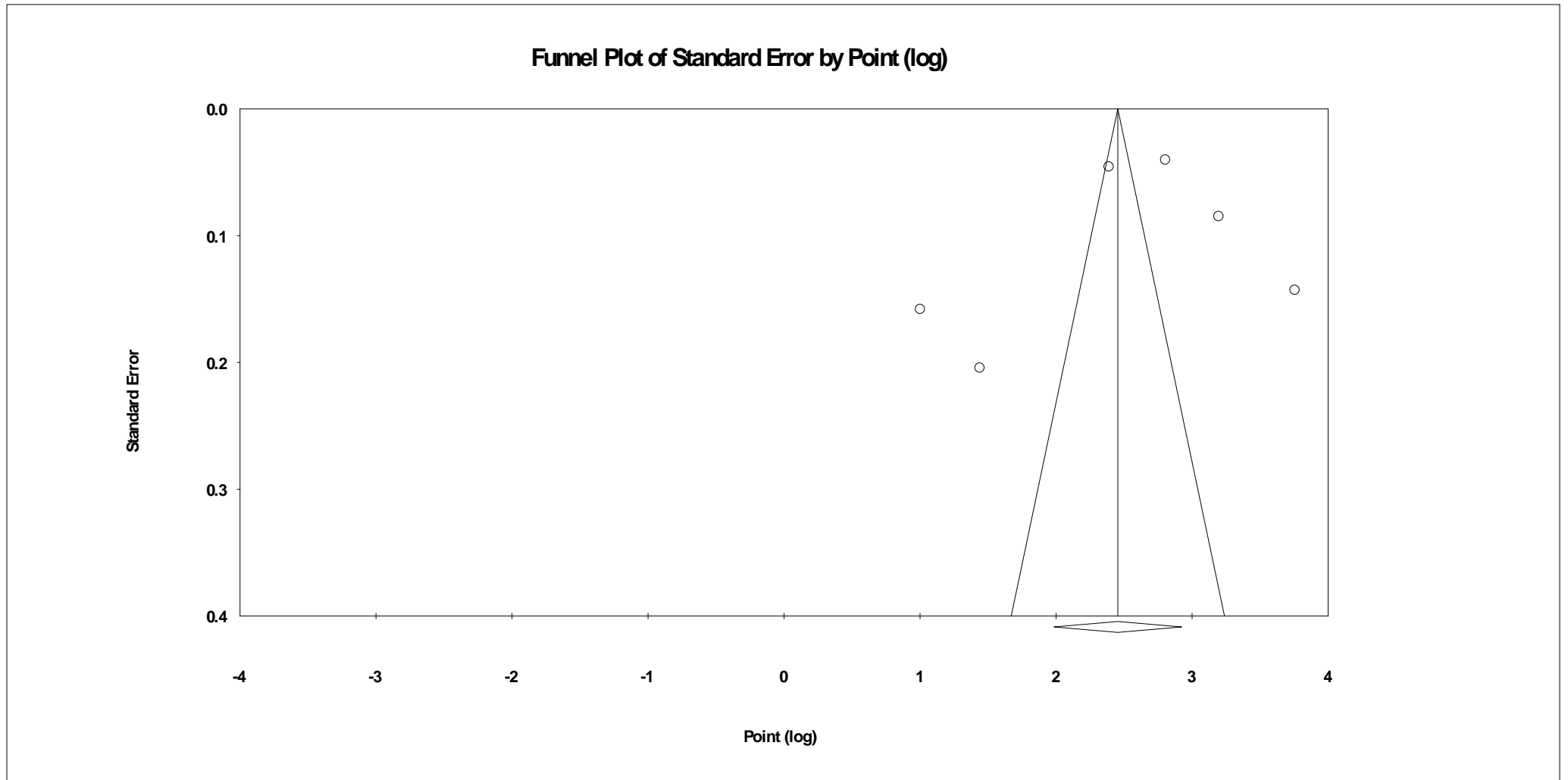


Supplementary Figure 47. Definite and probable autoimmune hepatitis prevalence included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

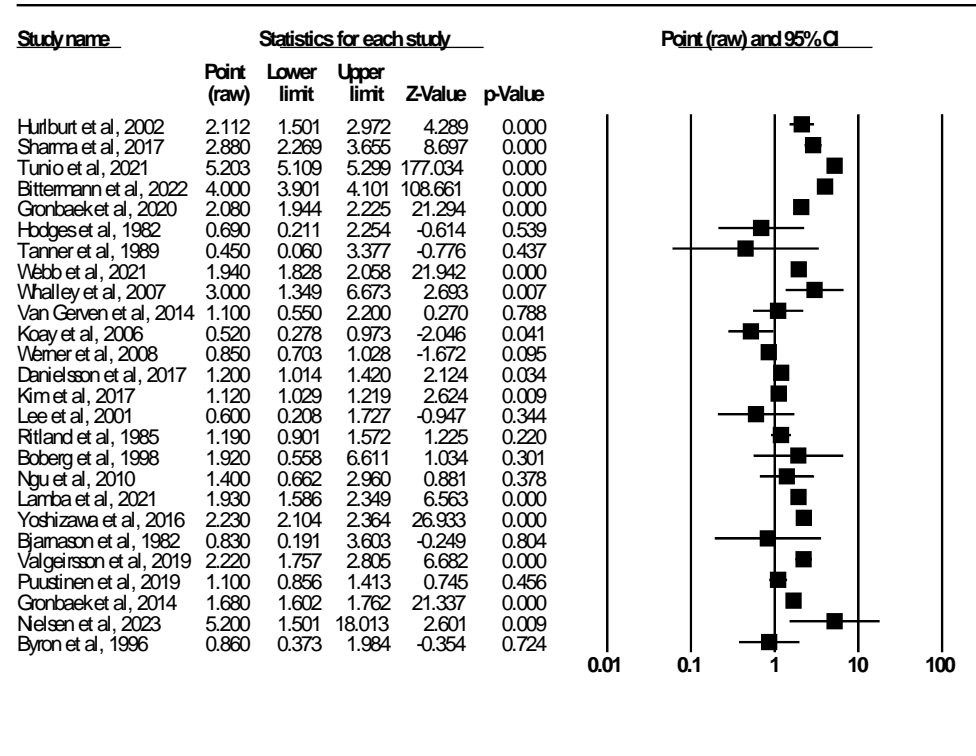


2) Funnel plot

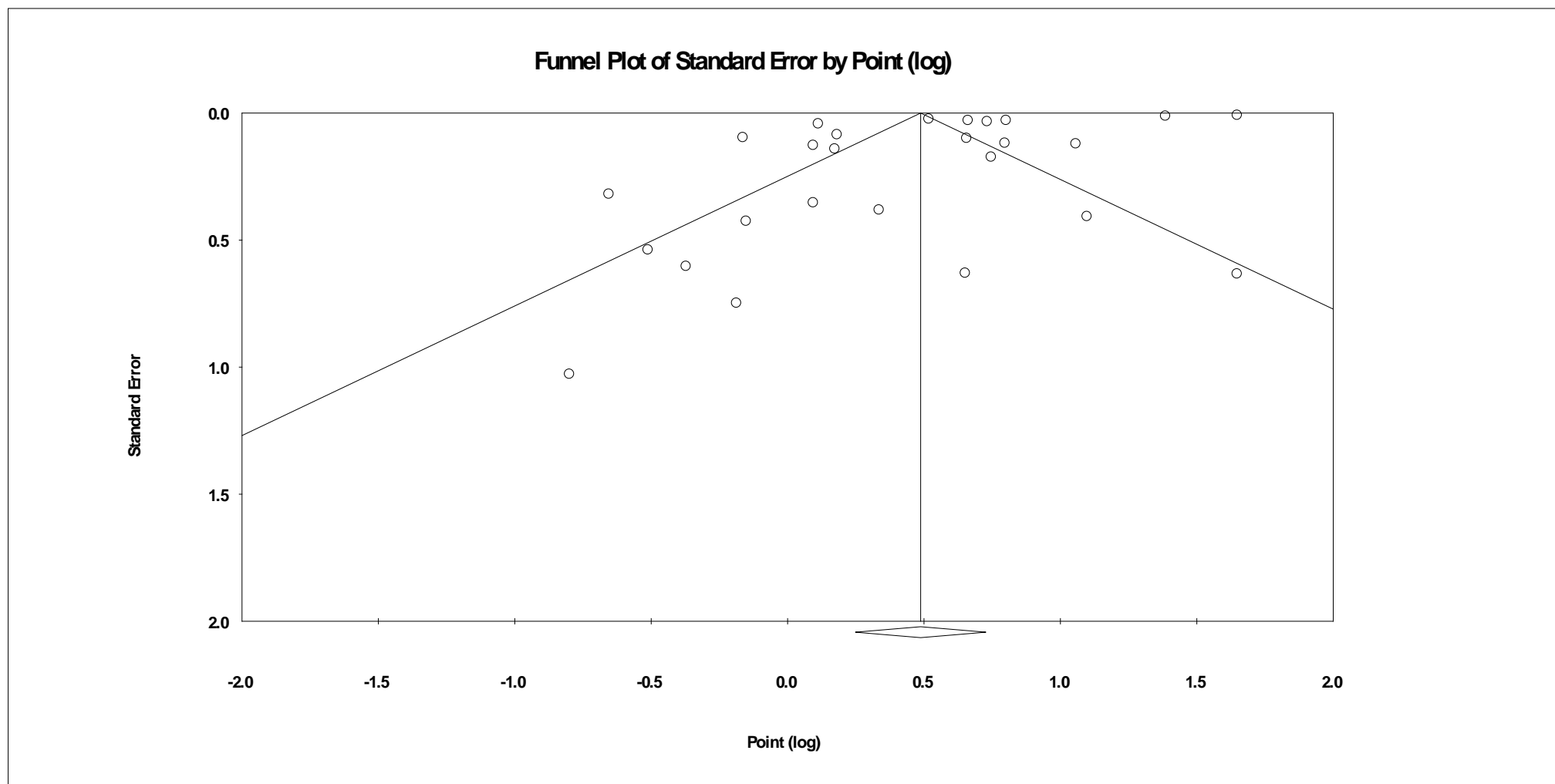


Supplementary Figure 48. Human Development Index over 0.92 incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

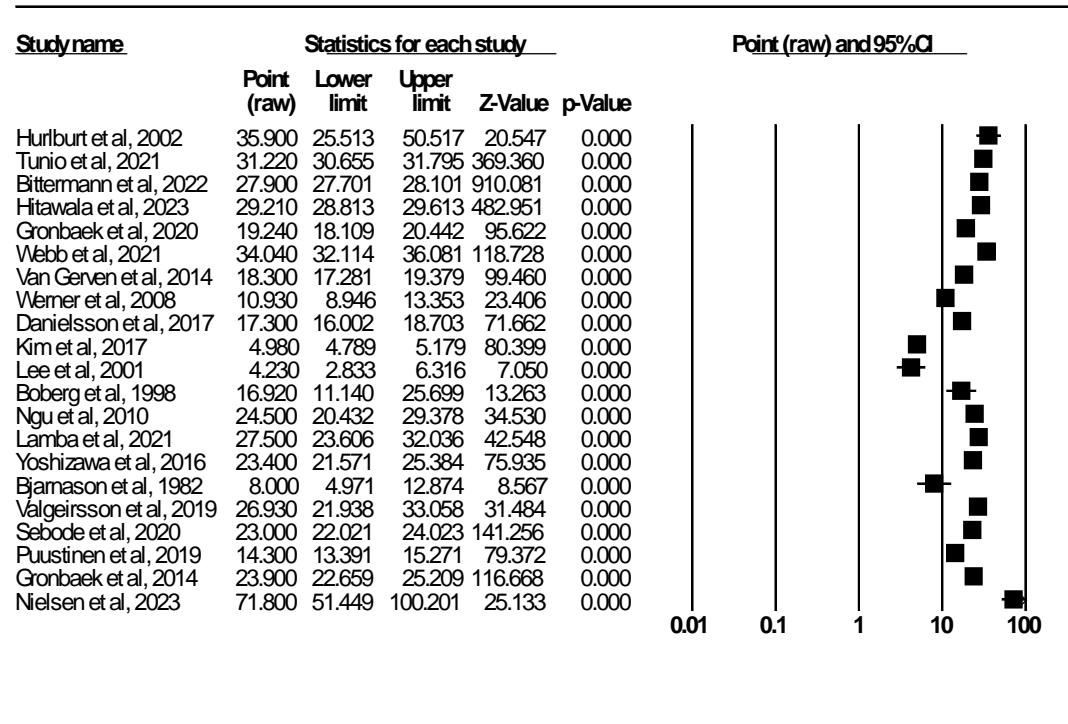


2) Funnel plot

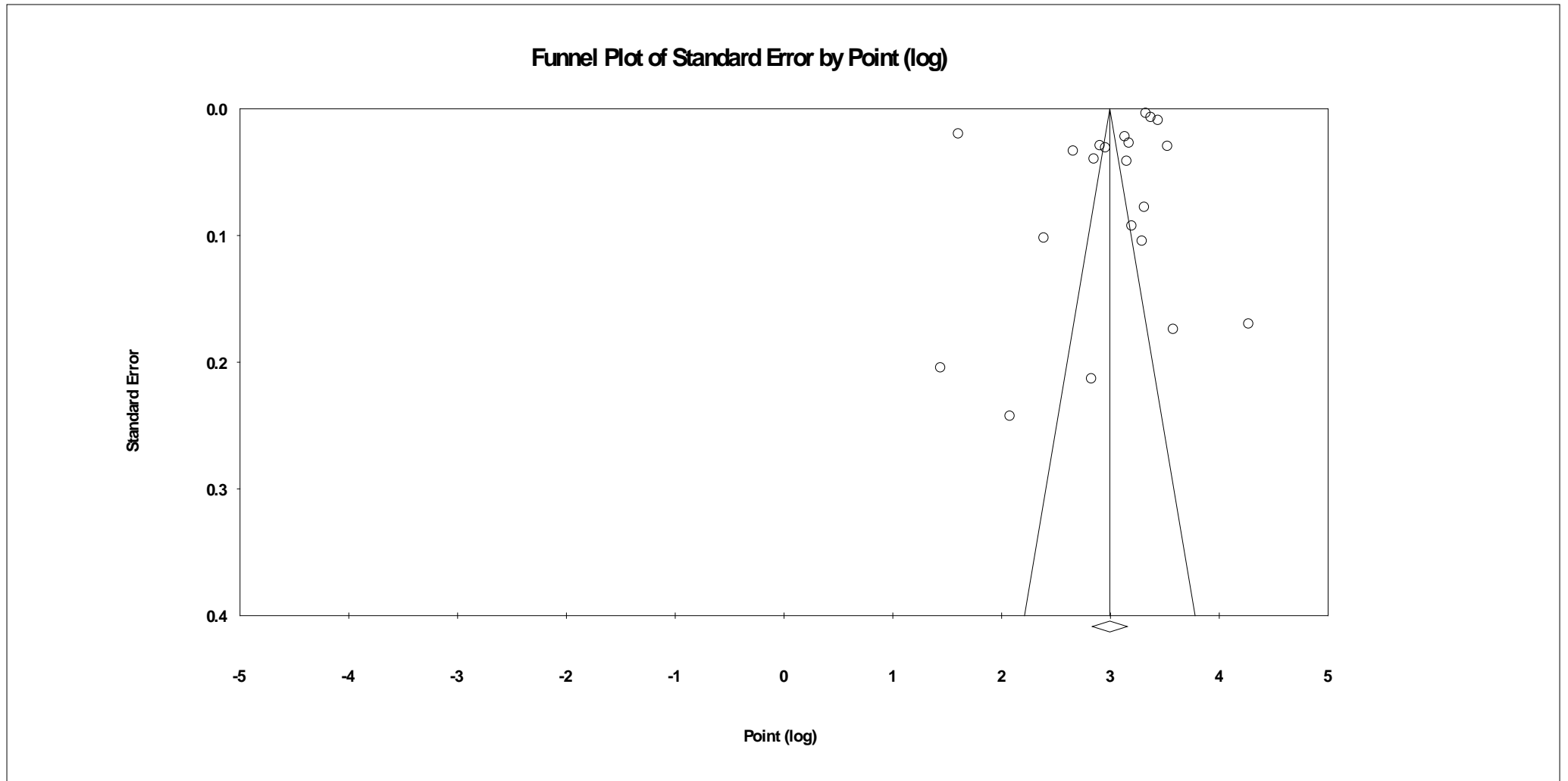


Supplementary Figure 49. Human Development Index over 0.92 prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

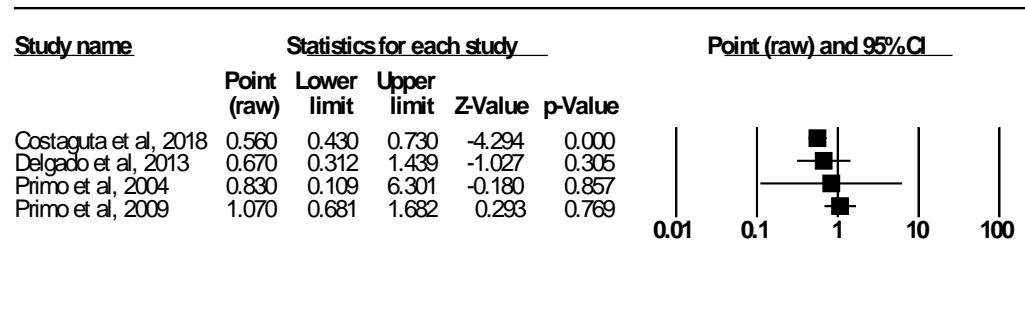


2) Funnel plot

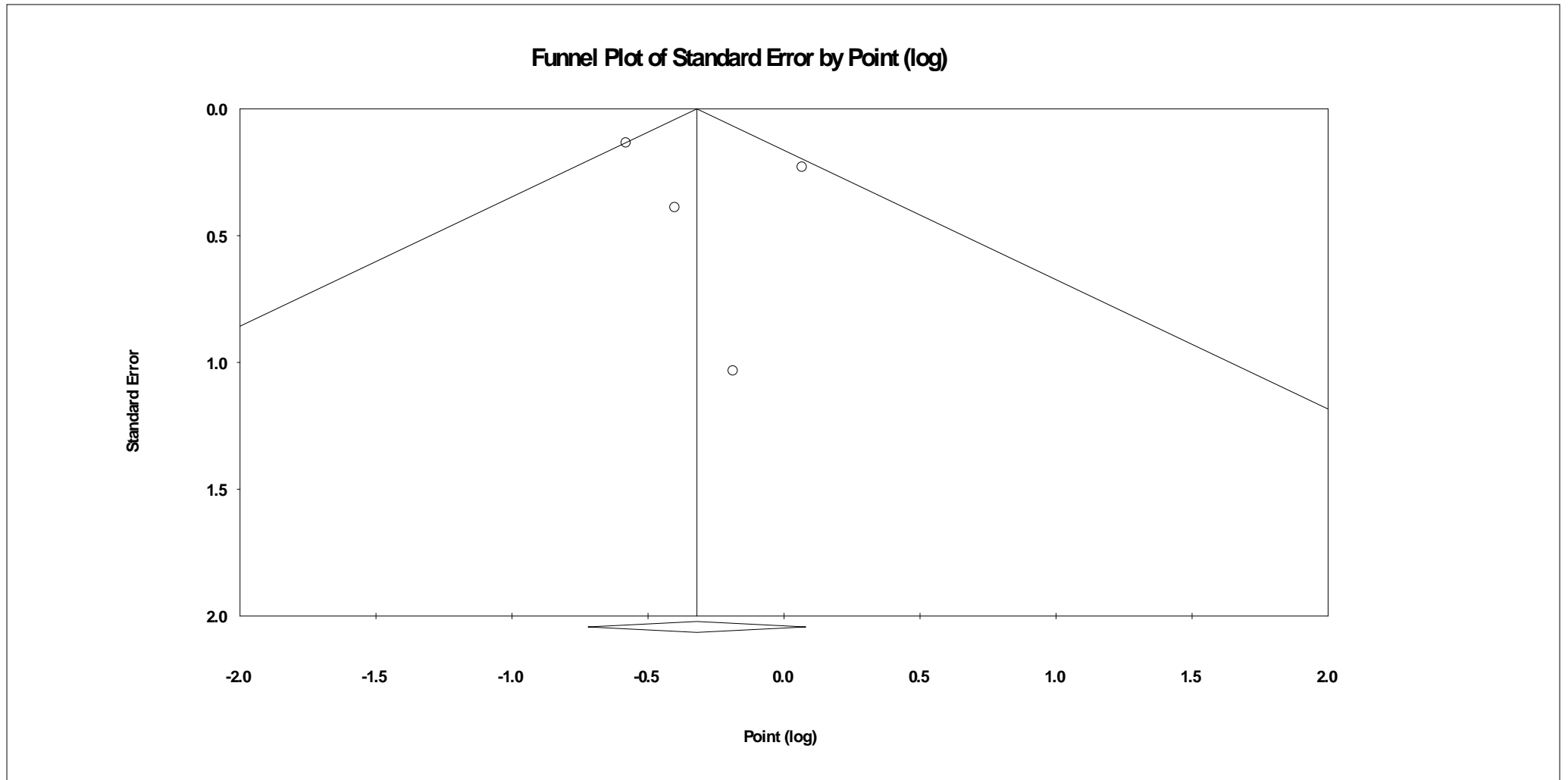


Supplementary Figure 50. Human Development Index under 0.92 incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

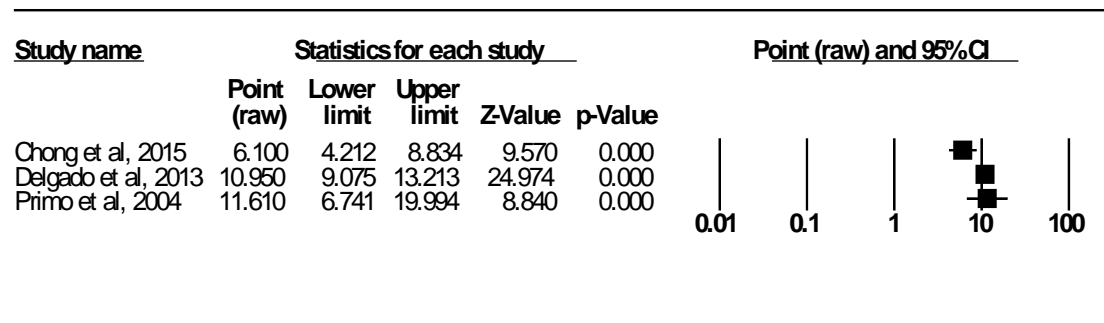


2) Funnel plot

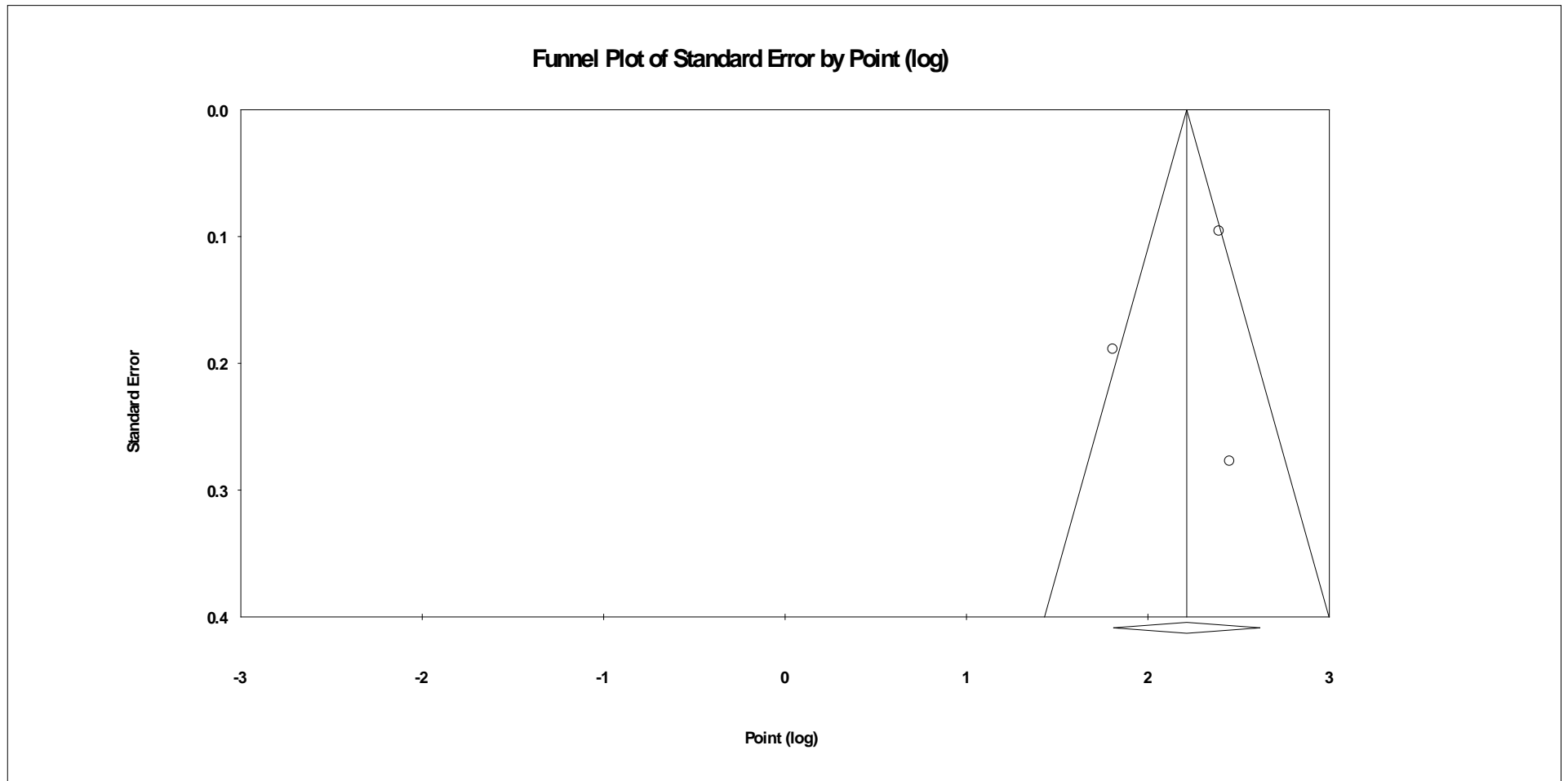


Supplementary Figure 51. Human Development Index under 0.92 prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

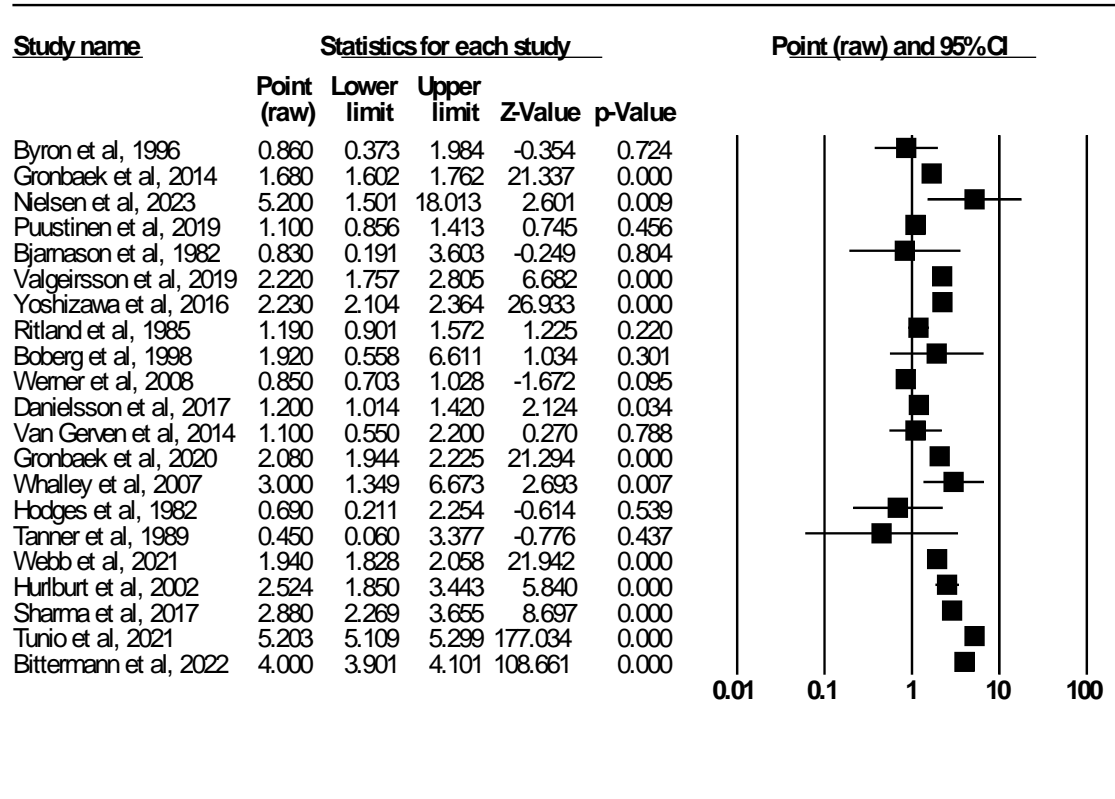


2) Funnel plot

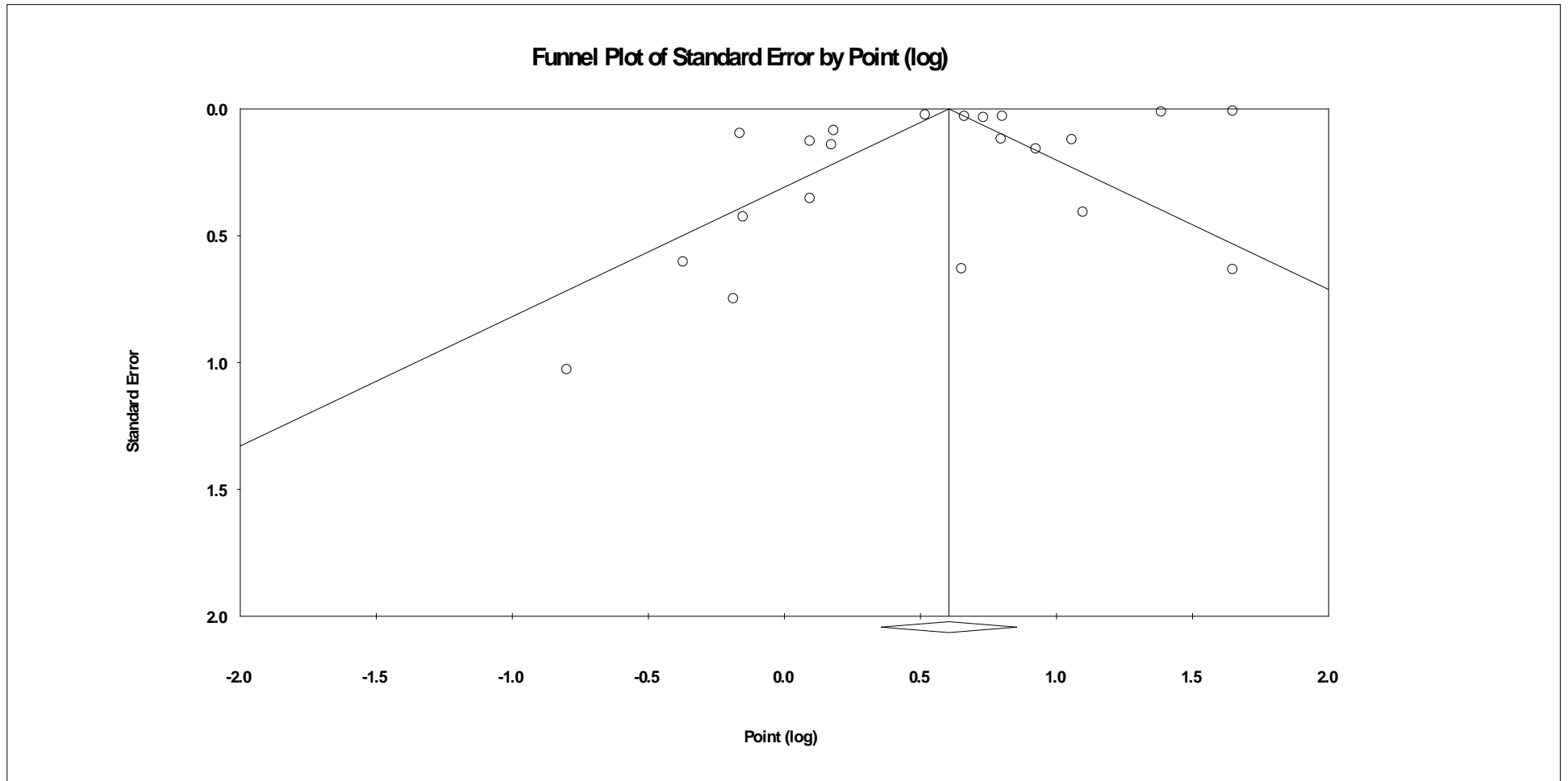


Supplementary Figure 52. Geographic latitude Above 45° incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

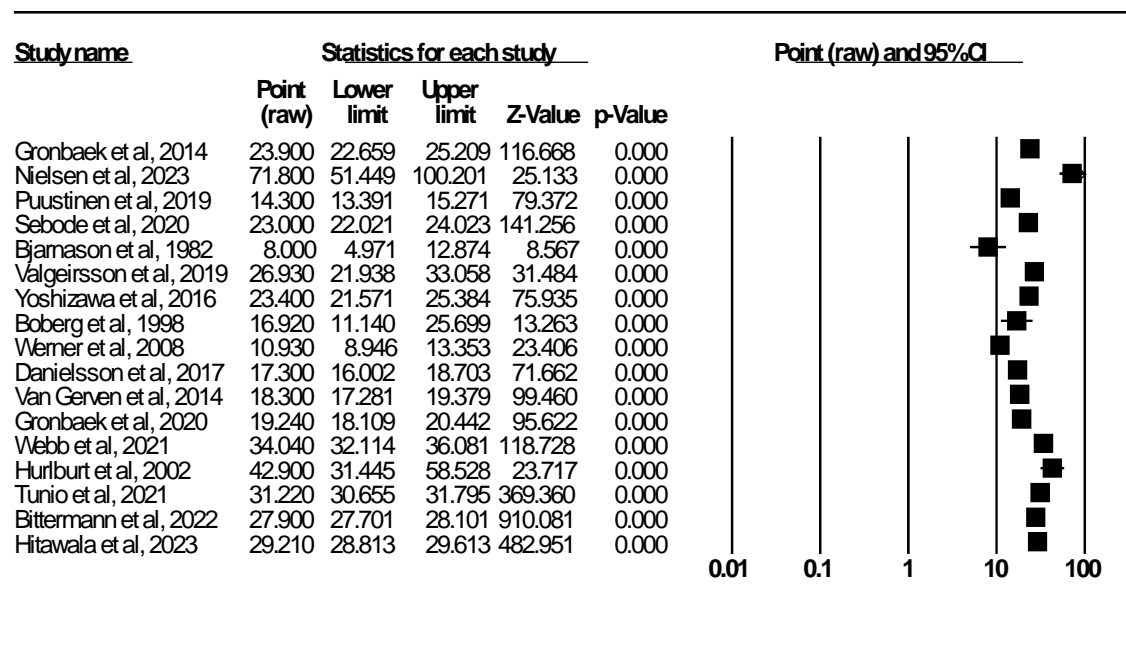


2) Funnel plot

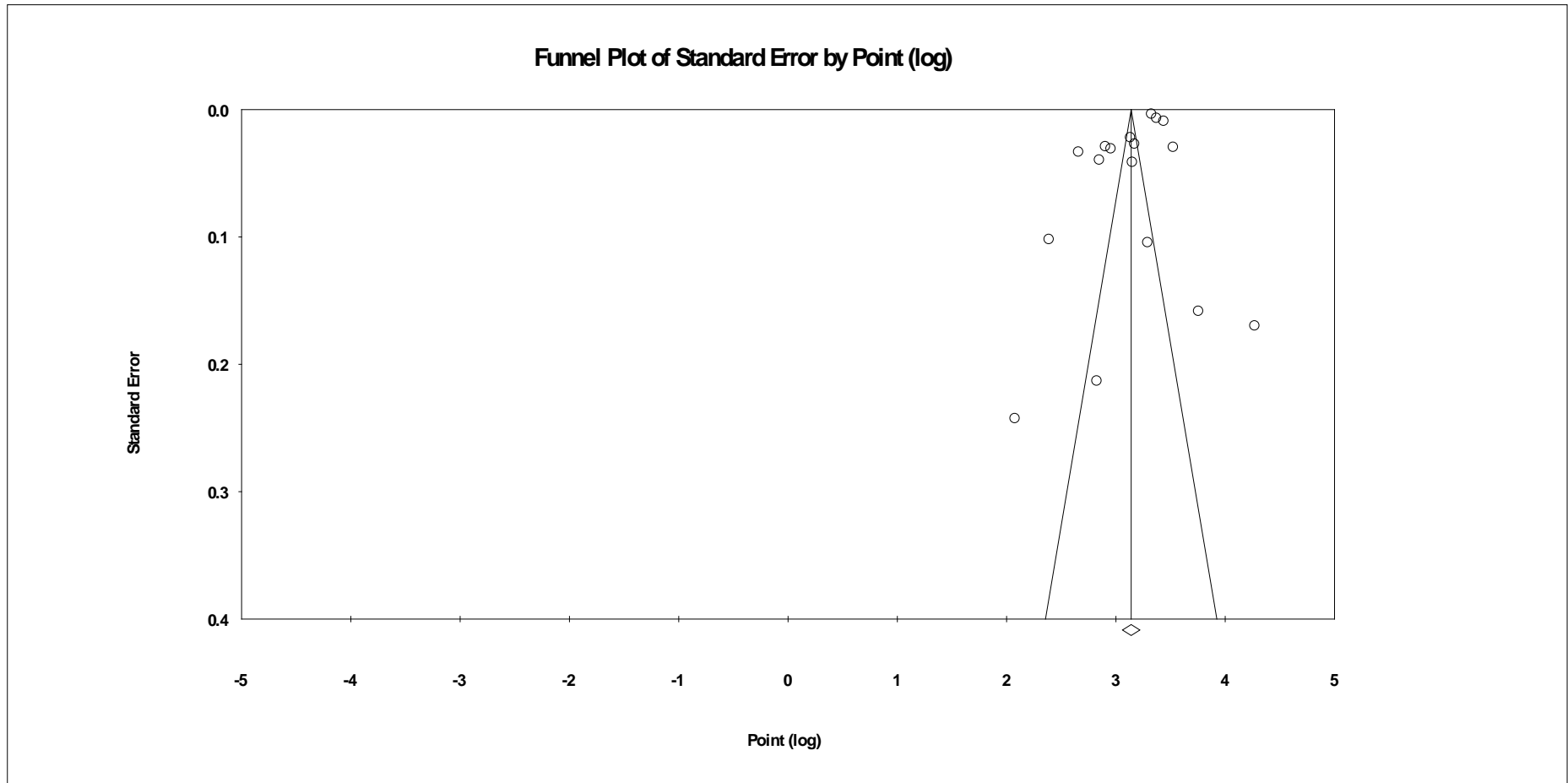


Supplementary Figure 53. Geographic latitude Above 45° prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

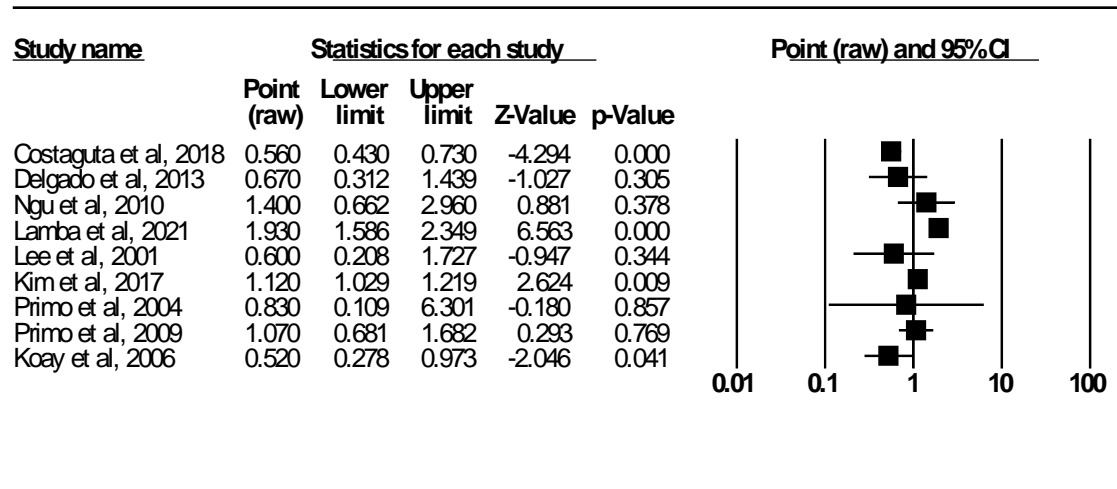


2) Funnel plot

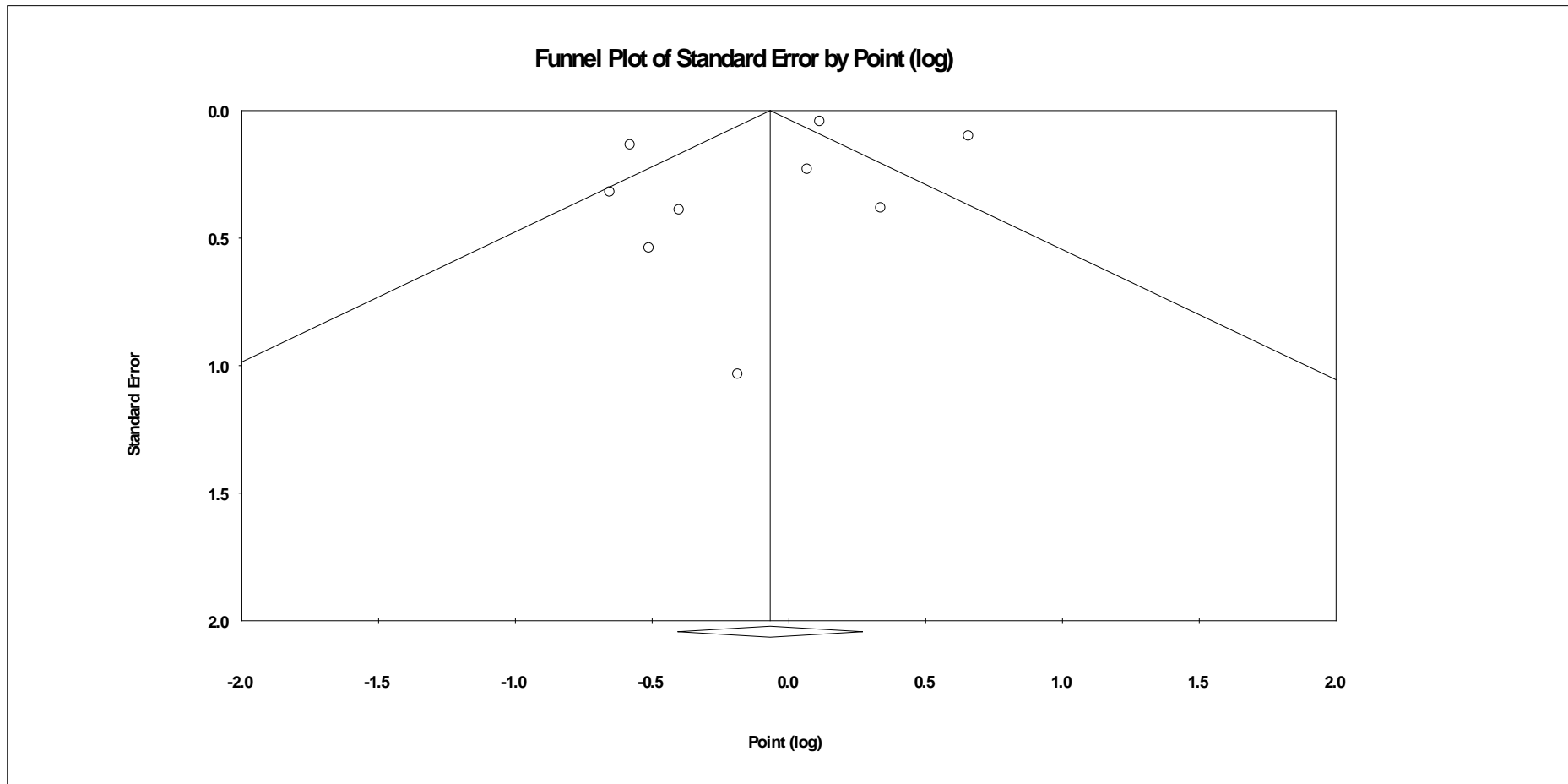


Supplementary Figure 54. Geographic latitude below 45° incidence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitant-years.

1) Forest plot

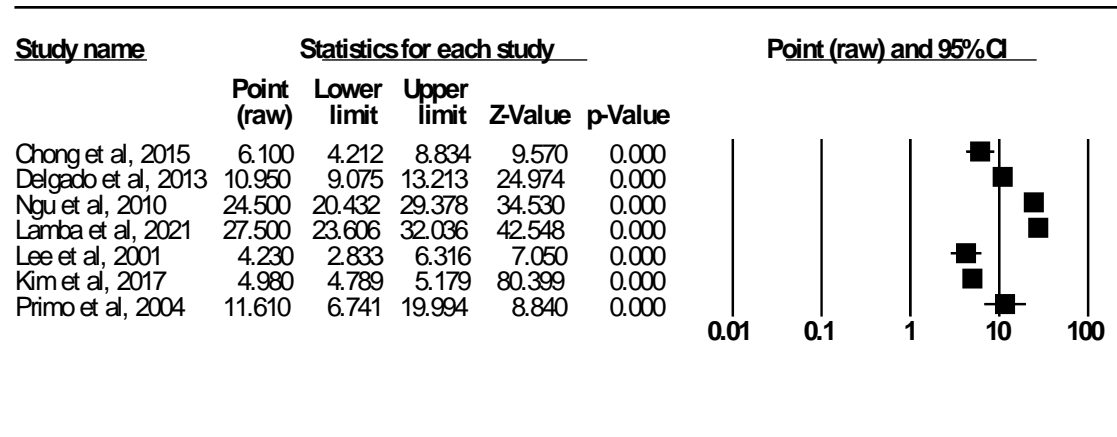


2) Funnel plot

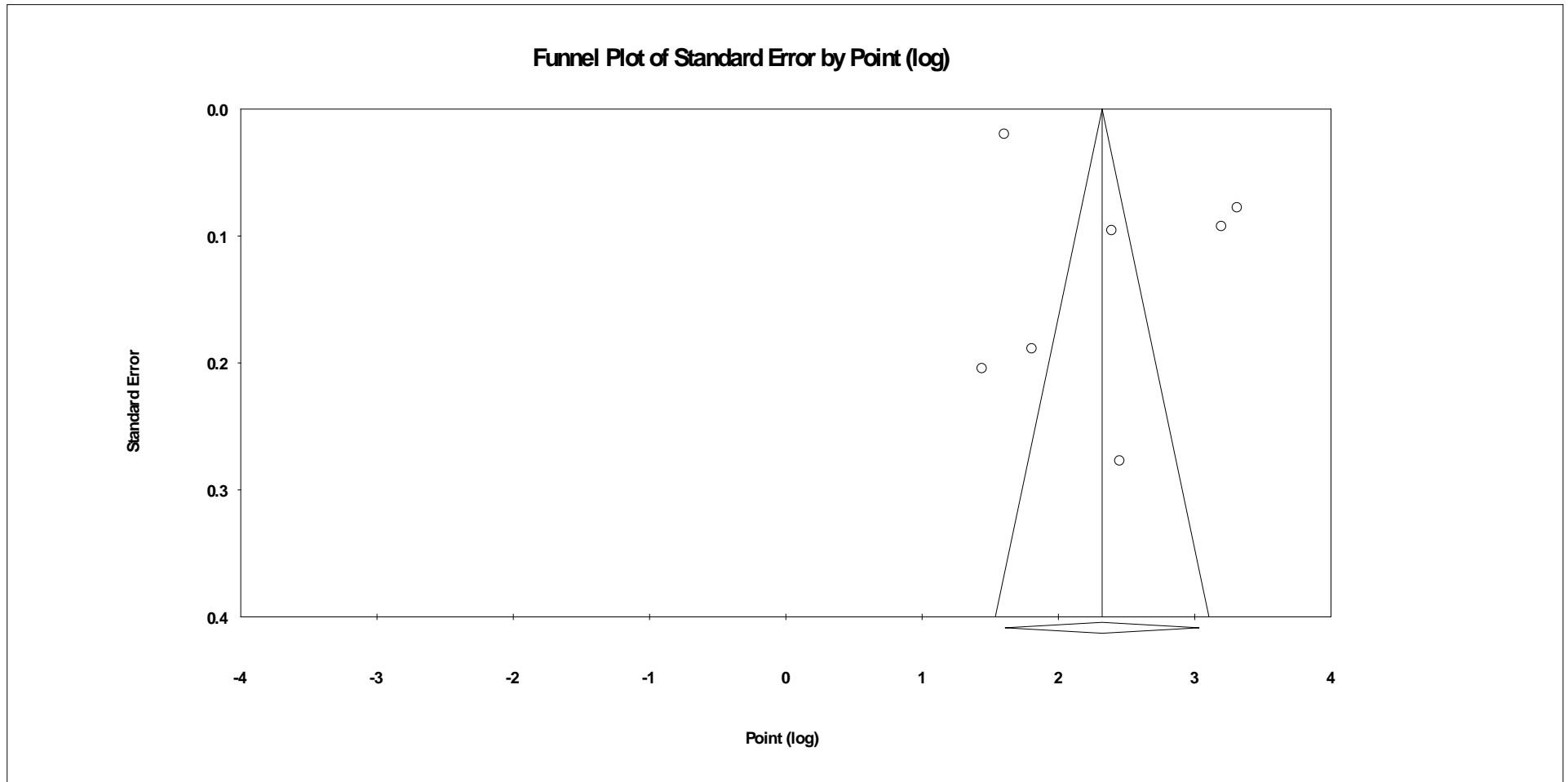


Supplementary Figure 55. Geographic latitude below 45° prevalence of autoimmune hepatitis included in our systematic review. Pooled estimates, cases per 100,000 inhabitants.

1) Forest plot

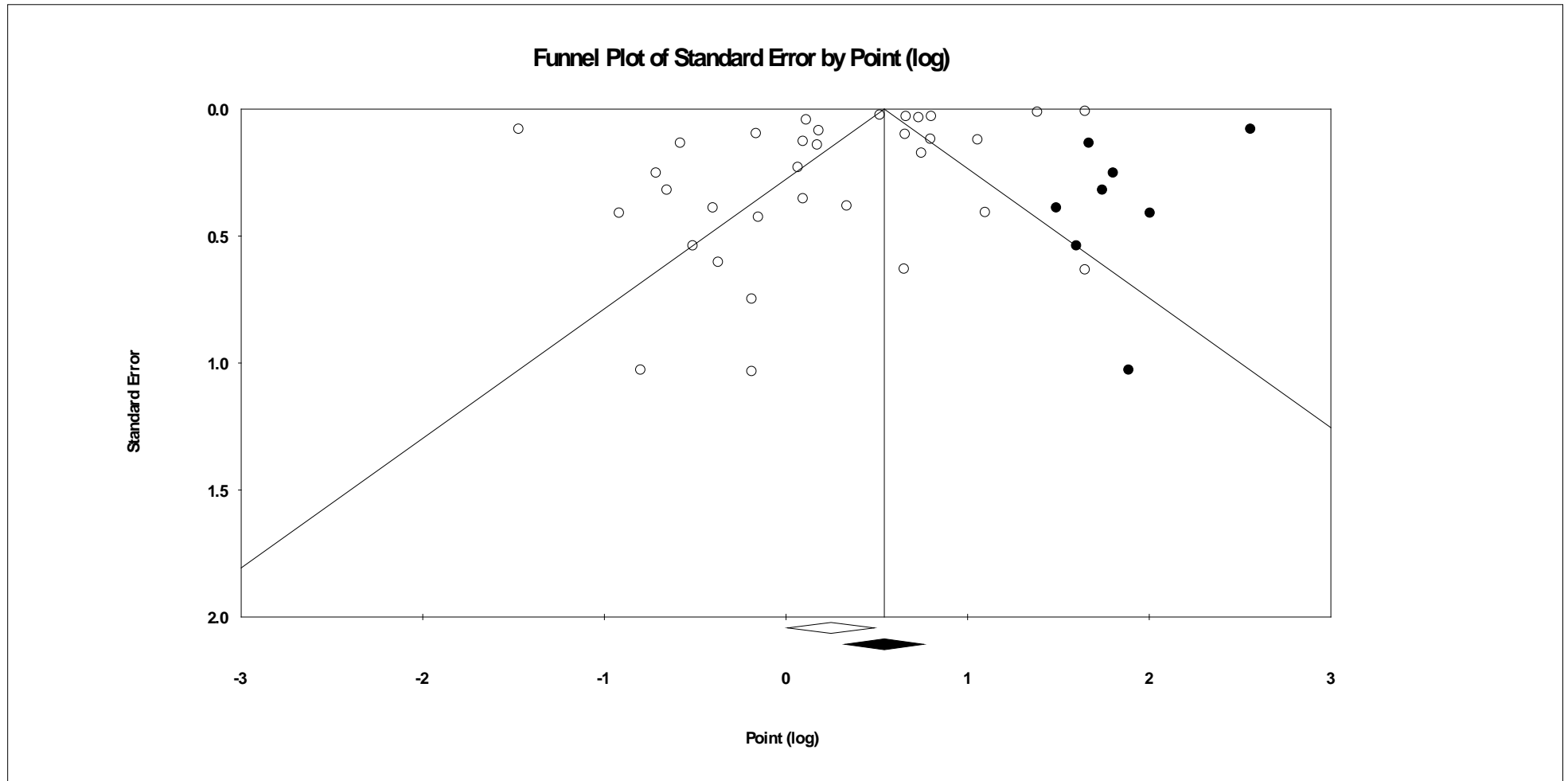


2) Funnel plot



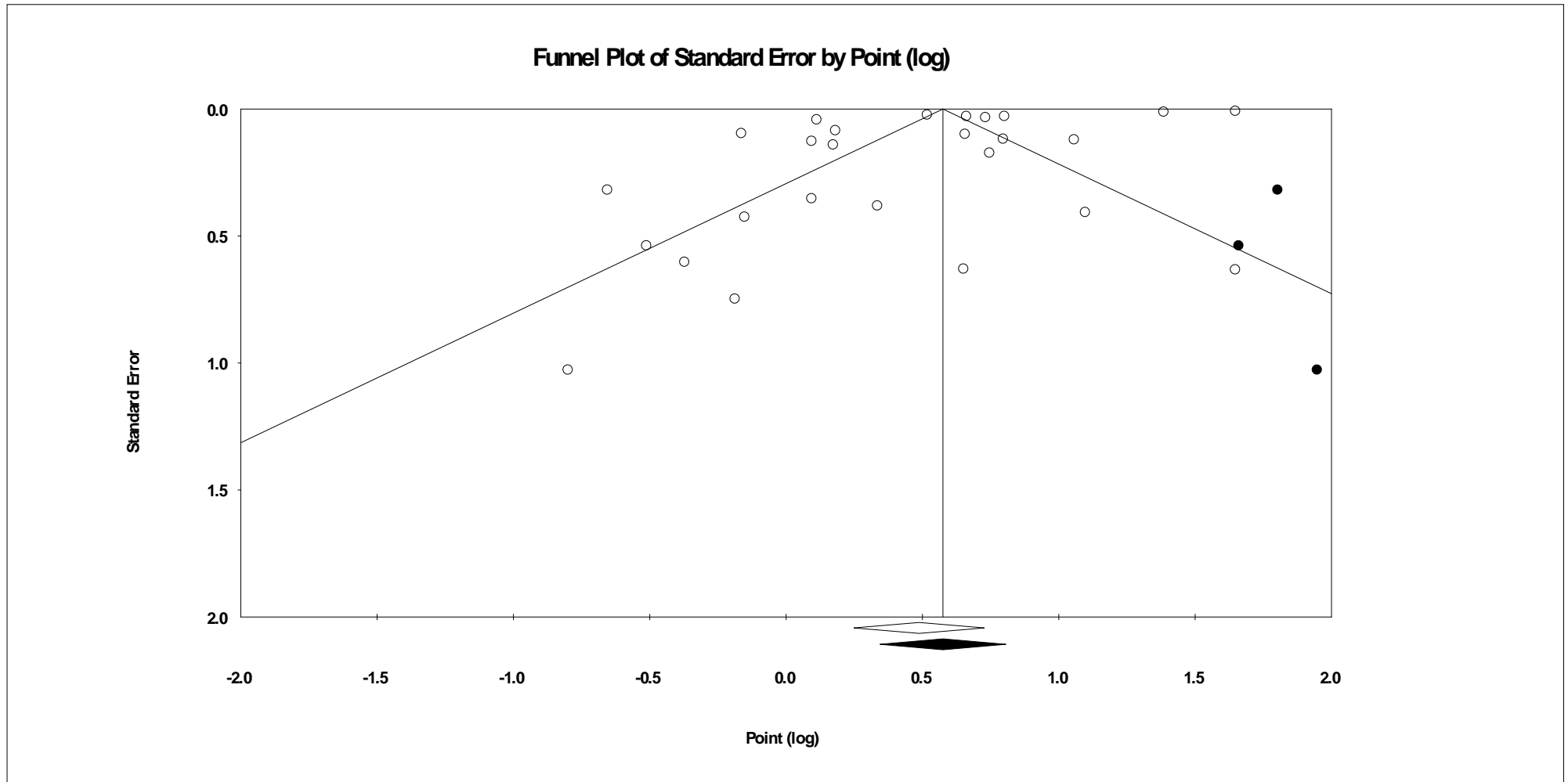
Supplementary Figure 56. Overall incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method. Pooled estimates, cases per 100,000 inhabitants.

1) Funnel plot



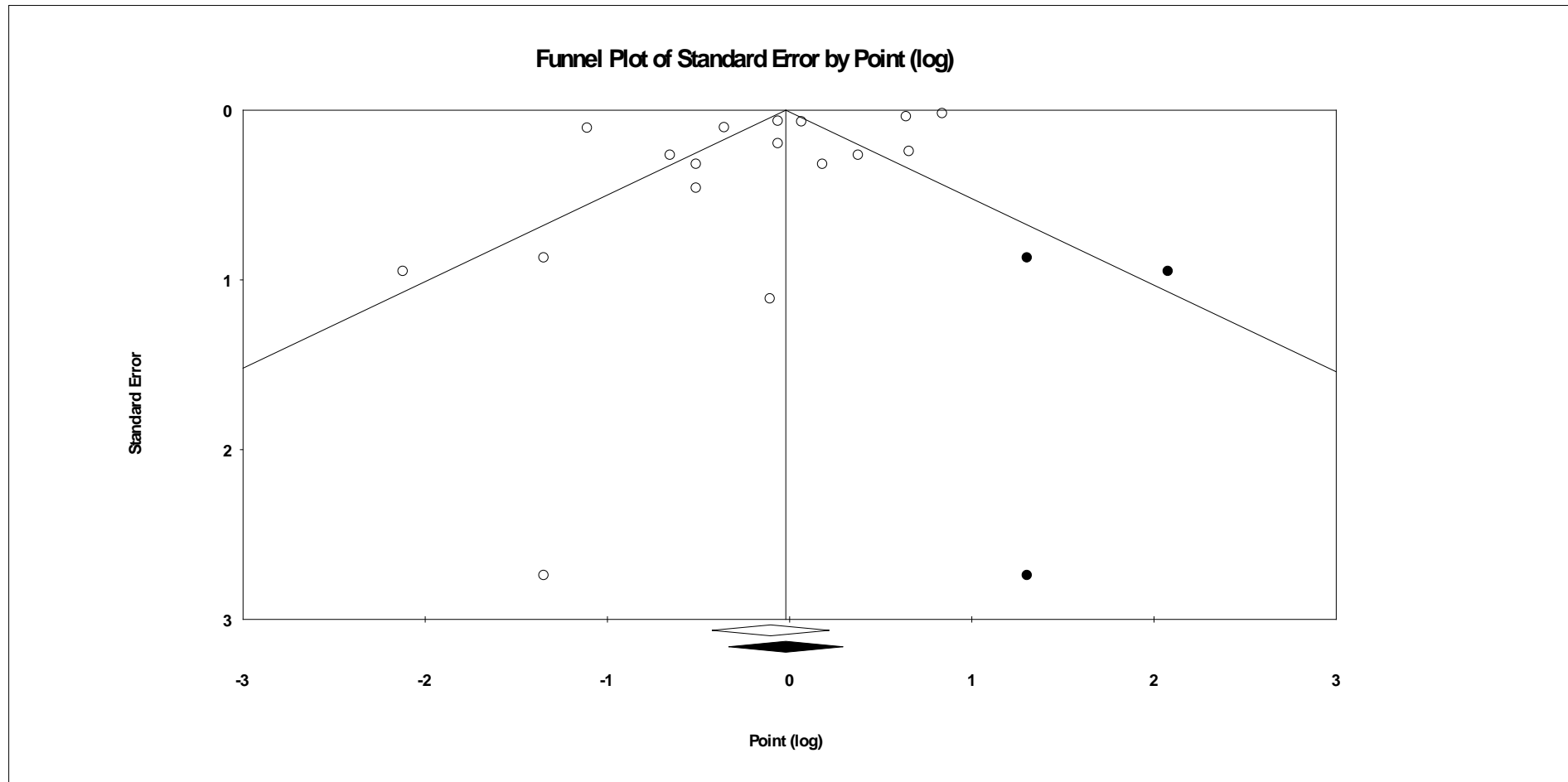
Supplementary Figure 57. Human Development Index over 0.92 incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method. Pooled estimates, cases per 100,000 inhabitant-years

1) Funnel plot



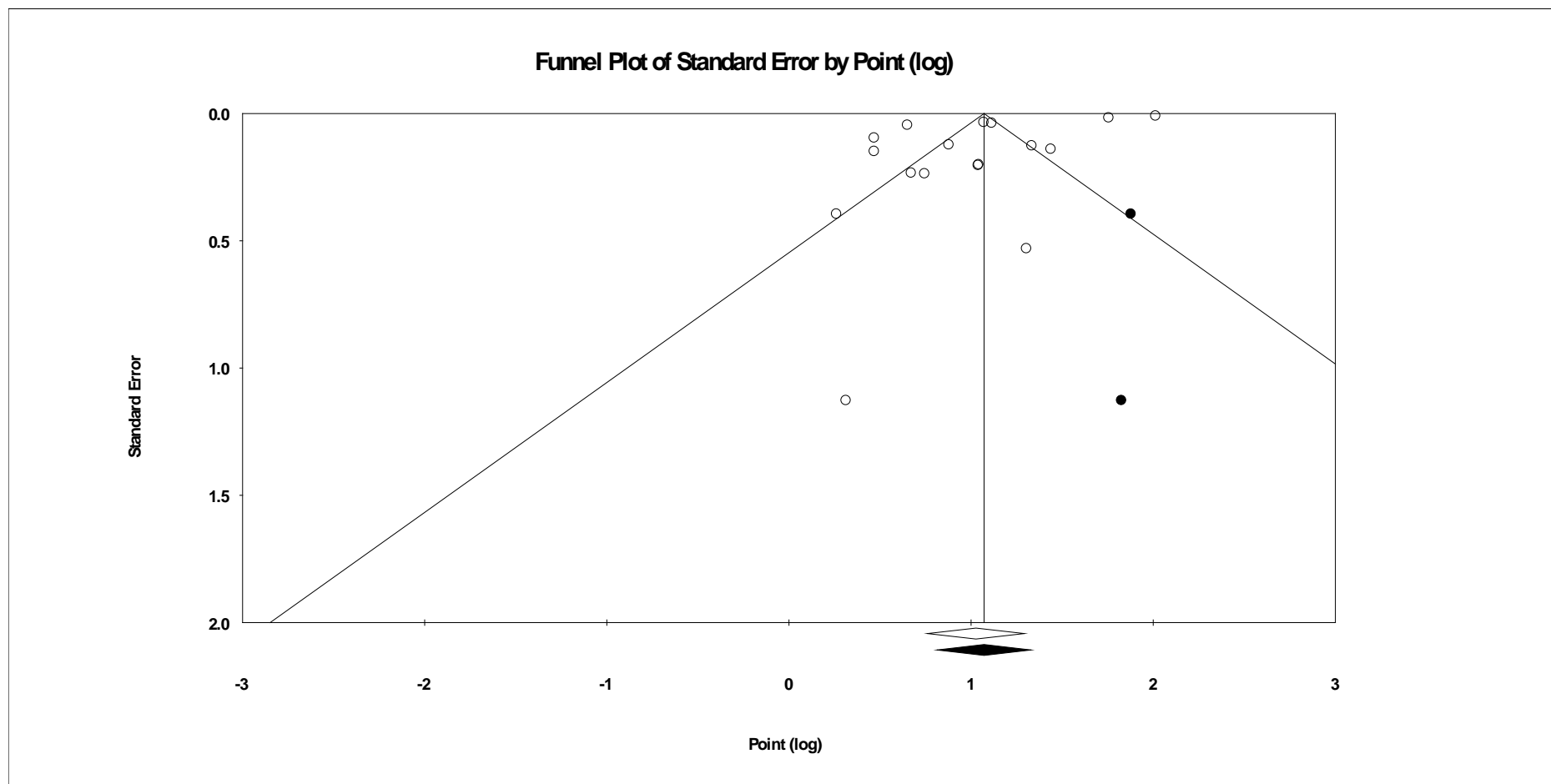
Supplementary Figure 58. Male incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method. Pooled estimates, cases per 100,000 inhabitant-years.

1) Funnel plot



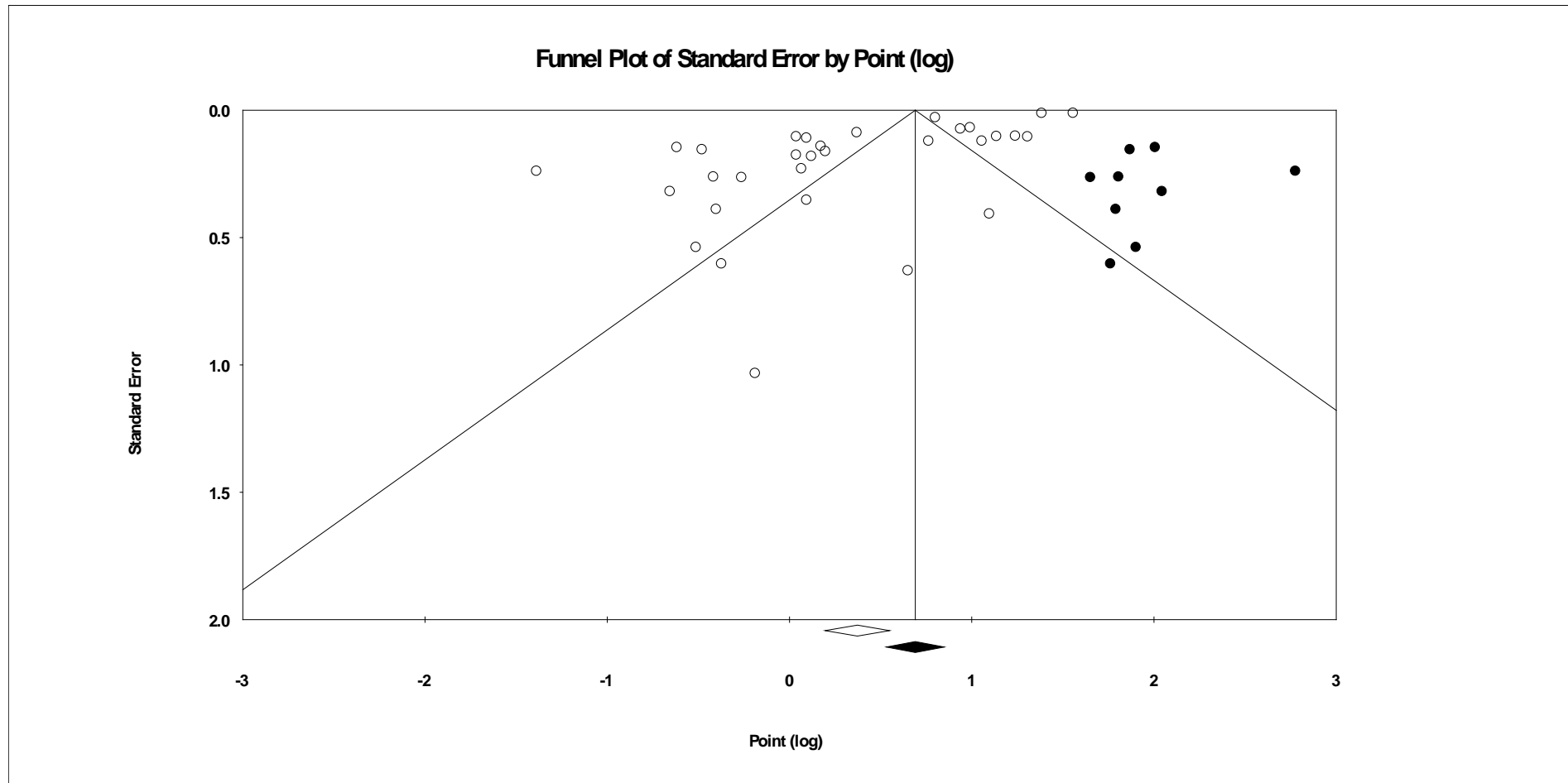
Supplementary Figure 59. Female incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method. Pooled estimates, cases per 100,000 inhabitant-years.

1) Funnel plot



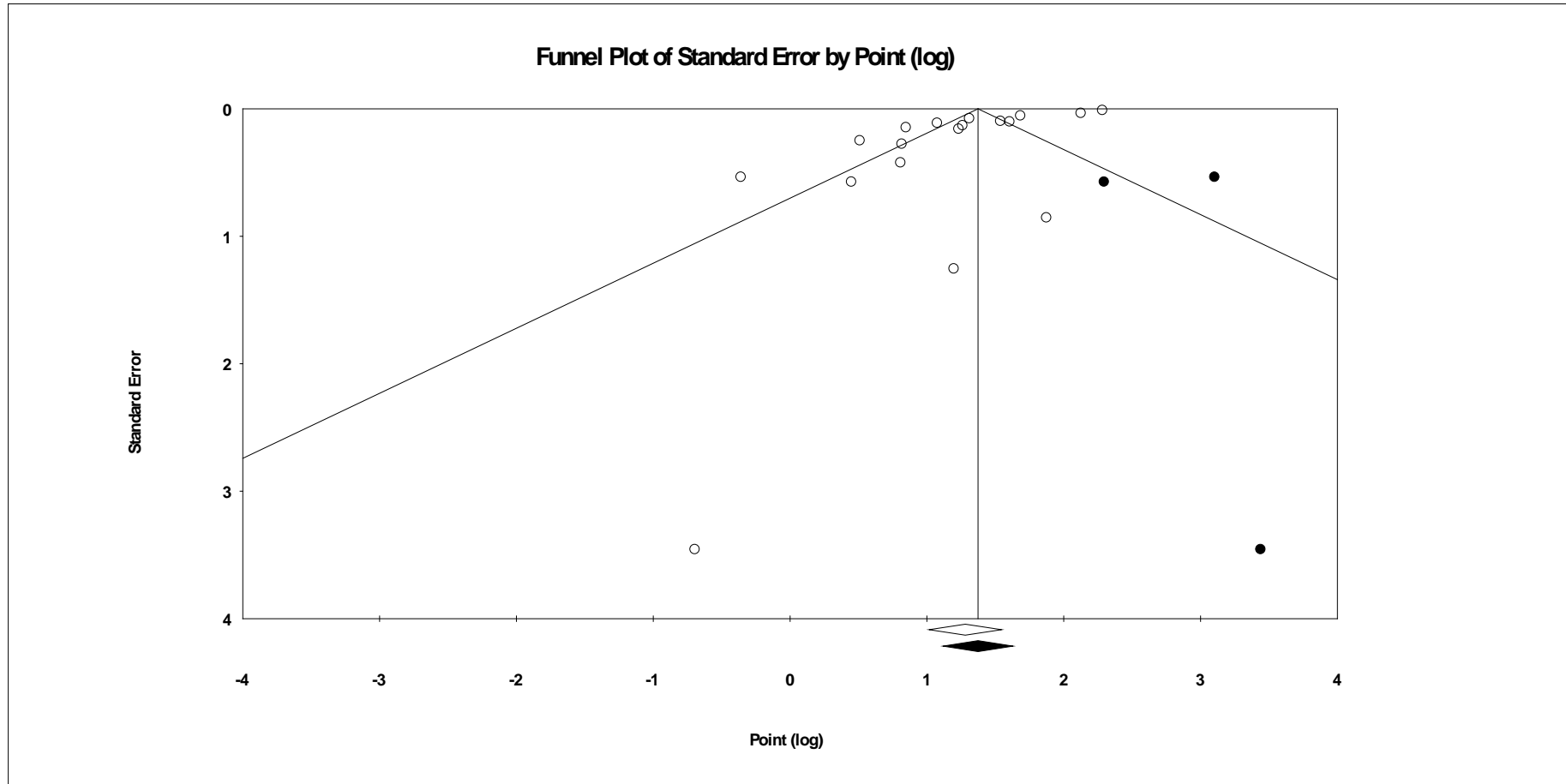
Supplementary Figure 60. Adults aged under 65 years incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method. Pooled estimates, cases per 100,000 inhabitant-years.

1) Funnel plot



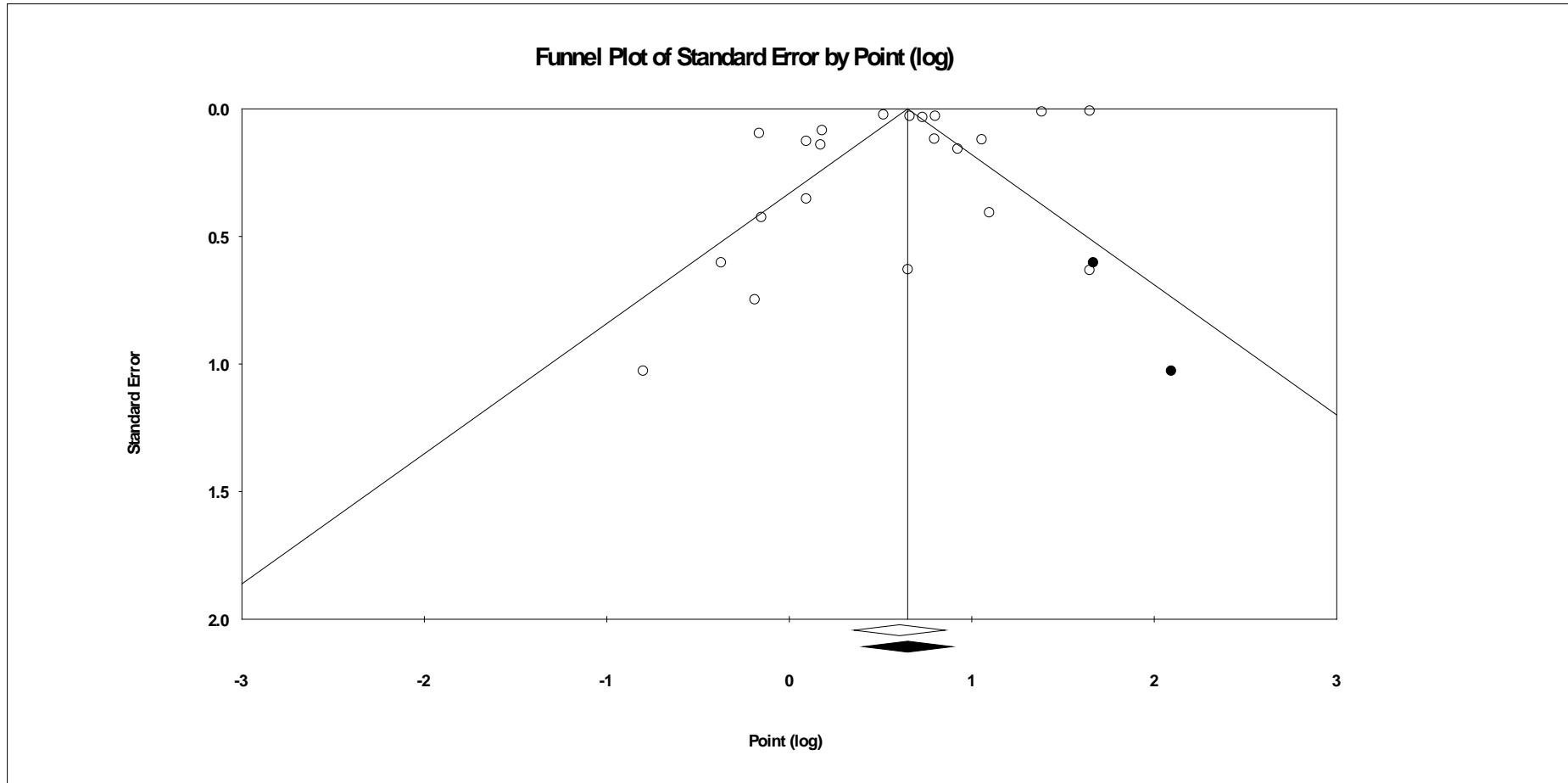
Supplementary Figure 61. Adults aged over 65 years incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method. Pooled estimates, cases per 100,000 inhabitant-years.

1) Funnel plot



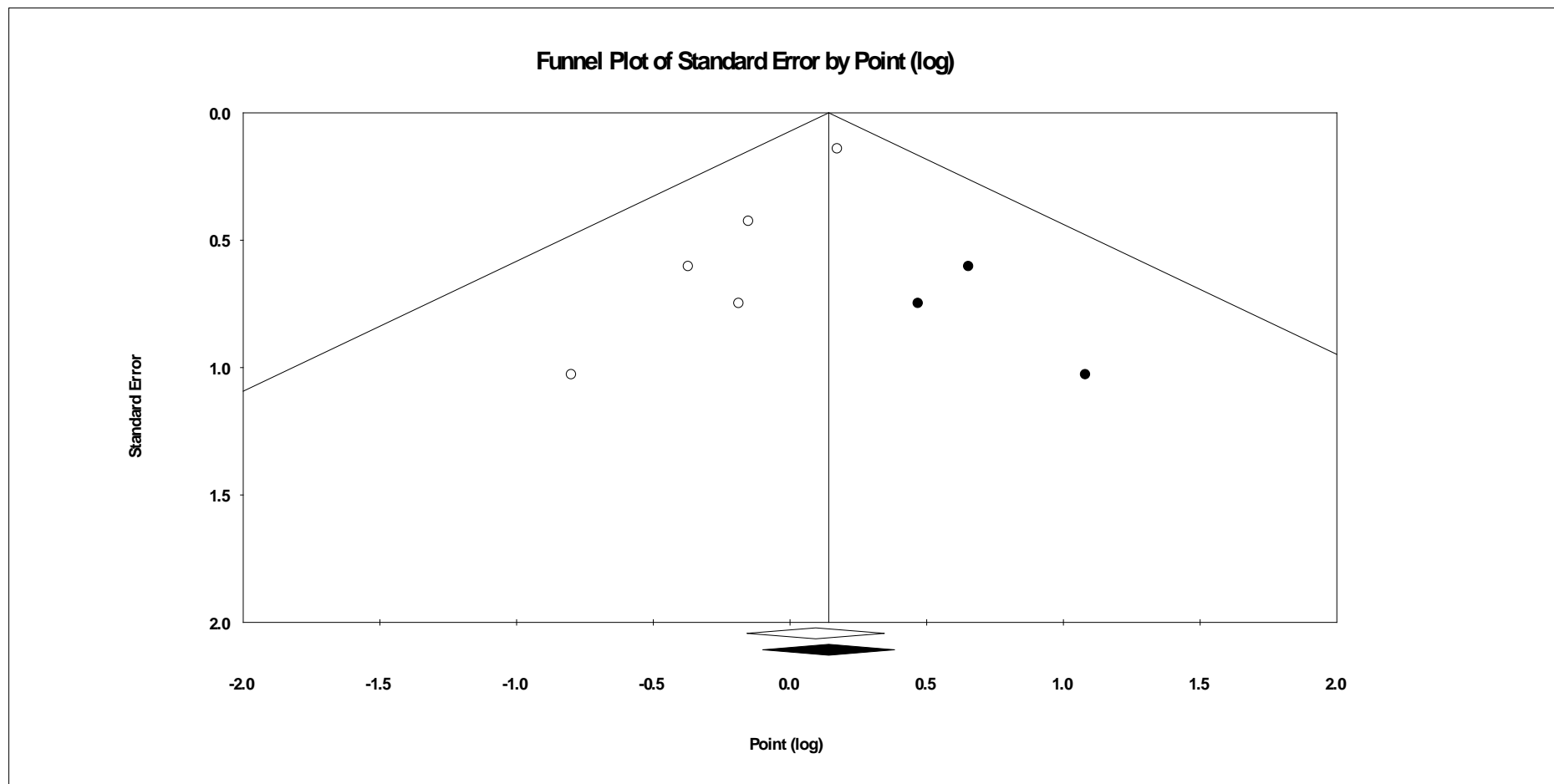
Supplementary Figure 62. Geographic latitude Above 45° incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method. Pooled estimates, cases per 100,000 inhabitant-years.

1) Funnel plot



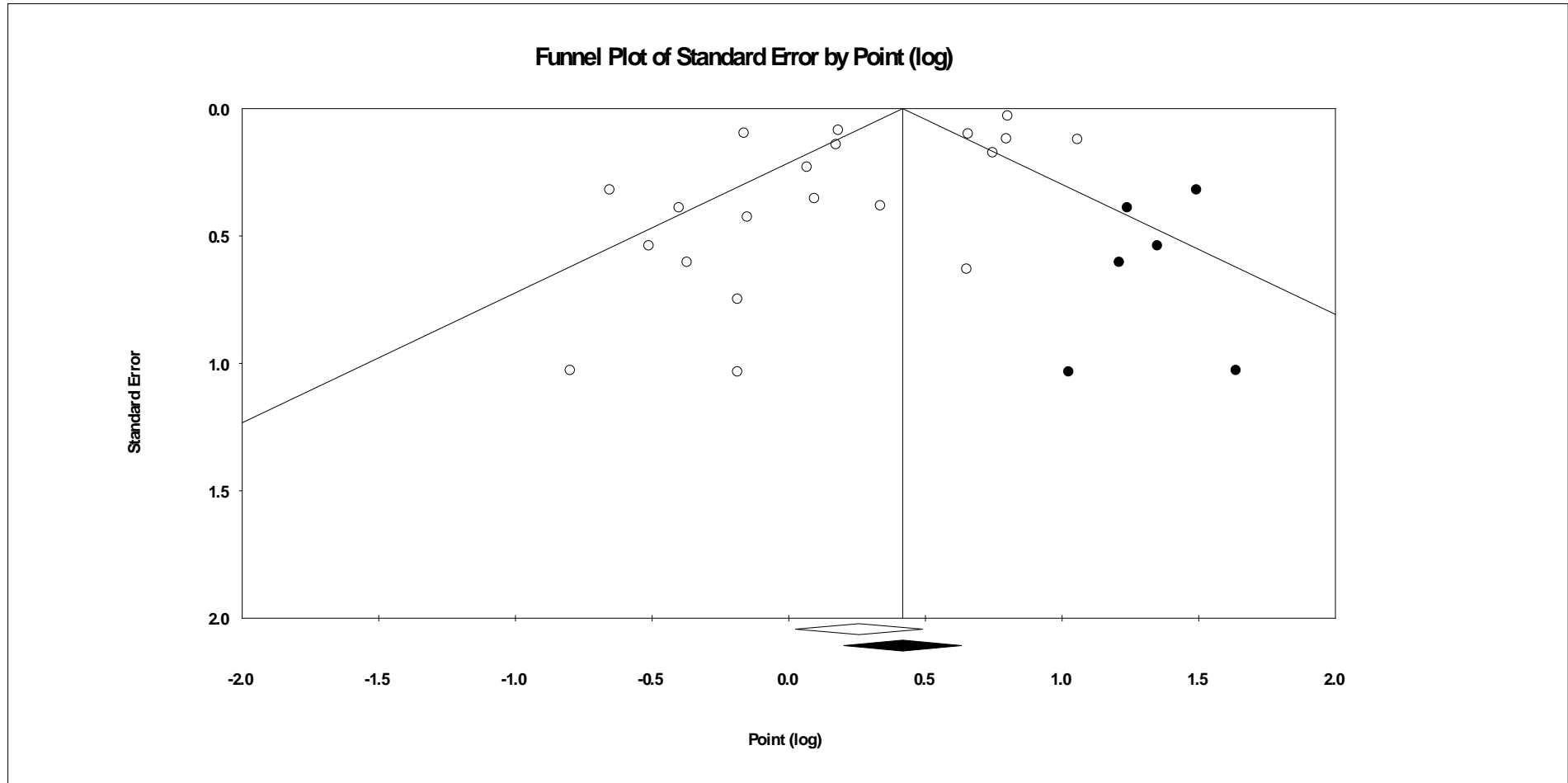
Supplementary Figure 63. Before International Autoimmune Hepatitis Group incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method. Pooled estimates, cases per 100,000 inhabitant-years.

1) Funnel plot



Supplementary Figure 64. Researcher validated incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method. Pooled estimates, cases per 100,000 inhabitant-years.

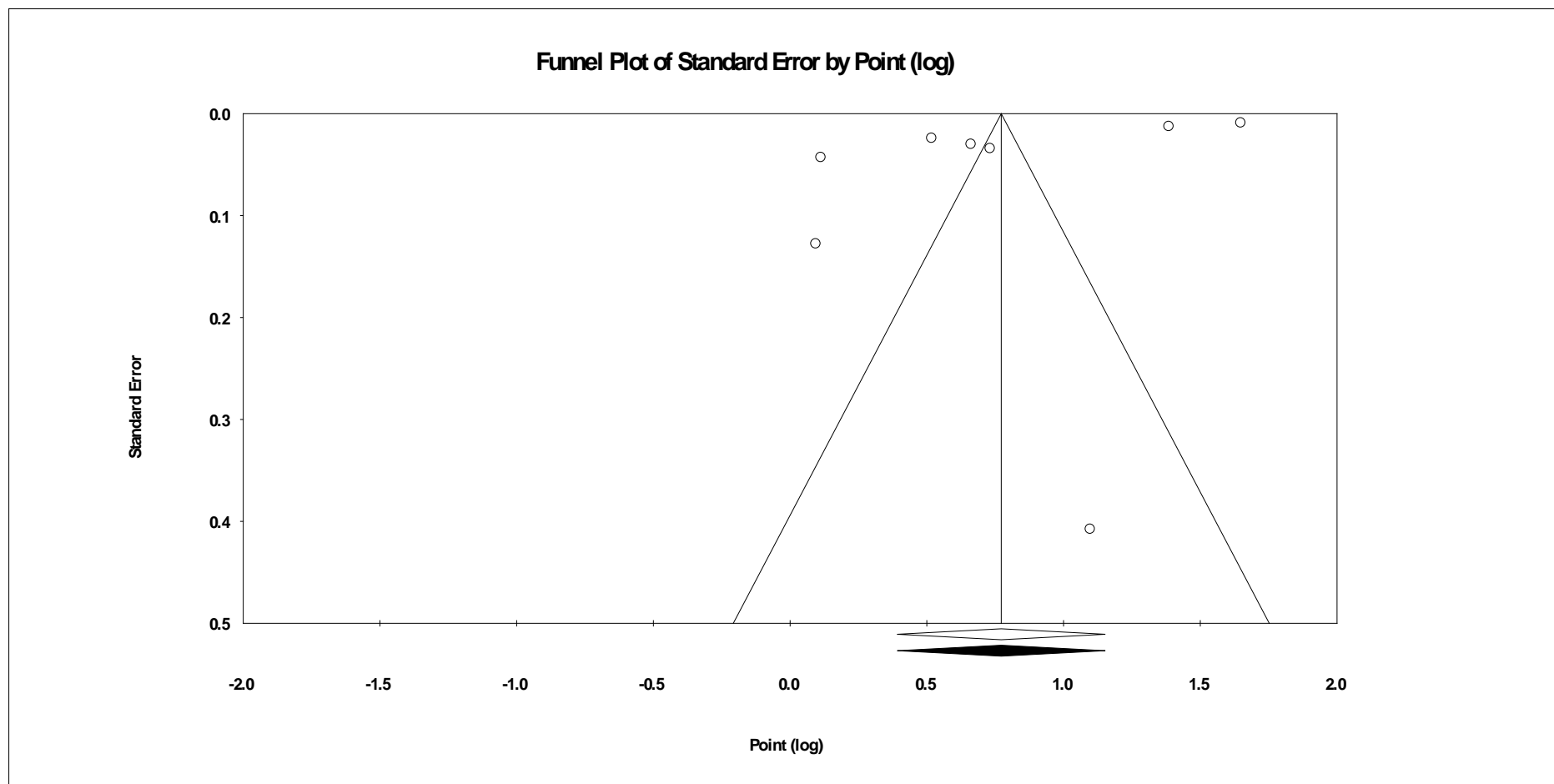
1) Funnel plot



Supplementary Figure 65. Code-based incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method.

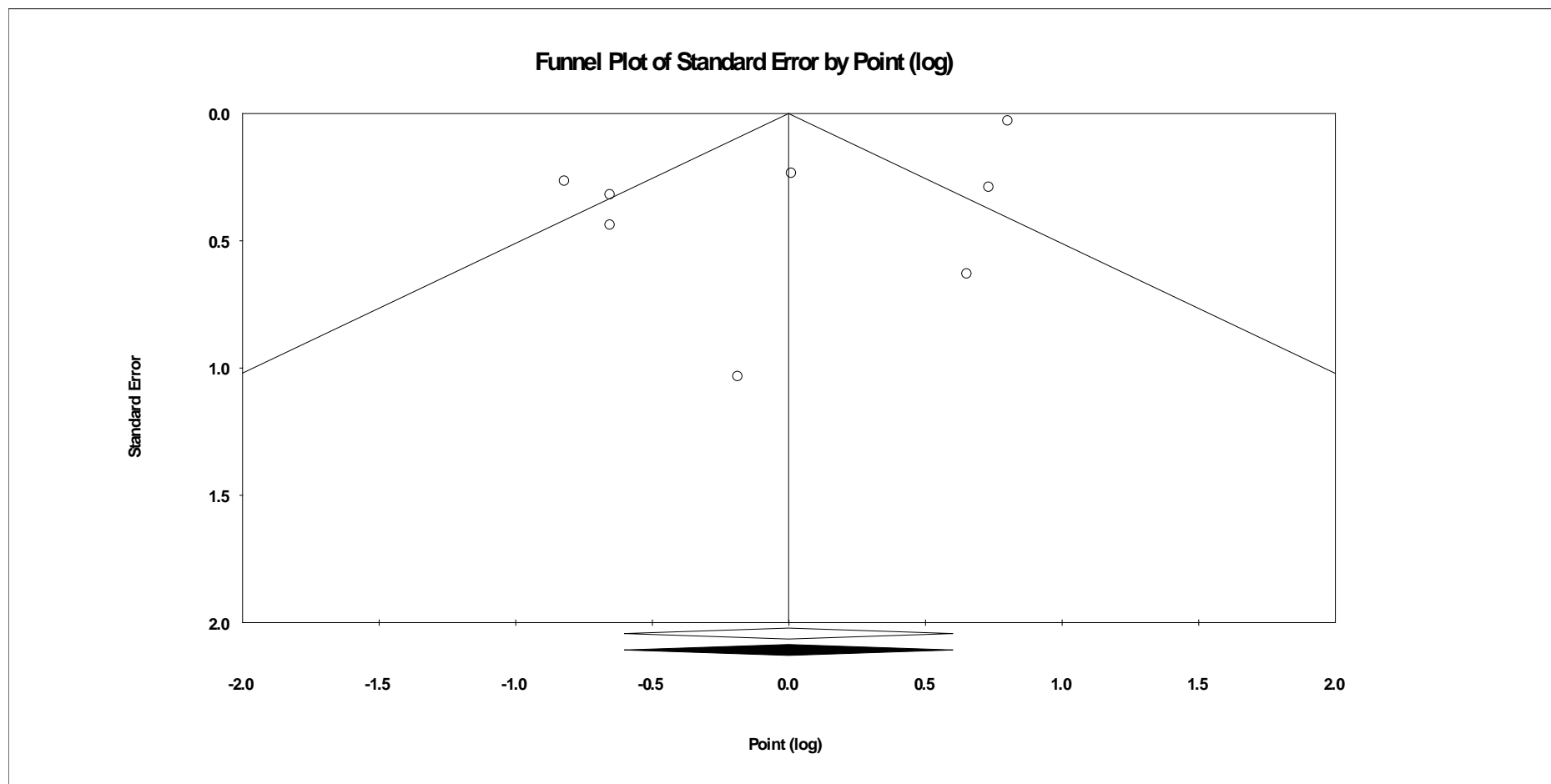
Pooled estimates, cases per 100,000 inhabitant-years.

1) Funnel plot



Supplementary Figure 66. Type I incidence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method. Pooled estimates, cases per 100,000 inhabitant-years.

1) Funnel plot



Supplementary Figure 67. Overall prevalence of autoimmune hepatitis included in our systematic review adjustment with the trim-and-fill method.

Pooled estimates, cases per 100,000 inhabitant-years.

1) Funnel plot

