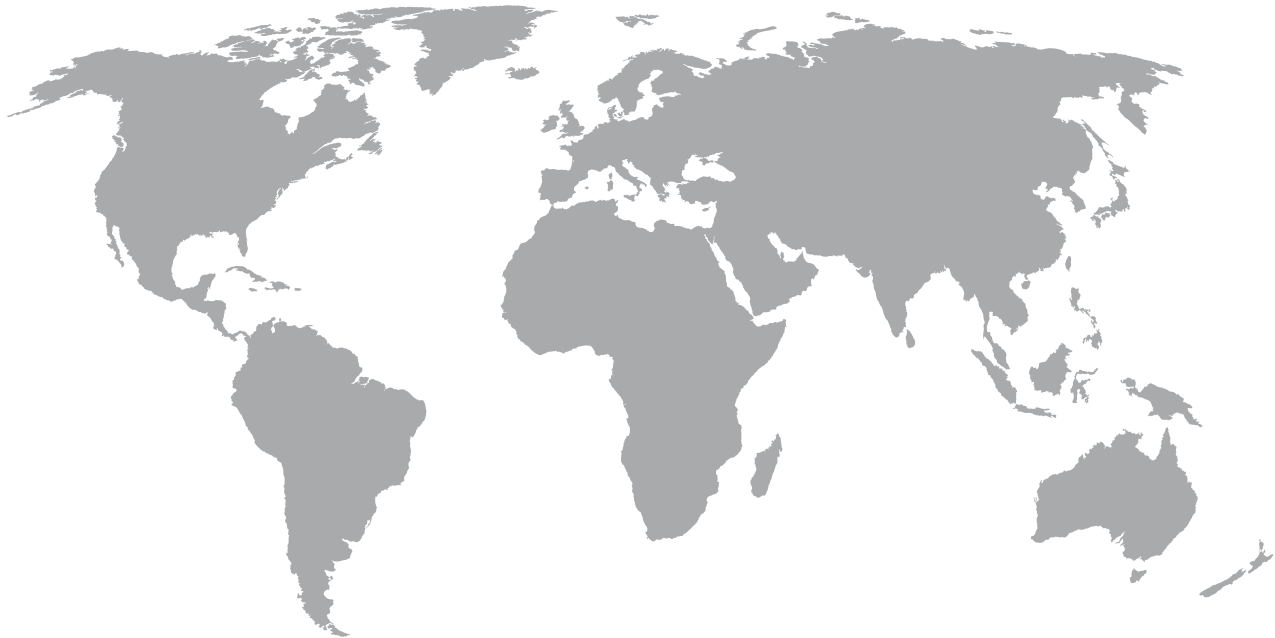




Global Adult Tobacco Survey (GATS)



Proposal Development Guidelines

Global Adult Tobacco Survey (GATS) Proposal Development Guidelines

September 2020

Global Adult Tobacco Survey (GATS) Comprehensive Standard Protocol

GATS Questionnaire

Core Questionnaire with Optional Questions
Question by Question Specifications

GATS Sample Design

Sample Design Manual
Sample Weights Manual

GATS Fieldwork Implementation

Field Interviewer Manual
Field Supervisor Manual
Mapping and Listing Manual

GATS Data Management

Programmer's Guide to General Survey System
Core Questionnaire Programming Specifications
Data Management Implementation Plan
Data Management Training Guide

GATS Quality Assurance: Guidelines and Documentation

GATS Analysis and Reporting Package

Fact Sheet Templates
Country Report: Tabulation Plan and Guidelines
Indicator Definitions

GATS Data Release and Dissemination

Data Release Policy
Data Dissemination: Guidance for the Initial Release of the Data

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GATS Collaborating Organizations

- United States Centers for Disease Control and Prevention (CDC)
- CDC Foundation
- Johns Hopkins Bloomberg School of Public Health (JHSPH)
- RTI International
- World Health Organization (WHO)

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Disclaimer: The views expressed in this manual are not necessarily those of the GATS collaborating organizations.

Contents

Chapter	Page
1. Introduction	1-1
1.1 Overview of the Global Adult Tobacco Survey	1-1
1.2 Use of these Guidelines	1-2
1.3 Partners and Partner Roles.....	1-2
2. Details for Key GATS Proposal Sections.....	2-1
2.1 GATS Questionnaire	2-1
2.2 Sample Design	2-2
2.3 Pretest.....	2-2
2.4 Fieldwork	2-3
2.5 Data Management, Analysis, and Dissemination	2-4
3. Proposal and Submission	3-1
3.1 Proposal Contents and Review Criteria	3-1
3.2 Submission Instructions	3-1
4. Review Process	4-1
4.1 Technical Review	4-2
4.2 Budget Review	4-2
5. GATS Implementation Timeline	5-1
6. GATS Process Chart.....	6-1
Appendix A: GATS Proposal Template.....	A-1

1. Introduction

Tobacco use is a major preventable cause of premature death and disease worldwide, with approximately 1.4 billion people age 15 years or older using tobacco¹. Furthermore, more than 8 million people die each year due to tobacco-related illnesses². If current trends continue, tobacco use may kill a billion people by the end of this century, and it is estimated that more than three quarters of these deaths will be in low- and middle-income countries³. An efficient and systematic surveillance mechanism is essential to monitor and manage the epidemic.

The **Global Adult Tobacco Survey (GATS)**, a component of Global Tobacco Surveillance System (GTSS), is a global standard for systematically monitoring adult tobacco use and tracking key tobacco control indicators. GATS is a nationally representative household survey of adults 15 years of age or older using a standard core questionnaire, sample design, and data collection and management procedures that were reviewed and approved by international experts. GATS is intended to enhance the capacity of countries to design, implement and evaluate tobacco control interventions.

In order to maximize the efficiency of the data collected from GATS, a series of manuals has been created. These manuals are designed to provide countries with standard requirements as well as several recommendations on the design and implementation of the survey in every step of the GATS process. They are also designed to offer guidance on how a particular country might adjust features of the GATS protocol in order to maximize the utility of the data within the country. In order to maintain consistency and comparability across countries, following the standard protocol is strongly encouraged.

GATS manuals provide systematic guidance on the design and implementation of the survey.

1.1 Overview of the Global Adult Tobacco Survey

GATS is designed to produce national and sub-national estimates among adults across countries. The target population includes all non-institutionalized men and women 15 years of age or older who consider the country to be their usual place of residence. All members of the target population will be sampled from the household that is their usual place of residence.

GATS uses a geographically clustered multistage sampling methodology to identify the specific households that Field Interviewers will contact. First, a country is divided into Primary Sampling Units, segments within these Primary Sampling Units, and households within the segments. Then, a random sample of households is selected to participate in GATS.

The GATS interview is composed of two parts: *Household Questionnaire* and *Individual Questionnaire*. These questionnaires are administered using an electronic data collection device.

¹ World Health Organization. WHO report on the global tobacco epidemic, 2019: Offer help to quit tobacco use. Geneva, Switzerland: World Health Organization; 2019. <https://apps.who.int/iris/bitstream/handle/10665/326043/9789241516204-eng.pdf?ua=1>

² GBD 2017 Risk Factor Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. Seattle, WA: Institute for Health Metrics and Evaluation; 2018.

³ Mathers, C.D., and Loncar, D. Projections of Global Mortality and Burden of Disease from 2002 to 2030. *PLoS Medicine*, 2006, 3(11):e442.

The GATS interview consists of two parts: the *Household Questionnaire* and the *Individual Questionnaire*. The *Household Questionnaire* (household screening) and the *Individual Questionnaire* (individual interview) will be conducted using an electronic data collection device.

At each address in the sample, Field Interviewers will administer the *Household Questionnaire* to one adult who resides in the household. The purposes of the *Household Questionnaire* are to determine if the selected household meets GATS eligibility requirements and to make a list, or roster, of all eligible members of the household. Once a roster of eligible residents of the household is completed, one individual will be randomly selected to complete the *Individual Questionnaire*. The *Individual Questionnaire* asks questions about background characteristics; tobacco smoking; electronic cigarettes; smokeless tobacco; cessation; secondhand smoke; economics; media; and knowledge, attitudes, and perceptions about tobacco.

1.2 Use of these Guidelines

This document will assist the GATS implementing agency(ies) by providing guidance on preparing the GATS proposal. While GATS partners can provide technical assistance during preparation and drafting of the GATS proposal, completion and timely submission of the proposal is the responsibility of the national implementing agency(ies).

1.3 Partners and Partner Roles

Partners and partner roles in GATS include the following:

- National governments provide leadership and coordination at the country level;
- World Health Organization (WHO) provides global, regional, and in-country leadership as well as monitoring of global tobacco control policy implementation;
- United States Centers for Disease Control and Prevention (CDC), a WHO Collaborating Center for Global Tobacco Surveillance, provides technical assistance for implementation of the surveillance system;
- Johns Hopkins Bloomberg School of Public Health (JHSPH) provides technical assistance on data analysis and reporting;
- RTI International provides training and technical assistance in electronic data collection; and
- CDC Foundation provides resources and program support.

Funding for GATS is provided by the Bloomberg Initiative to Reduce Tobacco Use, a program of Bloomberg Philanthropies; the Bill & Melinda Gates Foundation; and various governmental agencies.

2. Details for Key GATS Proposal Sections

The following sections contain information that will facilitate understanding of key components of conducting the survey and include the following topics: Questionnaire; Sampling Design; Pretest; Fieldwork; and Data Management, Analysis, and Dissemination. (An overview of the GATS process and protocol can be found in the *GATS Process Chart* in *Chapter 6*.)

2.1 GATS Questionnaire

GATS questionnaire consists of a core set of questions that all participating countries will administer. In addition, an optional list of questions is available to incorporate depending on the country specific situation. Countries may also make adaptations to the questions depending on specific country situation. Please refer to the *GATS Core Questionnaire with Optional Questions* for more details.

The core questionnaire is composed of the following sections:

Household Questionnaire. The *Household Questionnaire* provides information on the household members who consider the selected household as their usual place of residence. This also identifies the household with the number of eligible household members (15 years of age or older) for interview. The preferred respondent for the *Household Questionnaire* is the head of the household. However, any adult living in the household can provide the information in the case of households with no head of house or where he or she is absent. This questionnaire includes questions on number of household members and basic information on their age, gender, and current smoking status.

Individual Questionnaire. An *Individual Questionnaire* is used to collect information that directly concerns males and females. One male or female 15 years of age or older identified for interview will be interviewed in each household for the *Individual Questionnaire*. The *Individual Questionnaire* consists of nine sections:

- Section A — Background Characteristics
- Section B — Tobacco Smoking
- Section EC — Electronic Cigarettes
- Section C — Smokeless Tobacco
- Section D — Cessation
- Section E — Secondhand Smoke
- Section F — Economics
- Section G — Media
- Section H — Knowledge, Attitudes, and Perceptions

Country-Specific Adaptation. The following guidelines are recommended for questionnaire adaptation and preparation:

- **Preparation:** initial adaptation work carried out before the translation work begins;

- **Forward translation:** translation of the original language, also called source, version of the survey instrument into another language, often called the target language;
- **Reconciliation:** comparing and merging more than one forward translation into a single forward translation;
- **Back-translation:** translation of the new language version back into the original language;
- **Back-translation review:** comparison of the back-translated versions of the instrument with the original to highlight and investigate discrepancies between the original and the reconciled translation, which is then revised in the process of resolving the issues;
- **Harmonization:** comparison of back translations of multiple language versions with each other and the original instrument to highlight discrepancies between the original and its derivative translations, as well as to achieve a consistent approach to translation problems;
- **Cognitive debriefing:** testing the instrument on a small group of relevant respondents to test alternative wording and to check understandability, interpretation, and cultural relevance of the translation;
- **Review of results and finalization:** comparison of the relative respondents' interpretation of the translation with the original version to highlight and amend discrepancies; and
- **Proofreading:** final review of the translation to highlight and correct any typographic, grammatical, or other errors.

2.2 Sample Design

The design for the standard version of GATS seeks to obtain precise estimates jointly by urbanicity and gender. The sample for GATS should be selected using a multi-stage, geographically clustered design to ensure adequate coverage of the entire target population while simultaneously minimizing data collection costs. The first stage(s) of the design will involve selecting established geo-political area units. This selection process will be highly dependent on the particular country that is fielding GATS. Some countries may have suitable data so that only one stage of geographic selection is needed. Other countries may need multiple stages of geographic selection, where each stage is designed to randomly subselect geographic areas from within larger areas selected at a previous stage.

A more detailed discussion of each stage of the sampling process is provided in the *GATS Sample Design Manual*. In addition, the sample design manual also provides a detailed description on the following two types of design settings: (i) new countries conducting their first round of GATS, and (ii) countries repeating GATS by conducting another survey round.

2.3 Pretest

A detailed description of the pretest implementation process should be described in the GATS proposal. The pretest of the questionnaire and survey implementation process is needed to address issues, such as skip errors, translation errors, awkward wording, inadequate response categories, and potential logistical problems for main survey. The pretest is also needed to train the key survey personnel, test all survey materials prior to full implementation, and if possible, obtain estimates of respondent burden. By modeling the pretest after the anticipated full survey implementation procedures, the country and GATS Partners (CDC, CDC Foundation and WHO) will maximize opportunities for improving the quality in the

full survey implementation. The pretest process should reflect the planned operational model including data collection and management for the full survey implementation and should require interviews of approximately 100 individuals. However, countries are recommended to collect the information from the individual respondents that cover various domains such as residence (urban/rural), gender (male/female), age (15-24, 25-44, 45-64, 65+), and tobacco use status (tobacco users/non-users) categories, as needed.

2.4 Fieldwork

Recommended Agency Structure and Resources

- Organizational plan and clear lines of authority and communication
- Human resources: well described processes, job descriptions of key team members, selection criteria for interviewers and other key personnel
- Travel requirements
- Office availability
- Computers and technology
- Detailed survey schedule
- Problem identification and resolution process

Recommended Standardized Procedures

- Administrative procedures and training
- Household selection
- Household identification, listing, and mapping procedures
- Questionnaire administration procedures
- Field status reporting system
- Data processing and editing
- Quality control process

Supporting Materials Adaptation

- **For the Interviewer.** Participating request letters for selected households, country-specific questionnaires, question-by-question specifications, *GATS Field Interviewer Manual*, and identification badges.
- **For the Supervisor.** Identification of selected households (pre-printed addresses, and household selection and identifying information), questionnaire control forms, interviewer lists and scheduling, cartography/maps/routes/details of households, quality control checklists, and *GATS Field Supervisor Manual*.
- **For the Coordinator.** Task descriptions for human resources, training materials and slides, selected sampling units lists, cartography/maps, quality control checklists, Coordinator's guidelines, and *GATS Sample Design Manual*.
- **Communications Activities.** Mass media guidelines as required.

2.5 Data Management, Analysis, and Dissemination

The implementing agency must have procedures in place for all data management processes occurring during and after data collection including consistency checks, aggregation, data verification, data transfer, and preparation of the aggregated database for statistical analysis. A general practice of confidentiality regarding access and use of the data and related information should also be in place. The agency should have access to software to facilitate these procedures, including the Microsoft Office suite (Access, Excel, Word, etc.). A proper daily backup schedule should be in place to assure regularly scheduled duplication, in order to prevent loss or corruption of data. A plan for the statistical analysis of the final database will be outlined in the *GATS Analysis and Reporting Package*. Statistical software packages such as SAS, SPSS, STATA, or R are required to conduct the analysis procedures. Dissemination materials, such as the country fact sheet, will be developed in partnership with the countries, to ensure effective utilization of the results of the analyzed data. Each country will also produce a complete national GATS report and other materials for release to the media.

3. Proposal and Submission

3.1 Proposal Contents and Review Criteria

The GATS country proposal will be reviewed and assessed by technical and funding agencies using the criteria listed. The criteria listed below will be assessed by technical and funding agencies' reviewers and should be included in the country's proposal(s). Please see *Appendix A* for a detailed template.

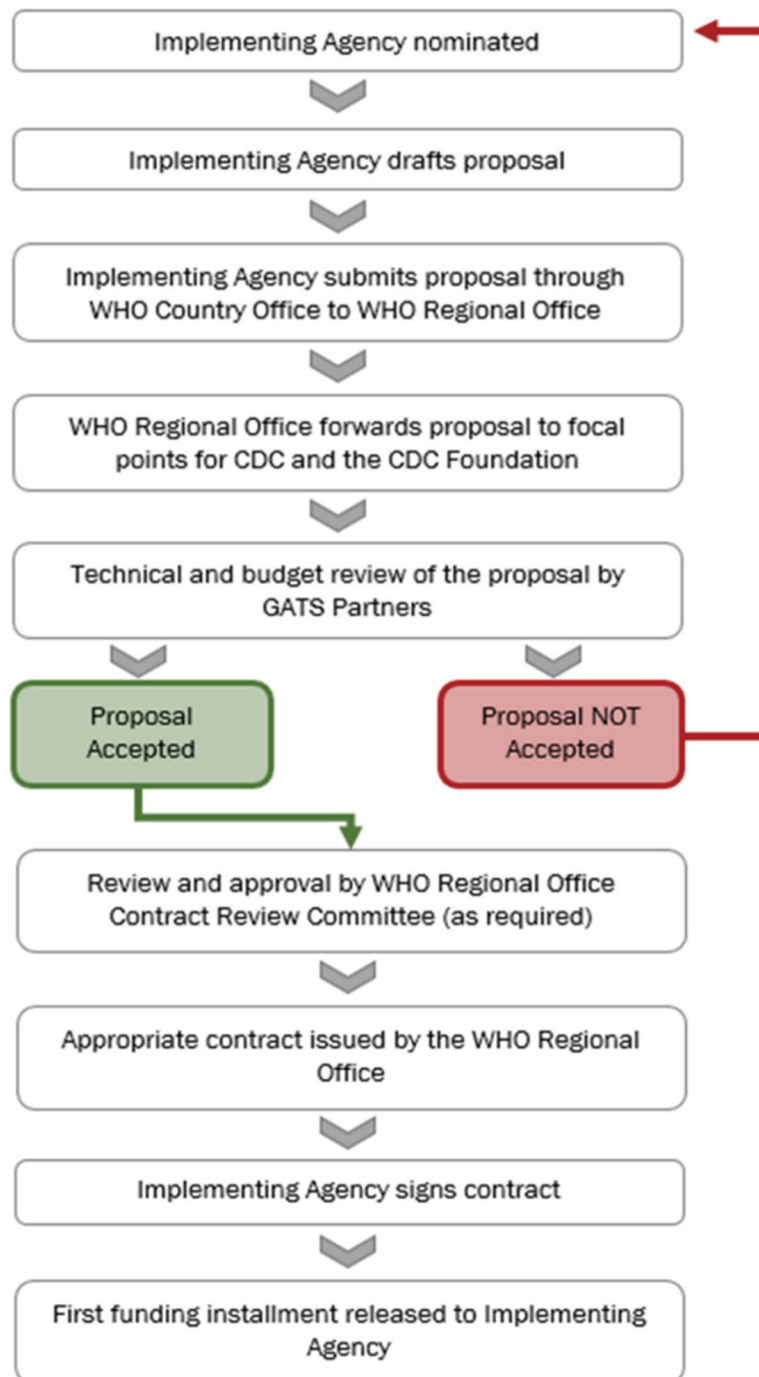
- Background of the Agency
- Questionnaire Preparation Methods
- Sample Design Methods
- Pretest Procedures
- Full Survey Training Proposal
- Resources
- Fieldwork and Data Management
- Analysis and Reporting Plans
- Timeline of All Activities
- Budget

3.2 Submission Instructions

The proposal should be submitted in English and limited to 35 pages in length, double-spaced with 1-inch margins, and using Times New Roman 12-point or Courier 10-point type. Curriculum vitae for all key country-level GATS staff should be included as attachments and do not count towards the page limit. An electronic copy should be submitted through the WHO country office (CO), for onwards transmission to the WHO regional office (RO). The WHO RO will then share an electronic copy with the CDC focal point and CDC Foundation for technical and budget review.

4. Review Process

The proposal review process consists of two stages: technical review and budget review. Details regarding each stage of review are listed in the following sections.



Depending on country need and situation, the GATS partners will consider funding GATS through agencies and mechanisms other than WHO. Alternate funding mechanisms will be considered and approved based on recommendations from country-level implementing agencies.

4.1 Technical Review

Technical Review is conducted at various levels. Overall, technical details (questionnaire, sample design, fieldwork, and data management) of the proposal will be reviewed by the respective RSO and CDC focal point to assure that the submitted proposal adhere to all technical and scientific requirements of the GATS Comprehensive Standard Protocol. The GATS Questionnaire Review Committee (QRC) will review and approve the questionnaire and the GATS Sample Review Committee (SRC) will review and approve the sample design.

Questionnaire Review. Once the GATS questionnaire is adapted to the country specific situation, it will be reviewed by the QRC to ensure standardization across countries and over time. The QRC is made up of the CDC focal point and international experts in questionnaire design. The questionnaire and its back-translation should be sent to the CDC focal point by the implementing agency focal point, with copies to the WHO RO. The CDC focal point will forward the questionnaire to the committee for review. The committee's comments will be forwarded to the country by the CDC focal point with copies to the WHO RO. Please refer to the implementation instructions for additional details about the QRC process.

Sample Design Review. Once the GATS sampling design is framed in detail by a country, it will be reviewed by the SRC to ensure the quality and cost effectiveness. The SRC is made up of the CDC focal point and international experts in survey design. The sampling design should be sent to the CDC focal point by the implementing agency, with copies to WHO RO. The CDC focal point will forward the sampling design to the committee for review. The committee's comments will be forwarded to the country by the CDC focal point with copies to the WHO RO. The final decision regarding sampling designs will be made by WHO RO and CDC. Please refer to the implementation instructions for additional details about the SRC process.

4.2 Budget Review

The budget will be simultaneously reviewed by the CDC Foundation and WHO RO while the various aspects of the technical review are conducted. Any comments or questions that the GATS partners have regarding the budget will be forwarded to the appropriate contact(s) in country by the WHO RO or the CDC focal point.

Note: Countries are encouraged to fully or partially fund GATS implementation. However, for the survey to be considered a GATS, countries must adhere to the technical and scientific requirements outlined in the GATS Comprehensive Standard Protocol.

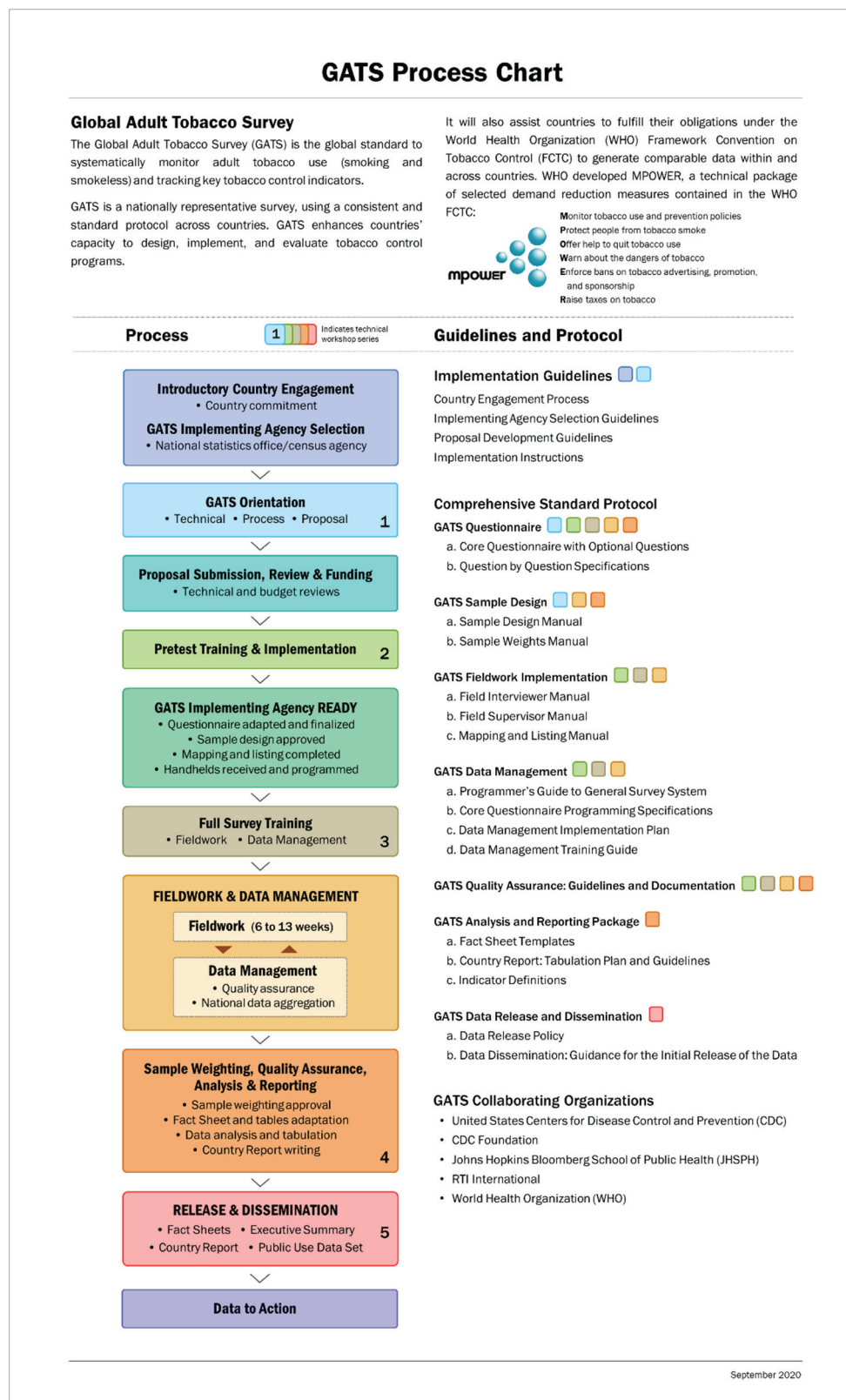
The minimum requirements to be considered a GATS include review and approval of the questionnaire, sample design, sample weights, quality assurance measures, and analysis plan by the GATS expert review committees. The GATS expert review process and technical assistance is available to countries through CDC and WHO.

5. GATS Implementation Timeline

Phases	Date or Date Range	Activity
Pre-Data Collection		MOH to nominate agency or institution to implement the survey.
		Introduce Implementing Agency (IA) expectations related to personnel requirements, hardware/software needs, and timelines for proposal approval and equipment delivery.
		IA provides information needed for the WHO Contract Review Committee (CRC) approval process in the pre-designed questionnaire as well as necessary financial information to become an approved WHO supplier.
		Complete country specific questionnaire adaptation.
		Submit country specific adapted questionnaire (in English) to the CDC focal point with a copy to the WHO RO for review by QRC. It is recommended that at least 15 working days be allowed for review and approval.
		Perform translation and back translation of the final questionnaire.
		Complete country specific sample design.
		Submit sampling design (in English) to the CDC focal point with a copy to WHO RO for review by SRC. It is recommended that at least 15 working days be allowed for review and approval.
		Complete proposal.
		Complete proposal and obtain signatures of Ministry of Health (MOH) and GATS Coordinating Committee Chairman, as appropriate.
		Submit proposal (in English) to WHO RO to be forwarded to the CDC focal point and CDC Foundation for review by appropriate experts and committees.
		Review and approval of proposal by appropriate committees.
		Review and approval of proposal by WHO's CRC, as appropriate — PLEASE ALLOW 21 DAYS FOR FINAL APPROVAL.
		Issuance of GATS contract by WHO to IA following CRC approval.
		IA to sign and return GATS contract to WHO.
		Release first funding installment to IA from WHO RO.
		As applicable, receive handheld delivery (consider length of time required to clear customs for shipment of electronics).
		Conduct pretest training and fieldwork.
		Analyze pretest results and prepare pretest report.
		Revise proposal as needed to reflect lessons learned from pretest, including any necessary changes in sample design and/or questionnaire.
		Submit proposal revisions to WHO RO. Revisions will be forwarded to the CDC Technical focal point, who will then forward to various committees and CDC Foundation as needed.
		Selection of survey staff (interviewers and supervisors).
		Submit full survey training curriculum along with invoice to WHO RO in order to initiate second funding installment release.

Phases	Date or Date Range	Activity
Data Collection and Management		Conduct training of trainers for full survey implementation.
		Conduct training for full implementation of electronic data collection for IT staff, interviewers, and supervisors.
		Conduct full survey data collection and data management.
Post Data Collection		Conduct data aggregation, weighting, and analysis.
		Convene data analysis workshop.
		Prepare standard fact sheets using GATS data and templates.
		Prepare the country report using GATS data and templates.
		Submit finalized fact sheets and report to GATS partners.
		Release GATS fact sheets and reports as outlined in the <i>GATS Data Dissemination: Guidance for the Initial Release of the Data</i> .
		Submit required reports, data, and invoices to WHO RO in order to initiate third funding disbursement.
		Release data per the requirements of the <i>GATS Data Release Policy</i> .

6. GATS Process Chart



Appendix A: GATS Proposal Template

To meet the donor and GATS standard criteria, WHO and CDC recommend that implementing agencies follow the suggested outline below when drafting a GATS proposal. This would ensure that the submitted proposal uses a standard format with necessary details to implement GATS. The criteria should be uniform irrespective of the countries that are interested in sub-national level implementation.

1. Agency Profile

- 1.1. Name and communication details (mailing address, telephone and fax numbers, email address, etc.) of the organization/agency
- 1.2. Year of establishment
- 1.3. Principal nature of activities undertaken
- 1.4. Organizational structure and names of personnel, their titles and curriculum vitae, including nature of appointment and duration with the organization of the key personnel proposed to be involved in GATS
- 1.5. Survey Experience (in the last five years) including area of specialization of field research, evidence of experience of conducting large scale health and/or demographic household surveys (national/regional level), and the field procedure/staff particulars such as number of officers and supervisors, investigators engaged and number of households covered

2. Questionnaire Preparation

- 2.1. Country-specific adapted version of core questionnaire including translation and back translation
- 2.2. Country-specific questionnaire and modifications required, if necessary after pretest

3. Sample Design Methods

- 3.1. Description of sample design in sufficient detail
- 3.2. Sample size estimation based on adherence to respondent sample size requirements as outlined in the *GATS Sample Design Manual*
- 3.3. Description of appropriate adjustments for non-response and ineligibility
- 3.4. Sources of sampling frame and other sample design materials
- 3.5. Proposed mapping and household listing procedures

4. Pretest

- 4.1. Description of methodology
 - 4.1.1. Questionnaire development and adaptation, including specific optional questions
 - 4.1.2. Sample size and respondents allocation (convenient sampling of the target population)
 - 4.1.3. Translation and back translation procedures and procedure for testing all languages
- 4.2. Description of procedure for field operation manuals translations

- 4.3. Description of selection and training processes of field staff including IT personnel, supervisors, and interviewers
 - 4.3.1. Number of staff
 - 4.3.2. Training modes, including class presentations, mock interviews, and field practice tests
- 4.4. Fieldwork implementation plan
- 4.5. Study area details
- 4.6. Data transfer and aggregation procedures
- 4.7. Data analysis and report writing
- 4.8. Pretest report preparation plans

5. Full Survey Training Plans

- 5.1. Agency's previous experience in training survey personnel
- 5.2. Proposed plan for training staff for GATS implementation
- 5.3. Structure available for training and proposed activities
- 5.4. List of training materials and manuals
- 5.5. Number of field personnel trained (interviewers, supervisors, IT staff)
- 5.6. Training timeline

6. Resources

- 6.1. List of key human resources and roles and responsibilities including field staff
- 6.2. Quantity and tasks of human resources including field staff (including regional level requirements, if needed)
- 6.3. List of other resources allocated to the survey

7. Fieldwork and Data Management

- 7.1. Fieldwork support materials: quality control spreadsheets, etc.
- 7.2. Details on standardized procedures on household identification, interview procedures, questionnaire management, quality control procedures, non-response, and refusal recovery strategies
- 7.3. Reporting channels and requirements, including regional/subcontract agencies
- 7.4. Plans for data aggregation and management

8. Analysis and Reporting Plans

- 8.1. Sample weighting and quality assurance plans
- 8.2. Analysis and data tabulation plans

9. Timeline (see *Chapter 5* for a comprehensive timeline template)

- 9.1. Complete proposal and obtain signatures of MOH and Coordinating Committee Chairman
- 9.2. Translate/back-translate questionnaire
- 9.3. Submit final questionnaire to GATS QRC (in English)
- 9.4. Submit pretest proposal for funding
- 9.5. Complete sample design
- 9.6. Submit sample design to GATS SRC (in English)
- 9.7. Submit proposal through WHO CO to WHO RO
- 9.8. Proposal approved and funded
- 9.9. Conduct pretest and modify proposal
- 9.10. Approval for modifications in the proposal from GATS partners
- 9.11. Conduct fieldwork training
- 9.12. Conduct fieldwork
- 9.13. Data management and analysis
- 9.14. Report writing

10. Budget (template to be provided to countries electronically)

Global Adult Tobacco Survey (GATS)