

Table S1. The checklist for the Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER) statement

 Checklist of information that should be included in new reports of global health estimates		
Item #	Checklist item	Reported on page #
Objectives and funding		
1	Define the indicator(s), populations (including age, sex, and geographic entities), and time period(s) for which estimates were made.	2
2	List the funding sources for the work.	8
Data inputs		
<i>For all data inputs from multiple sources that are synthesized as part of the study:</i>		
3	Describe how the data were identified and how the data were accessed.	2, 3, 8
4	Specify the inclusion and exclusion criteria. Identify all ad-hoc exclusions.	2
5	Provide information on all included data sources and their main characteristics. For each data source used, report reference information or contact name/institution, population represented, data collection method, year(s) of data collection, sex and age range, diagnostic criteria or measurement method, and sample size, as relevant.	2, 3
6	Identify and describe any categories of input data that have potentially important biases (e.g., based on characteristics listed in item 5).	7
<i>For data inputs that contribute to the analysis but were not synthesized as part of the study:</i>		
7	Describe and give sources for any other data inputs.	2, 3
<i>For all data inputs:</i>		
8	Provide all data inputs in a file format from which data can be efficiently extracted (e.g., a spreadsheet rather than a PDF), including all relevant meta-data listed in item 5. For any data inputs that cannot be shared because of ethical or legal reasons, such as third-party ownership, provide a contact name or the name of the institution that retains the right to the data.	2, 8
Data analysis		
9	Provide a conceptual overview of the data analysis method. A diagram may be helpful.	2, 3
10	Provide a detailed description of all steps of the analysis, including mathematical formulae. This description should cover, as relevant, data cleaning, data pre-processing, data adjustments and weighting of data sources, and mathematical or statistical model(s).	2, 3, ST2
11	Describe how candidate models were evaluated and how the final model(s) were selected.	NA
12	Provide the results of an evaluation of model performance, if done, as well as the results of any relevant sensitivity analysis.	3, 5
13	Describe methods for calculating uncertainty of the estimates. State which sources of uncertainty were, and were not, accounted for in the uncertainty analysis.	2
14	State how analytic or statistical source code used to generate estimates can be accessed.	2, 8
Results and Discussion		
15	Provide published estimates in a file format from which data can be efficiently extracted.	4, 5
16	Report a quantitative measure of the uncertainty of the estimates (e.g. uncertainty intervals).	3

- 17 Interpret results in light of existing evidence. If updating a previous set of estimates, describe the reasons for changes in estimates. 6, 7
- 18 Discuss limitations of the estimates. Include a discussion of any modelling assumptions or data limitations that affect interpretation of the estimates. 7

This checklist should be used in conjunction with the GATHER statement and Explanation and Elaboration document, found on gather-statement.org.

Table S2. Gastrointestinal cancer sites included in the study and corresponding ICD-10 codes

ICD-10* codes	Neoplasm	Grouped as	Included in the analysis
C15.0	Cervical part of esophagus	Esophagus	Included
C15.1	Thoracic part of esophagus		
C15.2	Abdominal part of esophagus		
C15.3	Upper third part of esophagus		
C15.4	Middle third part of esophagus		
C15.5	Lower third part of esophagus		
C15.8	Overlapping lesion of esophagus		
C15.9	Esophagus, unspecified		
C16.0	Cardia (Cardiac orifice, cardio-esophageal junction, gastro-esophageal junction, and esophagus and stomach)	Stomach	Included
C16.1	Fundus of stomach		
C16.2	Body of stomach		
C16.3	Pyloric antrum (Gastric antrum)		
C16.4	Pylorus (Prepylorus, pyloric canal)		
C16.5	Lesser curvature of stomach, unspecified (not classifiable to C16.1-C16.4)		
C16.6	Greater curvature of stomach, unspecified (not classifiable to C16.0-C16.4)		
C16.8	Overlapping lesion of stomach		
C16.9	Stomach (gastric cancer), unspecified		
C17.0	Duodenum	Small intestine	Not included due to exceptionally low incidence, histological heterogeneity, and limited statistical power
C17.1	Jejunum		
C17.2	Ileum (Except the ileocecal valve)		
C17.3	Meckel diverticulum		
C17.8	Overlapping lesion of small intestine		

C17.9	Small intestine, unspecified		
C18.0	Caecum (including the ileocecal valve)	Colon	Included
C18.1	Appendix		
C18.2	Ascending colon		
C18.3	Hepatic flexure		
C18.4	Transverse colon		
C18.5	Splenic flexure		
C18.6	Descending colon		
C18.7	Sigmoid colon (Excluding rectosigmoid junction)		
C18.8	Overlapping lesion of colon		
C18.9	Colon (large intestine), unspecified		
C19	Rectosigmoid junction (Including colon with rectum and rectosigmoid)	Rectum	Included
C20	Rectum (Including rectal ampulla)		
C21.0	Anus, unspecified (Excluding anal margin and anal/perianal skin)	Anus and anal canal	Included
C21.1	Anal canal (including anal sphincter)		
C21.2	Cloacogenic zone		
C21.8	Overlapping lesion of rectum, anus and anal canal (including anorectal junction, anorectum, and malignant neoplasm of rectum, anus and anal canal whose point of origin cannot be classified to any one of the categories C20-C21.2)		
C22.0	Liver cell carcinoma (Including hepatocellular carcinoma and hepatoma)	Liver and intrahepatic bile ducts	Included
C22.1	Intrahepatic bile duct carcinoma (Including cholangiocarcinoma)		
C22.2	Hepatoblastoma		
C22.3	Angiosarcoma of liver (Including Kupffer cell sarcoma)		
C22.4	Other sarcomas of liver		

C22.7	Other specified carcinomas of liver		
C22.9	Liver, unspecified		
C23	Gallbladder	Gallbladder	Included
C24.0	Extrahepatic bile duct (Including unspecified biliary duct or passage, common bile duct, cystic duct, hepatic duct)	Other and unspecified biliary tract cancers	Not included due to low incidence, heterogeneous anatomical sites, and limited interpretability
C24.1	Ampulla of Vater		
C24.8	Overlapping lesion of biliary tract		
C24.9	Biliary tract, unspecified		
C25.0	Head of pancreas	Pancreas	Included
C25.1	Body of pancreas		
C25.2	Tail of pancreas		
C25.3	Pancreatic duct		
C25.4	Endocrine pancreas (Including the islets of Langerhans)		
C25.7	Other parts of pancreas (Including the neck of pancreas)		
C25.8	Overlapping lesion of pancreas		
C25.9	Pancreas, unspecified		

**ICD-10: International Classification of Diseases, 10th Revision*