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Evaluation Plan

Evaluation Plan for the SEAL! Michigan School-Based Sealant Program

(January 26, 2017)



Prepared by:
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Michigan Public
Health Institute

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Introduction

The Michigan Department of Health and Human Services (MDHHS) was awarded a five-year grant (2013/2018) from the Center for Disease Control and Prevention (CDC) to further Michigan's aim to maintain an effective oral health program (Mi-OHP). The overall goal of the Mi-OHP is to ensure optimal oral health for Michigan residents. The Mi-OHP includes the SEAL! Michigan Dental Sealant Program, a school-based dental sealant program aimed at decreasing tooth decay and reducing disparities in access to oral health care for Michigan children.

The MDHHS contracted with the Center for Child and Family Health (CCFH) at the Michigan Public Health Institute (MPHI) to implement a one-year evaluation (2016/2017) of the SEAL! Michigan Dental Sealant Program. The purpose of the evaluation is to assess achievement of the program's goals and objectives, to improve the program's design and implementation, and to demonstrate the program's impact. A participatory approach will be used in the evaluation, as the evaluators will work closely with project partners and other stakeholders to ensure that the evaluation objectives and methods align with the project goals and that useful results are produced.

Program Description

Tooth decay is the most common chronic disease among children, disproportionately affecting those from low-income families with limited access to oral health prevention and treatment services. Data from Michigan's 2010 Count Your Smiles (CYS) Survey indicates that over half of third grade children in the state (55.9%) had experienced tooth decay. Untreated decay and prevalence of caries was highest in Michigan children eligible for the Free and Reduced Lunch Program, those without private insurance, Hispanic and Native American children, and children in the Upper Peninsula and Northern Lower Peninsula.

The SEAL! Michigan Dental Sealant Program was established in 2007 to decrease the number of Michigan children with tooth decay, improve access to oral health services, and address oral health disparities. The program works by providing dental sealants and oral health education to Michigan students in school-based settings. Schools with more than half of their student population participating in the Free and Reduced Lunch Program are targeted for the program, and all first, second, sixth and seventh grade students who have a positive parental permission slip are served. Services are provided at no charge to the family, though if the child has dental insurance (including Medicaid/CHIP), the sealant programs must bill for services, as additional income from insurance billing assists with sustainability of the sealant programs. The program

also provides resources to help students establish a local dental home, and follows-up with children, their parents, and school staff if they present with urgent dental needs.

Figure 1 presents the logic model for the SEAL! Michigan Dental Sealant Program. The logic model reflects program inputs and resources, program activities, and short-, intermediate- and long-term outcomes. Inputs include human resources needed for the program, such as the MDHHS' Sealant Coordinator and the SEAL! Michigan grantees, program participants (e.g., school administrators and staff, students and their parents), and tangible resources like equipment and supplies. Program activities primarily center around the responsibilities of the MDHHS, the Sealant Coordinator, and SEAL! Michigan grantees. These activities include the provision of training and technical assistance (TA) to grantees by the MDHHS Sealant Coordinator, and program specific activities for which grantees are responsible, including contacting schools to participate, procuring needed equipment and supplies, distributing and collecting consent forms, coordinating sealant days, and developing a referral system for students and their families for local oral health care. Short-term and intermediate outcomes of the program include an increased number of students screened for oral health concerns, provided with sealants, and referred for treatment, increased sealant program capacity across the state, and increased knowledge among students, their parents, and school staff on the importance of oral health. Ultimately, the long-term outcomes this program aims to achieve are a decreased number of Michigan children with tooth decay, and a reduction of disparities in access to oral health care for children across the state.

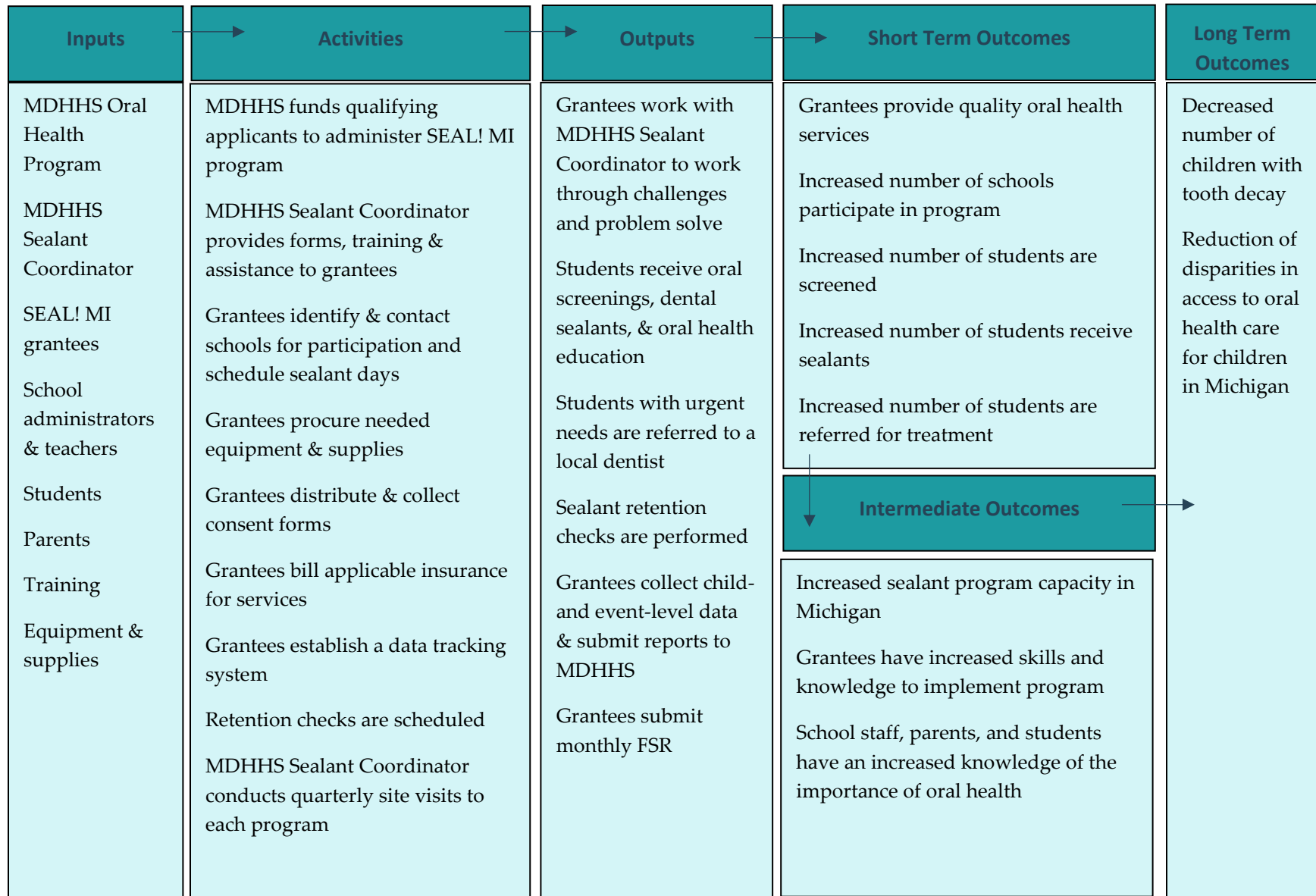
The target populations for the SEAL! Michigan Program are: elementary and middle school students from low-income families and their parents, staff within participating SEAL! Michigan schools, and SEAL! Michigan grantees.

Evaluation

Purpose

This evaluation will focus on program implementation, reach, and impact of the SEAL! Michigan school-based sealant program. Program implementation will be assessed to enhance program operations and improve SEAL! Michigan grantees', school administrators' and teachers' satisfaction with the program. In addition, the evaluation will determine the extent to which the program encompasses the program's target population, children from low-income families, and the effect that the program has had within this population on increasing the prevalence of dental sealants. Findings from this evaluation will be used to inform decision making for program improvements, to demonstrate accomplishments of the SEAL! Michigan program, and to communicate the program's outcomes to program stakeholders.

Figure 1: Logic Model for the SEAL! Michigan School-based Sealant Program



Evaluation Team

The evaluation team consists of staff from the MDHHS Oral Health Program (Mi-OHP) and program staff from the Center for Child and Family Health (CCFH) at the Michigan Public Health Institute (MPHI). Staff from the Mi-OHP will provide feedback on the evaluation design and planning and provide input on the interpretation of evaluation findings. The Mi-OHP Sealant Coordinator will coordinate data collection with the sealant programs and school administrators participating in the SEAL! Michigan program. Staff from MPHI will lead the evaluation and ensure that evaluation activities are conducted as planned. Table 1 presents the roles and responsibilities of the evaluation team.

Table 1: Roles and Responsibilities of Evaluation Team Members		
Individual	Role	Responsibilities
Chris Farrell Program Director, Mi-OHP	Stakeholder	<ul style="list-style-type: none">• Provide feedback on evaluation design and planning and provide input on interpretation of findings
Jill Moore Dental Sealant Coordinator, Mi-OHP	Stakeholder	<ul style="list-style-type: none">• Provide feedback on evaluation design and planning and provide input on interpretation of findings• Coordinate data collection with grantees and school administrators
Crystal Tyler Program Director, CCFH, MPHI	Evaluator	<ul style="list-style-type: none">• Oversight of all evaluation activities to ensure the evaluation is conducted as planned
Diane Wing Sr. Research Assoc., CCFH, MPHI	Evaluator, Data analysis	<ul style="list-style-type: none">• Oversight of all evaluation activities to ensure the evaluation is conducted as planned• Gather and analyze data• Compile results and write final report
Morgan Richardson Research Associate, CCFH, MPHI	Evaluator, Data analysis	<ul style="list-style-type: none">• Oversight of all evaluation activities to ensure the evaluation is conducted as planned• Gather and analyze data• Compile results and write final report

Evaluation Questions

The evaluation team from MPHI met with the MDHHS Dental Sealant Coordinator to discuss the scope and purpose of the evaluation. The evaluation will address the following key questions:

Process Evaluation Questions

- Is the SEAL! Michigan program reaching populations at high risk for oral disease?
- What are the characteristics of the sealant sites operating in SEAL! Michigan?
- What are the student participation rates in SEAL! Michigan?

- What are the characteristics of the students who participate in SEAL! Michigan?
- What are the sealant retention rates in SEAL! Michigan?
- What is the level of satisfaction with the SEAL! Michigan program among school administrators?
- What are school administrators' perceived barriers to participating in the SEAL! Michigan program?
- What suggestions for improvement do school administrators have for the SEAL! Michigan program?
- What is the level of satisfaction with the SEAL! Michigan program among teachers?
- What suggestions for improving the parental consent process do teachers have for the SEAL! Michigan program?
- What is the perceived level of support from the MDHHS among SEAL! Michigan grantees?
- What is the level of satisfaction with the SEAL! Michigan program among SEAL! Michigan grantees?
- What are SEAL! Michigan grantees' perceived barriers to implementing the SEAL! Michigan program?
- What suggestions for improvement do SEAL! Michigan grantees have for the SEAL! Michigan program?

Outcome Evaluation Questions

- What impact has the SEAL! Michigan program had on the prevalence of dental sealants in Michigan?
- Has SEAL! Michigan program capacity increased over time?
- Has SEAL! Michigan program efficiency increased over time?

Evaluation Design

A non-experimental study design will be used to evaluate the SEAL! Michigan program. Data gathered for this evaluation will be used to assess program reach and impact, school administrators', teachers' and SEAL! Michigan grantees' satisfaction with the program, barriers to program implementation, and areas for program improvement.

Data Collection

Table 2 and table 3 present the process and outcome evaluation questions, data indicators, data sources, and timing of data collection. The data in this evaluation will be generated from four different sources: existing SEAL! Michigan program records, an electronic survey of school

administrators participating in the program, an electronic survey of teachers participating in the program, and an electronic survey of SEAL! Michigan grantees.

SEAL! Michigan Program Records

Existing SEAL! Michigan program records will be used to assess the reach and impact of the program. SEAL! Michigan program data is generated from event-level and child-level forms submitted by grantees to the MDHHS. Program data will be used to describe the program and the schools and students who participate in the program, and to assess program outcomes. Program data from the most current school year and data from previous years will be used to compare outcome measures over time.

School Administrator Survey

An electronic survey will be sent via Survey Monkey to school administrators in January 2017. So that survey data can reflect the most recent SEAL! Michigan program visit, SEAL! Michigan grantees will forward the survey link to school administrators upon completion of the scheduled sealant days. The survey tool will be used to gain a better understanding of the barriers administrators encounter while participating in the program and their level of satisfaction with the program. The survey tool includes closed ended questions that ask school administrators to rate their level of satisfaction with various aspects of program participation (communication with local sealant coordinator, informed consent process, time commitment, disruption to students' schedules). The survey tool also includes open ended questions that ask school administrators to describe their biggest challenges with implementing the program in their schools and what they like best about the program. Data from Survey Monkey will be imported into an Excel database. The survey tool is included in Appendix A.

Teacher Survey

A link for an electronic survey in Survey Monkey will be provided to teachers on "thank-you notes" distributed by local sealant programs upon completion of services in schools. The survey tool will be used to determine the level of satisfaction with certain aspects of the program (e.g. time commitment, incentive to participate) and to gain insight into any challenges in the parental consent process and suggestions to improve this process. Data from Survey Monkey will be imported into an Excel database. The survey tool is included in Appendix C.

Local Sealant Program Survey

An electronic survey will be sent via Survey Monkey to local sealant site coordinators in April 2017 by MPHIE evaluators. The survey tool will be used determine the grantees' perceptions of the SEAL! Michigan program and of the support they receive from the MDHHS to implement the program. The survey tool includes closed ended questions that ask grantees to rate their

level of satisfaction with the support they received from the MDHHS and with various aspects of program implementation (equipment procurement, data reporting, etc.). The survey tool also consists of open ended questions that ask grantees to describe their biggest challenges to implementing the program and what they like best about the program. Data will be imported from Survey Monkey into an Excel database. The survey tool is included in Appendix B.

Data Analysis

Both quantitative and qualitative methods will be used to analyze the data. Data from closed ended questions will be imported into a database and analyzed using the Statistical Package for the Social Sciences (SPSS) and frequency distribution and central tendencies will be used to analyze responses. Open ended responses will be analyzed with qualitative methods, such as content analysis, to identify common themes and patterns.

Table 2: Process Evaluation Plan for the SEAL! Michigan School-Based Sealant Program

Evaluation Questions	Indicators	Data Source	Tools & Procedures	Timing of Data Collection
Is the SEAL! MI program reaching populations at high risk for oral disease?	Schools: 1). # of MI eligible schools 2). # of MI eligible schools participating in SEAL! MI 3). Location of schools participating in SEAL! MI Students: 4). # of eligible students 5). # of eligible students enrolled in SEAL! MI	1). MPHI 2). B. Anderson 3). B. Anderson 4). MPHI 5). B. Anderson	1). MDE records 2). SEAL! MI records 3). SEAL! MI records 4). MDE records 5). SEAL! MI records <i>[2015-2016 school year]</i>	Jan 2017
What are the characteristics of the sealant sites operating in SEAL! MI?	Overall and by site: 1). Dental personnel hours for screening 2). Dental personnel hours for sealant delivery 3). Dental personnel hours for retention checks 4). Total dental personnel hours 5). # of dental chairs for screening 6). # of dental chairs for sealant delivery 7). # of dental chairs for retention checks 8). # of schools served	B. Anderson	SEAL! MI records <i>[2015-2016 school year]</i>	Jan 2017
What are the student participation rates in SEAL! MI?	Overall and by site: 1). # of parental consent forms distributed 2). # of positive parental consent forms received	B. Anderson	SEAL! MI records <i>[2015-2016 school year]</i>	Jan 2017
What are the characteristics of the students who participate in SEAL! MI?	Overall and by site: 1). # of students by age 2). # of students by gender 3). # of students with special healthcare needs 4). # of students by grade 5). # of students by race 6). # of students by insurance 7). # of students with untreated tooth decay 8). # of students with previous caries experience 9). # of students with level 1/level 2 treatment urgency	B. Anderson	SEAL! MI records <i>[2015-2016 school year]</i>	Jan 2017

Table 2 (continued): Process Evaluation Plan for the SEAL! Michigan School-Based Sealant Program

Evaluation Questions	Indicators	Data Source	Tools & Procedures	Timing of Data Collection
What are the sealant retention rates in the SEAL! MI program?	Overall and by site: 1). # of schools where retention checks were provided 2). # of students screened for retention checks 3). # of sealants checked for retention 4). # of sealants retained 5). # of sealants resealed 6). Retention rate (sealants retained/sealants checked)	B. Anderson	SEAL! MI records <i>[2015-2016 school year]</i>	Jan 2017
How do grantees perceive the support received from the MDHHS to implement the SEAL! MI program?	Responses to local sealant coordinator survey; 1). Overall rating (Q#) 2). Technical assistance (Q#) 3). Ease of communication (Q#) 4). Training opportunities (Q#)	MPHI Evaluators	Site Coordinator Survey	Feb-Mar 2017
What is the level of satisfaction with implementation of the SEAL! MI program among grantees?	Responses to local sealant coordinator survey; 1). Equipment and supplies 2). Data collection 3). Data reporting requirements	MPHI Evaluators	Site Coordinator Survey	Feb-Mar 2017
What are grantees' perceived barriers to implementing the SEAL! Michigan program?	1). Site Coordinators' open-ended responses identifying program implementation barriers	MPHI Evaluators	Site Coordinator Survey	Feb-Mar 2017
What suggestions for improvement do grantees have for the SEAL! Michigan program?	1). Site Coordinators' open-ended responses identifying suggestions for program improvement	MPHI Evaluators	Site Coordinator Survey	Feb-Mar 2017
What is the level of satisfaction with participating in the SEAL! MI program among school administrators?	Responses to School Administrators' Survey; 1). Overall satisfaction 2). Communication with the sealant site coordinator 3). Informed consent process 4). Time commitment to participate in program	MPHI Evaluators	School Administrator Survey	Feb-Mar 2017

Table 2 (continued): Process Evaluation Plan for the SEAL! Michigan School-Based Sealant Program

Evaluation Questions	Indicators	Data Source	Tools & Procedures	Timing of Data Collection
What are the perceived barriers to implementing the SEAL! MI program among school administrators?	1). School Administrators' open-ended responses identifying program participation barriers	MPHI Evaluators	School Administrator Survey	Feb-Mar 2017
What suggestions for improvement do school administrators have for the SEAL! MI program?	1). School Administrators' open-ended responses identifying suggestions for program improvement	MPHI Evaluators	School Administrator Survey	Feb-Mar 2017
What is the level of satisfaction with participating in the SEAL! MI program among teachers?	Responses to Teachers' Survey; 1). Overall satisfaction 2). Time commitment to participate in program 3). Incentive to participate in program	MPHI Evaluators	Teacher Survey	Feb-Mar 2017
What suggestions for improvement do teachers have for the parent consent process?	1). Teachers' open-ended responses identifying suggestions for improving the consent process	MPHI Evaluators	Teacher Survey	Feb-Mar 2017

Table 3: Outcome Evaluation Plan for the SEAL! Michigan School-Based Sealant Program

Evaluation Questions	Indicators	Data Source	Tools & Procedures	Timing of Data Collection
What impact has the SEAL! MI program had on the prevalence of dental sealants in Michigan?	Sealant prevalence: 1). # of students screened 2). # of students receiving sealants 3). # of students screened & not receiving sealants 4). # of total teeth sealed Treatment of urgent needs: 7). # of students referred for treatment 8). # of students who received treatment	B. Anderson	SEAL! MI records <i>[2010-2016]</i>	Jan 2017
Has the SEAL! MI program capacity increased over time?	1). # of schools from 2010 to 2016 2). # of students screened from 2010 to 2016 3). # of students receiving sealants from 2010 to 2016	B. Anderson	SEAL! MI records <i>[2010-2016]</i>	Jan 2017
Has SEAL! MI program efficiency increased over time?	1). Average cost per child 2). Average cost per sealant for 4 permanent first molars per child	B. Anderson	SEAL! MI records <i>[2010-2016]</i>	Jan 2017

Data Interpretation

The MPHI evaluation team and the Mi-OHP Program Director and Dental Sealant Coordinator will meet to interpret the evaluation findings. From this meeting, evaluation findings will be finalized and recommendations will be made accordingly. Table 4 presents the timeline for evaluation activities.

Table 4: Timeline for Evaluation Activities												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
2016												
Evaluation Planning	X	X	X									
Survey Tool Development		X	X									
2017												
Analysis of SEAL! MI program data					X	X	X	X				
Send school administrator survey				X	X	X	X					
Send sealant program survey						X						
Send teacher survey					X	X	X					
Analysis of school admin. data							X	X				
Analysis of sealant program data							X	X				
Analysis of teacher data							X	X				
Data Interpretation									X			
Develop draft evaluation report									X	X		
Final evaluation report completed/Report dissemination											X	X

Data Dissemination

The evaluation team at MPHI will provide monthly updates on evaluation activities to the MDHHS Program Director and Dental Sealant Coordinator through monthly conference calls. A final report of evaluation findings will be developed and delivered to the Mi-OHP in September, 2017. To inform grantees and other stakeholders of the evaluation findings, a one-page summary will be developed and electronically sent SEAL! Michigan program grantees.

Table 5: Communication Plan for the SEAL! Michigan Evaluation			
Target Audience	Purpose of Communication	Possible Formats	Timetable
Mi-OHP	Update Chris/Jill on evaluation progress	Monthly calls	Monthly
Mi-OHP	Document the evaluation and its findings	Final Report	Sept 2017
SEAL! MI Grantees, Funders	Inform of evaluation findings	One-page summary	Sept 2017

Appendix A: Survey Tools