ANNUAL SYNAR REPORT

42 U.S.C. 300x-26

OMB № 0930-0222

FFY 2024

State: North Dakota

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INTRODUCTION

The Annual Synar Report (ASR) format provides the means for states to comply with the reporting provisions of the Public Health Service Act (42 U.S.C. 300x-26) and the Tobacco Regulation for the Substance Abuse Prevention and Treatment Block Grant (SABG) (45 C.F.R. 96.130 (e)).

How the Synar report helps the Center for Substance Abuse Prevention

In accordance with the tobacco regulations, states are required to provide detailed information on progress made in enforcing youth and young adult tobacco access laws (FFY 2023 Compliance Progress) and future plans to ensure compliance with the Synar requirements to reduce youth and young adult tobacco access rates (FFY 2024 Intended Use Plan). These data are required by 42 U.S.C. 300x-26 and will be used by the Secretary to evaluate state compliance with the statute. Part of the mission of the Center for Substance Abuse Prevention (CSAP) is to assist states[1] by supporting Synar activities and providing technical assistance helpful in determining the type of enforcement measures and control strategies that are most effective. This information is helpful to CSAP in improving technical assistance resources and expertise on enforcement efforts and tobacco control program support activities, including state Synar program support services, through an enhanced technical assistance program involving conferences and workshops, development of training materials and guidance documents, and onsite technical assistance consultation.

How the Synar report can help states

The information gathered for the Synar report can help states describe and analyze substate needs for program enhancements. These data can also be used to report to the state legislature and other state and local organizations on progress made to date in enforcing youth and young adult tobacco access laws when aggregated statistical data from state Synar reports can demonstrate to the Secretary the national progress in reducing youth and young adult tobacco access problems. This information will also provide Congress with a better understanding of state progress in implementing Synar, including state difficulties and successes in enforcing retailer compliance

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[1]The term "state" is used to refer to all the states and territories required to comply with Synar as part of the Substance Abuse Prevention and Treatment Block Grant Program requirements (42 U.S.C. 300x-64 and 45 C.F.R. 96.121).

with youth and young adult tobacco access laws.

Getting assistance in completing the Synar report

If you have questions about programmatic issues, you may call CSAP's Division of Primary Prevention at (240) 276-2550 and ask for your respective State Project Officer, or contact your State Project Officer directly by telephone or email. If you have questions about fiscal or grants management issues, you may call your Grants Management Specialist in the Office of Financial Resources, Division of Grants Management, at (240) 276-1422.

Where and when to submit the Synar report

The ASR must be received by SAMHSA no later than December 31, 2023 and must be submitted in the format specified by these instructions**.** Use of the approved format will avoid delays in the review and approval process. The chief executive officer (or an authorized designee) of the applicant organization must sign page one of the ASR certifying that the state has complied with all reporting requirements.

The state must upload one copy of the ASR using the online WebBGAS (Block Grant Application System). In addition, the following items must be uploaded to WebBGAS:

- FFY 2024 Synar Survey Results: States that use the Synar Survey Estimation System (SSES) must upload one copy of *SSES Tables 1–8* (in Excel) to WebBGAS. **Please note that, in the FFY 2024 ASR, SSES will generate Tables 6, 7, and 8, which are based on the <u>optional</u> microdata on product type, retail outlet type, and whether identification was requested. If your state does not submit these optional data, Tables 6, 7, and 8 will be blank. Tables 6, 7, and 8 are generated for the convenience of the state, and states are <u>not</u> required to submit completed versions of Tables 6, 7, or 8.** States that do not use SSES must upload one copy of ASR Forms 1, 4, and 5, and Forms 2 and 3, if applicable, (in Excel), as well as a database with the raw inspection data to WebBGAS.

- Synar Inspection Form: States must upload one blank copy of the inspection form used to record the result of each Synar inspection.

- Synar Inspection Protocol: States must upload a copy of the protocol used to train inspection teams on conducting and reporting the results of the Synar inspections. This document should be different than the Appendix C attached to the Annual Synar Report.

- A scanned copy of the signed Funding Agreements/Certifications

Each state SSA Director has been emailed a login ID and password to log onto the Synar section of the WebBGAS site.

FFY 2024: FUNDING AGREEMENTS/CERTIFICATIONS

The following form must be signed by the Chief Executive Officer or an authorized designee and submitted with this application. Documentation authorizing a designee must be attached to the application.

PUBLIC HEALTH SERVICES ACT AND SYNAR AMENDMENT
42 U.S.C. 300x-26 requires each state to submit an annual report of its progress in meeting the requirements of the Synar Amendment and its implementing regulation (45 C.F.R. 96.130) to the Secretary of the Department of Health and Human Services. By signing below, the chief executive officer (or an authorized designee) of the applicant organization certifies that the state has complied with these reporting requirements and the certifications as set forth below.
SYNAR SURVEY SAMPLING METHODOLOGY
The state certifies that the Synar survey sampling methodology on file with the Center for Substance Abuse Prevention and submitted with the Annual Synar Report for FFY 2024 is up-to-date and approved by the Center for Substance Abuse Prevention.
SYNAR SURVEY INSPECTION PROTOCOL
The state certifies that the Synar Survey Inspection Protocol on file with the Center for Substance Abuse Prevention and submitted with the Annual Synar Report for FFY 2024 is up-to-date and approved by the Center for Substance Abuse Prevention.
State: North Dakota
Name of Chief Executive Officer or Designee: Pam Sagness
Signature of CEO or Designee:
Title: DHHS Behavioral Health Executive Director   **Date Signed:** 12/28/23
If signed by a designee, a copy of the designation must be attached.

State: North Dakota

SECTION I: FFY 2023 (Compliance Progress)

YOUTH AND YOUNG ADULT ACCESS LAWS, ACTIVITIES, AND ENFORCEMENT

42 U.S.C. 300x-26 requires the states to report information regarding the sale/distribution of tobacco products to individuals under age 21.

1. **Please indicate any changes or additions to the state tobacco statute(s) relating to youth and young adult access since the last reporting year. If any changes were made to the state law(s) since the last reporting year, please upload a copy of the state law to WebBGAS.** *(see 42 U.S.C. 300x-26).*

    a. **Has there been a change in the minimum sale age for tobacco products?**

    ☐ **Yes** ☒ **No**

    If Yes, current minimum age: ☐ 19 ☐ 20 ☐ 21

    b. **Have there been any changes in state law that impact the state's protocol for conducting *Synar inspections?***

    ☐ **Yes** ☒ **No**

    If Yes, indicate change. (Check all that apply.)
    ☐ Changed to require that law enforcement conduct inspections of tobacco outlets
    ☐ Changed to make it illegal for youth and young adults to possess, purchase or receive tobacco
    ☐ Changed to require ID to purchase tobacco
    ☒ Changed definition of tobacco products
    ☐ Other change(s) *(Please describe.)* _The definition of tobacco products now includes e-cigs however, ND does not expect to change protocols at this time._

    c. **Have there been any changes in state law that impact the following?**

    Licensing of tobacco vendors ☐ **Yes** ☒ **No**
    Penalties for sales to minors ☐ **Yes** ☒ **No**
    Vending machines ☐ **Yes** ☒ **No**
    Added product
    categories to youth and young adult access law ☐ **Yes** ☒ **No**

2. **Describe how the Annual Synar Report** *(see 45 C.F.R. 96.130(e))* **was made public within the state prior to submission of the ASR.** *(Check all that apply.)*

    ☐ Placed on file for public review

    ☒ Posted on a state agency Web site *(Please provide exact Web address and the date when the FFY 2024 ASR was posted to this Web address.)*

    Web address:

    Date published:

☐ Notice published in a newspaper or newsletter

☐ Public hearing

☐ Announced in a news release, a press conference, or discussed in a media interview

☐ Distributed for review as part of the SABG application process

☐ Distributed through the public library system

☐ Published in an annual register

☒ Other *(Please describe.)* *Public notice also posted on ND Department of Health and Human Services website:*

3. **Identify the following agency or agencies** *(see 42 U.S.C. 300x-26 and 45 C.F.R. 96.130).*

   a. **The state agency(ies)** *designated by the Governor for oversight of the Synar requirements:*

   ND Department of Health and Human Services Behavioral Health Division

   Has this changed since last year's Annual Synar Report?

   ☐ **Yes**   ☒ **No**

   b. **The state agency(ies)** *responsible for conducting random, unannounced Synar inspections:*

   ND Department of Health and Human Services Behavioral Health Division

   Has this changed since last year's Annual Synar Report?

   ☐ **Yes**   ☒ **No**

   c. **The state agency(ies)** *responsible for enforcing youth and young adult tobacco access law(s):*

   ND Office of the Attorney General (on a statewide basis), but enforcement generally takes place at the local level (see Question 5a)

   Has this changed since last year's Annual Synar Report?

   ☐ **Yes**   ☒ **No**

4. **Identify the following agencies and describe their relationship with the agency responsible for the oversight of the Synar requirements.**

   a. **Identify the state agency responsible for tobacco prevention activities (the agency that receives the Centers for Disease Control and Prevention's National Tobacco Control Program funding).**
   ND Department of Health and Human Services

   b. **Has the responsible agency changed since last year's Annual Synar Report?**
   ☐ **Yes**   ☒ **No**

   c. **Describe the coordination and collaboration that occur between the agency**

responsible for tobacco prevention and the agency responsible for oversight of the Synar requirements. *(Check all that apply.)* **The two agencies**

☒ Are the same

☐ Have a formal written memorandum of agreement

☐ Have an informal partnership

☒ Conduct joint planning activities

☒ Combine resources

☒ Have other collaborative arrangement(s) *(Please describe.)* <u>The ND Department of Health and the ND Department of Human Services merged in September of 2022. Prior agreements are still in place.</u>

☐ No relationship

d. **Does a state agency contract with the Food and Drug Administration's Center for Tobacco Products (FDA/CTP) to enforce the youth and young adult access and advertising restrictions in the Family Smoking Prevention and Tobacco Control Act?**
☐ **Yes** ☒ **No (if no, go to Question 5)**

e. **If yes, identify the state agency responsible for enforcing the youth and young adult access and advertising restrictions in the Family Smoking Prevention and Tobacco Control Act (the agency that is under contract to the Food and Drug Administration's Center for Tobacco Products (FDA/CTP)).**

_____

f. **Has the responsible agency changed since last year's Annual Synar Report?**
☐ **Yes** ☐ **No**

g. **Describe the coordination and collaboration that occur between the agency contracted with the FDA to enforce federal youth and young adult tobacco access laws and the agency responsible for oversight of the Synar requirements.** *(Check all that apply.)* **The two agencies:**

☐ Are the same

☐ Have a formal written memorandum of agreement

☐ Have an informal partnership

☐ Conduct joint planning activities

☐ Combine resources

☐ Have other collaborative arrangement(s) *(Please describe.)* _____

☐ No relationship

h. **Does the state use data from the FDA enforcement inspections for Synar survey reporting?**
☐ **Yes** ☐ **No**

5. Please answer the following questions regarding the state's activities to enforce the state's youth and young adult access to tobacco law(s) in FFY 2023 *(see 42 U.S.C. 300x-26 and 45 C.F.R. 96.130(e)).*

    a. Which one of the following describes the enforcement of state youth and young adult access to tobacco laws carried out in your state? *(Check one category only.)*

        ☒ Enforcement is conducted exclusively by local law enforcement agencies.

        ☐ Enforcement is conducted exclusively by state agency(ies).

        ☐ Enforcement is conducted by both local *and* state agencies.

    b. The following items concern penalties imposed for all violations of state youth and young adult access to tobacco laws by <u>LOCAL AND/OR STATE LAW ENFORCEMENT AGENCIES (this does not include enforcement of local laws or federal youth and young adult tobacco access laws)</u>. Please fill in the number requested. If state law does not allow for an item, please mark "NA" (not applicable). If a response for an item is unknown, please mark "UNK." The chart must be filled in completely.

PENALTY	OWNERS	CLERKS	TOTAL
Number of <u>citations issued</u>	3	10	13
Number of <u>fines assessed</u>	0	0	0
Number of <u>permits/licenses suspended</u>	4		4
Number of <u>permits/licenses revoked</u>	0		0
Other *(Please describe.)*			

    c. Are citations or warnings issued to retailers or clerks who sell tobacco to minors for inspections that are part of the Synar survey?

        ☐ **Yes**   ☒ **No**

    If "Yes" to 5c, please describe the state's procedure for minimizing risk of bias to the survey results from retailers alerting each other to the presence of the survey teams:

    d. Which one of the following best describes the level of enforcement of state youth and young adult access to tobacco laws carried out in your state? *(Check one category only.)*

☐ Enforcement is conducted only at those outlets randomly selected for the Synar survey.

☒ Enforcement is conducted only at a subset of outlets not randomly selected for the Synar survey.

☐ Enforcement is conducted at a combination of outlets randomly selected for the Synar survey and outlets not randomly selected for the Synar survey.

e. Did every tobacco outlet in the state receive at least one compliance check that included enforcement of the state youth and young adult tobacco access law(s) in the last year?

☐ **Yes** ☒ **No**

f. What additional activities are conducted in your state to support enforcement and compliance with state youth and young adult tobacco access law(s)?
(Check all that apply and briefly describe each activity in the text boxes below each activity.)

☒ Merchant education and/or training

ND DHHS is at the beginning stages of planning for the implementation of education/training for tobacco retailers.

☒ Incentives for merchants who are in compliance (e.g., nonenforcement compliance checks in which compliant retailers are given positive reinforcement and noncompliant retailers are warned about youth and young adult access laws)

Retailers who pass inspections are given a letter of appreciation. Retailers who fail receive a letter of noncompliance which explains the laws and consequences.

☒ Community education regarding youth and young adult access laws

BHD Staff in collaboration with local tobacco prevention providers conducted statewide retailer site visits notifying the retailers of the laws and penalties for selling tobacco to minors.

☒ Media use to publicize compliance inspection results

A public notice and/or press release is created and disseminated providing the public with the inspection results. Local communities also conduct media efforts such as taking out full-page newspaper ads each quarter and publishing all businesses inspected who passed and who failed.

☒ Community mobilization to increase support for retailer compliance with youth and young adult access laws

Community mobilization is generally supported by local tobacco prevention programs. These programs also conduct on-site visits and inspections with tobacco retailers.

☒ Other activities *(Please list.)* _Letters to State's Attorneys_

Letters are provided to the State's Attorneys documenting any retailer who violated the youth tobacco access laws during a Synar inspection. In this letter, the State's Attorneys are encouraged to enforce the tobacco access laws.

SYNAR SURVEY METHODS AND RESULTS

The following questions pertain to the survey methodology and results of the Synar survey used by the state to meet the requirements of the Synar Regulation in FFY 2023 (see 42 U.S.C. 300x-26 and 45 C.F.R. 96.130).

6. Has the sampling methodology changed from the previous year?

☒ **Yes** ☐ **No**

The state is required to have an approved up-to-date description of the Synar sampling methodology on file with CSAP. Please submit a copy of your Synar Survey Sampling Methodology (Appendix B). If the sampling methodology changed from the previous reporting year, these changes must be reflected in the methodology submitted.

a. **If yes, describe how and when this change was communicated to SAMHSA**

> The state increased the sample size by adding an additional 10% oversample on top of each stratum. This was done to help meet the State's requirement for completed inspections. This 10% oversample was approved by Courtney Glover on 6/7/23.

7. Please answer the following questions regarding the state's annual random, unannounced inspections of tobacco outlets *(see 45 C.F.R. 96.130(d)(2)).*

    a. Did the state use the optional Synar Survey Estimation System (SSES) to analyze the Synar survey data?

    ☒ **Yes** ☐ **No**

    *If **Yes**, upload a copy of SSES tables 1–8 (in Excel) to WebBGAS. Then go to Question 8. If **No**, continue to Question 7b.*

    b. Report the weighted and unweighted Retailer Violation Rate (RVR) estimates, the standard error, accuracy rate (number of eligible outlets divided by the total number of sampled outlets), and completion rate (number of eligible outlets inspected divided by the total number of eligible outlets).

    Unweighted RVR _____

    Weighted RVR _____

    Standard error (s.e.) of the (weighted) RVR _____

    Fill in the blanks to calculate the <u>right limit</u> of the right-sided 95% confidence interval.

	+	(1.645	×	)	=	
RVR Estimate	**plus**	**(1.645**	**times**	**Standard Error)**	**equals**	**Right Limit**

    Accuracy rate _____

    Completion rate _____

c. **Fill out Form 1 in Appendix A (Forms 1–5).** *(Required regardless of the sample design.)*

d. **How were the (weighted) RVR estimate and its standard error obtained?**
(Check the one that applies.)

☐ Form 2 (Optional) in Appendix A (Forms 1–5) *(Attach completed Form 2.)*

☐ Other *(Please specify. Provide formulas and calculations or attach and explain the program code and output with description of all variable names.)*

_____

e. **If stratification was used, did any strata in the sample contain only one outlet or cluster this year?**

☐ **Yes** ☐ **No** ☐ **No stratification**

*If **Yes,** explain how this situation was dealt with in variance estimation.*

_____

f. **Was a cluster sample design used?**

☐ **Yes** ☐ **No**

*If **Yes,** fill out and attach Form 3 in Appendix A (Forms 1–5), and answer the following question.*

*If **No,** go to Question 7g.*

Were any certainty primary sampling units selected this year?

☐ **Yes** ☐ **No**

*If **Yes,** explain how the certainty clusters were dealt with in variance estimation.*

_____

g. **Report the following outlet sample sizes for the Synar survey.**

	Sample Size
Effective sample size (sample size needed to meet the SAMHSA precision requirement assuming simple random sampling)	
Target sample size (the product of the effective sample size and the design effect)	
Original sample size (inflated sample size of the target sample to counter the sample attrition due to ineligibility and noncompletion)	
Eligible sample size (number of outlets found to be eligible in the sample)	
Final sample size (number of eligible outlets in the sample for which an inspection was completed)	

h. **Fill out Form 4 in Appendix A (Forms 1–5).**

8. **Did the state's Synar survey use a list frame?**

☒ **Yes** ☐ **No**

*If **Yes**, answer the following questions about its coverage.*

    a. **The calendar year of the latest Sampling frame coverage study: 2018**

    b. **Percent coverage from the latest Sampling frame coverage study: 96.2%**

    c. **Was a new study conducted in this reporting period?**

       ☒ **Yes** ☐ **No**

       *If **Yes**, please complete Appendix D (List Sampling Frame Coverage Study) and submit it with the Annual Synar Report.*

    d. **The calendar year of the next coverage study planned: 2028 – if approved by SAMHSA.**

9. **Has the Synar survey inspection protocol changed from the previous year?**

☐ **Yes** ☒ **No**

The state is required to have an approved up-to-date description of the Synar inspection protocol on file with CSAP. Please submit a copy of your Synar Survey Inspection Protocol (Appendix C). If the inspection protocol changed from the previous year, these changes must be reflected in the protocol submitted.

    a. **If Yes, describe how and when this change was communicated to SAMHSA**

    b. **Provide the inspection period: From** 8/1/23 **to** 9/30/23
                                      MM/DD/YY MM/DD/YY

    c. **Provide the number of youth and young adult inspectors used in the current inspection year:**

    6 (3 male and 3 female).

    NOTE: If the state uses SSES, please ensure that the number reported in 9b matches that reported in SSES Table 4, or explain any difference.

    d. **Fill out and attach Form 5 in Appendix A (Forms 1–5).** *(Not required if the state used SSES to analyze the Synar survey data.)*

SECTION II: FFY 2024 (Intended Use):

Public Law 42 U.S.C. 300x-26 of the Public Health Service Act and 45 C.F.R. 96.130 (e) (4, 5) require that the states provide information on future plans to ensure compliance with the Synar requirements to reduce youth and young adult tobacco access.

1. **In the upcoming year, does the state anticipate any changes in:**

Synar sampling methodology	☐ **Yes**	☒ **No**
Synar inspection protocol	☐ **Yes**	☒ **No**

   If changes are made in either the Synar sampling methodology or the Synar inspection protocol, the state is required to obtain approval from CSAP prior to implementation of the change and file an updated Synar Survey Sampling Methodology (Appendix B) or an updated Synar Survey Inspection Protocol (Appendix C), as appropriate.

2. **Please describe the state's plans to maintain and/or reduce the target rate for Synar inspections to be completed in FFY 2024. Include a brief description of plans for law enforcement efforts to enforce youth and young adult tobacco access laws, activities that support law enforcement efforts to enforce youth and young adult tobacco access laws, and any anticipated changes in youth and young adult tobacco access legislation or regulation in the state.**

   In the 2021 legislative session, the legislative body passed a T21 law making it illegal to sell, possess or consume tobacco products under the age of 21. Because of this new state law and guidance by SAMHSA, North Dakota changed their Synar protocol to use youth inspectors age 18-20 only. Our state believes this change had an impact on compliance rates where we saw an increase in our RVR.

   Also, in the 2021 legislative session, a bill was passed to merge the North Dakota Department of Human Services and the North Dakota Department of Health (DHHS). This will be a benefit to tobacco prevention efforts in the state considering both departments have responsibilities to focus in this area.

   DHHS continues to explore the creation of a Merchant Education program for tobacco retailers. This will take place in addition to Tobacco Retailer Site Visits. These site visits are an in-person visit with tobacco retailers across the state. During the visit, tobacco access laws are discussed and the importance of compliance with these laws is stressed with the clerks, managers, and owners.

   DHHS will continue tobacco prevention and education efforts. Community education, media use, and community mobilization will continue. The Division will continue issuing a public notice and announcing the results of the most recent Synar Survey.

   DHHS Tobacco Prevention and Control Program will continue to focus on prevention and control efforts within North Dakota such as implementing new laws and increased pricing strategies.

   Many community coalitions remain active in promoting stricter ordinances and laws and some will continue to conduct compliance checks tied to enforcement. These efforts have raised, and will continue to raise, awareness of enforcement of youth access to tobacco laws.

DHHS is exploring the option to take over the FDA tobacco compliance contract. This will ensure we have more collaboration and coordination with efforts occurring locally focused on tobacco enforcement.

3. **Describe any challenges the state faces in complying with the Synar regulation.** *(Check all that apply and describe each challenge in the text box below it.)*

☒ Limited resources for law enforcement of youth and young adult access laws

Limited workforce within law enforcement agencies, especially within the vastly rural parts of the state, makes it difficult to commit to regular enforcement activities for youth access laws.

☒ Limited resources for activities to support enforcement and compliance with youth and young adult tobacco access laws

The North Dakota legislative body has made reductions to DHHS's Tobacco Prevention and Control Program budget which impacts activities to support enforcement and compliance with youth tobacco access laws.

☒ Limitations in the state youth and young adult tobacco access laws

Penalties for minors possessing or purchasing tobacco is minimal and seldom enforced. A minor who possesses or purchases tobacco is an infraction with a $25 fee associated with it.

☐ Limited public support for enforcement of youth and young adult tobacco access laws

☒ Limitations on completeness/accuracy of list of tobacco outlets

The North Dakota Attorney General's office is responsible for the administration of tobacco licenses in the state. The software the AG uses to collect and prepare a license list is older. This causes issues for DHHS. For one, the license list cannot be downloaded into an editable format. The list can only be provided to our Division in a PDF document which has to be manually transferred into an Excel document. When letters are sent out to the tobacco retailers using the AG's license list, many of them get returned because of inaccurate mailing addresses.

☐ Limited expertise in survey methodology

☐ Laws/regulations limiting the use of minors in tobacco inspections

☐ Difficulties recruiting youth and young adult inspectors

☐ Issues regarding the balance of inspections conducted by youth inspectors age 15 and under

☐ Issues regarding the balance of inspections conducted by one gender of youth and young adult inspectors

☒ Geographic, demographic, and logistical considerations in conducting inspections

North Dakota has 36 of 53 counties as "frontier" (fewer than 6 persons per square mile). Distance, size of communities, and population dynamics affect many aspects. Logistically, youth inspectors and adult escorts must plan to conduct Synar compliance checks over many days and travel hundreds of miles by car to reach the statewide sample of outlets. Youth inspectors from different areas of the state are employed to reduce the number of outlets inspected and miles traveled by each youth.

☐ Cultural factors (e.g., language barriers, young people purchasing for their elders)

☒ Issues regarding sources of tobacco under tribal jurisdiction

Tribes are sovereign Nations; therefore, the State is unable to conduct compliance checks on the reservations without permission from tribal authorities. DHHS will continue to build relationships with the tribes of North Dakota.

☐ Other challenges *(Please list.)*

APPENDIX A: FORMS 1–5

FORM 1 (Required for all states not using the Synar Survey Estimation System (SSES) to analyze the Synar Survey data)

Complete Form 1 to report sampling frame and sample information and to calculate the unweighted retailer violation rate (RVR) using results from the current year's Synar survey inspections.

Instructions for Completing Form 1: In the top right-hand corner of the form, provide the state name and reporting federal fiscal year (FFY 2024). Provide the remaining information by stratum if stratification was used. Make copies of the form if additional rows are needed to list all the strata.

Column 1: *If stratification was used*:

    1(a) Sequentially number each row.
    1(b) Write in the name of each stratum. All strata in the state must be listed.

    If no stratification was used:

    1(a) Leave blank.
    1(b) Write "state" in the first row (indicates that the whole state is a single stratum).

    Note for unstratified samples: For Columns 2–5, wherever the instruction refers to "each stratum," report the specified information for the state as a whole.

Column 2: 2(a) Report the number of over-the-counter (OTC) outlets in the sampling frame in each stratum.
    2(b) Report the number of vending machine (VM) outlets in the sampling frame in each stratum.
    2(c) Report the combined total of OTC and VM outlets in the sampling frame in each stratum.

Column 3: 3(a) Report the estimated number of eligible OTC outlets in the OTC outlet population in each stratum.
    3(b) Report the estimated number of eligible VM outlets in the VM outlet population in each stratum.
    3(c) Report the combined total estimated number of eligible OTC and VM outlets in the total outlet population in each stratum.

    The estimates for Column 3 can be obtained from the Synar survey sample as the weighted sum of eligible outlets by outlet type.

Column 4: 4(a) Report the number of eligible OTC outlets for which an inspection was completed, for each stratum.
    4(b) Report the numbers of eligible VM outlets for which an inspection was completed, for each stratum.
    4(c) Report the combined total of eligible OTC and VM outlets for which an inspection was completed, for each stratum.

Column 5: 5(a) Report the number of OTC outlets found in violation of the law as a result of completed inspections, for each stratum.
    5(b) Report the number of VM outlets found in violation of the law as a result of completed inspections, for each stratum.
    5(c) Report the combined total of OTC and VM outlets found in violation of the law as a result of completed inspections, for each stratum.

Totals: For each subcolumn (a–c) in Columns 2–5, provide totals for the state as a whole in the last row of the table. These numbers will be the sum of the numbers in each row for the respective column.

FORM 1 (Required for all states not using the Synar Survey Estimation System [SSES] to analyze the Synar Survey data.)

Summary of Synar Inspection Results by Stratum State: _____ FFY: 2024													
(1) STRATUM		(2) NUMBER OF OUTLETS IN SAMPLING FRAME			(3) ESTIMATED NUMBER OF ELIGIBLE OUTLETS IN POPULATION			(4) NUMBER OF OUTLETS INSPECTED			(5) NO. OF OUTLETS FOUND IN VIOLATION DURING INSPECTIONS		
(a) Row #	(b) Stratum Name	(a) Over-the-Counter (OTC)	(b) Vending Machines (VM)	(c) Total Outlets (2a+2b)	(a) Over-the-Counter (OTC)	(b) Vending Machines (VM)	(c) Total Outlets (3a+3b)	(a) Over-the-Counter (OTC)	(b) Vending Machines (VM)	(c) Total Outlets (4a+4b)	(a) Over-the-Counter (OTC)	(b) Vending Machines (VM)	(c) Total Outlets (5a+5b)

RECORD COLUMN TOTALS ON LAST LINE (LAST PAGE ONLY IF MULTIPLE PAGES ARE NEEDED).

FORM 2 (Optional)
Appropriate for stratified simple or systematic random sampling designs.

Complete Form 2 to calculate the weighted RVR. This table (in Excel form) is designed to calculate the weighted RVR for stratified simple or systematic random sampling designs, accounting for ineligible outlets and noncomplete inspections encountered during the annual Synar survey.

Instructions for Completing Form 2: In the top right-hand corner of the form, provide the state name and reporting federal fiscal year (FFY 2024).

Column 1:   Write in the name of each stratum into which the sample was divided. These should match the strata reported in Column 1(b) of Form 1.

Column 2:   Report the number of outlets in the sampling frame in each stratum. These numbers should match the numbers reported for the respective strata in Column 2(c) of Form 1.

Column 3:   Report the original sample size (the number of outlets originally selected, *including* substitutes or replacements) for each stratum.

Column 4:   Report the number of sample outlets in each stratum that were found to be eligible during the inspections. Note that this number must be less than or equal to the number reported in Column 3 for the respective strata.

Column 5:   Report the number of eligible outlets in each stratum for which an inspection was completed. Note that this number must be less than or equal to the number reported in Column 4. These numbers should match the numbers reported in Column 4(c) of Form 1 for the respective strata.

Column 6:   Report the number of eligible outlets inspected in each stratum that were found in violation. These numbers should match the numbers reported in Column 5(c) of Form 1 for the stratum.

Column 7:   Form 2 (in Excel form) will automatically calculate the stratum RVR for each stratum in this column. This is calculated by dividing the number of inspected eligible outlets found in violation (Column 6) by the number of inspected eligible outlets (Column 5). The state unweighted RVR will be shown in the Total row of Column 7.

Column 8:   Form 2 (in Excel form) will automatically calculate the estimated number of eligible outlets in the population for each stratum. This calculation is made by multiplying the number of outlets in the sampling frame (Column 2) times the number of eligible outlets (Column 4) divided by the original sample size (Column 3). Note that these numbers will be less than or equal to the numbers in Column 2.

Column 9:   Form 2 (in Excel form) will automatically calculate the relative stratum weight by dividing the estimated number of eligible outlets in the population for each stratum in Column 8 by the Total of the values in Column 8.

Column 10:   Form 2 (in Excel form) will automatically calculate each stratum's contribution to the state weighted RVR by multiplying the stratum RVR (Column 7) by the relative stratum weight (Column 9). The weighted RVR for the state will be shown in the Total row of Column 10.

Column 11:   Form 2 (in Excel form) automatically calculates the standard error of each stratum's RVR (Column 7). The standard error for the state weighted RVR will be shown in the Total row of Column 11.

TOTAL: For Columns 2–6, Form 2 (in Excel form) provides totals for the state as a whole in the last row of the table. For Columns 7–11, it calculates the respective statistic for the state as a whole.

FORM 2 (Optional) Appropriate for stratified simple or systematic random sampling designs.

Calculation of Weighted Retailer Violation Rate										
State:_____										
FFY: 2024										
(1) Stratum Name	(2) **N** Number of Outlets in Sampling Frame	(3) **n** Original Sample Size	(4) **n1** Number of Sample Outlets Found Eligible	(5) **n2** Number of Outlets Inspected	(6) **x** Number of Outlets Found in Violation	(7) **p=x/n2** Stratum Retailer Violation Rate	(8) **N'=N(n1/n)** Estimated Number of Eligible Outlets in Population	(9) **w=N'/Total Column 8** Relative Stratum Weight	(10) **pw** Stratum Contribution to State Weighted RVR	(11) **s.e.** Standard Error of Stratum RVR
Total										

N - number of outlets in sampling frame

n - original sample size (number of outlets in the original sample)

n1 - number of sample outlets that were found to be eligible

n2 - number of eligible outlets that were inspected

x - number of inspected outlets that were found in violation

p - stratum retailer violation rate (p=x/n2)

N' - estimated number of eligible outlets in population (N'=N*n1/n)

w - relative stratum weight (w=N'/Total Column 8)

pw - stratum contribution to the weighted RVR

s.e. - standard error of the stratum RVR

FORM 3 (Required when a cluster design is used for all states not using the Synar Survey Estimation System [SSES] to analyze the Synar survey data.)

Complete Form 3 to report information about primary sampling units when a cluster design was used for the Synar survey.

Instructions for Completing Form 3: In the top right-hand corner of the form, provide the state name and reporting federal fiscal year (FFY 2024).

Provide information by stratum if stratification was used. Make copies of the form if additional rows are needed to list all the strata.

Column 1:   Sequentially number each row.

Column 2:   *If stratification was used*: Write in the name of stratum. All strata in the state must be listed.

               If no stratification was used: Write "state" in the first row to indicate that the whole state constitutes a single stratum.

Column 3:   Report the number of primary sampling units (PSUs) (i.e., first-stage clusters) created for each stratum.

Column 4:   Report the number of PSUs selected in the original sample for each stratum.

Column 5:   Report the number of PSUs in the final sample for each stratum.

TOTALS: For Columns 3–5, provide totals for the state as a whole in the last row of the table.

Summary of Clusters Created and Sampled				
State:				
FFY: 2024				
(1) Row #	(2) Stratum Name	(3) Number of PSUs Created	(4) Number of PSUs Selected	(5) Number of PSUs in the Final Sample
Total				

FORM 4 (Required for all states not using the Synar Survey Estimation System [SSES] to analyze the Synar Survey data)

Complete Form 4 to provide detailed tallies of ineligible sample outlets by reasons for ineligibility and detailed tallies of eligible sample outlets with noncomplete inspections by reasons for noncompletion.

Instructions for Completing Form 4: In the top right-hand corner of the form, provide the state name and reporting federal fiscal year (FFY 2024).

Column 1(a):   Enter the number of sample outlets found ineligible for inspection by reason for ineligibility. Provide the total number of ineligible outlets in the row marked "Total."

Column 2(a):   Enter the number of eligible sample outlets with noncomplete inspections by reason for noncompletion. Provide the total number of eligible outlets with noncomplete inspections in the row marked "Total."

Inspection Tallies by Reason of Ineligibility or Noncompletion				
			State:	
			FFY: 2024	
(1) INELIGIBLE		**(2) ELIGIBLE**		
Reason for Ineligibility	**(a) Counts**	**Reason for Noncompletion**		**(a) Counts**
Out of business		In operation but closed at time of visit		
Does not sell tobacco products		Unsafe to access		
Inaccessible by youth or young adult		Presence of police		
Private club or private residence		Youth or young adult inspector knows salesperson		
Temporary closure		Moved to new location		
Unlocatable		Drive-thru only/youth or young adult inspector has no driver's license		
Wholesale only/Carton sale only		Tobacco out of stock		
Vending machine broken		Ran out of time		
Duplicate		Other noncompletion reason(s) *(Describe.)*		
Other ineligibility reason(s) *(Describe.)*				
Total		**Total**		

FORM 5 (Required for all states not using the Synar Survey Estimation System [SSES] to analyze the Synar survey data)

Complete Form 5 to show the distribution of outlet inspection results by age and gender of the youth and young adult inspectors.

Instructions for Completing Form 5: In the top right-hand corner of the form, provide the state name and reporting federal fiscal year (FFY 2024).

Column 1:   Enter the number of attempted buys by youth and young adult inspector age and gender.

Column 2:   Enter the number of successful buys by youth and young adult inspector age and gender.

If the inspectors are age eligible but the gender of the inspector is unknown, include those inspections in the "Other" row. Calculate subtotals for males and females in rows marked "Male Subtotal" and "Female Subtotal." Sum subtotals for Male, Female, and Other and record in the bottom row marked "Total." Verify that that the total of attempted buys and successful buys equals the total for Column 4(c) and Column 5(c), respectively, on Form 1. If the totals do not match, please explain any discrepancies.

Synar Survey Inspector Characteristics		
State:		
FFY: 2024		
	(1) Attempted Buys	(2) Successful Buys
Male		
15 years		
16 years		
17 years		
18 years		
19 years		
20 years		
Male Subtotal		
Female		
15 years		
16 years		
17 years		
18 years		
19 years		
20 years		
Female Subtotal		
Other		
Total		

APPENDIXES B & C: FORMS

<u>Instructions</u>

Appendix B (Sampling Design) and Appendix C (Inspection Protocol) are to reflect the state's CSAP-approved sampling design and inspection protocol. These appendixes, therefore, should generally describe the design and protocol and, with the exception of Question #10 of Appendix B, are not to be modified with year-specific information. Please note that any changes to either appendix must receive CSAP's advance, written approval. To facilitate the state's completion of this section, simply cut and paste the previously approved sampling design (Appendix B) and inspection protocol (Appendix C) and respond to Question #10 of Appendix B to provide the requested information about sample size calculations for the Synar survey conducted in FFY 2023.

APPENDIX B: SYNAR SURVEY SAMPLING METHODOLOGY

State: North Dakota

FFY: 2024

1. **What type of sampling frame is used?**

   ☒ List frame *(Go to Question 2.)*

   ☐ Area frame *(Go to Question 3.)*

   ☐ List-assisted area frame *(Go to Question 2.)*

2. **List all sources of the list frame. Indicate the type of source from the list below. Provide a brief description of the frame source. Explain how the lists are updated (method), including how new outlets are identified and added to the frame. In addition, explain how often the lists are updated (cycle).** *(After completing this question, go to Question 4.)*

   Use the corresponding number to indicate **Type of Source** *in the table below*.

1 – Statewide commercial business list	**4** – Statewide retail license/permit list
2 – Local commercial business list	**5** – Statewide liquor license/permit list
3 – Statewide tobacco license/permit list	**6** – Other

Name of Frame Source	Type of Source	Description	Updating Method and Cycle
North Dakota Office of Attorney General's list of Retail Tobacco Products Licenses	3	State requires licensing of all tobacco retailers, with annual renewal. Chains are required to have separate licenses for each physical location. Bars and liquor stores were deleted from frame because of ND's legal restriction for minors entering adult only establishments for conducting research. Also deleted from frame were private membership clubs, outlets on Indian reservations and military bases.	List is updated continually as new businesses apply, and renewal of licensing takes place on July 1 of each year. Duplicates were eliminated.

3. **If an area frame is used, describe how area sampling units are defined and formed.**

   a. **Is any area left out in the formation of the area frame?**

   ☐ **Yes**   ☐ **No**

   *If **Yes**, what percentage of the state's population is not covered by the area frame?* _____%

4. **Federal regulation requires that vending machines be inspected as part of the Synar survey. Are vending machines included in the Synar survey?**

☐ **Yes** ☒ **No**

If No, please indicate the reason(s) they are not included in the Synar survey. Please check all that apply.

☐ State law bans vending machines.

☒ State law bans vending machines from locations accessible to youth and young adults.

☐ State has a contract with the FDA and is actively enforcing the vending machine requirements of the Family Smoking Prevention and Tobacco Control Act.

☐ Other *(Please describe.)* _____

*If **Yes**, please indicate how likely it is that vending machines will be sampled.*

☐ Vending machines are sampled separately to ensure vending machines are included in the sample

☐ Vending machines are sampled together with over the counter outlets, so it is possible that no vending machines were sampled, however they are included in the sampling frame and have a non-zero probability of selection

☐ Other reasons *(Please describe.)* _____

5. **Which category below best describes the sample design?** *(Check only one.)*

☐ **Census** *(STOP HERE: Appendix B is complete.)*

Unstratified statewide sample:

☐ Simple random sample *(Go to Question 9.)*

☐ Systematic random sample *(Go to Question 6.)*

☐ Single-stage cluster sample *(Go to Question 8.)*

☐ Multistage cluster sample *(Go to Question 8.)*

Stratified sample:

☒ Simple random sample *(Go to Question 7.)*

☐ Systematic random sample *(Go to Question 6.)*

☐ Single-stage cluster sample *(Go to Question 7.)*

☐ Multistage cluster sample *(Go to Question 7.)*

☐ **Other** *(Please describe and go to Question 9.)* _____

6. **Describe the systematic sampling methods.** *(After completing Question 6, go to Question 7 if stratification is used. Otherwise go to Question 9.)*

| |
| |

7. **Provide the following information about stratification.**

   a. **Provide a full description of the strata that are created.**

   > The plan has 17 strata. Random sampling is done within each stratum.
   >
   > Approximately thirty-one percent of tobacco retailers accessible to youth are located on the east border counties. Approximately ten percent of tobacco retailers

23

accessible to youth are located on the west border counties. Roughly forty-one percent of tobacco retailers are located in counties with the ten most populous cities, each represented below in separate strata.

1 Cass

2 Grand Forks/Traill/Pembina

3 Burleigh

4 Benson/Towner/Cavalier/Pierce/Eddy/Nelson/Rolette

5 Dickey/Sargent/Logan/McIntosh/LaMoure

6 Ward

7 Grant/Oliver/Sheridan/Emmons/McLean

8 Barnes/Stutsman

9 Morton/Mercer

10 Griggs/Kidder/Wells/Steele/Foster

11 Burke/Divide/Montrail/McKenzie

12 Billings/Dunn/Golden Valley/Slope/Bowman/Adams/Hettinger

13 Ramsey/Walsh

14 Richland/Ransom

15 Bottineau/Renville/McHenry

16 Stark

17 Williams

The total number of outlets sampled varies from year to year, depending on number of outlets in the frame size and the prior year's RVR, for example.

b. Is clustering used within the stratified sample?

☐ **Yes** *(Go to Question 8.)*
☒ **No** *(Go to Question 9.)*

8. Provide the following information about clustering.

    a. Provide a full description of how clusters are formed. *(If multistage clusters are used, give definitions of clusters at each stage.)*

    b. Specify the sampling method (simple random, systematic, or probability proportional to size sampling) for each stage of sampling and describe how the method(s) is (are) implemented.

9. **Provide the following information about determining the Synar Sample.**

   a. **Was the Synar Survey Estimation System (SSES) used to calculate the sample size?**
      ☒ **Yes** *(Respond to part b.)*

      ☐ **No** *(Respond to part c and Question 10c.)*

   b. **SSES Sample Size Calculator used?**
      ☐ **State Level** *(Respond to Question 10a.)*

      ☒ **Stratum Level** *(Respond to Question 10a and 10b.)*

   c. **Provide the formulas for determining the effective, target, and original outlet sample sizes.**

10. **Provide the following information about sample size calculations for the Synar survey conducted in FFY 2023.**

    a. **If the state uses the sample size formulas embedded in the SSES Sample Size Calculator to calculate the state level sample size, please provide the following information:**

    Inputs for Effective Sample Size:
    RVR: 18.9%
    Frame Size: 743

    Input for Target Sample Size:
    Design Effect: 1

    Inputs for Original Sample Size:
    Safety Margin: 30%
    Accuracy (Eligibility) Rate: 93.3%
    Completion Rate: 99.8%

    b. **If the state uses the sample size formulas embedded in the SSES Sample Size Calculator to calculate the stratum level sample sizes, please provide the stratum level information:**

The state increased the sample size by adding an additional 10% oversample on top of each stratum. This was done to help meet the State's requirement for completed inspections. This 10% oversample was approved by the Project Officer (Courtney Glover) via email on June 7, 2023.

	A	B	C	D	E	F	G	H	I	J	K
	Stratum ID	Stratum size	Stratum RVR 2008	Cost weight of inspections	Stratum Sample Size [Proportional]			10% Sample	Round	Add Rounded 10%	
	1	109			59			5.9	6	65	
	2	82			44			4.4	4	48	
	3	47			25			2.5	3	28	
	4	51			27			2.7	3	30	
	5	35			19			1.9	2	21	
	6	54			29			2.9	3	32	
	7	36			19			1.9	2	21	
	8	30			16			1.6	2	18	
	9	46			25			2.5	3	28	
	10	32			17			1.7	2	19	
	11	35			19			1.9	2	21	
	12	36			19			1.9	2	21	
	13	36			19			1.9	2	21	
	14	28			15			1.5	2	17	
	15	21			11			1.1	1	12	
	16	34			18			1.8	2	20	
	17	31			17			1.7	2	19	
					398					441	

c. **If the state does not use the sample size formulas embedded in the SSES Sample Size Calculator, please provide all inputs required to calculate the effective, target, and original sample sizes as indicated in Question 9.**

APPENDIX C: SYNAR SURVEY INSPECTION PROTOCOL SUMMARY

State: North Dakota

FFY: 2024

Note: Upload to WebBGAS a copy of the Synar inspection form under the heading "Synar Inspection Form" and a copy of the protocol used to train inspection teams on conducting and reporting the results of the Synar inspections under the heading "Synar Inspection Protocol."

1. **How does the state Synar survey protocol address the following?**

   a. **Consummated buy attempts?**

   ☒ Required

   ☐ Permitted under specified circumstances (Describe:)

   ☐ Not permitted

   b. **Youth and young adult inspectors to carry ID?**

   ☐ Required

   ☐ Permitted under specified circumstances (Describe:)

   ☒ Not permitted

   c. **Adult inspectors to enter the outlet?**

   ☐ Required

   ☒ Permitted under specified circumstances (Describe: Adult inspectors may enter the outlet first to check for safety issues, signs, and location of tobacco products.)

   ☐ Not permitted

   d. **Youth and young adult inspectors to be compensated?**

   ☒ Required

   ☐ Permitted under specified circumstances (Describe:)

   ☐ Not permitted

2. **Identify the agency(ies) or entity(ies) that actually conduct the random, unannounced Synar inspections of tobacco outlets.** *(Check all that apply.)*

   ☐ Law enforcement agency(ies)

   ☒ State or local government agency(ies) other than law enforcement

   ☒ Private contractor(s)

   ☐ Other

   List the agency name(s): The North Dakota Behavioral Health Division contracted with Winkelman Consulting to complete the inspections.

3. **Are Synar inspections combined with law enforcement efforts (i.e., do law enforcement representatives issue warnings or citations to retailers found in violation of the law at the time of the inspection?)?**

☐ Always   ☐ Usually   ☐ Sometimes   ☐ Rarely   ☒ Never

4. **Describe the type of tobacco products that are requested during Synar inspections.**

   a. **What type of tobacco products are requested during the inspection?**

   ☒ Cigarettes
   ☐ Small Cigars
   ☐ Cigarillos
   ☐ Smokeless Tobacco
   ☐ Electronic Cigarettes/Electronic Nicotine Delivery Systems (ENDS)
   ☐ Other

   b. **Describe the protocol for identifying what types of products and what brands of products are requested during an inspection.**

   Youth inspectors request Camel or Marlboro cigarettes each time.

5a. Describe the methods used to recruit, select, and train adult supervisors.

DHHS Behavioral Health Division contracts with a private contractor to conduct the actual inspections. The contractor divides the state into "regions," as necessary, for surveying purposes and recruits adult supervisors from each.

Each adult supervisor must then attend a training session conducted by the contractor using protocol set forth by the State, which follows the training document developed by CSAP. The contractor must then submit proof to the State that each of the inspectors attended a training session, usually in the form of a signed sign-in sheet from the day of the training.

5b. Describe the methods used to recruit, select, and train youth and young adult inspectors.

The Behavioral Health Division contracts with a private contractor to conduct the actual inspections. The contractor divides the state into "regions," as necessary, for surveying purposes and recruits youth inspectors from each. Attempts are made to have an even number of male and female youth inspectors.

Each youth must complete a Youth Application form, as well as consent forms signed by their parent or guardian. Each youth inspector must then attend a training session conducted by the contractor using protocol set forth by the State, which follows the training document developed by CSAP. The contractor must then submit proof to the State that each of the inspectors attended a training session, usually in the form of a signed sign-in sheet from the day of the training.

6. **Are there specific legal or procedural requirements instituted by the state to address**

the issue of youth and young adult inspectors' immunity when conducting inspections?

    a. **Legal**

       ☐ **Yes** ☒ **No**

       *(If **Yes**, please describe.)*

    b. **Procedural**

       ☐ **Yes** ☒ **No**

       *(If **Yes**, please describe.)*

7. **Are there specific legal or procedural requirements instituted by the state to address the issue of the safety of youth and young adult inspectors during all aspects of the Synar inspection process?**

    a. **Legal**

       ☐ **Yes** ☒ **No**

       *(If **Yes**, please describe.)*

    b. **Procedural**

       ☒ **Yes** ☐ **No**

       *(If **Yes**, please describe.)*

Adult supervisors sometimes do enter the facility prior to the youth inspector to check for safety of the location. Parents or guardians of youth inspectors must sign consent forms, including medical, and all adult supervisors must have proof of current insurance.

8. **Are there any other legal or procedural requirements the state has regarding how inspections are to be conducted (e.g., age of youth and young adult inspector, time of inspections, training that must occur)?**

    a. **Legal**

       ☐ **Yes** ☒ **No**

       *(If **Yes**, please describe.)*

    b. **Procedural**

       ☐ **Yes** ☒ **No**

*(If **Yes,** please describe.)*

APPENDIX D: LIST SAMPLING FRAME COVERAGE STUDY

(LIST FRAME ONLY)

State: North Dakota
FFY: 2024

1. **Calendar year of the coverage study:** 2023

2.   a. **Unweighted percent coverage found:** 97%
     b. **Weighted percent coverage found:** 97%
     c. **Number of outlets found through canvassing:** 153
     d. **Number of outlets matched on the list frame:** 149

3.   a. **Describe how areas were defined.** *(e.g., census tracts, counties, etc.)*

> North Dakota's proposed plan for conducting the coverage study was approved by the Center for Substance Abuse Prevention (CSAP) via email from Clark Hagen on July 11, 2023. The plan consisted of separating the state into distinct urban and rural areas. The urban areas were defined as cities known to have more than nine eligible tobacco retailers (i.e. accessible to youth), as outlined below.
>
> | City | Population | # of Tobacco Retailers |
> |------|-----------|------------------------|
> | Fargo | 131,444 | 79 |
> | Bismarck | 74,445 | 41 |
> | Grand Forks | 58,692 | 39 |
> | Minot | 47,759 | 43 |
> | West Fargo | 39,985 | 13 |
> | Williston | 27,029 | 21 |
> | Dickinson | 24,979 | 27 |
> | Mandan | 24,486 | 16 |
> | Jamestown | 15,754 | 16 |
> | Devils Lake | 7,161 | 15 |
>
> The outlying areas would then be divided into at least five separate routes, to be termed the rural areas, drawn along county lines. County borders were used for the outside borders of each rural area.

   b. **Were any areas of the state excluded from sampling?**

☐ **Yes** ☒ **No**

*If **Yes**, please explain.*

4. **Please answer the following questions about the selection of canvassing areas.**

   a. **Which category below best describes the sample design?** *(Check only one.)*

   ☐ **Census** *(Go to Question 6.)*

   Unstratified statewide sample:

   ☐ Simple random sample *(Respond to Part b.)*
   ☐ Systematic random sample *(Respond to Part b.)*
   ☐ Single-stage cluster sample *(Respond to Parts b and d.)*
   ☐ Multistage cluster sample *(Respond to Parts b and d.)*

   Stratified sample:

   ☒ Simple random sample *(Respond to Parts b and c.)*
   ☐ Systematic random sample *(Respond to Parts b and c.)*
   ☐ Single-stage cluster sample *(Respond to Parts b, c, and d.)*
   ☐ Multistage cluster sample *(Respond to Parts b, c, and d.)*
   ☐ **Other** *(Please describe and respond to Part b.)* _____

   b. **Describe the sampling methods.**

   Appendix C of the guidance document was used to determine the sample size allocation needed for urban and rural stratums. The target total sample size of 150 was set because it provided a reasonable goal within the 133-200 range specified in Appendix B of the guidance document. It should be noted the Table 1 in Appendix B of the guidance document assumes an average area size between 7-20; however, since North Dakota's CSAP-approved rural areas have an average of 72 outlets, the table cannot be used directly. For the sake of simplifying the study sampling method with very large areas, 50% of the areas would be sampled from the urban stratum and roughly 67% of the areas would be sampled from the rural stratum. This means that 5 of the 10 urban areas would be randomly selected and 4 of the 6 rural areas would be randomly selected. This method should ensure that areas have enough retailers to reach the target sample.

   While the guidance document suggests using census tracts for sampling areas, it was found that North Dakota's rural population and expansive agricultural land results in an average of roughly 3 tobacco retailers per census tract. Additionally, even when assessing the number of tobacco retailers in towns outside of urban areas, there is only an estimated average of 2 tobacco retailers per town. What this means is that complete canvasing of a census tract or even a town within North Dakota in search of tobacco retailers would be inefficient, with the canvasser likely finding no retailers in many instances and canvasing roads with no businesses for hours. In fact, the average area size falls outside the bounds of the guidance document's Table 1. Therefore, the goal of this sample is to replicate the methods used in the previous North Dakota Coverage Studies, which were deemed acceptable by CSAT.

The Proportional Allocation Formula found in Appendix C of the guidance document was used to calculate the outlet sample size for the urban stratum (nu) and the outlet sample size for the rural stratum (nr).

$$n_u = n\left(\frac{N_u}{N_u + N_r}\right) = 150\left(\frac{310}{743}\right) = 62.58 \approx 63$$

$$n_r = n\left(\frac{N_r}{N_u + N_r}\right) = 150\left(\frac{433}{743}\right) = 87.42 \approx 87$$

As stated previously, the number of areas to select from each stratum was set at 50% and 67% (5 urban and 4 rural respectively) due to the large size of the areas. The goal of North Dakota's coverage study methodology is to canvas an area until the target sample size it met; this assumes the study has reached a point of saturation in an area where the retailers found can be reasonably compared to the Synar list frame.

To select the areas for the samples, a simple Python script was used leveraging the Pandas library. Two data frames for urban and rural areas were created. The random sample of 4 rural areas and 5 urban was then selected from the data frames using the Pandas sample function. This method ensured the areas were selected randomly.

In order to determine the number of tobacco retailers to sample in each of the selected areas, the following process was developed.

The number of outlets in all of the selected urban areas was totaled (117). The total number of outlets in each urban area was then divided by that total, to determine the percentage of total urban outlets in each of the selected urban areas. This percentage was then applied to the total urban outlet sample size needed ($n_u = 63$).

Urban	# of Outlets	% of Total Outlets in Sample Area	# of Outlets to Sample
Minot	43	37%	23
Jamestown	16	14%	9
Dickinson	27	23%	15
Devils Lake	15	13%	8
Mandan	16	14%	9
Total	117	100%	63

The same process was used to determine the number of tobacco retailers to sample in the selected rural areas. The number of outlets in all of the selected rural areas was totaled (297). The total number of outlets in each rural area was then divided by that total, to determine the percentage of total rural outlets in each of the selected rural areas. This percentage was then applied to the total rural outlet sample size needed ($n_r = 87$).

Rural	# of Outlets	% of Total Outlets in Sample Area	# of Outlets to Sample
Rural Area #1	77	26%	23
Rural Area #2	69	23%	20
Rural Area #4	72	24%	21
Rural Area #6	79	27%	23
Total	297	100%	87

c. **Provide a full description of the strata that were created.**

In determining the specific procedures for the coverage study, North Dakota consulted the guidance document produced by CSAP and published in January 2006 entitled "Guide for a Synar Sampling Frame Coverage Study," as well as the additional coverage study guidance sent to all states in 2010 by SAMHSA.

The ten most populous cities in North Dakota with more than 9 estimated tobacco retailers were selected as urban areas, and the remaining rural areas were divided into six distinct areas defined by county lines, each with roughly the same number of eligible tobacco retailers. This produced a total of sixteen areas in the area frame for the coverage study.

The urban area was not considered part of the rural area that it was physically located in. It was treated as a distinct, separate area. For example, the city of Minot was considered an urban area and was not included in the canvassing of Rural Area #2.

d. **Provide a full description of how clusters were formed.**

5. **Were borders of the selected areas clearly identified at the time of canvassing?**

☒ **Yes** ☐ **No**

6. **Were all sampled areas visited by canvassing teams?**

☒ **Yes** *(Go to Question 7.)* ☐ **No** *(Respond to Parts a and b.)*

    a. **Was the subset of areas randomly chosen?**

       ☐ **Yes** ☐ **No**

    b. **Describe how the subsample of visited areas was drawn. Include the number of areas sampled and the number of areas canvassed.**

```
                                                                                    
```

7. Were field observers provided with a detailed map of the canvassing areas?

☒ **Yes** ☐ **No**

*If **No**, describe the canvassing instructions given to the field observers.*

```
                                                                                    
```

8. Were field observers instructed to find all outlets in the assigned area?

☐ **Yes** ☒ **No**

*If **No**, respond to Question 9.*
*If **Yes**, describe any instructions given to the field observers to ensure the entire area was canvassed, then go to Question 10.*

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9. If a full canvassing was not conducted:

    a. **How many predetermined outlets were to be observed in each area?** <u>Canvassers were instructed to find, at a minimum, the predetermined sample number of outlets for each area as described in question 4b.</u>

    b. **What were the starting points for each area?** <u>The starting points were a randomly selected road or intersection for each area, based on the direction from which the canvasser would be entering the area.</u>

    c. **Were these starting points randomly chosen?**

       ☒ **Yes** ☐ **No**

    d. **Describe the selection of the starting points.**

> Starting points generally began from the nearest roadway into the urban or rural area, since the canvasser had to approach from outside the area to begin canvassing.

    e. **Please describe the canvassing instructions given to the field observers, including predetermined routes.**

> Routes were developed prior to canvassing with a random starting point and staff were instructed to follow the predetermined route until the sample number of outlets had been found for each area. Canvassers drove each route and were instructed to canvas both sides of any road that acted as a border between areas. An existing list of outlets was not referenced by canvassers at any time during canvassing. In order to determine whether or not an outlet sold tobacco, staff were instructed to physically see the tobacco products within the outlet. They would then record as much information about the outlet as possible, including the business name and address.

10. Describe the process field observers used to determine if an outlet sold tobacco.

Canvassers were instructed to physically see the tobacco products within the outlet.

11. Please provide the state's definition of "matches" or "mismatches" to the Synar sampling frame? (i.e., address, business name, business license number, etc.)

A match was determined through a combination of comparing business name and street address. In the event canvassers were unable to locate a building number on the tobacco outlet, they recorded the nearest cross streets of the outlet, and the State employed Google Maps and Google's Street View to aid in determining a match of the location to the master list.

12. Provide the calculation of the weighted percent coverage (if applicable).

To calculate the coverage rate, North Dakota was required to use a weighted analysis to account for the unequal probability that an outlet was identified between the rural and urban areas. The following calculations were conducted:

Urban	# of Outlets	% of Total Outlets in Sample Area	# of Outlets to Sample	Probability of finding a specific outlet	Weight (w_u & w_r)	# of Outlets Found (n_u & n_r)	# of Outlets Matched (b_u & b_r)
Minot	43	37%	23	0.54	1.86	23	22
Jamestown	16	14%	9	0.54	1.86	10	10
Dickinson	27	23%	15	0.54	1.86	15	15
Devils Lake	15	13%	8	0.54	1.86	8	8
Mandan	16	14%	9	0.54	1.86	9	9
Total	117	100%	63			65	64
Rural							
Rural Area #1	77	26%	23	0.29	3.41	23	23
Rural Area #2	69	23%	20	0.29	3.41	20	19
Rural Area #4	72	24%	21	0.29	3.41	22	21
Rural Area #6	79	27%	23	0.29	3.41	23	22
Total	297	100%	87			88	85
					TOTAL	153	149

$$Coverage\ Rate = 100\left(\frac{\sum_{i=1}^{k} w_i\, b_i}{\sum_{i=1}^{k} w_i\, n_i}\right)$$

$$Coverage\ Rate = 100\left(\frac{1.86_u\,(64_u) + 3.41_r\,(85_r)}{1.86_u\,(65_u) + 3.41_r\,(88_r)}\right) = 100\left(\frac{408.89}{420.98}\right)$$

$$Coverage\ Rate = 100(0.9713) \approx 97\%$$

Of the 153 tobacco retailers recorded during canvassing, 149 were found on the list of licenses from the Office of the Attorney General. This produced a coverage rate of 97%.