

**Cardiovascular
Statistics Brazil 2019**

Process Manual

Background

- The Brazilian Society of Cardiology (Sociedade Brasileira de Cardiologia - SBC) intends to continuously monitor and evaluate sources of data on heart disease and stroke in Brazil, in order to provide the most current information to its members and the Brazilian society, on an annual basis. This summary, the **Cardiovascular Statistics Brazil** document, will incorporate official statistics provided by the Brazilian Health Ministry and other government agencies, as well as data generated by other sources and scientific studies on heart disease, stroke, and other vascular diseases.
- This initiative is based in the AHA's **Heart Disease & Stroke Update** methodology and it is receiving support from the AHA team
- The annual Statistical Update is the product of effort by dedicated volunteer clinicians and scientists, committed government professionals, and outstanding SBC members, without whom publication of this valuable resource would be impossible.
- The document will serve as a valuable resource for researchers, clinicians, patients, healthcare policy makers, media professionals, the public, and others who seek the best national data available on heart disease and stroke prevalence and incidence, risk factors, complications, mortality; quality of care; medical procedures and operations; and costs associated with the management of these diseases.

Part 1: Development Process

1.1 - Goal

The main goal of the group's work is to create and then revise and update the **Cardiovascular Statistics Brazil** on an annual basis for publication in *ABC Cardiol*. The focus is to provide new and updated data for each chapter and issue area covered.

1.2 - Rationale

- Excessive length of Statistical Update impedes readability.
- Chapters should focus on what is new and substantive in their topic area.
- Carry over of "old" data needs to be evaluated (annually) to maintain relevancy. New information is in danger of getting lost with increasing length.

1.3 - Method

- Authors are assigned to specific chapters based on the authors' interest and expertise.
- Authors are responsible for identifying updated data and information needs in the chapter, and scheduling phone conferences.
- Authors are to come to consensus on suggestions for condensing their sections.

1.4 – Literature Search Strategies

- An overall literature search strategy will be developed to outline the core terms and concepts used across all or most of the chapters in the update. These major

concepts include cardiovascular disease and epidemiological terms and those relating to prevention, costs, genetics/family history, and global burden.

- Search strategies for each individual chapter are built upon the overall strategy and refined as needed according to the input of the chapter authors. The previous year's search strategies will be saved, reviewed, and updated as needed based upon input from the publication's coordinator/chair and the chapter authors. For each topic/chapter, literature searches are run in the LILACS, SciELO, PubMed, Embase, CINAHL and Cochrane databases, restricted to the Portuguese, Spanish and English language literature.
- The first literature search covers the last 15 years; in the following years, it covers dates from the previous search to the present (usually one year). In some searches, depending upon the volume of published literature on the topic, publication type limits may be added or removed. The results from each database are sent separately via email to the primary author of the chapter, who retains the results and forwards them to the appropriate author(s), with copy to chair and vicechair.

Part 2: Roles and Responsibilities

2.1 – Chairs Responsibilities

- Refine scope of document and determine outline:
 - Review studies and data.
 - Work with literature search strategies.
- Review writing committee members' areas of expertise to determine appropriate writing assignments.
- Assign writing committee members with Relationship with Industries (**RWI**) to write and participate on sections not relevant to their RWI:
 - Maintain RWI policy compliance.
- Manage the manuscript:
 - Maintain timeline and encourage writing committee members to meet deadlines. A monthly call with each chapter's authors will be scheduled to ensure that the timelines are being met.
 - Find alternate author if writing committee members fail to submit sections.
 - Edit full document for consistency of style and voice.
 - Facilitate consensus throughout development.
- Manage the teleconferences and in-person meetings:
 - Enforce adherence to document outline and scope.
 - Ensure discussion is balanced.
- Respond to MS peer review:
 - Work with Chairman to review and respond to all peer review comments.
 - Assign peer review comments to writing committee members, based on chapter assignment and areas of expertise, when appropriate.
- Develop executive summary, web factsheets and slides, and participate in development of derivative products as requested.

- Assist throughout publication and promotion phases of document, e.g., page proof review, press release, interviews.

2.2 - Authors Responsibilities

- Must be willing to commit at least 40-50 hours each year (mainly January to June) on writing, updating, and proof-reading their corresponding chapter(s).
- Leading the writing process alongside the secondary author to ensure the chapter is submitted in accordance with deadlines.
- Review the annual literature search strategy compiled by third author and the university medical librarian.
- Ensure that the most up-to-date published statistics are presented. When new studies are available, existing data and references should be updated to reflect the most current literature.
- Each chapter may contain data from different sources and must be updated annually to reflect new and important advances in the field. This may include:
 - New surveillance data from Health Ministry, IBGE, ANVISA, etc.
 - New studies and published data.
 - Remove old studies, unless landmark, that are outdated (over 5 years, as applicable).
 - Insert new bullets from recent literature (in the last 1-2 years).
- Check to make sure Tables and Charts correlate to the text in chapter and contain the most up to date information.
- Check to ensure that all the prior year's text, references, hyperlinks, data, and tables are accurate.
- Confirm that corresponding data presented in other chapters is consistent (e.g., heart failure prevalence data in total cardiovascular disease chapter).
- Check to be sure Hyperlinks work and link to the most current data. Update accession date to reflect the current year.
- Timeline – allow 10-15 hours to respond to feedback from MS and AHA (Emelia) in May.
- Respond to invitations and reminders from chair/vice chair for due dates.
- Check-in calls with Chair and Vice-Chair (January to June) to ensure writing is on track with timeline.
- Identify top 2-4 most innovative or significant new studies or data within the past year to include in the document's Executive Summary. The studies cited should be published within the last 12-18 months.

2.3 Criteria for Authorship

- **The ABC Cardiol, and the Cardiovascular Statistics Brazil adhere to the International Committee of Medical Journal Editors 4 Criteria for authorship quoted below:**
 - “Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
 - Drafting the work or revising it critically for important intellectual content; AND
 - Final approval of the version to be published; AND

- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.”
Additional information can be found at:
<http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html#two>
- Hence, authorship is not merited merely for a) participation in a prior year’s statistical update; b) being appointed to the **Cardiovascular Statistics Brazil**;
 - If an appointed committee member has a change in life circumstance (funding, health, family, job responsibility, etc.) such that she/he is no longer able to commit the required 40-60 hours to make a substantial contribution to the document, then she/he must notify the Chairman and immediately.
 - Similarly, if the appointed committee member does not adhere to deadlines and/or does not respond to chairman emails in a timely fashion, the chairman will assume that the committee member’s priorities have shifted.
- In such circumstances, the Vice Chair, Chair of the Committee and Epidemiology Council leadership will appoint a suitable replacement author.

Part 3: Chapter Assignments

CHAPTERS		
Executive Summary	Antonio Ribeiro	Gláucia Moraes
About these Statistics		
CARDIOVASCULAR CONDITIONS & DISEASES		
Total Cardiovascular Disease	Bruce Duncan	Elizabeth França
Cerebrovascular Disease	Otavio Pontes	Julia Carion
Coronary Heart Disease, Acute CS, and Angina Pectoris	Carisi Polanczyk	Marcio Bitencourt
Cardiomyopathy and Heart Failure	Antonio Ribeiro	Andreia Biolo
Valvular Diseases including Rheumatic Heart Disease	Bruno Nascimento	Glauca Moraes
Atrial Fibrillation	Luisa Brant	Odilson Silvestre
SUPPLEMENTAL MATERIALS		
About these Statistics	Gláucia Moraes	Antonio Ribeiro
At-a-Glance Summary Tables		
Glossary		
Review	M ^a Fatima Souza (MoH)	Emelia Benjamin (AHA)

Part 4: Guiding Principles

4.1 – Editing Sections

- Relevant data older than 5 years should be critically reviewed to determine if they are still /important/contributory to the section as a whole.
- Update should feature the newest and highest quality data published in each area.
- To the extent possible include measures of absolute risk in addition to relative risk.
- Please follow the chapter order.
- Ensure that the literature review has included all subchapter headings.

- If available, data should be presented to reflect important demographics including age categories, sex, and racial/ethnic, as well as social determinants of health such as socioeconomic status, urbanity/rurality, health literacy, LGBTQ, etc.
 - Havranek EP, Mujahid MS, Barr DA, Blair IV, Cohen MS, Cruz-Flores S, Davey-Smith G, Dennison-Himmelfarb CR, Lauer MS, Lockwood DW, Rosal M, Yancy CW, American Heart Association Council on Quality of Care and Outcomes Research CoE, Prevention CoC, Stroke Nursing CoL, Cardiometabolic H and Stroke C. Social Determinants of Risk and Outcomes for Cardiovascular Disease: A Scientific Statement From the American Heart Association. *Circulation*. 2015;132:873-98. PMID: 26240271.
- Careful consideration should be given if deciding whether or not to include any non-peer reviewed (personal communication) data. Non-published data should be retained if they fill an important gap in knowledge in the section.
- Recent high-quality published works should not be excluded solely because they present a conflicting or opposing estimate from other recent high-quality works.
- The editing process should attempt to maintain a focus on the best available estimates on disease incidence and prevalence within each section.
- The emphasis is on epidemiological data. **The Update is not a Guideline, does not focus on the merits of specific clinical treatments, and does not make treatment recommendations.** However, the Update may comment on the prevalence of evidenced-based treatments and control of risk factors and CVD conditions in the population and specific demographic groups.
- The Update should not be considered a position paper or comprehensive review of a topic, neither should it include policy or advocacy statements. Rather it should strive to present the newest and best estimates of disease and risk factor statistics.
- Please consult the original reference and verify that all numbers included in the text are accurate.
- Please verify that the Charts are in the correct order and was referred to and used in the document.
- Please verify that the charts and tables have appropriate legends.
- Please annually update accession date for eData from webpages; ensure hyperlinks are active and link to the most recent data.
- When depicting data please be clear about
 - The data source (e.g. cohort, national data base, etc.) and reference the data source.
 - The years of observation for the data.
- Adding Tables and illustrative production quality Figures is strongly encouraged. Data visualization will enhance the readability of the document and increase the likelihood that the document will be referenced and used for presentations, and publications by researchers, the press, and public.
- Abbreviations (per ABC Cardiol rules):
 - Please try to avoid excessive use of abbreviations as they impede readability to the wide audience that accesses the document.
 - Try to only use abbreviations that appear ≥ 5 times in your section.
 - Please try to use consistent abbreviations across chapters.

- If you are using a new abbreviation, please check with ABC Cardiol rules and acronym finder (<http://www.acronymfinder.com/>) to ensure that the abbreviation is standard, and does not have unintended connotations.

4.2 Plagiarism

- It is essential to avoid plagiarism. Hence, do not copy and paste text from articles or abstracts. More than 5-8 words in a row verbatim are considered plagiarism unless one places the material in quotes.
- Plagiarism must be avoided because a) plagiarism is a form of scientific misconduct; b) plagiarism may also violate other journal's copyright protections.
- However, retaining material from prior years' statistical update is appropriate if the material is still relevant.
- Plagiarism Software – final chapter proofs will be scanned for plagiarism before submitting it to Scientific Publication.

Part 5: Writing Format and Requirements

5.1 - Guide for Chapter Outline

- Each chapter must follow the order below and use the same subchapter headings:
 - Prevalence*
 - Incidence*
 - Lifetime risk & cumulative incidence*
 - Mortality*
 - Secular trends*
 - Complications *
 - Health care utilization: Hospital Discharges/Ambulatory Care Visits
 - Cost
 - Risk factors*
 - Risk prediction
 - Borderline risk factors/subclinical/unrecognized disease*
 - Genetics/Family history
 - Prevention*
 - Awareness, treatment, control*
 - Global burden
 - Future Research

*In addition to providing the overall estimates, to the extent that the data are available, please include males/females, age subgroups (for youth, adults and older adults), disabilities, LGBT, social determinants, disparities, income, education, neighborhood, urban/rurality, and immigrants.

5.2 – Guidelines for ABC Cardiol Manuscript Preparation

Document Format, Standard	<p>The preferred format for the manuscript is:</p> <p>Font—Times New Roman, 12 point</p> <p>Margins—1 inch on all sides</p> <p>Text—Double spaced</p> <p>Page numbers—top right; include chapter number and short title in the header also.</p> <p>Line numbers—Optional. If used, they should restart with each page.</p> <p>Track changes—Do not accept changes in the manuscript. The Science & Medicine Advisor will accept all changes in the final version before submitting the final version to Scientific Publishing for production.</p> <p>Highlighted text—remove highlighting.</p>
Document, Order of Elements	<p>Please place the elements of the chapter in this order:</p> <ul style="list-style-type: none"> • Name of the chapter, with its number at the beginning • Abbreviations table (using standard format) • Text (begin on a new page) • References (begin on a new page) • Tables (begin each one on a new page) • Legends for any Charts (can be on a single page)
Text, Abbreviations	<p>Use the abbreviations table at the beginning of each chapter to capture ones that will be used in it.</p> <p>Then, the abbreviations do not need to be spelled out on first mention in the text of the chapter.</p> <p>Using such an abbreviations table is unique to the Statistical Update and does not apply to regular statements/guidelines.</p>
Text, Bullet or Numbered Lists	<p>If lists are included with a chapter, ensure that they show a hierarchy using indentations.</p> <p>Example:</p> <ul style="list-style-type: none"> • Cats <ul style="list-style-type: none"> ○ Kittens <ul style="list-style-type: none"> ▪ Toys <p>The type of bullet will be adjusted during composition, according to journal style.</p>
Text, Headings	<p>As an aid during writing, then for the compositor, the following numbering scheme can be used at the beginning of any headings in the chapter:</p> <p>[h1] for a first-level heading</p> <p>[h2] for a second-level heading</p> <p>[h3] for a third-level heading</p> <p>These designations can have higher numbers as well (eg, [h4]) as needed.</p> <p>They will be removed before the page proof is created.</p> <p>Heading levels are optional.</p>
Text, Language Usage	<ul style="list-style-type: none"> • Check for redundancy (eg, do not use “a joint statement together”) throughout the manuscript. • Avoid vague terms. For instance, limit the use of “<i>recently</i>” in sentences that refer to published articles (eg, “In a recently published study,²⁶ the authors found that. . . .” [article published 1999]). Restrict “recently” to articles published in the past year. It is preferable to refer to the year published or the years under study.
Text, “N” or “n”	<p>When using “N” or “n” to describe a sample of patients, remember the following from the <i>AMA Manual of Style</i>:</p> <ul style="list-style-type: none"> • “N” = entire population under study • “n” = sample of the population under study (meaning a portion of the entire population).
Text, Numerals	<p>If a particular medical term includes Roman or Arabic numerals, please ensure that (1) it is the correct usage (Roman or Arabic) and (2) it is consistent throughout the manuscript, tables, and charts.</p> <p>Journal style is to consistently use numerals rather than spell out the number.</p>

Text, Reference, Reference Numbering	<p>The style of references should follow journal style (see sample, Appendix 1). For example, issue numbers for journals are not included in the references. Incorrectly formatted or incomplete references will result in a delay in publication, because it is time-consuming for the printer to research and correct.</p> <p>If an automated references management program is used, ensure that it does not abbreviate words in the citation (eg, “C” for “Council”). This has been observed in the recent past in AHA statements/guidelines.</p> <p>References should be numbered consecutively throughout the manuscript. They should not be renumbered or repeated in each section. If, during the process of revision, sections of the manuscript are reorganized, the references must also be reorganized to ensure they remain cited consecutively. If references are cited in a table, the references should be numbered consecutively according to the placement of first mention of the table in the text.</p> <p>List all authors for a reference (do not use “et al”).</p> <p>Duplicate references—Each reference should appear only one time in the reference list. If it is used in different places in the manuscript, its number should be the same each time. Final manuscripts that have duplicate references will be delayed in the production process.</p> <p>Because an automated references management program will likely be used, please ensure that the numbers are superscripted and do not appear in parentheses or brackets. If new references are inserted, please provide reference in comment bubble.</p> <p>The placement of reference numbers is as follows:</p> <ul style="list-style-type: none"> • After commas and periods • Before semicolons and colons.
Text, Referencing Claims or Previously Published Articles	<p>If you have, for example, a sentence that says, “The most recent criteria for. . . American Diabetes Association are. . .”, please ensure that an appropriate reference number is provided.</p>
Text, Referencing Web Sites	<p>If a Web reference is included in the text, you may include the URL parenthetically. However, the complete reference should also be included in the References section of the chapter.</p> <p>Please access the web page each year, and ensure that the url still works, and that the accession date is the current year of the document.</p>
Text, Spell Check	<p>Perform a “spell check” on the manuscript, tables, and figures before the final submission is given to production.</p> <p>Also check for typical words that would not necessarily be identified by spell check (eg, “dairy” versus “diary” or “from” versus “form” or “manager” versus “manger”).</p>
Text, Style	<p>Per journal style, text is set as regular text (no bold, italic, or underlining for emphasis).</p>
Race and skin color	<p>The Cardiovascular Statistics Brazil adopts the IBGE classification of race/skin color for the Brazilian population: white, black, yellow/asiatic, brown/mixed, indigenous.</p>
Charts, Format	<p>The bar graphs that appear in the Statistical Update are created in Excel, using a pre-determined scheme for the colors of the bars.</p> <p>The bar graphs in PowerPoint format are then converted to PDFs. These PDFs are what is sent to the compositor.</p> <p>All charts should be provided as separate files and not embedded in the Word document. Detailed guidelines for appropriate charts are available from the Scientific Publications staff.</p>
Tables and Charts, Abbreviations	<p>Abbreviations in tables and charts are okay. Include the definition of each abbreviation with each table or chart in the legend for that table or chart.</p> <p>Order of the symbols is: * † ‡ § ¶ # [then repeat. For example, **, ††, etc.]</p>
Tables and Charts, Numbering	<p>The numbering scheme for charts in the Statistical Update should be as follows:</p> <ul style="list-style-type: none"> • Chart 2-1 <p>This indicates that the chart appears in chapter 2 and is the first chart in the chapter.</p>

Tables and Charts, Permissions	<p>If a table or figure is reprinted from another source, that source should clearly be listed with it.</p> <p>As part of the development process, the Scientific Publishing Editorial Assistant reviews each manuscript for any tables or figures for which reprint permission is needed. The Editorial Assistant then obtains these permissions. The writing group does not need to perform this task.</p>
Tables and Charts, Reference Citations	<p>If there are reference citations that appear only in the tables or figures, please add them to the reference list and give them a separate number. Also ensure that the references are in numerical order according to the first mention of the table or figure in the text.</p> <p>If there are reference citations used in the tables or figures that also appear in text, use that same number. Do not create a duplicate reference.</p> <p>Use only reference numbers in tables and figures, not the entire reference.</p>
Tables, Style	<p>Journal style for tables:</p> <p>Only the headers have bolded text. No bold or italic in the body of the table. Italic would only be used, for example, with genus and species.</p>

5.3 Terminology Guide

- Sex
 - Use Sex: Males and Females (Not Men and Women)
 - Use Sex, not gender, unless referring to gender identity (e.g. LGBTQ)
- Age Definition (Pediatrics <18 years, Adults are ≥18 years, & older adults ≥65 years)
- USunits vs. International units.
- When listing effect sizes format is HR, 1.8; 95% CI,1.5–2.0; $P<0.05$
- Make sure to use race/ethnicities specific for the study referenced.
- Data sources and terminology used for each chapter should be updated based on:
 - Who owns what dataset and where should that data go
 - If new Tables or Charts are used, specify source as early as possible as permission from the original publisher may be required
 - Charts Requirements: Permission is not needed for charts containing data derived from government sources. We do need to acknowledge the source in the

Appendix B - Literature Search Concepts and Terms

Literature Search Concepts & Terms for the Cardiovascular Statistics Brazil

Databases: LILACS, SciELO, PubMed, Embase, Cochrane, CINAHL

CONCEPT/FILTER	MeSH	KEYWORDS	NOTES
1. Chapter/Topic	(This section changes depending upon the chapter or topic, eg. Arrhythmia, Diabetes, Cardiac arrest, Smoking, etc.)		
2. Cardiovascular Diseases	"Cardiovascular diseases"[Mesh] "Heart diseases"[Mesh] "Coronary disease"[Mesh] Stroke[Mesh] Hypertension[Mesh]	Heart disease[title] CVD[title] "cardiovascular disease*"[title] stroke[title] "high blood pressure"[title] Kawasaki disease"[title] "vascular disease"[title] "cerebrovascular disease"[title] "Rheumatic heart disease"[title]	Use exploded/expanded search terms
3. Epidemiological	Epidemiology[Mesh] Incidence[Mesh] Prevalence[Mesh] "Risk Factors"[Mesh] Morbidity[Mesh] Comorbidity[Mesh] Mortality[Mesh] "Cause of death"[Mesh] "Survival Rate"[Mesh] "Survival analysis"[Mesh] "World Health"[Mesh] "Global health"[Mesh] Forecasting[Mesh] "Population Surveillance"[Mesh] "Health care surveys"[Mesh] "Health surveys"[Mesh] "Life expectancy"[Mesh] "Data collection"[Mesh] "Health surveys"[Mesh] "Life tables"[Mesh] "Fatal outcome"[Mesh] "Hospital mortality"[Mesh] "Hospitalization/statistics & numerical data"[Mesh] Registries[Mesh] "Vital statistics"[Mesh] Probability[Mesh] "Disease-free survival"[Mesh]	Statistical[title] Statistics[title] "Risk factor*"[title] Trend*[title] NHANES[title] "Framingham"[title] "health surveys"[title] epidemiological[title] Mortality[title] Morbidity[title] Prevalence[title] Incidence[title] Longevity[title] Comorbidities[title] "population survey"[title] "Survival rate"[title] Registry[title] "lifetime risk"[title] "Global burden"[title]	

4. Prevention & Control	<p>"Primary prevention"[Mesh] "Secondary prevention"[Mesh] "Tertiary prevention"[Mesh] Recurrence[Mesh] counseling[Mesh] "Treatment outcome"[Mesh] "Health promotion"[Mesh] "Risk assessment"[Mesh] "Risk reduction behavior"[Mesh] "Patient education"[Mesh] "Health education"[Mesh] "Preventive health services"[Mesh] "Outcome assessment"[Mesh] "Life style"[Mesh] Awareness[Mesh]</p>	<p>"primary prevention"[title] "secondary prevention"[title] Outcomes[title] "Health education"[title] "patient education"[title] "Healthy behavior*" [title] "Healthy living"[title] "ideal health"[title] "Health planning"[title] "Risk reduction"[title] Lifestyle[title]</p>	
5. Costs	<p>"Costs and Cost Analysis"[Mesh] "Health Care Costs"[Mesh] "Health expenditures"[Mesh] "Cost of Illness"[Mesh] "Cost-Benefit Analysis"[Mesh] "Health Care Quality, Access, and Evaluation"[Mesh] "Outcome Assessment (Health Care)"[Mesh] "Guideline Adherence"[Mesh] "Quality Assurance, Health Care"[Mesh] "Patient Discharge"[Mesh]</p>	<p>"healthcare trend*" [title] "quality indicator*" [title] "healthcare costs" [title] Cost-benefit[title] costs[title] "healthcare utilization" [tiab] "Hospital discharge*" [title]</p>	
6. Genetics and Family History	<p>"Genetics"[Mesh] "Genetic processes"[Mesh] Heredity[Mesh] "Cardiovascular diseases/genetics"[Mesh] "Genetic predisposition to disease"[Mesh]</p>	<p>"family history" [title] "genetic predisposition" Hereditary[title]</p>	
7. Population	<p>All age groups (Adult , Child, Aged) Male Female Humans</p>		<p>Also NOT out the following search set: Animals [mh] NOT humans [mh]</p>
8. Type of study/publication	<p>"Review" "Meta-Analysis" "Clinical Trial" "Randomized Controlled Trial" "Comparative Study" "Practice Guideline" "systematic review" "Comparative study" "evaluation studies" "Government publications" "multicenter study"</p>		
9. Publication dates	<p>From last update search</p>		
10. Languages	<p>English</p>		