

Against the African Enigma



Tropical Gastroenterology and
Nutrition Group

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Questions

1. What makes you believe a scientific hypothesis?
2. Where does the burden of proof rest?

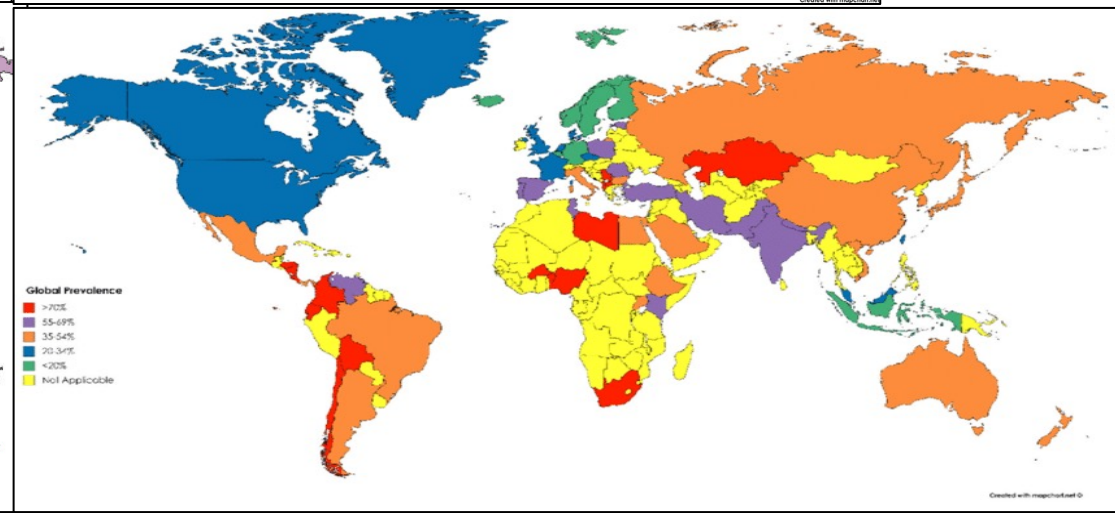
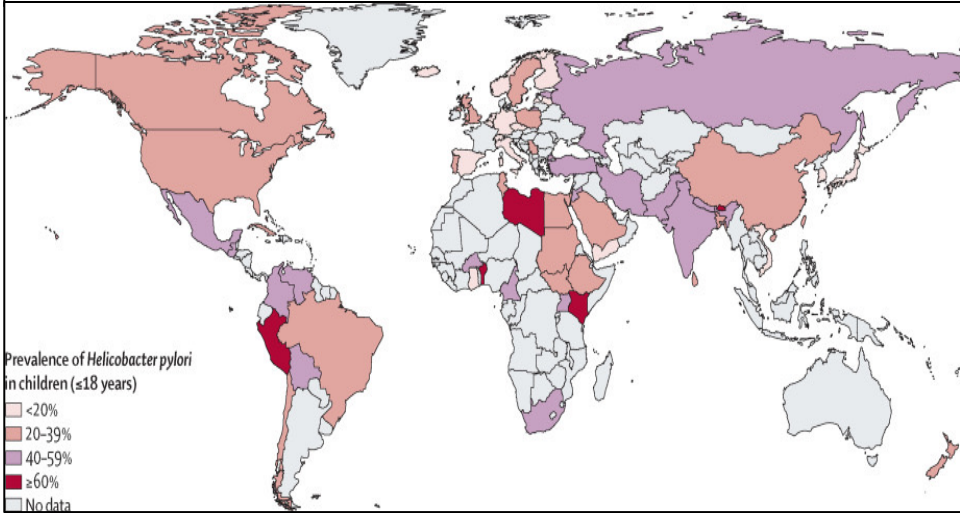
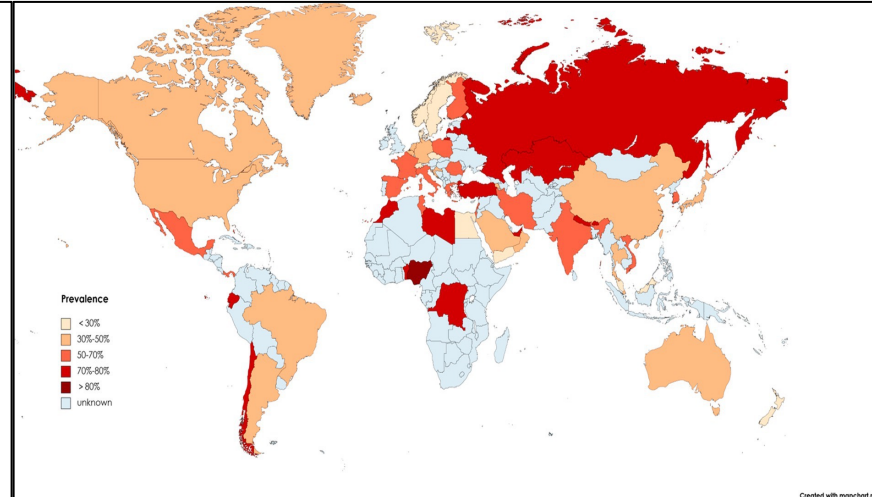
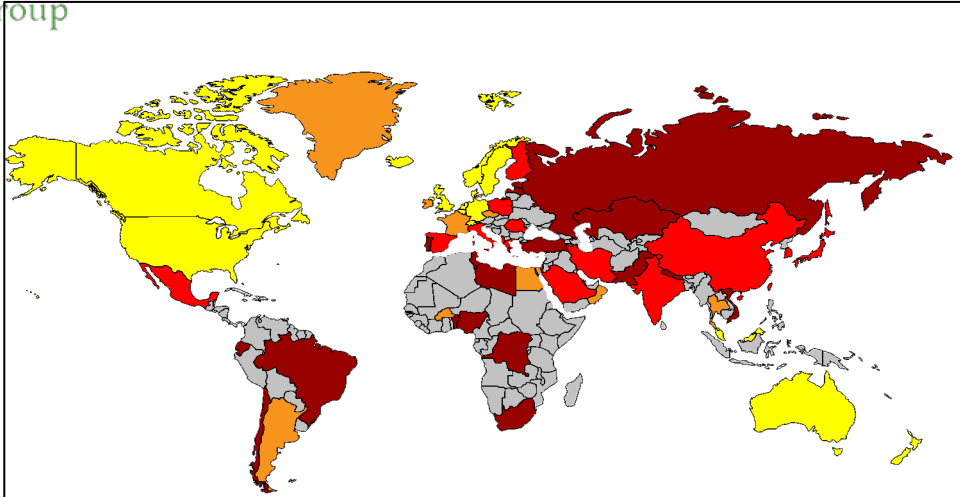
- Objective
- Gathered through observation, experimentation or data collection
- Can be replicated
- Peer-reviewed
- Systematically collected- minimal errors and biases

Africa is not one country



- Geographically
- Politically
- Economically
- Ethnically

Global prevalence *H. pylori*





GASTRITIS

Gastritis is very common throughout Africa and shows a strong correlation with *H pylori* infection. Indeed, as in the

west, type B antral gastritis infection. In endoscopic studies present in 80–100% of subjects found in 88% of a group of 40

GASTRIC ULCERATION

Gastric ulcer is a rare disease times less commonly than

Nigeria duodenal ulcer is un times less common.⁸ In Ethi ulcers in 1084 patients und with 154 duodenal ulcers.²⁶ Y

be fundamental to the cause of gastric ulcer, is present in 90% of Africans, and *H pylori*, which is associated with gastric ulcer in the west, is present in over 80% of Africans.⁸⁻¹³

In the dry savannah of northern Nigeria, duodenal ulcer is uncommon. This was first noted by Tovey and Tunstall,¹⁵ and recently confirmed.¹⁶ In a random community survey

29% of adults had experienced dyspepsia in the preceding six e 25–38% recorded f dyspepsia, and in found in only 18 of or their dyspepsia²⁰ n dyspepsia, com- duodenal ulceration a than in the UK nfection.

Cited 531 times!

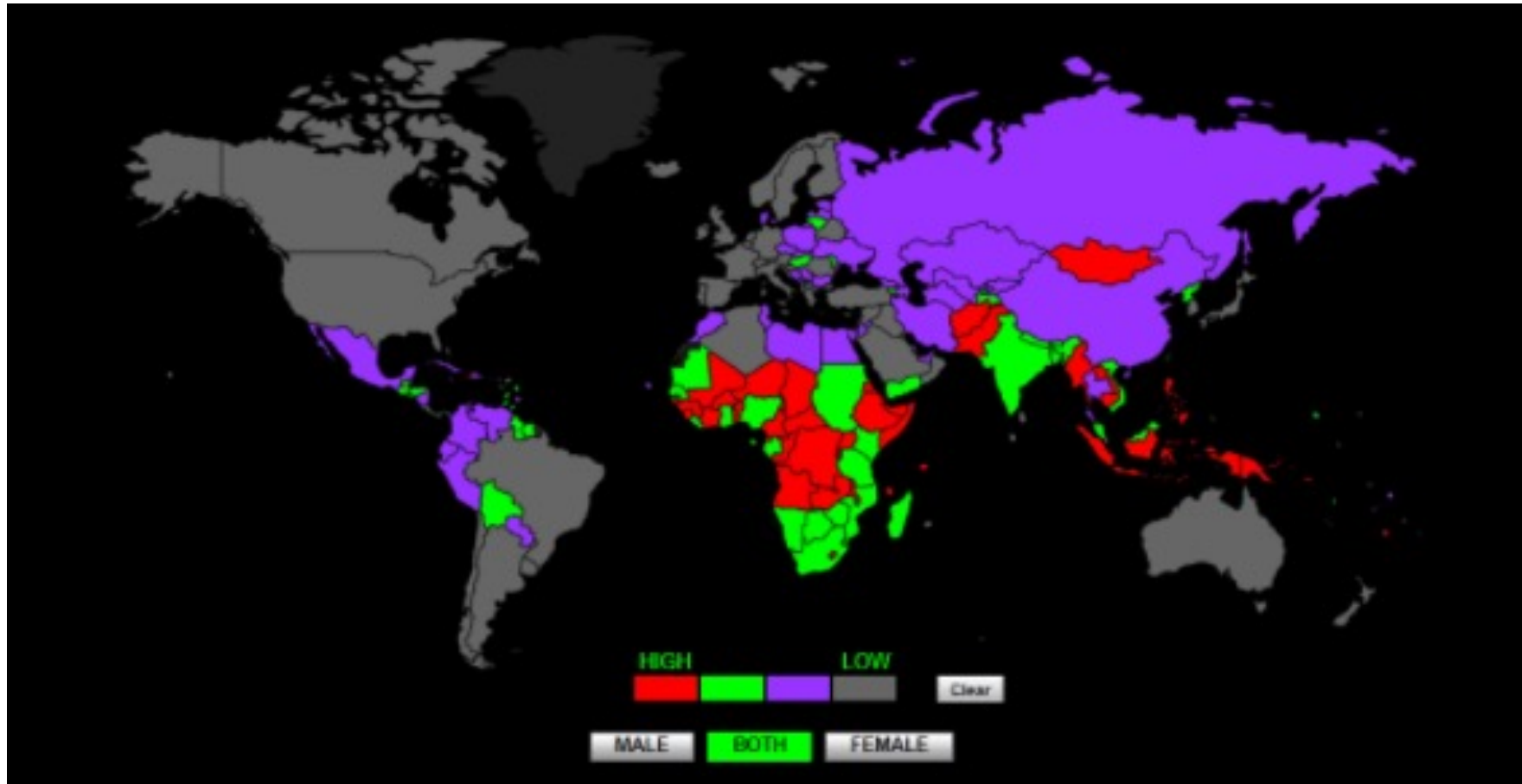
non, yet gastric cancer is ate population statistics incidence is the propor-

tional frequency of one tumour compared with that of all other tumours.³² Using this measure gastric cancer accounts for less than 2% of all malignant tumours in northern Nigeria^{33 34} and only 2–3% of malignancies in the Sudan, Uganda, and Zimbabwe.³⁵⁻³⁷



World map showing PUD death rate per 100,000

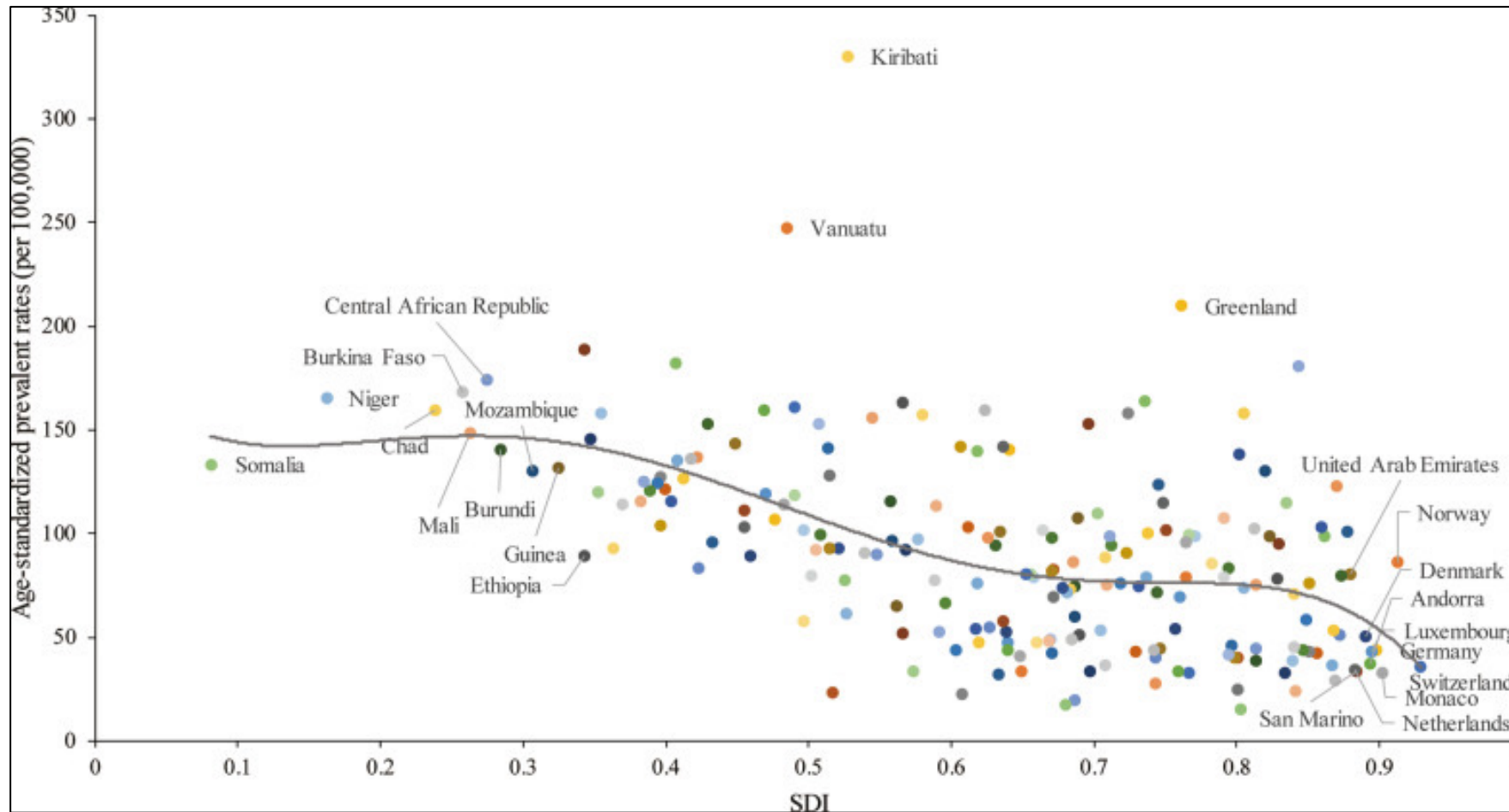
(source: WHO, 2018)



By country: 24 of the top 50 countries are in Africa



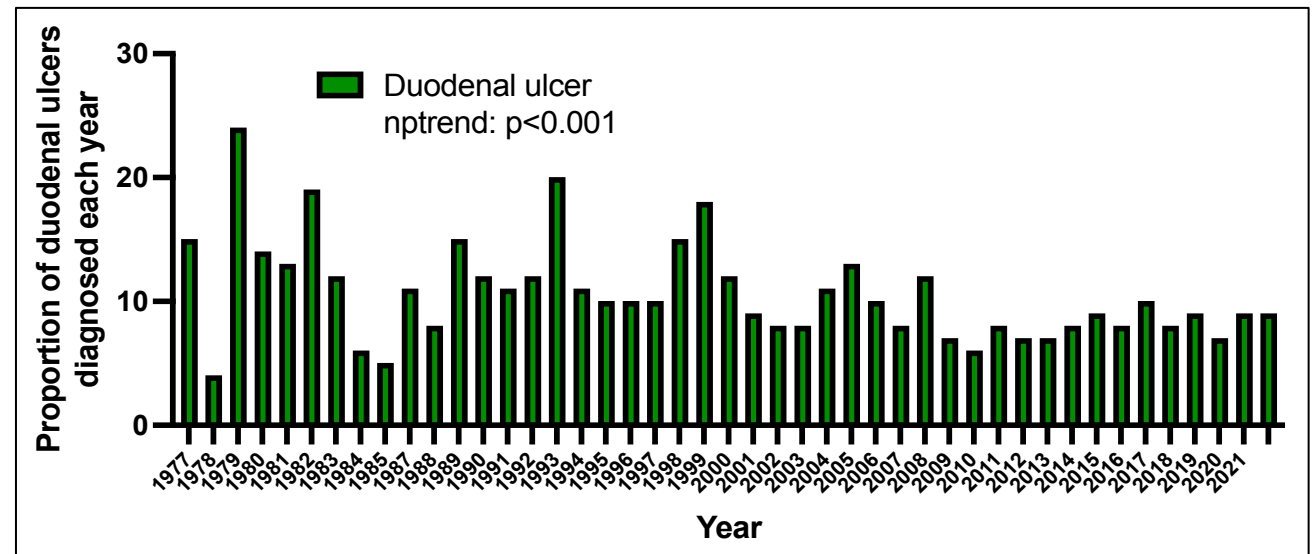
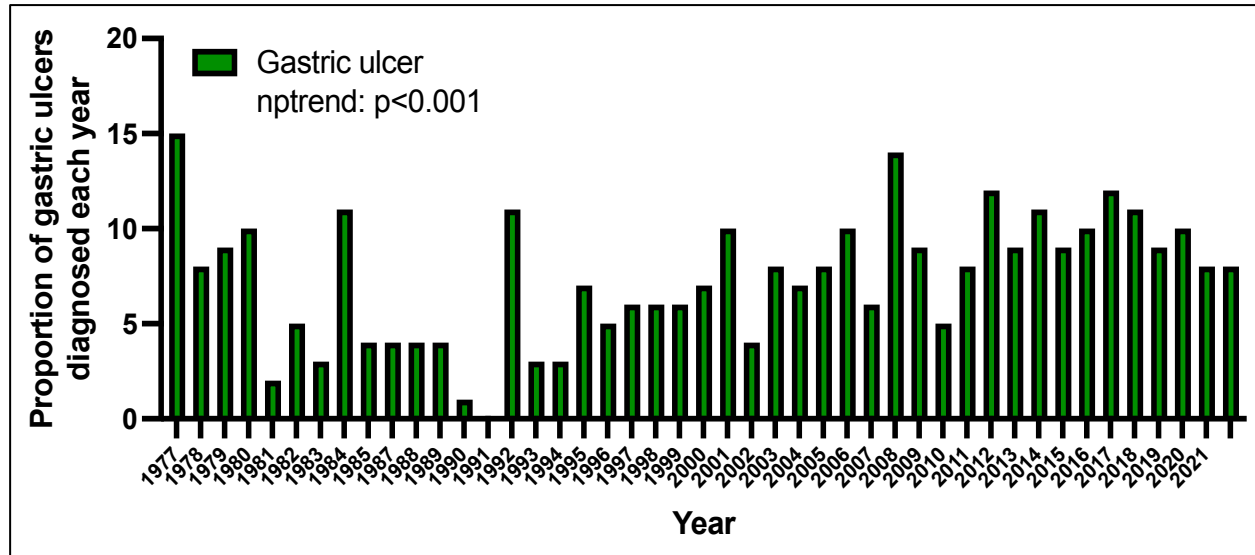
Age-standardized prevalence rates (per 100,000 population) of PUD in 204 countries globally by sociodemographic index in 2019



Xie X et al., BMC
Gastroenterol. 2022 Feb
10;22(1):58.



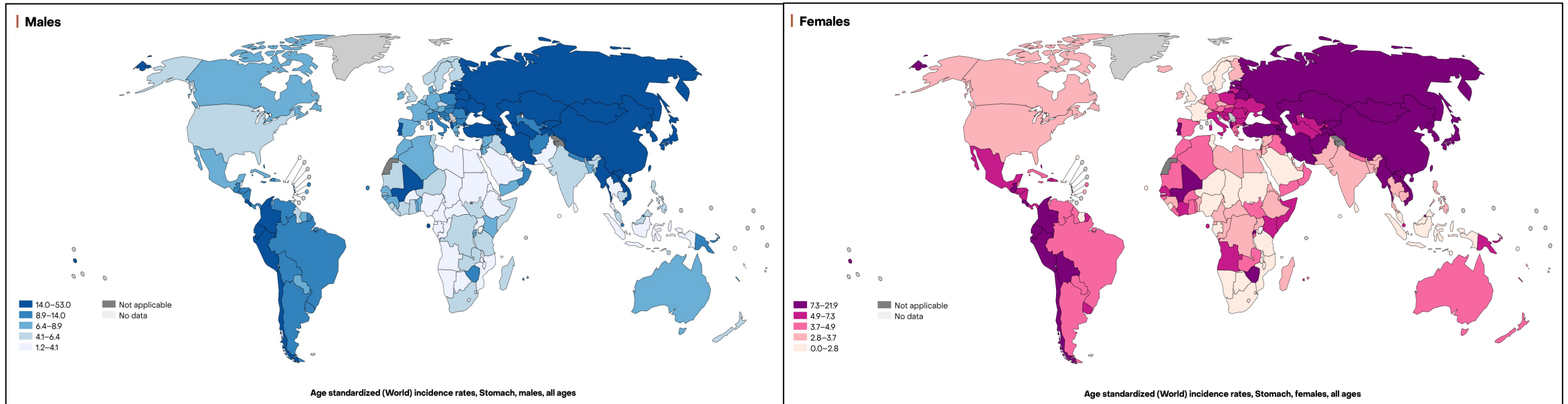
Forty-four years of endoscopy records in Zambia



Kayamba V, Mubbunu M, Kelly P.
Endoscopic diagnosis of gastric and
oesophageal cancer in Lusaka, Zambia: a
retrospective analysis. BMC Gastroenterol.
2024 Apr 1;24(1):122.

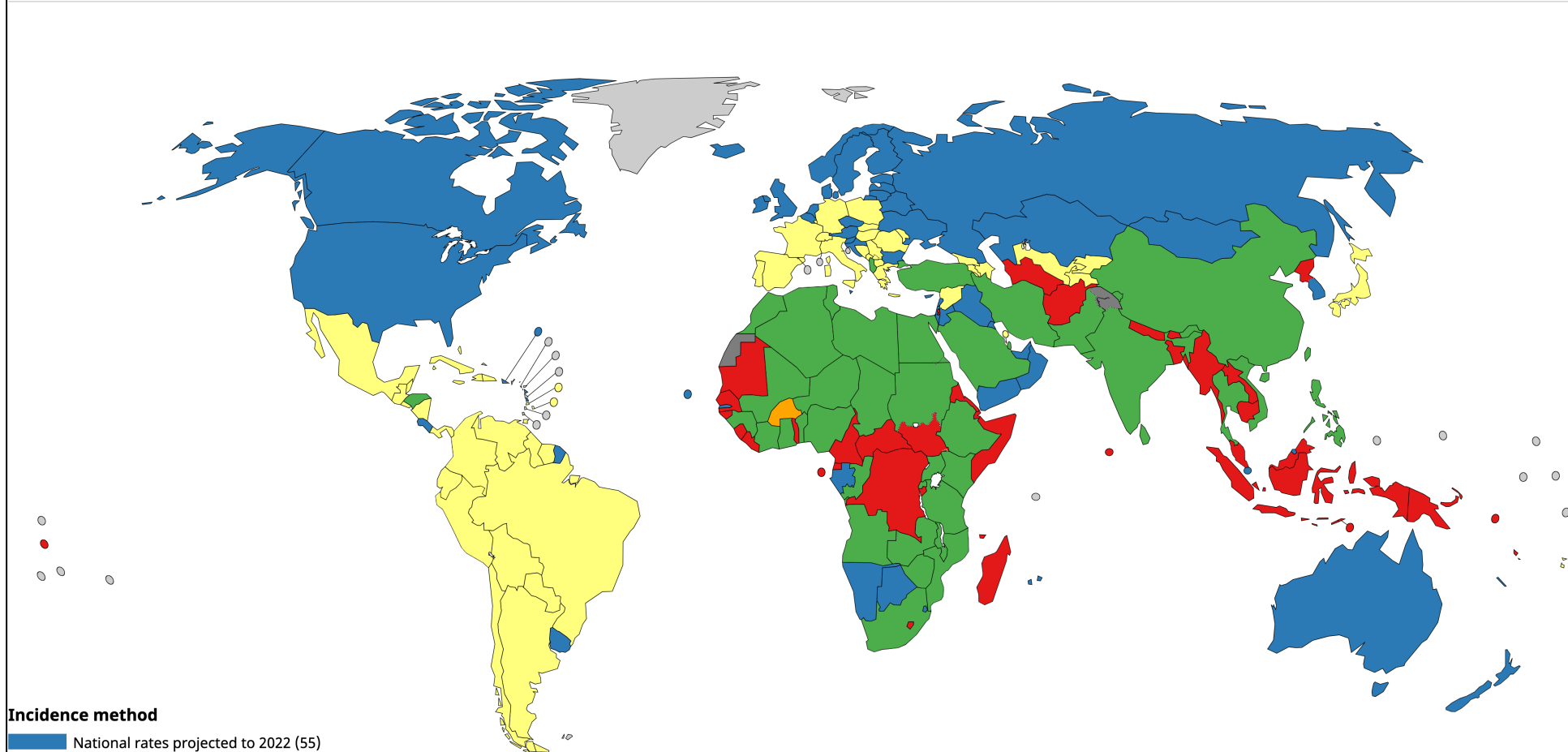


Global burden of cancer, <https://gco.iarc.fr>



Incidence methods

For more details, see Data and methods by country



Incidence method

- National rates projected to 2022 (55)
- Most recent rates applied to 2022 (39)
- Estimated from national mortality estimates by modelling (52)
- "All sites" estimates from neighbouring countries partitioned using frequency data (1)
- No data: rates are those of neighbouring countries/registries in the same area (38)
- Not applicable
- No data

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Cancer TODAY | IARC
<https://gco.iarc.who.int/today>
Data version: Globocan 2022 (version 1.1) - 08.02.2024
© All Rights Reserved 2024

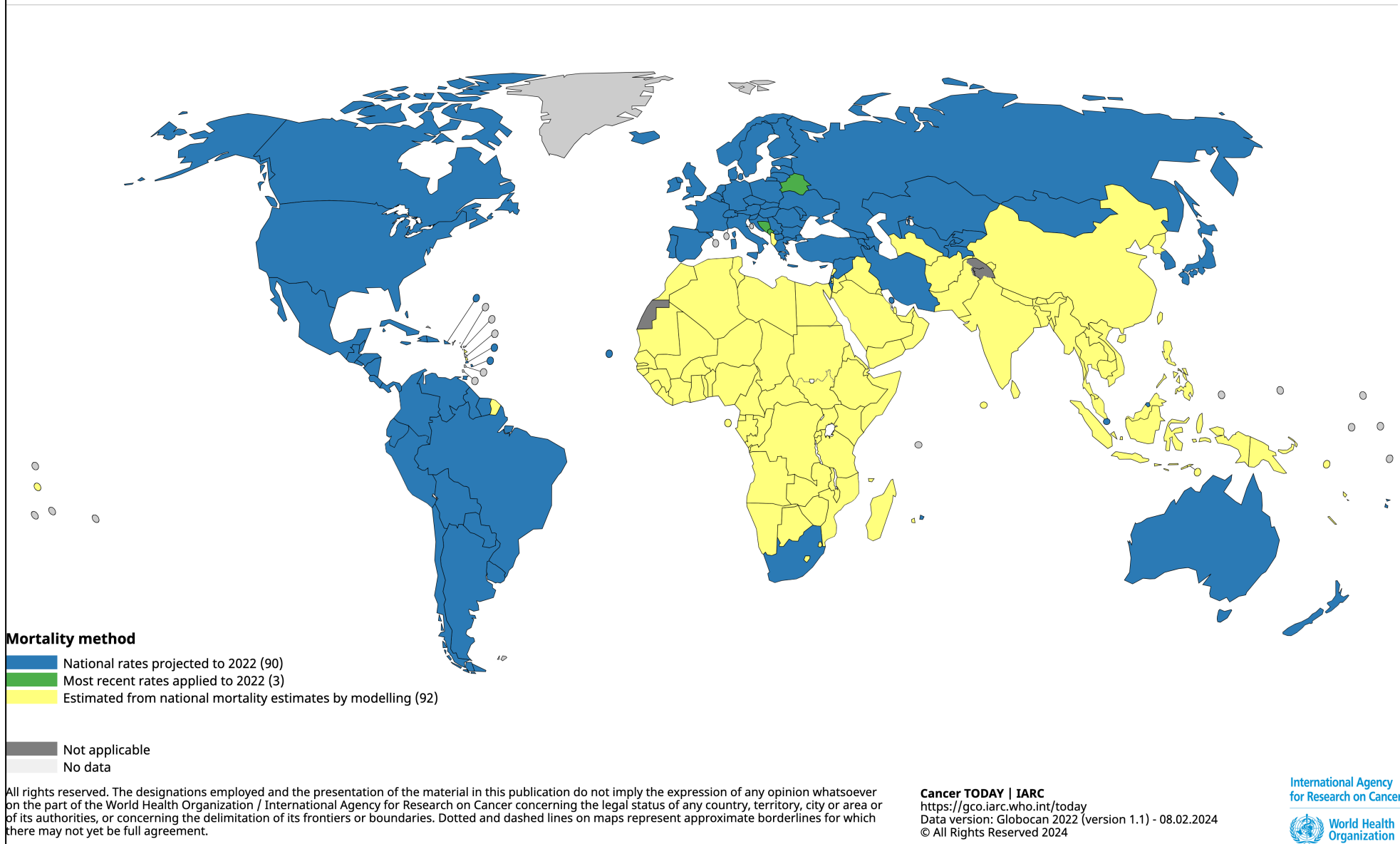
International Agency
for Research on Cancer





Mortality methods

For more details, see Data and methods by country



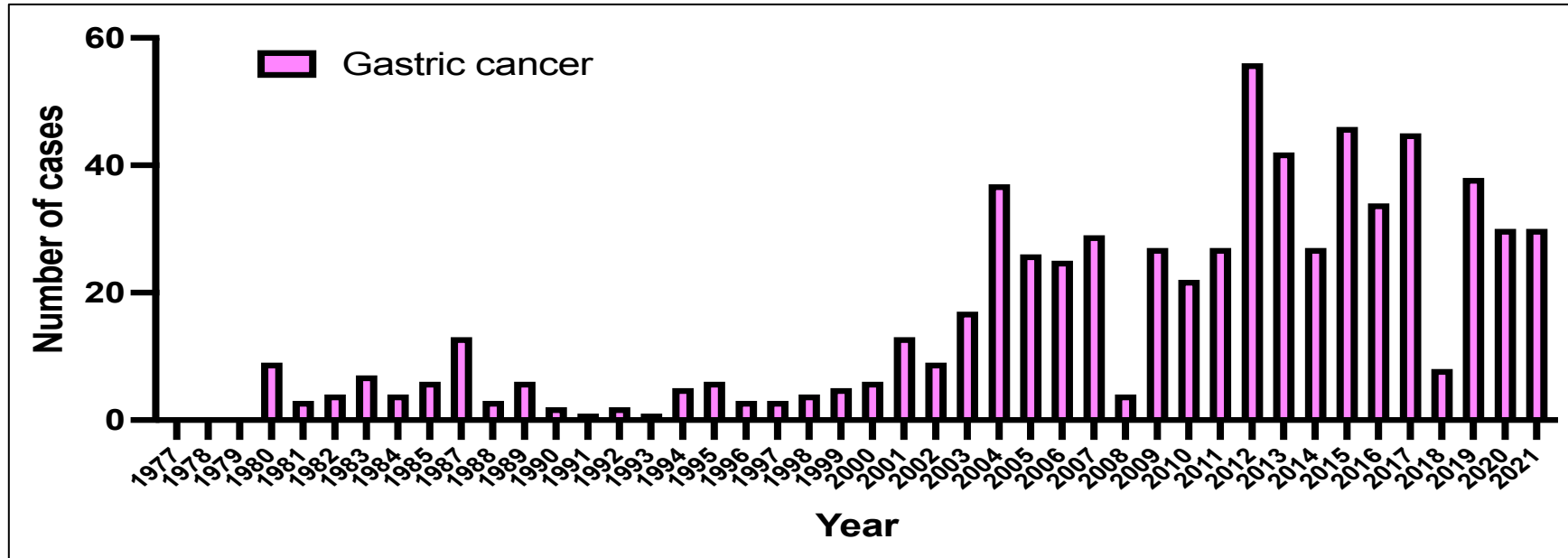


Reporting of gastric cancer cases

Over half (53%) African countries do not have population based national cancer registries, IARC 2022



Forty-four years of endoscopy records in Zambia



42% of the data not in the cancer registry



African Health Sciences

Makerere Medical School

[Afr Health Sci.](#) 2023 Mar; 23(1): 438–443.

doi: [10.4314/ahs.v23i1.46](https://doi.org/10.4314/ahs.v23i1.46)

PMCID: PMC10398468

PMID: [37545961](https://pubmed.ncbi.nlm.nih.gov/37545961/)

Analysis of the proportion of university teaching hospital gastric cancer data included in the Zambia national cancer registry

[Samson Shumba](#)¹ and [Violet Kayamba](#)²



Endoscopic services



[Endosc Int Open](#). 2021 Nov; 9(11): E1827–E1836.
Published online 2021 Nov 12. doi: [10.1055/a-1551-3343](https://doi.org/10.1055/a-1551-3343)

PMCID: PMC8589549
PMID: [34790551](https://pubmed.ncbi.nlm.nih.gov/34790551/)

Gastrointestinal endoscopy capacity in Eastern Africa

[Michael Mwachiro](#),¹ [Hillary M. Topazian](#),² [Violet Kayamba](#),³ [Gift Mulima](#),⁴ [Elly Ogutu](#),^{5,6} [Mengistu Erkie](#),⁷ [Gome Lenga](#),⁸ [Thomas Mutie](#),^{6,9} [Eva Mukhwana](#),⁶ [Hailemichael Desalegn](#),¹⁰ [Rezene Berhe](#),¹¹ [Berhane Redae Meshesha](#),¹² [Bongani Kaimila](#),¹³ [Paul Kelly](#),³ [David Fleischer](#),¹⁴ [Sanford M. Dawsey](#),¹⁵ and [Mark D. Topazian](#)¹⁶



African Health Sciences

Makerere Medical School

[Afr Health Sci](#). 2016 Mar; 16(1): 329–338.
doi: [10.4314/ahs.v16i1.44](https://doi.org/10.4314/ahs.v16i1.44)

PMCID: PMC4915418
PMID: [27358650](https://pubmed.ncbi.nlm.nih.gov/27358650/)

Endoscopic capacity in West Africa

[Daniel Perl](#),¹ [Desmond Leddin](#),² [Damon Bizo](#),³ [Andrew Veitch](#),⁴ [James N'Dow](#),⁵ [Stephanie Bush-Goddard](#),⁶ [Ramou Njie](#),⁸ [Maud Lemoine](#),⁸ [Suzanne T Anderson](#),⁷ [John Igoe](#),² [Sharmila Anandasabapathy](#),¹ and [Brijen Shah](#)¹

Partnership with African Countries: European Society of Gastrointestinal Endoscopy (ESGE) – Position Statement



Authors

[Cesare Hassan](#)¹, [Lars Aabakken](#)², [Alanna Ebigbo](#)³, [John Gásdal Karstensen](#)^{4,5}, [Claire Guy](#)⁶, [Mario Dinis-Ribeiro](#)⁷, [Olivier Le Moine](#)⁸, [Peter Vilmann](#)⁴, [Thierry Ponchon](#)⁹



High *H. pylori* prevalence but low gastric cancer

Europe	Asia	America
Greece	India	Mexico
Turkey	Indonesia	Brazil
Bulgaria	Pakistan	
Romania	Bangladesh	
Serbia	Sri Lanka	
Croatia	Nepal	
Bosnia and Herzegovina	Bhutan	
Albania	Myanmar	
North Macedonia	Cambodia	
Montenegro	Laos	

African enigma was based on five countries

Multiple sources



Conclusion

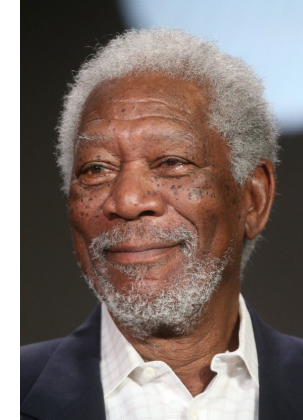
The term African enigma is redundant



Cracking Joints Causes Arthritis



Being cold causes pneumonia



Pulling out grey hairs multiplies them



Eating garlic protects against mosquitos



***H. Pylori* related gastric diseases are rare in Africa**



Remember who has the burden of proof