

Burden of disease studies in the WHO European Region & the European Burden of Disease Network (burden-eu)

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Background

- Burden of disease studies including YLDs, YLLs or DALYs
- Setting up a health information network – European Burden of Disease Network
- Map out BoD studies to locate expertise
- Later published in the European Journal of Public Health

Burden of disease studies in the WHO European Region—a mapping exercise

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Paper 1 - methods

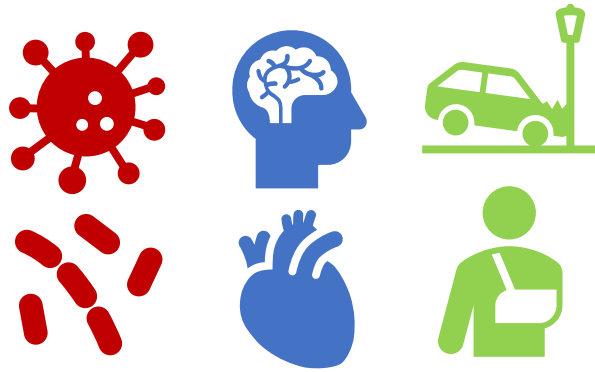
- Carried out April – July 2016
- Comprehensive hand searching of Google & Google Scholar

Time	Search engine(s)	Search terms	Search hits	Restrictions	Finds*
April	Google Google Scholar	" COUNTRY_NAME " "national burden of disease" "DALY"	53 countries (72–538 hits)	Since 2000	63 (32%)
May	Google	Burden of disease COUNTRY_NAME	53 countries (142–277 hits)	-	51 (26%)
June-July	Google Scholar	"DALY" author:" Full_name " "DALY" author:" Surname "	>600 names (0–6790 hits)	first 100 hits	84 (42%)

*including reference tracking

Paper 1 – findings (categorisation of studies)

Identified 198 studies!



Condition coverage (GBD cause groups)

- 169 (85%) “specific” (<5 conditions)
- 7 (4%) “extensive” (≥5 conditions)
- 22 (11%) “full” (all main causes)

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Sample coverage (geographic/demographic)

- Of “specific” studies 26 were multi-country
- The single-country studies included 26/53 member states
- 10 “full” studies were nationally representative

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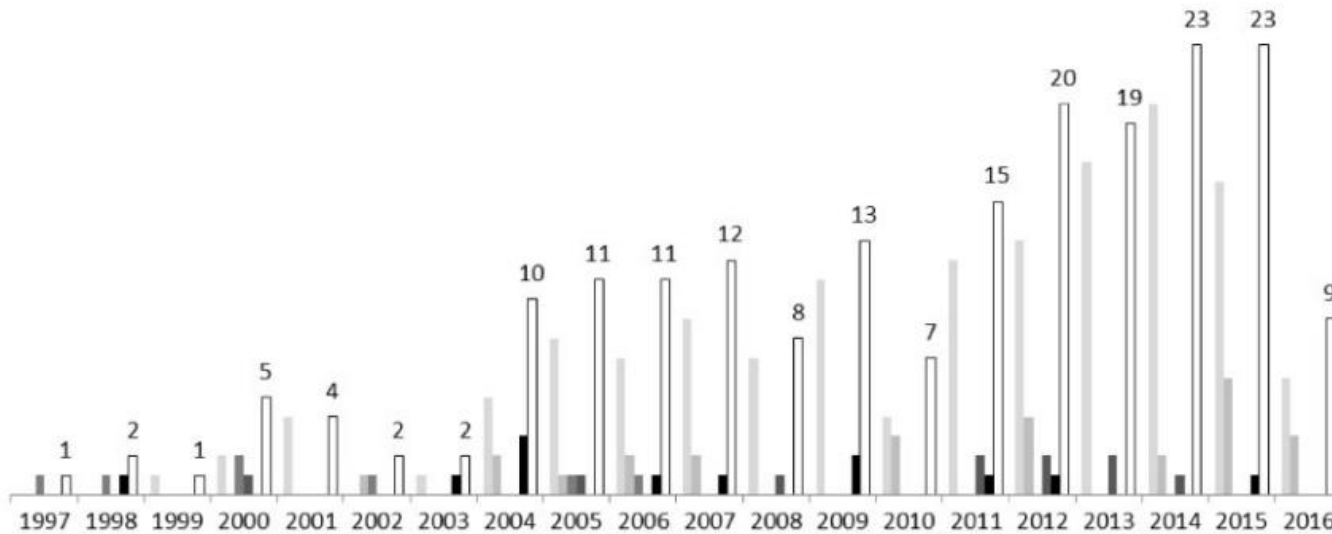
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Paper 1 - findings

- Increasing trend in the number of studies
- Varied geographic coverage (although more in western Europe)



Paper 1- methodological findings

Extensive/Full BoD studies varied in their methodological choices in the application of age weighting, discounting, disability weights (DWs):

Disability weights (DWs) used	Both Age weighing & discounting	Discounting only	Age weighting only	Neither applied	Totals
GBD DWs	16 (64%)	3 (12%)	2 (8%)	5 (20%)*	20 (80%)
Estonian DWs	-	-	-	2 (8%)	2 (8%)
Dutch DWs	1 (4%)	-	-	2 (8%)	3 (12%)
Totals	17 (68%)	3 (12%)	2 (8%)	9 (36%)	25

Note: some studies produced more than one version of DALYs (and all are included here).

*Approach recommended in the GBD (since GBD 2010)

Updated searches (papers 2 to 4)



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Burden of non-communicable disease studies in Europe: a systematic review of data sources and methodological choices

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Methodological considerations in injury burden of disease studies across Europe: a systematic literature review

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Review

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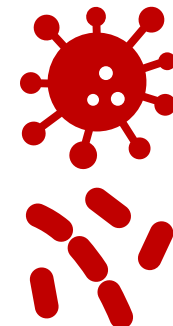
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Burden of infectious disease studies in Europe and the United Kingdom: a review of methodological design choices

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Papers 2 to 4 - methods

- 3 comprehensive systematic reviews

Burden of non-communicable disease studies in Europe: a systematic review of data sources and methodological choices

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Methodological considerations in injury burden of disease studies across Europe: a systematic literature review



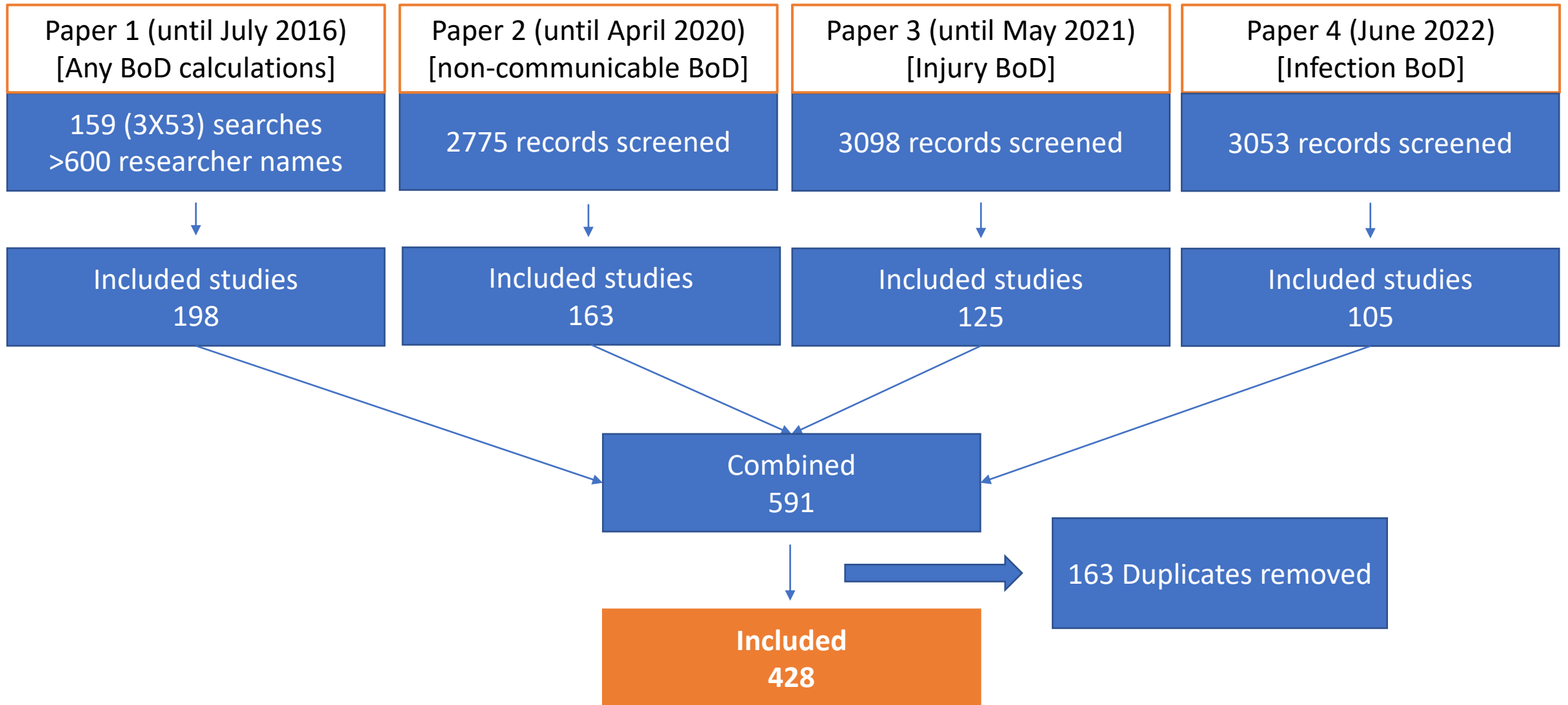
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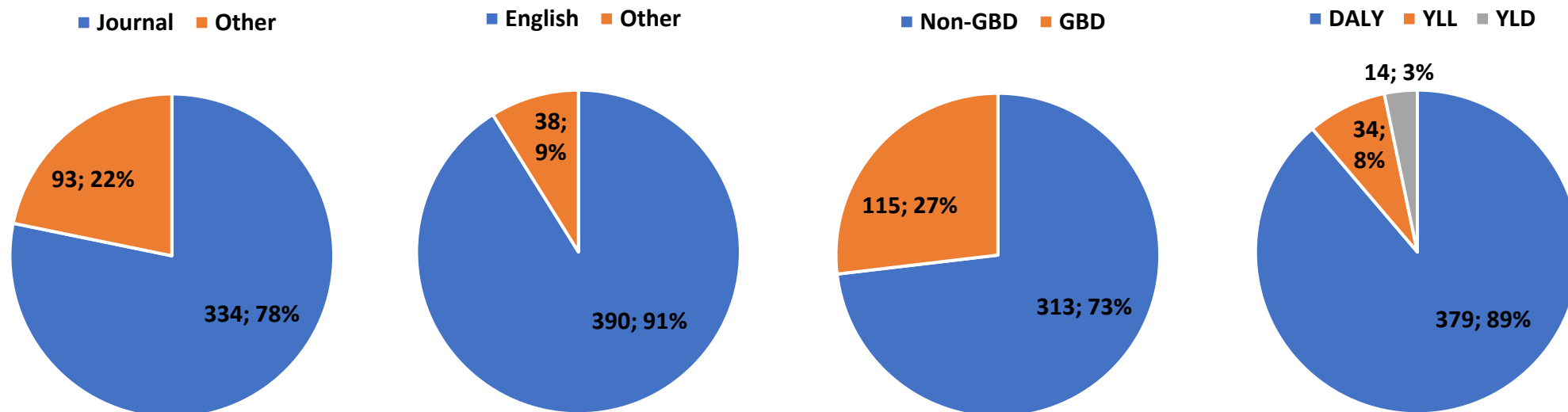
Academic searches	Search terms	Grey literature	Other
5 Searched: EMBASE, MEDLINE, Cochrane Central, Google Scholar, Web of Science	Dataset specific Produced by an experienced librarian in the Erasmus MC Medical Library	Multiple searched: (a) OpenGrey, OAlster, CABDirect, and the World Health Organization (WHO) websites and (b) (b) government and/or public health websites from the targeted European countries	Reference checking From Cost Action members

Overview of all studies

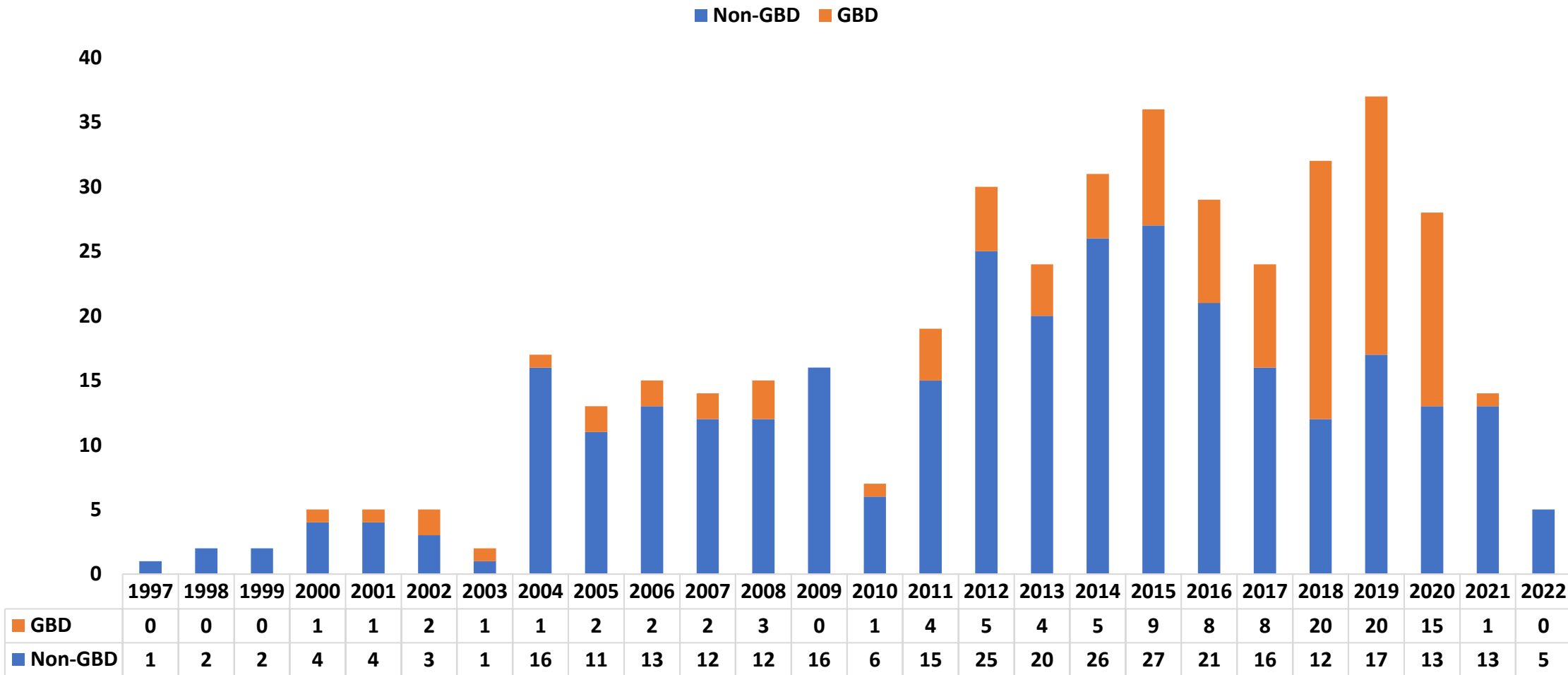


Description of the 428 BoD studies

- 78% were journal articles, 22% were other sources
- 91% were in English, 9% were in other languages
- 73% did own BoD calculations; 27% were secondary GBD results
- 89% DALYs, 8% YLL and 3% YLD

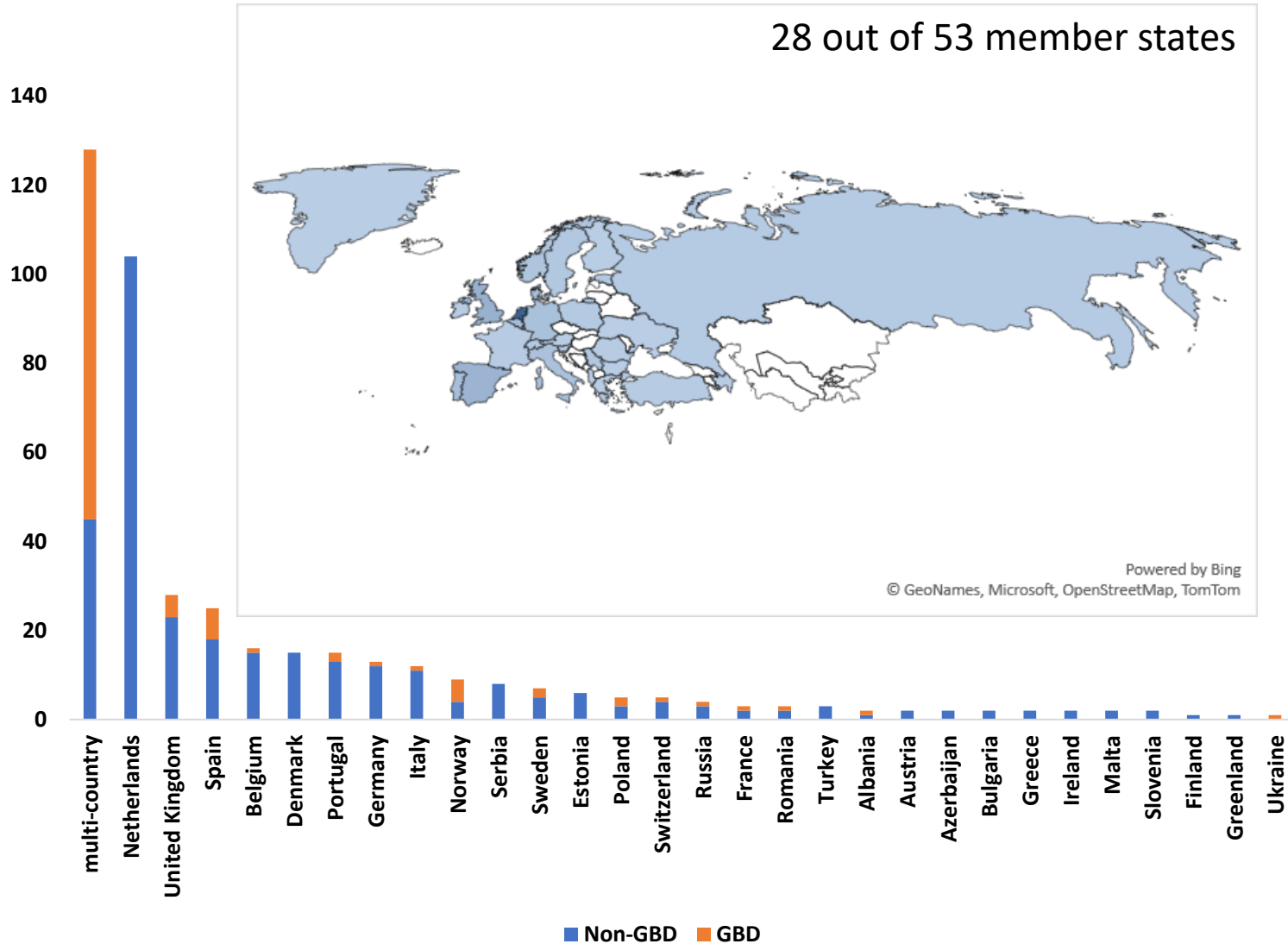


The 428 BoD studies by publication date



*Not published

428 BoD studies by location



Location	Total	Own calculation	Secondary GBD results
multi-country	128	45	83
Netherlands	104	104	0
United Kingdom	28	22	5
Spain	25	18	7
Belgium	16	15	1
Portugal	15	13	2
Denmark	15	15	0
Germany	13	12	1
Italy	12	11	1
Norway	9	4	5
Serbia	8	8	0
Sweden	7	5	2
Estonia	6	6	0
Poland	5	3	2
Switzerland	5	4	1
Romania	3	2	1
Turkey	3	3	0
France	3	2	1
Azerbaijan	2	2	0
Austria	2	2	0
Bulgaria	2	2	0
Ireland	2	2	0
Malta	2	2	0
Slovenia	2	2	0
Greece	2	2	0
Russia	4	3	1
Albania	2	1	1
Finland	1	1	0
Ukraine	1	0	1
Greenland	1	1	0

Conclusions

- BoD studies are used extensively in a variety of settings
- Secondary reporting of GBD results is becoming more common.
- Methodologic choices have varied between studies
- The European Burden of Disease Network can support future studies

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Thank you

Any comments or questions?

