ANNUAL SYNAR REPORT

42 U.S.C. 300x-26

OMB № 0930-0222

FFY 2015

State: Missouri

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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 tobacco access laws (FFY 2014 Compliance Progress) and future plans to ensure compliance with the Synar requirements to reduce youth tobacco access rates (FFY 2015 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 tobacco access laws when aggregated statistical data from state Synar reports can demonstrate to the Secretary the national progress in reducing youth 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 with youth tobacco access laws.

[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).

Getting assistance in completing the Synar report

If you have questions about programmatic issues, you may call CSAP's Division of State Programs 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 the Grants Management Officer, 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, 2014 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 2015 Synar Survey Results: States that use the Synar Survey Estimation System (SSES) must upload one copy of SSES Tables 1–5 (in Excel) to WebBGAS. 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) 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.

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

Additionally, the state must submit one signed original of the report (including the signed Funding Agreements/Certifications), as well as one additional copy of the signed Funding Agreements/Certifications, to the Grants Management Officer at the address below:

Grants Management Officer
Division of Grants Management
Office of Financial Resources
Substance Abuse and Mental Health Services Administration

Regular Mail:	**Overnight Mail:**
1 Choke Cherry Road, Rm.7-1091 Rockville, Maryland 20857	1 Choke Cherry Road, Rm.7-1091 Rockville, Maryland 20850

FFY 2015: 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 2015 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 2015 is up-to-date and approved by the Center for Substance Abuse Prevention.
State: Missouri
Name of Chief Executive Officer or Designee: Keith Schafer
Signature of CEO or Designee:
Title: Department Director **Date Signed:**
If signed by a designee, a copy of the designation must be attached.

SECTION I: FFY 2014 (Compliance Progress)

YOUTH 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 18.

1. **Please indicate any changes or additions to the state tobacco statute(s) relating to youth access since the last reporting year. If any changes were made to the state law(s) since the last reporting year, please attach a photocopy of the law to the hard copy of the ASR and also 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 to possess, purchase or receive tobacco
   ☐ Changed to require ID to purchase tobacco
   ☐ Other change(s) *(Please describe.)* _____

   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**

2. **Describe how the Annual Synar Report** *(see 45 C.F.R. 96.130(e))* **and the state Plan** *(see 42 U.S.C. 300x-51)* **were 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 2015 ASR was posted to this Web address.) Synar Report posted on 9/4/2014: http://dmh.mo.gov/ada/rpts/SYNARReports.htm State Plan posted on 9/4/2013: http://dmh.mo.gov/ada/rpts/blockgrant.htm*

   ☐ 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.)* _____

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:***

   Department of Mental Health - Division of Behavioral Health, formerly the Divisions of Alcohol and Drug Abuse and Comprehensive Psychiatric Services

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

   ☐ **Yes** ☒ **No**

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

   Department of Mental Health - Division of Behavioral Health, formerly the Divisions of Alcohol and Drug Abuse and Comprehensive Psychiatric Services

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

   ☐ **Yes** ☒ **No**

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

   Department of Public Safety – Division of Alcohol and Tobacco Control

   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).**
   The agency that receives the Center for Disease Control and Prevention's National Tobacco Control Program funding is Department of Health and Senior Services (tobacco cessation)

   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.)* _____

d. Identify the state agency responsible for enforcing the youth 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)).
The Department of Mental Health - Division of Behavioral Health contracts with FDA and subcontracts with the Department of Public Safety - Division of Alcohol and Tobacco Control.

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

f. Describe the coordination and collaboration that occur between the agency contracted with the FDA to enforce federal youth 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.)* _____

g. 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 access to tobacco law(s) in FFY 2014 *(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 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 access to tobacco laws by <u>LOCAL AND/OR STATE LAW ENFORCEMENT AGENCIES (this does not include enforcement of federal youth 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 citations issued	0	36	36
Number of fines assessed	0	UNK	UNK
Number of permits/licenses suspended	0		0
Number of permits/licenses revoked	0		0
Other *(Please describe.)* *Warning letter*	36	0	36

c. Which one of the following best describes the level of enforcement of state youth 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.

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

☐ **Yes** ☒ **No**

e. What additional activities are conducted in your state to support enforcement and compliance with state youth tobacco access law(s)? *(Check all that apply.)*

☒ Merchant education and/or training
☐ 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 access laws)
☐ Community education regarding youth access laws
☐ Media use to publicize compliance inspection results
☐ Community mobilization to increase support for retailer compliance with youth access laws
☐ Other activities *(Please list.)* _____

Briefly describe all checked activities:

The Department of Mental Health - Division of Behavioral Health (DMH-DBH) contracted with the prevention resource centers to visit the tobacco retailers in their regions. The merchant visits were conducted in March 2014. The objective of the visits were to:

•Provide information regarding the state's law on youth access to tobacco products,

•Distribute state law signs,

•Discuss opportunities for employee training,

•Identify outlets that no longer sell tobacco or are out of business,

•Update outlet name, phone number and address information in the listing of known tobacco outlets maintained by DMH-DBH, and to

•Identify new businesses that sell tobacco.

In March 2014, 5,447 tobacco retailers were visited. Merchant training was discussed with the manager and/or owner at 5,179 of these outlets.

f. 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 5f, 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:

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 2014 (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.

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,** attach SSES summary tables 1, 2, 3, and 4 to the hard copy of the ASR and upload a copy of SSES tables 1–5 (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 frame coverage study: 2014**

b. **Percent coverage from the latest frame coverage study: 90.1%**

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: _____**

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. **Provide the inspection period: From** 7/3/2014 **to** 8/24/2014
MM/DD/YY MM/DD/YY

b. **Provide the number of youth inspectors used in the current inspection year:**

18

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.

b. **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 2015 (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 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 2015. Include a brief description of plans for law enforcement efforts to enforce youth tobacco access laws, activities that support law enforcement efforts to enforce youth tobacco access laws, and any anticipated changes in youth tobacco access legislation or regulation in the state.**

   The Department of Mental Health - Division of Behavioral Health (DMH-DBH) will continue to contract with the Food and Drug Administration for enforcement of the federal tobacco control laws. DMH-DBH is working with the Department of Public Safety - Division of Alcohol and Tobacco Control (DPS-ATC) to increase enforcement of state tobacco laws. For FFY 2015, the state will have five DPS-ATC agents who will be funded 90% federal and 10% state to conduct state and federal undercover buy inspections and federal advertising and labeling inspections. Two days per month the agents will be conducting state enforcement checks. In FFY 2015, DMH-DBH will continue the merchant visit conducted by the prevention resource centers.

3. **Describe any challenges the state faces in complying with the Synar regulation.** *(Check all that apply.)*

   ☐ Limited resources for law enforcement of youth access laws
   ☐ Limited resources for activities to support enforcement and compliance with youth tobacco access laws
   ☐ Limitations in the state youth tobacco access laws
   ☐ Limited public support for enforcement of youth tobacco access laws
   ☐ Limitations on completeness/accuracy of list of tobacco outlets
   ☐ Limited expertise in survey methodology
   ☐ Laws/regulations limiting the use of minors in tobacco inspections
   ☐ Difficulties recruiting youth inspectors
   ☐ Issues regarding the age balance of youth inspectors
   ☐ Issues regarding the gender balance of youth inspectors

☐ Geographic, demographic, and logistical considerations in conducting inspections
☐ Cultural factors (e.g., language barriers, young people purchasing for their elders)
☐ Issues regarding sources of tobacco under tribal jurisdiction
☐ Other challenges *(Please list.)*_____

Briefly describe all checked challenges and propose a plan for each, or indicate the state's need for technical assistance related to each relevant challenge.

No technical assistance is requested at this time.

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 2015). 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: 2015

(1)		(2)			(3)			(4)			(5)		
STRATUM		NUMBER OF OUTLETS IN SAMPLING FRAME			ESTIMATED NUMBER OF ELIGIBLE OUTLETS IN POPULATION			NUMBER OF OUTLETS INSPECTED			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 2015).

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: 2015

(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 2015).

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: 2015

(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 2015).

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: 2015	
(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		Presence of police	
Private club or private residence		Youth inspector knows salesperson	
Temporary closure		Moved to new location	
Unlocatable		Drive-thru only/youth 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 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 2015).

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

Column 2: Enter the number of successful buys by youth 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:** 2015		
	(1) Attempted Buys	(2) Successful Buys
Male		
15 years		
16 years		
17 years		
18 years		
Male Subtotal		
Female		
15 years		
16 years		
17 years		
18 years		
Female Subtotal		
Other		
Total		

APPENDIXES B & C: FORMS

Instructions

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).

APPENDIX B: SYNAR SURVEY SAMPLING METHODOLOGY

State: MO
FFY: 2015

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

Name of Frame Source	Type of Source	Description	Updating Method and Cycle
Listing of tobacco outlets maintained by Department of Mental Health-Division of Behavioral Health (DMH-DBH), formerly the Division of Alcohol and Drug Abuse	6	The frame was constructed based on a listing of tobacco outlets from previous years.	The listing is continuously modified through merchant education and Synar visits by contracted prevention providers and by enforcement activity from the Department of Public Safety - Division of Alcohol and Tobacco Control.
Tobacco registry maintained by the Department of Revenue	6	The registry is a voluntary registration system. Shortcomings of the source include: outlet phone numbers and tobacco mode of sale are not included; no exact location of vending machines; registered outlets that do not sell tobacco products; unregistered outlets that sell tobacco products; multiple listing of outlets; invalid addresses.	The registry is updated on a quarterly basis with a special request update given in May for the purpose of Synar sampling. It is used only to supplement the master list because of the shortcomings.

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.

   ☐ 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.)* **Federal law bans vending machines from locations accessible to youth. The Missouri Department of Mental Health is contracted with the FDA.**

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.)*

   The listing is sorted by county, city, and ZIP code to achieve implicit stratification. The sample was selected based on a random start. The Rand() function in Excel was used to generate a starting point between 1 and n, where n = (number of outlets in list) / (number needed for sample). Successive outlets were chosen at n intervals.

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

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

   Five strata are defined according to ADA planning regions: (1) Eastern; (2) Northcentral; (3) Northwestern; (4) Southeastern; (7) Southwestern.

   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.

The effective sample size:

$$n_e = \frac{z^2 p(1-p)}{d^2} + 1,$$

where z = the value that cuts the tail of the normal distribution corresponding to a one-tailed 95% confidence level (1.645);
p = estimated noncompliance rate (0.2);
d = required margin of error (0.03).

The target sample size is then determined by

$$n_t = n_e * (\text{design effect}).$$

Currently the design effect of one is assumed, but under the new design it could change and so the actual design effect will be used in the future.

The original sample size:

$$n_o = \left(\frac{n_t}{r_l r_c} \right)$$

where n_t = target sample size;
r_l = the expected eligibility rate;
r_c = the expected completion rate;

Note Missouri always uses an original sample size of 645, unless the original sample size calculation results in a number larger than 645.

10. Provide the following information about sample size calculations for the current FFY Synar survey.

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:
Frame Size:

Input for Target Sample Size:
Design Effect:

Inputs for Original Sample Size:
Safety Margin:
Accuracy (Eligibility) Rate:
Completion Rate:

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:

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.

With inputs RVR=20%, Frame Size=5,626, Design Effect=1, Safety Margin=10%, Accuracy Rate=94.1%, and Completion Rate=95.2%, the effective sample size and target sample size calculate to be 444. The planned original sample size calculates to be 564. The state, however, uses a fixed original sample size of 645 unless the sample size calculation requires a larger number.

APPENDIX C: SYNAR SURVEY INSPECTION PROTOCOL

State: MO
FFY: 2015

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 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: Required unless it would be obvious that the adult was with the youth.)
   ☐ Not permitted

   d. **Youth 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): _____

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
   ☐ Other

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

The youth inspector should determine the type of tobacco product and one or two brands of tobacco before entering the outlet. They should always ask for a brand name. Among the most popular brands among youth are Marlboro, Camel, and Newport. Minors should select one premium brand and one generic brand from the following lists:

•Premium Brands

Marlboro, Camel, Newport, Kool, Merit, Salem, Carlton, Winston, More, Capri

•Generic Brands

Basic, Viceroy, GPC, Doral

If smokeless tobacco (Copenhagen, Skoal, or other brands) is popular in the selected service area, the Adult Supervisor will advise minors when to ask for these products. The Adult Supervisor should be fairly certain that the outlet sells smokeless tobacco before instructing the youth to request smokeless tobacco during the inspection.

Cigars are covered under this program. However, minors must not ask if he/she can buy cigars as part of a compliance test unless instructed to do so by the Adult Supervisor. The Adult Supervisor should be fairly certain that the outlet sells cigars before instructing the youth to request cigars during the inspection.

5. **Describe the methods used to recruit, select, and train youth inspectors and adult supervisors.**

The screening process for the Adult Supervisors includes background checks through the Highway Patrol Department. Their records are checked for driving under the influence (DUI) and driving while intoxicated (DWI) violations as well as for child abuse and neglect incidents.

Prerequisite training includes both didactic instruction and practical field experience. It is comprehensive and specific to all aspects of conducting safe and efficient retail outlet tobacco compliance tests.

Adult Supervisors are recruited from contracted prevention providers. The primary duties and responsibilities of the adult inspectors are to train minors that have been recruited to participate in the program and to plan, coordinate, and conduct the Synar tests in accordance with established directives. The Adult Supervisors shall not have a significant financial interest in any of the establishments tested. Examples of significant financial interests include owning stock in the company that owns the establishment, or employment of a close family member by the company that owns the establishment. Ownership of shares of a mutual fund that invested in such company is not considered a significant financial interest.

A youth inspector is the person that will conduct compliance tests of tobacco retail outlets under the direct instruction and supervision of an adult supervisor. To be designated as a youth inspector a prospective youth participant must comply with all prerequisite requirements.

The youths recruited to assist with the inspections must meet the following requirements:

- Be 16- or 17-years-old,
- Be non-smokers, and
- Must not look older than their age.

To participate in the program, youth must:

- Submit a signed parental consent form to be kept on file at the Division,
- Submit a copy of their birth certificate to be kept on file at the Division,
- Have no facial hair (male youth),
- Shall not wear makeup that would cause them to appear older than they are (female youth), and
- Complete training.

6. Are there specific legal or procedural requirements instituted by the state to address the issue of youth inspectors' immunity when conducting inspections?

a. Legal

☒ **Yes** ☐ **No**

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

The Department of Mental Health – Division of Behavioral Health is authorized to conduct Synar checks through its budget appropriation.

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 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.)*

The Adult Supervisor is responsible for assessing safety conditions. If in the judgment of the Adult Supervisor the process of conducting a compliance inspection at a given location would pose a safety threat, then that compliance inspection shall not be attempted. If such a condition develops after a compliance inspection has commenced, the Adult Supervisor shall terminate the inspection and immediately depart the area.

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

a. **Legal**

☐ **Yes** ☒ **No**

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

b. **Procedural**

☒ **Yes** ☐ **No**

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

As recommended by the 2002 Missouri legislature, only minors between the ages of 16 and 17 are used to conduct Synar compliance checks

APPENDIX D: LIST SAMPLING FRAME COVERAGE STUDY

(LIST FRAME ONLY)

State: MO
FFY: 2015

1. **Calendar year of the coverage study:** 2014

2. a. **Unweighted percent coverage found:** 90.1**%**
   b. **Weighted percent coverage found:** 90.7**%**
   c. **Number of outlets found through canvassing:** 204
   d. **Number of outlets matched on the list frame:** 185

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

   Areas were defined by the 20 ADA service areas.

   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.**

Simple random sampling was used to sample road segments of type 1) primary roads, 2) secondary roads, and 3) local neighborhood roads, rural roads, and city streets {MFCC in ('S1100','S1200','S1400')} from the 2010 TIGER line shapefile of Missouri roads. A road segment was randomly selected in each of the 20 ADA service areas. A starting point was designed as the closest intersection from the south/west-most endpoint of the sampled road segment. The area surrounding the starting point intersection was canvassed for tobacco outlets until a predetermined number of outlets had been identified.

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

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.*

Surveyors were provided a map of paved roads with the starting point and surrounding area. Surveyors were instructed to also bring a state road map with them on the survey.

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.*

Surveyors were instructed to canvass the area surrounding the starting point and fan out until they each have identified a predetermined number of outlets.

9. **If a full canvassing was not conducted:**

   a. **How many predetermined outlets were to be observed in each area?** 5 for service areas with populations between (0,190,000); 10 for service areas with populations between (191,000,300,000); 15 for service areas with populations between (300,001,530,000); and 20 for service areas with populations between (530,001, 1,000,000); and 25 for services with populations over 1,000,000.

   b. **What were the starting points for each area?** Closest intersection from the south/west-most end point of road segment

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

   ☒ **Yes** ☐ **No**

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

   Simple random sampling was used to sample road segments of type 1) primary roads, 2) secondary roads, and 3) local neighborhood roads, rural roads, and city streets {MFCC in ('S1100','S1200','S1400')} from the 2010 TIGER line shapefile of Missouri roads. A road segment was randomly selected in each of the 20 ADA service areas. A starting point was designed as the closest intersection from the south/west-most endpoint of the sampled road segment.

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

   Surveyors were instructed to canvass the area surrounding the starting point and fan out until they each have identified a predetermined number of outlets. Surveyors were instructed to stay within the service area boundaries and stay on paved, non-private roads.

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

Surveyors were instructed to look for outlets that potentially sell cigarettes, cigars, pipe tobacco, and chewing tobacco. They physically enter each potential tobacco outlet. When tobacco products are found, the surveyor records the business name, address, and phone number on the survey form. Survey instructions include an adaptable script to be used to explain the purpose of the visit to store employees. In addition, surveyors wear their official state name badges.

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).**

Matching was based on the values in the following fields: business name, street address, city, and phone. City was a required match or near match. If street number was not a near match, then name and phone number needed to match to be considered matching records. When street addresses differed, the locations were mapped (maps.google.com) to determine if both addresses would lead one to the same location.

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

Originally, 205 outlets were to be identified in a total of 20 service areas. In service area 21the surveyor included an outlet that was not accessible to minors; the outlet was a casino with id checks at the entrance - yielding 4 valid outlets rather than the original 5 outlets. The revised number of outlets identified was 204. The survey weight was determined by dividing the total number of outlets identified (204) by the number of outlets to be identified for each service area. The weighted percent coverage is the sum of the product of the stratum coverage rate and the ratio of the survey weight to the sum of the survey weights.

$$r_c = \sum_{i=1}^{19} \frac{m_i}{s_i} * w_i$$

where r_c= weighted coverage rate;
m_i = number of matches found in the service area;
s_i= predetermined number of outlets to be identified in the service area;
w_i=the weight factor for the service area, such that

$$w_i = \frac{s}{s_i} * \frac{1}{\sum_{j=1}^{19} \frac{s}{s_j}}$$

where s=the total predetermined number of outlets to be identified;
s_i=the predetermined number of outlets to be identified in the service area;

Stratum (a)	2013 Population	Outlet Allocation (c)	Survey Weight (d = 204/c)	Matched Outlets (e)	Stratum Coverage Rate (f = e/c)	Weighted Coverage Rate (h=f*d/565)
01	182,630	5	40.8	5	100.0%	7.2%
06	346,822	15	13.6	14	93.3%	2.2%
07	188,156	5	40.8	5	100.0%	7.2%
08	111,195	5	40.8	5	100.0%	7.2%
09	283,833	10	20.4	8	80.0%	2.9%
10	541,194	20	10.2	20	100.0%	1.8%
11	308,863	10	20.4	10	100.0%	3.6%
12	326,094	15	13.6	14	93.3%	2.2%
13	78,744	5	40.8	4	80.0%	5.8%
14	106,605	5	40.8	5	100.0%	7.2%
15	75,261	5	40.8	4	80.0%	5.8%
16	562,170	20	10.2	20	100.0%	1.8%
17	210,730	10	20.4	10	100.0%	3.6%
18	126,870	5	40.8	4	80.0%	5.8%
19	113,189	5	40.8	5	100.0%	7.2%
20	82,182	5	40.8	4	80.0%	5.8%
21	178,381	4	51.0	3	75.0%	6.8%
22	221,396	10	20.4	9	90.0%	3.2%
JC	679,996	20	10.2	20	100.0%	1.8%
SL	1,319,860	25	8.2	16	64.0%	0.9%
total	6,044,171	204	565.8	185		90.1%

Appendix: Output Tables

SSES Table 1 (Synar Survey Estimates and Sample Sizes)

CSAP-SYNAR REPORT

State	MO
Federal Fiscal Year (FFY)	2015
Date	9/1/2014 13:11
Data	Synar Input.xlsx
Analysis Option	Stratified SRS with FPC

Estimates

Unweighted Retailer Violation Rate	7.2%
Weighted Retailer Violation Rate	7.2%
Standard Error	1.0%
Is SAMHSA Precision Requirement met?	YES
Right-sided 95% Confidence Interval	[0.0%, 8.8%]
Two-sided 95% Confidence Interval	[5.2%, 9.1%]
Design Effect	1.0
Accuracy Rate (unweighted)	95.3%
Accuracy Rate (weighted)	95.3%
Completion Rate (unweighted)	97.7%

Sample Size for Current Year

Effective Sample Size	483
Target (Minimum) Sample Size	483
Original Sample Size	645
Eligible Sample Size	615
Final Sample Size	601
Overall Sampling Rate	11.2%

SSES Table 2 (Synar Survey Results by Stratum and by OTC/VM) STATE: MO

FFY: 2015

Samp. Stratum	Var. Stratum	Outlet Frame Size	Estimated Outlet Population Size	Number of PSU Clusters Created	Number of PSU Clusters in Sample	Outlet Sample Size	Number of Eligible Outlets in Sample	Number of Sample Outlets Inspected	Number of Sample Outlets in Violation	Retailer Violation Rate(%)	Standard Error(%)
All Outlets											
Central	Central	915	881	N/A	N/A	109	105	104	4	3.8%	
Eastern	Eastern	1,399	1,312	N/A	N/A	161	151	143	8	5.6%	
Northwest	Northwest	1,335	1,273	N/A	N/A	150	143	142	19	13.4%	
Southeast	Southeast	974	913	N/A	N/A	111	104	103	5	4.9%	
Southwest	Southwest	1,002	984	N/A	N/A	114	112	109	7	6.4%	
Total		5,625	5,363			645	615	601	43	7.2%	1.0%
Over the Counter Outlets											
Central	Central	915	881	N/A	N/A	109	105	104	4	3.8%	
Eastern	Eastern	1,399	1,312	N/A	N/A	161	151	143	8	5.6%	
Northwest	Northwest	1,335	1,273	N/A	N/A	150	143	142	19	13.4%	
Southeast	Southeast	974	913	N/A	N/A	111	104	103	5	4.9%	
Southwest	Southwest	1,002	984	N/A	N/A	114	112	109	7	6.4%	
Total		5,625	5,363			645	615	601	43	7.2%	1.0%
Vending Machines											
Central	Central	0	0	N/A	N/A	0	0	0	0	0.0%	
Eastern	Eastern	0	0	N/A	N/A	0	0	0	0	0.0%	
Northwest	Northwest	0	0	N/A	N/A	0	0	0	0	0.0%	
Southeast	Southeast	0	0	N/A	N/A	0	0	0	0	0.0%	

Southwest	Southwest	0	0	N/A	N/A	0	0	0	0	0.0%	
Total		0	0			0	0	0	0	0.0%	0.0%

SSES Table 3 (Synar Survey Sample Tally Summary)

STATE: MO
FFY:
2015

Disposition Code	Description	Count	Subtotal
EC	Eligible and inspection complete outlet	601	
Total (Eligible Completes)			601
N1	In operation but closed at time of visit	5	
N2	Unsafe to access	8	
N3	Presence of police	0	
N4	Youth inspector knows salesperson	0	
N5	Moved to new location but not inspected	0	
N6	Drive thru only/youth inspector has no drivers license	0	
N7	Tobacco out of stock	0	
N8	Run out of time	1	
N9	Other noncompletion	0	
Total (Eligible Noncompletes)			14
I1	Out of Business	9	
I2	Does not sell tobacco products	12	
I3	Inaccessible by youth	0	
I4	Private club or private residence	4	
I5	Temporary closure	3	
I6	Can't be located	2	
I7	Wholesale only/Carton sale only	0	
I8	Vending machine broken	0	
I9	Duplicate	0	
I10	Other ineligibility	0	
Total (Ineligibles)			30
Grand Total			645

SSES Table 4 (Synar Survey Inspection Results by Youth Inspector Characteristics)

STATE:
MO
FFY:
2015

Frequency Distribution

Gender	Age	Number of Inspectors	Attempted Buys	Successful Buys
Male	14	0	0	0
	15	0	0	0
	16	6	259	14
	17	1	26	1
	18	0	0	0
	Subtotal	7	285	15
Female	14	0	0	0
	15	0	0	0
	16	6	152	13
	17	5	164	15
	18	0	0	0
	Subtotal	11	316	28
Other		0	0	0
Grand Total		18	601	43

Buy Rate in Percent by Age and Gender

Age	Male	Female	Total
14	0.0%	0.0%	0.0%
15	0.0%	0.0%	0.0%
16	5.4%	8.6%	6.6%
17	3.8%	9.1%	8.4%
18	0.0%	0.0%	0.0%
Other			0.0%
Total	5.3%	8.9%	7.2%