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Vermont Department of Financial Regulation, Insurance Division

2012 Vermont Household Health Insurance Survey

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Technical Documentation

Brian Robertson, Ph.D.
Jason Maurice, Ph.D.
Patrick Madden, MBA
Market Decisions, LLC

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I. Sampling Methodology

This section outlines the sampling process used during the 2012 Vermont Household Health Insurance Survey. The sampling process consisted of two steps designed to meet overall statewide targets as well as specific targets for uninsured residents.

Target Population

The target population for the 2012 Vermont Household Health Insurance Survey consisted of all persons in families living in the state of Vermont, excluding those persons residing in households where no adult age 18 or over is present. Persons residing in group homes with nine or more persons, group quarters such as dormitories, military barracks, and institutions, and those with no fixed household address (i.e., the homeless or residents of institutional group quarters such as jails or hospitals) were also excluded from this survey[1]. In addition, the sample excluded non-permanent residences and vacation residences (qualified households were considered those in which someone resided at least six months of the year). Since the sampling approach relied on the use of random digit dial telephone samples, the sample population only included those households (and residents therein) with working telephones.

Sample Definition

The stated goal of the sampling approach was to obtain statewide population information on health insurance status, as well as gathering data on a number of demographic and health variables. The sampling methodology relied on a complex stratified sampling methodology that included two separate phases: a general population phase including four sampling strata (general population survey or GPS) as well as an over sample of households with at least one uninsured resident (uninsured over sample). The sample was thus divided into two main components with a set target for the number of completed household interviews in the general population survey (GPS) as well as an over sample of the uninsured with the goal of gathering data from additional households with at least one uninsured household member. The goal for the GPS was to gather data from a minimum of 4,000 Vermont households with a minimum of 1,000 Vermont residents in each of these four sampling strata during the GPS. Between the GPS and the uninsured over sample, the goal was to gather data on approximately 1300 to 1400 uninsured residents.

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[1] The initial screening coded as ineligible such group quarters. In this survey, group quarters' telephone numbers were considered those where a number of unrelated people living in more than one "unit" relied on the same telephone. An example of a unit in this case might be a fraternity house where all those residing in the house use the same phone.

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Table 1 Statewide and sub-population household interview requirements

Sampling Component	Target Household Interviews
General Population Survey	4,000 (1,000 per sampling strata)
Uninsured Residents	580*

*This was the estimated number of uninsured household over sample interviews required to meet the target of 1,300 to 1,400 uninsured residents.

It was anticipated that in conducting the uninsured over sample interviews that all household members would not necessarily be uninsured. Thus, the actual number of uninsured over sample interviews was approximated in the sampling design based upon the anticipated percentage of uninsured residents in Vermont and their distribution within households.   The sampling design anticipated that many uninsured residents would be identified during the general population survey and that the uninsured over sample would supplement the GPS in meeting the target goal of 1,300 to 1,400 uninsured residents.

Sampling Approach and Targeting of Sampling Components

The basis of all sampling used during the course of this research was a dual frame Random Digit Dial (RDD) sampling protocol. The dual frame design incorporates sample that targets both land line telephones and cell phones.

During the first phase, a set of RDD land line samples were generated based on four geographic strata defined by geographically contiguous counties in Vermont, defined in Table 2. This stratification was included in the sampling design to obtain better precision in estimates for rural areas. To supplement the 4 land line RDD samples, a separate statewide sample of cell phones was drawn. This was done since it was not possible to target the individual strata due to constraints in generating cell phone telephone samples.

This general population survey component of the sampling resulted in statewide results with a minimum of bias introduced due to selective eligibility and also insured that sufficient surveys were completed in rural areas of Vermont to achieve the precision required for analysis. During the course of the general population survey, all households were interviewed and data gathered on all residents within the household. During the GPS, the number of uninsured residents was evaluated to determine the total number of uninsured over sample interviews that would be required to meet the goals of this study.

This multi-stage approach was designed to most efficiently meet specified goals while minimizing any additional non-response bias due to inaccurate calculations of the number of over sample interviews (and drawing too few or too many sample records).

Table 2. Geographic Sampling Strata Used During 2012 VT HHIS
(GPS)

Stratum 1 Burlington Area	Stratum 2 Northeast VT	Stratum 3 Southwest VT	Stratum 4 Southeast VT
Chittenden County	Caledonia County	Addison County	Orange County
Franklin County	Essex County	Bennington County	Washington County
Grand Isle County	Lamoille County	Rutland County	Windham County
	Orleans County		Windsor County

In order to meet the goals of obtaining data on a sufficient number of uninsured residents, the second stage of sampling relied on a statewide over sample of telephone numbers (both land line and cell phone).

Market Decisions, LLC, generated the RDD samples in-house to derive the equal probability sample of telephone numbers. Within the data collection period, sample for both the general population component and the over sample component were entered in replicates to meet callback and refusal conversion goals.

Development of RDD Telephone Samples for this Research and Sample Generation

The proposed sampling methodology was based on a dual frame RDD land line and cell phone samples design (for both the GPS strata as well as the uninsured over sample). Based on estimates of the cell phone penetration among the target population, the goals was to complete approximately 70% of the surveys via land line and 30% via cell phone.

Any RDD sample used for this research must be designed to insure equal and known probability of selection (within each of the sampling stages). For this study, Market Decisions utilized software developed by Marketing Systems Group for the generation of samples. The GENESYS sampling software is the first and only commercially available in-house sampling system with fully configured RDD design and generation capabilities. The software also has the capacity to generate both land line and cell phone RDD samples.

Sample Generation

The sample files for the both the land line and cell phone samples were generated in-house using GENESYS sampling software. Each of these samples was generated in proportion to the distribution of "population" of exchanges and telephone numbers throughout the geography included in each. Thus, a higher percentage of sample telephone numbers were generated in those areas with higher residential populations. The sample thus reflected the distribution of the population throughout the counties included in each of the sampling strata.

Uninsured Over Sample Screening

Given that the anticipated percentage of uninsured residents in Vermont was quite low, efforts were made to increase the data collection efficiency in conducting the uninsured over sample. Based on results of the 2008 Vermont Household Health Insurance Survey, less than 10% of residents in Vermont were uninsured and approximately 10% of Vermont households might be expected to have at least one resident that was uninsured. Based on an initial analysis of the preliminary 2012 GPS data (after completing approximately 1,000 interviews), it was found that the actual percentage of the population without health insurance had declined and that approximately 7% currently lacked health insurance coverage. These results suggested we would need to contact from 12 to 15 households to identify a household with at least one uninsured resident.

Several steps were taken to improve the data collection efficiency in reaching households with uninsured residents while still maintaining the statistical properties of the sample. These steps included the use of a mailed pre-screening survey sent to all sampled household for which an address could be obtained and using a screening question at the beginning of the telephone survey to identify and eliminate all households in which all residents were insured.

As noted, the actual sample of telephone numbers generated for the uninsured over sample included all telephone exchanges in Vermont.

During the course of the research, a pre-screening survey was mailed to all households in the uninsured over sample for which an address could be identified (13,350 total households). The purpose of the pre-screening survey was to identify household in which all residents were covered by some type of health insurance. That is, to identify households that would be considered ineligible for the over sample component of the research. Addresses were obtained using an address look-up based on the telephone number. This was done only for the land line component since reverse look-up services are not available for cell phone numbers. A copy of the mail survey is included in appendix 1.

The mail screening survey was mailed to these 13,350 households on October 12, 2012. Of these, 3,880 were returned as undeliverable. Among the remaining:

- 17 lived out of state
- 112 were not a permanent resident of Vermont
- 2976 indicated everyone in the household was uninsured
- 6 indicated not to call their household
- 240 had one or more household members without insurance
- 6119 were not returned

The results from the mail survey were then noted in the telephone sample used during the uninsured over sample. As sample replicates were drawn during the course of data collection, any records flagged as a result of the response to the mail survey were assigned the appropriate disposition and set aside. That is, the records were classified as ineligible in cases where the mail survey indicated all household members were insured or in cases where the household was not a permanent residence. Call attempts were not made to these households. It is important to note that the final determination of eligibility was made as a sample replicate was entered and not prior to sample being entered for data collection. While sample records that were ineligible based on the response to the mail survey were flagged in the sample file they were not actually removed. This procedure was followed for two important reasons. First, we did not want to change the random order in which sample records were entered. Removing these numbers prior to sample entry would have changed the random selection order of the remaining numbers in the sample file and changed the probabilities of selection, impacting our ability to calculate sample weights. Rather these ineligible numbers were "allowed" to be selected in the entry of sample replicates and were then assigned a call disposition. In practical terms they were treated in much the same way as if they were called and through the telephone call were determined to be ineligible. The second reason was that the number of sample records required for the uninsured sample was estimated. There was the possibility that we had underestimated the incidence of the uninsured in Vermont and that sample would have exceeded our need to meet precision requirements. In such cases, all sample records that were unused during data collection should be treated the same in developing final disposition reports and sample weights regardless of whether one knows in advance that the household was technically ineligible. In the case of this specific research study, however, this was not a significant factor since our sample requirement estimates were accurate.

The mail screener represented the first phase of screening to identify households with at least one uninsured resident. After the mail survey results had been flagged in the telephone sample, sample for the uninsured over sample was entered in replicates. As noted, cases that were identified as ineligible through the mail survey were assigned a case disposition as entered into our CATI software and no call attempts were made. Call attempts were made to all other sample records. This included calls to:

- Sample records for which no address could be obtained.
- Sample records for which an address was obtained but the mail survey was returned as undeliverable.
- Sample records for which an address was obtained and the respondent indicated that at least one household member was uninsured.
- Sample records for which an address was obtained and the respondent was unsure of the insurance status of all household members.
- Sample records for which an address was obtained but the mail survey was not returned.

All records were treated the same regardless of their status after the mail screening survey. The order in which they were entered into the CATI program was determined <u>prior</u> to the mail screening survey and this order precedence was not changed as a result of the mail survey. For example, if a survey was returned that indicated people in the household were uninsured, this

record was NOT automatically called. Rather, it was entered into the CATI program in a replicate based on the pre-assigned order.

When a telephone number was contacted and identified as a Vermont household, the person in the household most knowledgeable about the health insurance status of the household was then asked if all members of the household were covered by some type of health insurance. The question wording was based on the question from the mail screening survey. If the respondent indicated that "yes," everyone was covered by some type of health insurance, the case was deemed ineligible and assigned a final disposition. In all other cases (if there were one or more uninsured individuals or the respondent was not certain of the health insurance status of ALL members of the household) the survey continued and respondents were asked the same questions included in the general population survey.

In all other aspects, the uninsured sample followed the same data collection protocols as the general population survey (number of attempts, callback scheduling, refusal conversions, and other data collection criteria).

II. Questionnaire Design

The survey questionnaire that was used during the course of the 2012 Vermont Household Health Insurance Survey was based largely on prior surveys conducted in Vermont on this topic as well as health insurance surveys administered by Market Decisions in several other states.

The initial steps in survey design focused on a review of the prior Vermont Household Health Insurance surveys (2005 to 2009). To develop the survey, a survey planning groups was put together to review the survey and to identify the need for additional items based on the upcoming implementation of the Exchange. An initial set of materials to review was sent out to the survey planning group by Market Decisions on July 9, 2012. The survey planning group then met on July 21, 2012 to review questions and to finalize the survey instrument. Attendees were:

1. Ena Backus, Green Mountain Care Board
2. Jessie Brousseau, Department of Health
3. Joanne Dunster, Department for Children and Families
4. Catherine Hamilton, Blue Cross Blue Shield of Vermont
5. Dian Kahn, Department of Financial Regulation
6. Nolan Langweil, Joint Fiscal Office
7. Sarah Lindberg, Department of Financial Regulation
8. Scott McCarthy, Blue Cross Blue Shield of Vermont
9. Siobhan Stock, Blue Cross Blue Shield of Vermont
10. Steve Kappel, Policy Integrity

11. Curtis Mildner, Market Decisions
12. Jason Maurice, Market Decisions
13. Brian Robertson, Market Decisions

The survey design team reviewed the survey and also identified topic areas of survey items. The large majority of the survey questions were those asked during the 2008 and 2009 administrations of the Vermont Household Health Insurance Survey. In addition, the 2012 survey added items that focused on health care plan quality, awareness of the health insurance exchange and its implementation, additional items evaluating access to care, and follow-up items for those that used emergency room services.

An initial draft of the survey instrument was submitted to the Vermont Department of Financial Regulation, Insurance Division on August 16, 2012 and was distributed to the survey planning group for final comments. After incorporating changes, a final pretest version of the survey was completed on August 21, 2012. The basic components of the 2012 survey gathered information from Vermont residents in the following areas:

1. Household Characteristics
2. Enumeration of the Household
3. Demographic Characteristics of each Household Member
4. Relationships Between Household Members
5. Type of Health Insurance Coverage

6. Private Health Insurance Coverage Characteristics
7. Medicare Supplement Coverage Characteristics
8. Experiences with State Health Insurance Programs
9. Quality ratings of health insurance (private insurance, state health insurance, military insurance, Medicare)
10. Uninsured Characteristics
11. Awareness and Knowledge of State Health Insurance Programs
12. Interest in State Health Insurance Coverage
13. Interruptions in Insurance Coverage
14. Concerns About Loss of Health Insurance
15. Dental and Vision Insurance Coverage
16. Visits to Health Care Professionals – Point of Service
17. General Health Status and Chronic Conditions
18. Health Care Barriers and Problems Accessing Health Care
19. Employment Characteristics
20. Access to and Enrollment in Employer Sponsored Health Insurance
21. Income (family level)

A copy of the survey (short version) is provided in appendix 2. A separate version of the survey with all response categories is provided as a separate document.

Family Formation

One important concept that was incorporated into the 2012 Vermont Household Health Insurance Survey was that of family units. This concept is important because of the relationship between variables such as private or governmental insurance coverage and family level characteristics such as income. The survey logic was designed so that all members of a household were grouped into family units based upon their relationships. The survey was structured to ask the questions about each family unit separately.

Family units were identified by establishing the relationship of each member of the household to the identified head of the household. This was done by first collecting the number of people in the household and a name or other identifier for each person. The household was then rostered and basic demographic information gathered on each household member (age, gender, marital status, ethnicity, race, level of education, and where the resident was born). The respondents were then asked to describe the relationship of each member of the household to the head of the household. Two follow-up questions then clarified marital relationships between household members besides the head of household and their spouse and any guardian/ward relationships. Based upon this sequence of questions, household members were classified into family units. In general, the rules to assign members to family units were:

1. The head of household and their spouse were classified in the same family unit (always family unit 1).
2. Adults 19 and older who were not married to the head of household were classified as a separate family unit.

3. Adults aged 18 were <u>initially</u> classified as a separate family unit. An assessment was later made to determine if they should be classified into the same family unit as their parents (see below)
4. Married couples were classified in the same family unit. This included married couples involving someone under age 17.
5. Children 17 and younger were classified in the same unit as their parent(s)/guardians. If their parent(s) or legal guardian did not live in the household, they were considered a separate family unit. With the exceptions that:
6. Children 17 and younger were classified into a separate family unit from their parents in cases where they were married and/or had a child of their own.
7. Adults that were age 18 were classified into a family unit based upon whether they were married and/or had children. If they were not married and did not have any children they were classified in the same family unit as their parents. If they were married and/or had a child of their own they were classified as a separate family unit (with their spouse and/or child).
8. Finally, those who were identified as the ward of another household member were classified in the same unit as that household member unless prior rules determined the ward should be classified separately.

Eliciting Cooperation

Given the response rate requirements of the 2012 Vermont Household Health Insurance Survey, special attention was paid to survey elements designed to elicit cooperation. A number of design elements incorporated into the surveys helped maximize response rates. These elements included:

- Clear lead in and introductory statements that explained the nature of the research.
- Informing contacts who we are.
- Providing the name of the client.
- Persuader statements that explained why the research is important and why it is important for them personally to participate.
- A toll free telephone number and the name of the primary investigator (Dr. Robertson) so a potential respondent could verify that the research was legitimate or ask any questions about the research.
- A toll free telephone number and the name of the primary contact at the Vermont Department of Financial Regulation, Insurance Division (Sarah Lindberg) so a potential respondent could verify that the research was legitimate or ask any questions about the research.
- A statement of implied consent that indicated the research is confidential and their name will in no way be associated with results; the results are reported in aggregate form only. The statement also indicated that the call may be monitored. Finally, it also indicated that if they do not wish to answer a question that is fine.
- Coded help screens that contained information about the research and selection process that interviewers provided to potential respondents.

III. Survey Pretesting

The design process for the 2012 Vermont Household Health Insurance Survey included an extensive survey pretest phase. This pretest phase was designed to finalize the survey instrument developed by Market Decisions and the Vermont Department of Financial Regulation, Insurance Division staff by evaluating the survey logic, family unit formation logic, clarity of questions, anticipated survey length, and need for term definition. The pretest phase of the research project was begun on August 21, 2012 and was completed by September 10, 2012.

The survey was first programmed into our Computer Assisted Telephone Interviewing (CATI) software. The initial reviews of the survey questionnaire were conducted by Dr. Robertson and Dr. Maurice in order to confirm questionnaire logic was correct and that the survey functioned as anticipated. After these initial logic tests, the research staff provided test copies of the program to the data collection staff. The field staff manager and supervisors were briefed on the project and then taken through the survey with explanations provided for the meaning, context, and intent of each survey item. The field staff was also provided with paper copies of the survey to allow them to assess logic and flow.

The field staff, including the field staff manager, supervisors, and interviewers, was then asked to go through the survey and note any problems that were observed. These problems were then passed back to the research staff and corrections were made to the survey questionnaire and CATI program logic to correct these problems.

The final step in the pretest phase involved live interviews with Vermont residents. The pretest of the 2012 Vermont Household Health Insurance Survey was begun on August 30, 2012 and was concluded on September 10, 2012. A total of 114 pretest interviews were conducted with Vermont residents. These interviews included

- 25 interviews with households with children
- 83 interviews with households with at least one privately insured resident
- 23 interviews with households in which at least one resident was enrolled in a state health insurance program
- 5 interviews with households in which at least one person was uninsured

Pretest households ranged in size from 1 to 8 persons. On average, the pretest survey required 16 minutes to administer.

Vermont residents who took part in the pretest were asked to complete the survey as if they were a respondent, but they were also asked to provide feedback on questions. Specifically, they were asked to provide feedback if they were unclear about the intent of the question, if there were terms they did not understand or if the flow of the survey did not make sense or seemed confusing.

Based on the pretest, the survey instrument functioned as expected. Respondents did not express confusion or problems answering any of the previously used or newly added questions. Surveys

ran smoothly and interviewers did not note any confusion or hesitation on the respondents' part during the interview.

A copy of the survey pretest report is included in Appendix 3.

IV. Data Collection

The data collection phase of the 2012 Vermont Household Health Insurance Survey was begun on August 30, 2012 (pre-test inception) and was completed by December 2, 2012. A total of 4,610 households were interviewed during this period. This includes

- 2,812 interviews via landline phone for the general population component of the survey
- 571 interviews via landline phone for uninsured over sample component of the survey
- 1,227 interviews via cell phone for both the general population component and uninsured over sample component of the survey

In order to meet response rate requirements for this study, a rigorous data collection strategy was used in conducting this survey. This included the following:

- Rotation of call attempts across all seven days at different times of the day according to industry standards for acceptability and legality in telemarketing.
- For landlines: a minimum of 20 call back attempts per telephone number at the screener level (before number was identified as a qualified residential number).
- For landlines: 4 attempts to convert refusals (the exception were those households that made it clear they were not to be contacted again).
- For landlines: a minimum of 10 callback attempts for "no answer" or answering machine only telephone non-contacts and for inappropriate contacts (contact only, no most knowledgeable adult home), and scheduled callback appointments.
- For cell phones: a minimum of 5 call back attempts per telephone number at the screener level (before number was identified as a qualified residential number).
- For cell phones: 1 attempt to convert refusals (the exception were those households that made it clear they were not to be contacted again).
- For cell phones: A minimum of 5 callback attempts for "no answer" or answering machine only telephone non-contacts and for inappropriate contacts (contact only, no most knowledgeable adult home), and scheduled callback appointments.
- A brief message with a toll free number was delivered to answering machine only attempts to encourage participation (messages were left on the first, third and seventh answering machine dispositions).

Per industry standards, interviews were only conducted during the hours from 9 AM to 9 PM and seven days a week. The only exceptions were specific, scheduled appointments outside this range.

Responding to Vermont Residents Inquiries about the Survey

One strategy that was used in order to increase response rates was providing reluctant residents with the name and telephone number of the primary investigator (Dr. Robertson) and/or the primary contact at the Vermont Department of Financial Regulation, Insurance Division (Sarah Lindberg). Over the course of data collection, both parties received a number of calls from potential survey respondents.   Dr. Robertson responded to calls from 34 respondents. In most cases, the resident called either to simply verify the legitimacy of the survey, get more information about what the survey asked, or to respond to a message left on their answering machine. A few calls were made to have the respondent's telephone number removed from our sample. Depending on the timing of the call, the resident was called back according to the callback protocol or the survey was completed at that time. Nearly all of those who contacted Dr. Robertson ended up completing the survey.

Scheduling Callback Appointments

The CATI system used by Market Decisions during the course of this survey is designed to allow interviewers to set callback appointments for a specific date and time. It is also designed to allow a respondent who has begun the survey and cannot complete it to complete it at a later time. This is done so that the respondent can complete the survey at a time that is most convenient for him or her. The interviewer enters the date and time the respondent provides and the respondent is then contacted at that time. Over the course of the data collection phase, 3,026 scheduled appointments were made. Approximately 18% of interviews that were completed were done so with respondents that had scheduled these specific appointments.

Survey Length

The 2012 Vermont Household Health Insurance Survey required respondents to provide a great deal of information about themselves and other family members. The goal was to obtain accurate information about all household members while limiting the time commitment required of the respondent. Our goal was a survey instrument that would require an average respondent about 20 minutes to complete.

On average, the 4,610 interviews required 21 minutes to complete. Fifty-four percent of the interviews were completed in 20 minutes or less and 76% in 25 minutes or less. The shortest amount of time required was 8 minutes while the longest survey required 67 minutes.

Exclusion of Household Members

In multiple family households, it was expected there would be cases where the respondent would not be able to provide accurate data on every person living in the household. During the course of the survey, the respondent was asked to identify any household member for which they felt they could not provide accurate information. During the course of the interview the respondent was not asked questions relating to these individuals. At the end of the survey, the interviewer asked the respondent to identify who in the household would be able to answer the survey questions about any excluded individuals. If the respondent could identify an individual this was

noted and a callback was scheduled to complete the survey with this individual. At a later time, the household was re-contacted and the interviewer asked for this identified individual. The interviewer then asked this respondent all survey questions except the questions on household and person characteristics (demographics). These were skipped since these data were gathered during the initial interview with the household. In some cases, it was not possible for a respondent to identify an appropriate contact to answer questions for those excluded during the interview. In other cases, it was not possible to contact this identified individual[2]. In all there were 315 instances where it was not possible to contact this individual. In such instances, a weighting adjustment was made to take this into account.

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[2] In terms of callbacks, such instances were treated as new cases.

V. Survey Response Rates and Final Dispositions

The goal set for this research study was to obtain an overall response rate of greater than 50% for the GPS component of the research. The response, cooperation, and refusal rates to the 2012 Vermont Household Health Insurance Survey are presented in Table 3 broken out by GPS landline (overall by strata), cell phone and the uninsured over sample. The rates reported are based on the standard formulas developed by the American Association for Public Opinion Research.

This final disposition report is presented in Table 4. It reports dispositions separately for the GPS component of the research, cell phones and for the uninsured over sample.

Table 3. Summary of Response, Cooperation, and Refusal Rates by Survey Component and Strata

	Response Rate (AAPOR RR3)	Respondent Cooperation Rate (AAPOR COOP3)	Respondent Refusal Rate (AAPOR REF3)
GPS Landline Total	48.1%	93.8%	2.4%
Stratum 1	44.6%	92.6%	2.7%
Stratum 2	52.7%	93.6%	2.8%
Stratum 3	52.8%	92.5%	3.1%
Stratum 4	42.4%	96.5%	1.2%

Cell Phone Sample (GPS and Uninsured Oversample)	54.6%	86.0%	6.7%

Uninsured Over Sample Landline Total	36.3%	61.6%	14.8%

Table 4. Final Sample Disposition Codes

GPS Landline Strata

Code	Burlington Area	Northeast VT	Southwest VT	Southeast VT
Complete	553	844	724	692
Partial callback	5	7	10	1
Partial terminate	32	42	42	19
Hard respondent refusal	6	9	7	5
Hard household refusal	225	293	252	271
Soft household refusal	13	20	19	32
Soft respondent refusal	1	0	0	0
No one in HH is uninsured	0	0	0	0
Schedule callback	3	3	3	3
Contact only	10	10	7	13
Hang-up	21	20	26	26
Answer machine	323	305	259	532
Busy	20	21	28	36
No answer	236	271	179	383
Not available in time frame	0	0	0	0
Language barrier not Spanish	1	1	2	0
Infirm	4	2	2	0
Group quarters or institution	14	8	16	21
Not a permanent residence	19	45	44	56
Vacation home	25	53	49	64
Wrong number	2	3	2	7
Disconnected phone	2049	2572	3568	2759
Not a working number	4	8	14	11
Fax or modem	271	341	302	297
No ring	343	278	416	413
Fast busy	0	0	0	0
Pager	4	12	11	10
Temporarily out of service	88	114	95	68
Call blocking	0	0	0	2
Business	530	694	630	554
Other	22	41	45	53
TOTAL	**4824**	**6017**	**6752**	**6328**

Table 4. Final Sample Disposition Codes
(continued)

Code	GPS Total	Cell Phone	Landline Over Sample
Complete	2813	1227	572
Partial callback	23	38	11
Partial terminate	135	107	53
Hard respondent refusal	27	54	292
Hard household refusal	1041	788	844
Soft household refusal	84	19	44
Soft respondent refusal	1	0	0
No one in HH is uninsured	0	1453	9655
Schedule callback	12	2	2
Contact only	40	2	8
Hang-up	93	2	6
Answer machine	1419	98	156
Busy	105	1	26
No answer	1069	25	313
Not available in time frame	0	0	1
Language barrier not spanish	4	5	0
Infirm	8	0	0
Group quarters or institution	59	40	133
Not a permanent residence	164	535	73
Vacation home	191	85	213
Wrong number	14	44	58
Disconnected phone	10948	8922	8295
Not a working number	37	647	60396
Fax or modem	1211	150	4365
No ring	1450	974	1116
Fast busy	0	2	4
Pager	37	45	36
Temporarily out of service	365	443	103
Call blocking	2	44	0
Business	2408	824	8059
Other	161	1065	1305
Total	**23921**	**17641**	**96139**

VI. Total Interviews

A total of 4,610 households were contacted and interviewed.

- 3,383 interviews via landline phone
- 1,227 interviews via cell phone

The final data includes data on 10,982 Vermont residents. This includes 1,365 uninsured residents.

VII. Data Cleaning

Any survey process can result in erroneous reporting or recording of data. To insure the accuracy of the data, Market Decisions conducted data consistency checks on the data files. As a part of the data file preparation and analysis, the first stage of this process involved checking all data to insure that responses were consistent. This process involves insuring that respondents were asked appropriate questions based upon earlier responses to variables, skip patterns were followed based upon appropriate responses to earlier items, and that respondents provided consistent answers to questions on related concepts.

The initial steps of data consistency checks were programmed into the survey instrument themselves. These included verification items on key issues. An example includes the verification of Medicare coverage as opposed to Medicaid coverage among those under 65. The programmed data checks insured that respondents were directed to appropriate questions and that answers to some key issues were verified.

There are three possible sources of data errors that the survey programming could not fully account for in its design. These were

- Respondents who, after completing questions or entire sections of the survey changed their minds about the answer they had provided.
- Respondents, whether due to lack of information or unfamiliarity provided inaccurate information.
- Respondents who answered a question or questions in one fashion and then provided a different answer to a related question later on in the interview.

In the first case, interviews could back up in the survey instrument and enter the corrected information. The CATI software used by Market Decisions would then correct answers based upon new branching or skip patterns.

The second case is primarily related to knowledge of specific insurance plans, primarily government sponsored plans, which provide coverage to family members. The two most notable examples were respondents who confused Medicare and Medicaid coverage and respondents that confused Medicaid coverage with coverage through private health insurance.

In the last case, the data was left coded as provided by the respondent. The decision was made not to challenge respondents by indicating they had provided conflicting answers to similar survey questions.

VIII. Data Imputation

Data Imputation

Given the nature of the survey data collected, it was decided that missing values would be imputed on certain key values, particularly weighting variables. Data imputation is a procedure that determines the likely value of a given variable based upon other known characteristics of the respondent. Imputation relies on answers to other questions to derive the most likely value for the missing value. Market Decisions used data imputation on several of the variables in this research. In those cases where a variable was imputed, the final data set contains a copy of the variable with imputed values, a copy of the original variable with missing values retained, and a flag variable which identifies which values were imputed and the method used. The research staff used three primary methods of data imputation:

Logical Imputation

This step involved an assessment of answers to other questions (within the case) to determine if it were possible to deduce the answer to a question with a missing value. In some cases, this was done by evaluating a question that was very similar in nature and content. In other cases, it involved assessing a number of related questions to derive the most likely value. The initial survey design anticipated this approach, somewhat. There were a number of consistency checks programmed throughout the survey on certain key variables. These consistency checks were used during the course of imputation to impute missing values to certain key variables.

Donor Substitution Imputation – Hot Deck Imputation

Hot deck imputation relies on the fact that individuals with similarities on a number of variables are likely to be similar on those variables with missing values. The process involves identifying an individual with similar values on other variables and substituting this person's response for the missing value. In each of these cases, a number of variables were used to identify those respondents that were similar to a respondent with a missing value for a specific variable. The types of variables that were used to define characteristics that are "similar" varied depending on the nature of the variable to be imputed. These included key demographic characteristics and variables with a high correlation to the variable imputed. Once defined, the process of imputing the missing value relied on replacement. Base upon defined characteristics, the file was sorted in "serpentine" fashion (alternating ascending and descending sorts on variables). The value from the "nearest neighbor" was then used to replace that of the missing value.

Regression Based Imputation

For certain variables, such as income, the use of regression-based imputation was the most suitable method. This process relied on regression analysis to predict the value of the variable. The process relied on the use of analytical software that is designed to conduct missing values analysis. As with hot deck imputation, the number and type of variables used during regression analysis varied by the variable that was imputed but this also relied on key demographic variables and those correlated with the variable containing missing data.

The primary variables that were imputed were those used in weighting the survey data (gender, race and ethnicity). In addition, income (in terms of federal poverty level) was also imputed. This was important since missing values would cause problems with the post stratification weighting of the data. Those cases with missing values would not have appropriate adjustments made and this would lead to an increase in variance since their weights would differ from those cases with complete demographic data. The data imputation process "estimated" any missing values in those variables used in post stratification weighting to minimize their impact on data quality. In 2008, several new questions were added for which imputation was required and these items were again imputed in 2009 and 2012. The method of imputation used for these variables is as follows:

Gender	Logical Imputation
Age	Logical Imputation
Ethnicity	Logical and Hot Deck Imputation
Race	Logical and Hot Deck Imputation
Income	Regression Based Imputation
Company size (# of employees)	Regression Based Imputation
Medical Expenditures	Regression Based Imputation
Monthly Premium (private health insurance)	Regression Based Imputation
Annual deductible (private health insurance)	Regression Based Imputation

IX. Data Weighting

The data has been weighted to adjust for non-response and also to match the state profile based upon sex, age, race, ethnicity, and area of residence. Weighting also adjusted for households based upon their access to land lines, cell phones, or both.

Given the over sample of uninsured residents that was conducted, the data was weighted using the following protocols:

- The over sample interviews were removed from the data set and the general population component of the sample was weighted to the population characteristics of the state of Vermont.
- An analysis was then conducted using the weighted data that looked at households with one or more uninsured residents. This analysis was used to define the "population characteristics" of households with uninsured residents in Vermont. That is, this analysis provided the population counts for sex, age, race, ethnicity, area of residence, enrollment in state health insurance programs, and cell phone only households needed to appropriately weight the uninsured oversample.
- The data from the uninsured over sample was then merged back with the data from the general population survey.
- At this point, the survey data was re-weighted using the population counts derived from the analysis of uninsured households in the general population survey component. All households with one or more uninsured residents had new weights calculated. The weights for households without uninsured residents not adjusted during this process; the weights were those calculated during the GPS weighting.

The initial process of weighting the GPS component of the survey involved two primary phases: Design weights and raking weighting adjustments.

Given that the survey relied on a dual frame RDD design, Market Decisions consulted with our sampling firm, Marketing Systems Group to determine the appropriate weighting methodology. Based on these discussions, Market Decisions developed design weights based on the probability of selection within a frame with an adjustment for those potentially in two frames. Second, Market Decisions incorporated a weighting adjustment for the cell phone only population.

An initial sample weight was assigned to each record in the sample file. This base weight was equal to the inverse of the probability of selecting a number within each of the sampling strata. An adjustment was made to this design weight if there was the possibility they were included in both the land line component and the cell phone component. The final design weight was:

1. Equal to the base weight for those that only had a land line telephone (determined during data collection)
2. Equal to the base weight for those that only had a cell phone (determined during data collection)

3. Equal to twice the base weight for those that had both a land line and a cell phone (determined during data collection)

Raking Weighting Adjustments

The purpose of raking is to standardize the weights so they sum to the actual population within Vermont as well as summing to the population by area, age, gender, race, ethnicity, income, and whether the household was a cell phone only household. Raking adjustments were made by these various demographic characteristics.

Demographic data on population counts was developed from the 2011 population estimates, from the US Census Bureau. The final weighting numbers were based on this estimate of the 2011 population in Vermont. The data for the cell phone only population was provided by Marketing Systems Group which provided estimates of cell phone only households for each Vermont County.

An initial review of survey and census data was conducted to determine the appropriate steps in the weighting process. The general guideline in post-stratification weighting is that no cell should have fewer than 20 cases. The initial post stratification weighting was done in four steps:

- County by percent of residents with cell phone only or landline only/landline plus cell phone.
- Age by gender by region of residence
- Race by region of residence
- Ethnicity by region of residence

The categories used in the weighting adjustments are provided in Table 5.

The initial raking weighting adjustment applied to the data set was an adjustment for the cell phone only population within each county. The next adjustment was age within gender within region. This weight adjusted the survey data to match the population counts by age cohort and gender within each Vermont region. An adjustment factor was calculated within each region by age by gender cell:

$$Adj(AS) = AS(area - census - actual)/AS(area - survey)$$

Where:

- Adj(AS) was the age cohort by gender weighting adjustment within each region
- AS (area - census– actual) was the actual population within a specific region by age cohort by gender cell
- AS (area – survey) was the weighted survey counts within a specific region by age cohort by gender cell (weighted by final family weight)

Adjustments were made to this initial person level weight to adjust for the actual number of residents by race and then ethnicity.

Since the application of any weighting adjustment to the initial person level weight causes the age/gender/county survey counts to vary, a process called raking was utilized. That is, once the race, ethnic origin weighting adjustments were applied, the survey counts of for the cell phone only population as well and the age by gender by region did not match the actual population counts. The raking process alternates making weighting adjustments by variables for which there are only marginal counts (for example weighting by age/gender/region and then by race) by making alternating adjustments. Thus, the initial person level weight was adjusted by the percent of residents with only a cell phone, age by gender by region, race, and then ethnic origin all in separate adjustments. Once all of these adjustments were made, the process was repeated again, beginning with the initial adjustment for residents with access to a cell phone and then age by gender by region, by race, and again by ethnicity.

The raking process was repeated until the weighting adjustments converged and the weighted counts matched the state demographic profile by age, gender, county of residence, race, ethnic origin, and the presence of cell phone only households.

Table 5. Variables Used in Raking Weighting Adjustments

County

County
Addison
Bennington
Caledonia
Chittenden
Essex
Franklin
Grand Isle
Lamoille
Orange
Orleans
Rutland
Washington
Windham
Windsor

Area (region for age and gender adjustments)

Area
Addison and Washington
Bennington and Windham
Caledonia Essex and Orange
Chittenden and Grand Isle
Franklin Lamoille and Orleans
Rutland
Windsor

Table 5. Variables Used in Raking Weighting Adjustments
(continued)

Area (region for race and ethnicity adjustments)

Burlington Area
Northeast VT
Southwest VT
Southeast VT

Age

0 - 17
18-24
25-34
35 - 49
50 - 64
65+

Gender

Female
Male

Ethnic Origin

Hispanic
Non-Hispanic

Race (based on primary race)

White
Other Race

Cell Phone Only Adjustment

Household with only a cell phone
Household with only a land line or both a cell phone and land line

Post Stratification Weighting Adjustments for Enrollment in Medicaid and Other State Sponsored Programs

An issue that is common in all studies that try to measure health insurance coverage is that the population enrolled in Medicaid and other state health insurance programs is generally undercounted. There are a number of reasons that might account for this, such as a greater difficulty in reaching these populations given their lower incomes and reluctance among some respondents to report enrollment in such programs. This is often referred to as a response driven by social desirability. Among many people there may be a sense of embarrassment associated with enrollment in a state sponsored health program. Another aspect is confusion of state

sponsored insurance programs with Medicare or private insurance. Survey design elements were incorporated to identify cases where there was potential confusion.

In order to determine the potential for an undercount of Medicaid in the survey data, an analysis was undertaken using available administrative data on program enrollees. Based on administrative data, approximately 136,000 residents were enrolled in Medicaid, VHAP, or Dr. Dynasaur. After post-stratification weighting, the survey estimate of the population enrolled in these state health insurance programs was approximately 112,000 Vermont Residents. This represents an undercount of 19%.

Given this undercount, post stratification weighting adjustments were recalculated to adjust for the undercount of enrollees in Medicaid and other state sponsored health insurance programs. These adjustments were based on the number of enrollees calculated from the administrative records. A post-stratification weighting adjustment was made by program by age by gender to correct for this undercount. The adjustments were made within each of the four original sampling strata (Burlington Area, Northeast VT, Southwest VT, Southeast VT). The weighting cells for each region are defined in Table 6.

Table 6. Weighting Cells for Medicaid Weighting Adjustments

Program	Gender	Age Categories
Medicaid	Male	0-17, 18-34, 45-64, 65+
Medicaid	Female	0-17, 18-34, 45-64, 65+
Dr. Dynasaur	Male	0-9, 10-17
Dr. Dynasaur	Female	0-9, 10-17
VHAP	Male	18-34, 45+
VHAP	Female	18-34, 45+

This Medicaid weighting adjustment was then included in the raking process with the five other weighting adjustments so that a total of five adjustments were made during the raking process:

- County by percent of residents with cell phone only or landline only/landline plus cell phone.
- Age by gender by region of residence
- Race by region of residence
- Ethnicity by region of residence
- Medicaid program enrollment by age by gender by region

The raking process was repeated until the weighting adjustments converged and the weighted counts matched the state demographic profile by age, gender, county of residence, race, ethnic origin, the presence of cell phone only households <u>as well as enrollment in a Medicaid program</u>.

Post Stratification Weighting Adjustments for the Households with One or More Uninsured Residents

The same basic strategies were used to weight the uninsured over sample as were used in weighting the GPS component of the data. The primary difference is that the population counts for the weighting were derived from an analysis of the uninsured households in the GSP component of the survey since this data provided the most accurate population estimates for the characteristics of uninsured households in Vermont and their residents.

In the case of post stratification weighting, the goal was to weight the data to allow results to be generalized not only to the uninsured population of Vermont but also to match the characteristics of all households with at least one uninsured resident. Since a household may contain both uninsured and insured residents, weighting adjustment were made to all residents in households with one or more uninsured residents. This was done to allow analysis of household and family level characteristics of those Vermont residences with one or more uninsured residents.

The first step in the post stratification weighting process was to develop population based estimates of uninsured residents and others residing in their households. These population estimates were derived by using the GPS component of the data to develop a profile of households with at least one uninsured resident and the demographic characteristics of all residents in these households (regardless of whether or not they had health insurance). An analysis was conducted to determine estimates of population counts for households with one or more uninsured residents based upon health insurance coverage, gender, age, race, ethnicity county of residence, the whether they were a cell phone only household. These counts were then used as estimates of the population in developing final post stratification weighting adjustments.

The second step was to identify all households in the data set with at least one uninsured residents. This includes households whose data was gathered during the GPS component of the research as well as the uninsured over sample. All such households were flagged in preparation for the development of the post stratification weights.

In order to develop weighting cells in which there were at least 20 cases, it was necessary to collapse some of the areas used when weighting the GPS data. Otherwise, the weighting cells and process remained the same. The uninsured household post stratification weighting was done in four steps:

- Insurance coverage type (private, Medicare, state health insurance program, military, uninsured)
- Age by gender
- County of residence
- Cell phone only household by sample region

The uninsured raking weighting adjustment followed the same process as the GPS. The weighting adjustments were applied in sequence. The process of raking then repeated itself until the weighted survey counts converged with the estimated population counts in uninsured households by type of insurance coverage, age, gender, county, and whether the household was a cell phone only household.

Population Size Reflected in the Final Data Set

The weighted data set is designed to provide data that can be generalized to the population of Vermont and to allow statements to be made about the state as a whole as well as for various sub-populations with a known standard error and confidence. The population size reflected in the final data set is the total population of Vermont, or 626,431residents.

The weighted data set is also designed to provide data that can be generalized to the uninsured population of Vermont and to allow statements to be made about the uninsured residents as well as the household in which they reside. The population size reflected in the final data set is the estimated uninsured population of Vermont, or 42,760 uninsured residents. The final data set also contains data on residents with insurance that reside in households with at least one uninsured member.

X. Precision

The determination of precision in surveys of this nature is more involved because of the combination of a general population component as well as an over sample component and also within this geographic sampling strata as well as incorporating a cell phone sample. Another factor is that data was gathered from all household members rather than a randomly selected household member (a cluster sample design). The sampling approach introduces design effects into the survey process that must be taken into account when calculating the final sampling errors for the study. The design effect can be thought of as the impact of the sample design in terms of the departure from what would be expected from simple random sample of the same size. The design of the sample introduces a design effect because the probabilities of selection are not the same in the general population sample and the over sample, are not the same in the GPS sample strata, and are not the same between the land line sample and cell phone sample. For example, there was a greater probability that a household may be selected in some parts of the state that in others. The second component of the design effect arises from the rostered nature of the data collection process. That is, the data collection process relied on contacting households and obtaining information about all household members rather than contacting households and gathering data about only one randomly selected household member. This is referred to as the design effect due to intracluster correlation. The reason for the effect is that members of the same household share a number of similar characteristics. For example, all members of a family are likely either all insured on not insured.

In order to accurately report sampling error, it is important to incorporate the overall design effect into sampling error calculations. The standard formula for calculating sampling error is derived by assigning a confidence level to the standard error (for a proportion), typically 95%. At 95%, the sampling error is considered to be the standard error multiplied by 1.96:

$$\textbf{Sampling Error (95\% confidence)} = \underline{+}\textbf{1.96*}\sqrt{\textbf{((p*(1-p))/n)}}$$

Where p is the observed proportion in the sample and n is the number of completed surveys. In calculating sampling error, p is always set to 50%, which results in the most conservative measure of sampling error. In the case of the 2012 Vermont Household Health Insurance Survey, the sampling error calculations were adjusted by the design effect:

$$\textbf{Sampling Error (95\% confidence)} = \underline{+}\textbf{1.96*}\sqrt{\textbf{[((p*(1-p))/n)*deff]}}$$

Where deff is the product of the design effect due to stratification, the design effect due to intracluster correlation, and the design effect of the oversample.

Table 7 provides a summary of the sampling errors for the state as a whole as well as the margin of error attributed to the estimated percentage of residents without health insurance (6.8%). Both reported sampling errors include design effect adjustments.

Table 7. Precision for the 2012 Vermont Health Insurance Survey

Area/Group	Precision (+/-)
State (GPS Survey)	1.2%
Uninsured Residents	0.6%

Analysis of the 2012 Vermont Household Health Insurance Survey Data

Point estimates from the data set can be obtained using any standard analytical program. Point estimates represent elements such as the percentage of respondents answering "yes" to a question or the mean value. The nature of the survey and sampling process, however, does introduce design effects into the process that typical analytical programs do not take into account. The design effect of the sampling process has an effect on estimates that involve variance, such as the calculation of confidence intervals. In order to calculate these statistics accurately, the use of software specifically designed to analyze data gathered using complex sampling methodologies is required.   Market Decisions uses SUDAAN software from RTI International for all analysis of correlated and weighted data. The use of analytical packages not tailored to analysis of correlated data will underestimate variance of the sample and provide misleading survey results.

In this study, sample design effects arise from three sources:

- Sample stratification (in this case general population and uninsured over sample strata as well as the separate cell phone sample)
- Intracluster correlation (and cluster based sampling in general)
- Oversampling of sub-populations

Sample stratification impacts the probability of selection of a given household. That is, the probability that a household would be selected differed between the general population component and the uninsured over sample component of this research.

The intracluster correlation is the relationship between those within a Primary Sampling Unit (PSU). In this case, the PSU is the household (within each household data was collected on each member). The intracluster correlation impacts precision because of the similarity of members within a PSU. That is, members of the same household will tend to have attributes in common, such as where they live, whether they are covered by insurance and so on. In analytical terms it means that the "value" gained by adding another person within the same household is less than that of adding a randomly selected individual from among the entire population.

Finally, over sampling impacts precision because certain groups are preferentially selected over others. The overall design effect is the product of these factors.

Estimates of precision reported in table 7 were calculated using SUDAAN. These estimates are based on the standard errors at 95% confidence and take into account the design effects of the sampling process.

To aid in future analysis of this data, a sample SUDAAN program is included below. The key components for analysis (in SUDAAN) are:

1. Setting the design effect parameter as DEFT1 (stratification, clustering, and over sample).

2. For the nest command,

    - The strata variable is FSTRATA (Sample Strata)
    - The PSU variable is IDNEW (household ID).

3. For the weight, the person level weight is finalwt when analyzing data from the data set. This weight can be used to analyze data from the general population survey AND the uninsured over sample.

4. Use design effects estimator to account for sample stratification, clustering, and over sample.

```
PROC CROSSTAB DATA="TYPE IN FILENAME HERE"
FILETYPE=SPECIFY TYPE OF FILE
DESIGN=WR DEFT1;
NEST FSTRATA IDNEW;
WEIGHT Finalwt;
SUBGROUP gend01x;
LEVELS 2;
TABLES gend01x;
SETENV PAGESIZE=55 LINESIZE=78 COLWIDTH=8 DECWIDTH=4 LABWIDTH=20
LEFTMGN=2 COLSPCE=1;
PRINT NSUM="SAMPLE SIZE"
      WSUM="WEIGHTED SIZE"
      COLPER="Column Percent"
      TOTPER="Total Percent"
      SECOL="SE Col %"
      SETOT="SE Tot %"
      DEFFCOL="DE COL"
     /STYLE=NCHS
      NSUMFMT=F6.0 WSUMFMT=F8.0;
```

Appendices

Appendix 1. Mail Screening Survey

VERMONT

State of Vermont
Department of Financial Regulation
89 Main Street
Montpelier, VT 05620-3101
www.dfr.vermont.gov

For consumer assistance
[All Insurance]   800-964-1784
[Securities]   877-550-3907
[Banking]   888-568-4547

Dear Vermont Resident:

I am writing to ask for your participation in an important study about health insurance in Vermont.

The Insurance Division of the Department of Financial Regulation is conducting a survey to gain information about how many Vermonters have health insurance. We also want to gather more information about Vermonters who do <u>not</u> have health insurance. The Insurance Division regulates and monitors many parts of Vermont's health care system including insurance companies.

Market Decisions is conducting this important health insurance survey under a contract with the state of Vermont. **Your information is strictly confidential.** Your answers will be combined with those of others so that you cannot be identified. Your participation in this study is important since you represent other Vermonters in your community.

There are a few questions about your household on the back of this letter. This information will help us understand more about the health insurance coverage in Vermont. We would appreciate it if the person who is most familiar with health insurance coverage in your household would answer these questions. Please place this letter with your answers in the business reply mail envelope and return it to Market Decisions. The postage is already paid.

We may contact your household by telephone to ask additional questions. This will be within the next few weeks. Again, we would greatly appreciate your participation in this important study.

If you want to verify or learn more about the study you can contact Dr. Brian Robertson of Market Decisions at 1-800-293-1538 ext. 102 or Sarah Lindberg of the Vermont Insurance Division at 802-828-1978.

Thank you again for your assistance with this important study.

Sincerely,

Stephen W. Kimbell
Commissioner

Banking	Insurance	Captive Insurance	Securities	Health Care Admin
802-828-3307	*802-828-3301*	*802-828-3304*	*802-828-3420*	*802-828-2900*

MARKET DECISIONS
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Please answer these few questions about your household by placing a check or "x" in the appropriate box.

1. Is this a private residence where SOMEONE lives at least 6 months of the year?

☐ YES   ☐ NO

Please think about the definition of health insurance and types of health insurance programs described below before answering the next question.

Health insurance includes any program or insurance plan that pays any part of hospital or doctor bills. This includes Medicare, Medicaid, VHAP, Dr. Dynasaur, and insurance you might get through an employer or pay for yourself. This includes insurance offered by Blue Cross Blue Shield, MVP, CIGNA or other companies. It also includes health insurance you may receive through the military or as a veteran.

Medicare is a NATIONAL health insurance program for people 65 years and older and for certain people with disabilities.

Medicaid pays for medical care for adults with lower incomes who are caretakers for children, are aged, or have a disability. **Dr. Dynasaur** is a state program that pays for medical care for children under 18 or pregnant women. **VHAP or The Vermont Health Access Plan** pays for medical care for adults with incomes below a certain level.

People in your household may be covered by different types of health insurance.

2. Is <u>EVERYONE</u> who lives in this household covered by <u>some</u> type of health insurance? Please include yourself, other adults and any children living in the household.

	Yes, Everyone who lives in this household has some type of health insurance.
	Some people in this household are covered by health insurance but there are others who are not.
	No one in this household has health insurance.

3. If there is ANYONE in the household that you are unsure whether or not they have health insurance please check the box below:

I am unsure about the health insurance coverage of someone in this household.

Please place this letter in the postage paid envelope provided and mail to:
Market Decisions, P.O. Box 1240, Portland, ME 04104

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Appendix 2. Survey Instrument

Vermont Household Health Insurance Survey FINAL (9/18/2012)

Prepared for:
Department of Financial Regulation
Insurance Division

Prepared by:
Dr. Brian Robertson
Dr. Jason Maurice
Patrick Madden

Survey Introduction

Lead in Statement

Hello, I'm _____ calling for the Vermont Department of Financial Regulation, Insurance Division. We are doing an important study to learn about health insurance coverage in Vermont. Let me assure you that this is not a sales call, will you help us?
First, is this a residence?

INTS READ AS NEEDED: Your participation counts for a lot because you represent many others in your community. Your information is strictly confidential. This is not a sales call.

Interviewer persuader statement

We are doing this study on behalf of the Vermont Department of Financial Regulation, Insurance Division. to help the state learn more about the health insurance coverage of Vermont residents.

Your interview will count for a lot because your household represents many others in your community. For our results to be valid and useful, it is very important that we interview the people we select.

The study should take less than 20 minutes, depending on the size of your household. Your telephone number was randomly generated by a computer program.

All of the information you provide will be kept strictly confidential. Your answers will be combined with those of others WITHOUT your name or phone number.

If you would like to find out more about our study, you can call Dr. Brian Robertson of Market Decisions at 1-800-293-1538 ext 102 between 8 AM and 5 PM or Sarah Lindberg of the Vermont Department of Financial Regulation at 802-828-1978 or you can leave a voice mail message after hours.

Survey Sections

Household Level Information

1. In which Vermont county is your home located?

2. In which Vermont town or city is your household located?

3. What is your zip code?

4. How many years have you lived in Vermont?

5. Do you or any other member of the household have a cell phone/landline phone?

6. Now I need to find out how many people live in your household. This includes family, boarders, roommates and anyone else who lives there most of the year. Including yourself, how many people are in your household?

Person Level Demographics

1. Please tell me your name/the name of the next member of the household.

2. Is PERSON male or female?

3. And PERSON's age on her/his/your last birthday? (IF THEY REFUSE: ASK FOLLOWUP WITH AGE CATEGORIES)

4. Marital Status

5. What is the highest grade in school that PERSON has completed?

6. Is PERSON a full-time high school or college student? (asked of those 18 to 26)

7. Is PERSON Hispanic or Latino?

8. Which of the following would you say is PERSON's race?

Family Unit Formation

1. What is PERSON's relationship to HEAD OF HOUSEHOLD?

2. Is PERSON married to anyone who currently lives here or to someone outside the household?

3. Is anyone living here the parent or guardian of PERSON?

4. Who in the household is the main person taking care of PERSON?

Insurance Coverage

The next questions will be about health insurance. By this I mean any program or plan that pays any part of hospital and doctor bills. For example, Medicare or Medicaid programs including VHAP, or Dr. Dynasaur.

1. Is PERSON covered by ANY type of health insurance? IF YES ASK: Which of the following types of insurance is this person covered by?

   - Private health insurance (such as thru Employer, Blue Cross, MVP, Cigna, Catamount Health)
   - Medicare
   - Medicaid
   - Dr. Dynasaur
   - Vermont Health Access Program or VHAP
   - Military, Veterans, or TRICARE (formally known as CHAMPUS)
   - Some other type of insurance? (SPECIFY)
   - CATAMOUNT HEALTH
   - GREEN MOUNTAIN CARE
   - THROUGH THE STATE (BUT NOT AS STATE EMPLOYEE)
   - SSI/SSDI/WELFARE/DISABILITY
   - NO INSURANCE COVERAGE
   - DK/REF

2. VERIFICATION FOR THOSE THAT ARE UNINSURED: You indicated that PERSON is not covered by health insurance, is this correct?

3. SOURCE OF CARE FOLLOWUP FOR THE UNINSURED: Does anyone else pay for PERSON's bills when they seek medical care?

Insurance Coverage Verifications:

4. ASK OF THOSE INDICATING THEY RECEIVE INSURANCE THROUGH SSI, THROUGH THE STATE, THROUGH WELFARE, OR THROUGH DISABILITY: How did PERSON apply for or receive health insurance through the state?

5. ASK OF THOSE INDICATING THEY RECEIVE INSURANCE THROUGH GREEN MOUNTAIN CARE: Currently, Green Mountain Care is a family of low-cost and free health coverage programs for Vermonters and is offered by the state of Vermont and its partners. Green Mountain Care provides uninsured Vermonters with access to quality, comprehensive health care coverage at a reasonable cost. It is a program that is run by the state of Vermont. Some of the programs include Medicaid, Dr. Dynasaur, and Vermont Health Access Plan (VHAP) and others such as the CURRENT Catamount Health which includes Premium Assistance and Employer-Sponsored Insurance (ESI) Premium Assistance.

    Do you know the specific program in which PERSON is enrolled? (IF YES: Which program?)

6. I noticed that PERSON is 65 or older and you indicated this person was NOT covered by Medicare. Is this correct?

7. FOR THOSE 65+ THAT INDICATE PRIVATE HEALTH INSURANCE COVERAGE: You indicated PERSON is covered by private insurance. Is this private insurance policy a PRIVATE Medicare supplement or Medicare Advantage Plan such as those offered by AARP that help cover expenses not paid by your Medicare, OR is this a separate private health insurance plan?

    PROMPT: Instances of private health insurance plans that ARE NOT Medicare supplements include those that you may receive if you are still working or receive from your employer as a part of your retirement.

8. ASK OF THOSE YOUNGER THAN 65 AND INDICATING MEDICARE COVERAGE: Just to verify, is PERSON covered by national MEDICARE, or are they covered through the state's MEDICAID program which also includes VHAP and Dr. Dynasaur or both Medicaid AND Medicare?

9. ASK OF THOSE 65+ AND INDICATING MEDICAID COVERAGE: Just to verify, is PERESON covered by the STATE MEDICAID program including VHAP or are they covered through the NATIONAL MEDICARE program for those 65 and older, or by both MEDICAID and MEDICARE?

10. ASK OF THOSE 65+ WITH MEDICARE: Does PERSON have a PRIVATE Medicare supplement of Medicare Advantage Plan such those offered by AARP, United Health Care, or Blue Cross Blue Shield, or other plans to help cover expenses not paid by Medicare?

Private Insurance and Medicare Supplement Follow-up (Asked of those with private insurance)

1. Are the people you indicated above as covered by private insurance ALL covered under the SAME health insurance plan?

2. Next, I need to know which members of the household are covered by each of these private health insurance plans. Who is covered under PERSON's policy?

3. Is PERSON's HEALTH INSURANCE provided through Blue Cross Blue Shield, MVP, CIGNA, The Vermont Health Plan, or some other company or employer plan?

4. ASK OF THOSE WITH BLUE CROSS OR MVP: Is this insurance provided through Vermont's Catamount Health Program?

5. Is PERSON's plan provided through YOUR OR SOMEONE ELSE'S EMPLOYER?

6. IF NOT ESI: Is PERSON's insurance provided by COBRA or a former employer, a retirement plan, a school, college, or university, or was the plan purchased directly or the premium paid out of pocket?

7. Does PERSON's health insurance plan cover at least some of the costs of prescription drugs?

8. What is the monthly premium paid for PERSON's health insurance? Has the amount paid in premiums increased during the past year?

9. How much is the deductible for everyone covered under this health insurance? This is the amount you must pay every year for medical care BEFORE the insurance begins to pay the bills. Please do not include premium expenses.

10. Has the amount of PERSON's deductible increased during the past year?

11. Does PERSON have a Health Savings Account or HSA?

12. IF HAVE HSA: How much did PERSON contribute to their HSA account during the past 12 months?

13. IF HAVE HSA: How much did PERSON's employer contribute to their HSA account during the past 12 months?

14. For these next questions, I would like to know how you would rate the quality of the health insurance coverage under PERSON's private health insurance. How would you rate the choice of doctors and other providers available?

15. How would you rate the range of services covered by PERSON's current health insurance coverage?

16. How would you rate the quality of care available?

17. Please tell me how much you agree or disagree with the following statement. I think that the amount PERSON pays for a monthly premium is reasonable.

State Health Insurance Follow-up

1. Is anyone in your family also receiving benefits from SSI, a program for the aged, blind or disabled?

2. For these next questions, please think about the household members that are currently covered by VHAP, Dr. Dynasaur or other state sponsored health insurance programs, such as Medicaid. If state sponsored health insurance programs were no longer available for members of your household, would they be able to get private health insurance coverage?

3. How easy was it to enroll in VHAP, Dr. Dynasaur or Medicaid? IF DIFFICULT: Why do you say that? What could have been done to make the enrollment process easier?

4. Has your household experienced any problems since they have been enrolled? IF YES: What were these problems?

5. For these next questions, I would like to know how you would rate the quality of the health insurance coverage provided by state health insurance programs. How would you rate the choice of doctors and other providers available?

6. How would you rate the range of services covered by these state health insurance programs?

7. How would you rate the quality of care available?

8. Please tell me how much you agree or disagree with the following statement. I think that the monthly premium paid for state health insurance coverage is reasonable.

9. For these next questions, I would like to know how you would rate the quality of the health insurance coverage provided by MEDICARE. Please think about those in the household that are enrolled in Medicare and receive health care services. How would you rate the choice of doctors and other providers available?

10. How would you rate the range of services covered by MEDICARE?

11. How would you rate the quality of care available?

12. Please tell me how much you agree or disagree with the following statement. I think that the monthly premium paid for MEDICARE coverage is reasonable.

13. For these next questions, I would like to know how you would rate the quality of the health insurance coverage provided through Military, Veterans, or TRICARE insurance. How would you rate the choice of doctors and other providers available?

14. How would you rate the range of services covered these military insurance programs?

15. How would you rate the quality of care available?

16. Please tell me how much you agree or disagree with the following statement. I think that the monthly premium paid for military health insurance coverage is reasonable.

Questions of Those Who Are UNINSURED

1. How long have/has PERSON been without health insurance coverage?

2. How does cost rate as the reason why PERSON is not currently covered by insurance?

3. What are the main reasons that PERSON is not currently covered by any government or private health insurance plan?

4. Next, I am going to read some possible reasons why PERSON may no longer have health insurance coverage. Is this a reason PERSON no longer has health insurance coverage?

    - You or another member of the family lost their job.
    - You or another member of the family are no longer eligible for insurance through their employer because of a reduction in the number of hours they work.
    - An employer stopped offering health insurance coverage to you or another family member.
    - Our family could no longer afford the cost of the premiums for health insurance through an employer for PERSON.
    - PERSON lost their coverage or became ineligible for VHAP, Dr. Dynasaur or Medicaid.

5. Earlier you indicated that PERSON had health insurance coverage during the past 12 months. What type of health insurance coverage did PERSON have?

State Health Insurance Awareness and Knowledge (Asked of households with uninsured members)

1. Next, I would like to ask a few questions about some state sponsored health insurance programs that provide health insurance benefits through the state of Vermont.

   - How knowledgeable are you about Medicaid
   - How knowledgeable are you about the Vermont Health Access Program or VHAP?
   - How knowledgeable are you about Dr. Dynasaur?
   - How knowledgeable are you about Green Mountain Care?
   - How knowledgeable are you about employer sponsored insurance premium assistance?

2. What are the reasons that members of the household have not enrolled in one of the State's Health Insurance Programs?

3. There are certain requirements based on age and income for eligibility to enroll in VHAP or Dr. Dynasaur. If the uninsured members of your household were eligible to enroll in VHAP or Dr. Dynasaur, how much interest would there be in enrolling them?

4. How likely would the uninsured members of the household be to enroll in a private health insurance plan if there was a program to help pay monthly insurance premiums?

Green Mountain Care Health Follow-ups

Next I would like to ask you about possible reasons why the uninsured residents in the household have not enrolled in the State's Health Insurance Programs. Please tell me whether each of the following is a major reason, a minor reason, or not a reason at all.

- I don't think we would be eligible for it because our employer offers health insurance.
- I don't think we would be eligible because my household makes too much money.
- We would be concerned about being able to see the doctors or health care providers I want to.
- Our household wouldn't want to be receiving government assistance.
- The uninsured members of our household don't really need health insurance coverage.
- Our household would worry that the costs would be too high.
- I would be concerned about the quality of care.
- I would be concerned that health care professionals would treat me or my family differently.

Health Insurance Exchange Awareness

1. In the year 2014, individuals and small businesses in Vermont will be able to buy health insurance in the Vermont Health Benefit Exchange. The Exchange will allow Vermonters to search for health insurance plans and compare their benefits and prices. Have you heard anything yet about this Exchange?

2. Which offering of the health insurance exchange is most important to you and your family?

3. Would you feel confident signing up for a health insurance plan online?

4. How likely are you to look for information regarding the Exchange when it is available?

Interruptions in Coverage

1. Has PERSON been without coverage anytime in the last 12 months?

2. APPROXIMATELY how many of the past 12 months was PERSON WITHOUT health insurance coverage? This can be from 1-12 months.

3. Why was PERSON without coverage?

4. How long has PERSON been covered under their CURRENT health insurance?

5. IF LESS THAN 12 MONTHS: What type of health insurance coverage did PERSON have prior to their current coverage during the past 12 months?

6. Why did PERSON change health insurance coverage?

7. During your gap in coverage did you… Think about applying for state sponsored health insurance, apply for state sponsored health insurance, NEITHER.

Concerns About Loss of Coverage

1. Are you concerned that anyone in your household may lose coverage within the next 12 months?

2. What are the reasons that there is a risk for losing health insurance coverage within the next 12 months?

Dental and Vision Insurance

1. Is anyone now covered by an insurance plan that pays for routine dental care, such as cleanings and fillings?

2. Is anyone now covered by an insurance plan that pays for routine vision care, including regular eye exams?

Medical Expenses and Health Care Barriers

1. Over the last 12 months, about how much has your household had to pay OUT OF POCKET for:

   PROMPT: Out of pocket expenses are the amount of money paid that is NOT covered by any insurance or special assistance you might have. It DOES NOT include the premium you may pay for your insurance coverage.

   - Your family's prescription medications.
   - Dental and Vision care.
   - All OTHER medical expenses, including for doctors, hospitals, and tests. This would include common medical expenses such as over the counter medications, first aid materials, and so on.

2. During the past 12 months, was there any time when anyone in the household needed any of the following but didn't get it because they could not afford it:

   - Medical care from a doctor or surgery?
   - Mental health care or counseling?
   - Dental care including checkups?
   - A diagnostic test such as a CAT scan, MRI, lab work, or x-ray that was recommended by a doctor or other care provider?
   - Prescription Medicines?

3. During the past 12 months, was there any time that you or anyone in the household skipped doses or took smaller amounts of their prescription drugs to make them last longer?

4. During the past 12 months, did anyone in the household receive any medical bill for more than $500 that had to be paid out-of-pocket?

5. During the past 12 months, were there times that there were problems paying for medical bills for anyone in your household?

6. In the past 12 months, was anyone in your family contacted by a collection agency about owing money for unpaid medical bills?

7. To what extent are you concerned about being able to afford prescription medicines?

8. Has anyone in the household ever delayed or not gotten PHYSICAL OR MENTAL HEALTH care because they could not find a doctor or other health care provider or a healthcare provider was not available at the time they needed care? (What type of care?)

9. Has anyone in your household ever delayed or not gotten PHYSICAL OR MENTAL health care because they could not find or did not know a doctor or other health care provider who accepts Medicaid/VHAP/Dr. Dynasaur? (What type of care?)

10. Has anyone in your household ever delayed or not gotten PHYSICAL OR MENTAL health care because they could not find or did not know a doctor or other health care provider who accepts Military insurance or Tricare? (What type of care?)

11. Has anyone in your household ever delayed or not gotten PHYSICAL OR MENTAL health care because they could not find or did not know a doctor or other health care provider who accepts Medicare? (What type of care?)

12. Has anyone in your household ever delayed or not gotten PHYSICAL OR MENTAL health care because they could not find or did not know a doctor or other health care provider who accepts PRIVATE health insurance? (What type of care?)

Doctor Visits and Point of Medical Care

1. How many times did PERSON see a doctor or health care provider during the past 12 months?

2. How many of those visits were for strictly routine check-ups, that is, when PERSON was not sick?

3. Is there a place that PERSON usually goes when you/he/she is sick or needs medical attention?

4. What kind of place does PERSON go most often?

5. Is this the same place PERSON usually goes when you/he/she needs routine or preventive care, such as a regular check-up/well baby check-up?

6. What kind of place does PERSON usually go when you/he/she needs routine or preventive care, such as a check-up?

7. Next, I'm going to read you a list of problems some people experience when they try to get health care. Please tell me if you have had any of the following problems during the past 12 months

- You were told by a doctor's office or clinic that they weren't accepting patients with your type of health insurance
- You were told by a doctor's office or clinic that they weren't accepting new patients
- You had to change to a new doctor's office or clinic because of a change in your health insurance plan
- You were unable to get an appointment at the doctor's office as soon as you thought one was needed.
- You were unable to get an appointment at the doctor's office at a convenient time
- Was there any other reason you experience problems (SPECIFY)

8. DURING THE PAST 12 MONTHS, did PERSON or anyone in the household seek medical care in a hospital emergency room for any reason?

9. I'm going to read you a list of reasons why some people go to the emergency room. Please tell me if any of these were important reasons for PERSON's last visit to a hospital emergency room.

- They were so ill that they needed immediate medical attention
- They had an injury that needed immediate medical attention
- We were unable to get an appointment at a doctor's office as soon as needed
- They needed care after normal hours at the doctor's office or clinic
- The family owed money to the doctor's office or clinic
- It was more convenient to go to the hospital emergency room
- The doctor's office or clinic told them to go to the emergency room
- Some other reason? (SPECIFY)

General Health Status and Chronic Conditions

1. Would you say PERSON's health, in general, is…?

2. Is anyone LIMITED IN ANY WAY in any activities because of physical, mental or emotional problems?

Employment

1. Is PERSON working, keeping house, going to school, or something else?

2. Does PERSON typically work for pay?

3. What is the total number of hours PERSON usually works per week?

4. What kind of work does PERSON do?/What are PERSON's most important activities or duties?

5. On this job, is PERSON employed by a private company or business, a government agency, on active military duty, self-employed, working in a family business or farm, or something else?

6. Is this company a manufacturing company, a retail company, a company that provides services, or something else?

7. Do/Does PERSON work for the federal government, state government, or local government such as a county or city, or a public school or college?

8. About how many people are employed by this employer, at all locations?

9. Did PERSON miss any work time within the last 2 weeks in order to deal with his/her/your own health problems or the health problems of someone else?

10. IF YES: Which person in the household had the medical problem or was it someone outside the household?

11. IF YES: Approximately how many hours of work did PERSON miss?

Employer Sponsored Insurance (Asked of those who do not currently have health insurance through their employer)

1. Next, I am going to ask a few questions about health insurance that may be offered by the employers of those living in the household. Does PERSON's employer or labor union offer health insurance coverage?

2. Does the health insurance offered through PERSON's employer or labor union also provide an option to include coverage for PERSON's spouse?

3. Does the health insurance offered through PERSON's employer or labor union also provide an option to include coverage for PERSON's child dependents?

4. Why was health insurance coverage not taken?

5. Next, I am going to read some possible reasons why PERSON may not have coverage through his/her employer or labor union. For each let me know if this is a reason why PERSON did not enroll in his/her employer's health insurance plan.

    - PERSON has not worked for his/her employer long enough to qualify for health insurance benefits.
    - PERSON works too few hours to qualify for health insurance benefits.
    - The health insurance offered through PERSON's employer costs too much.
    - The health insurance offered through PERSON's employer does not meet PERSON's needs in terms of what type of health care is covered.

6. If PERSON had the option, how likely would PERSON be to enroll in his/her employer's health insurance plan? (IF SOMEWHAT LIKELY TO NOT AT ALL LIKELY ASK: Why is this?)

7. For those who qualify, the state of Vermont offers financial assistance to help pay for an employee's portion of monthly premiums associated with an employer's health insurance plan through the Catamount Health program. If PERSON had the option to enroll in the premium assistance program, how likely would PERSON be to enroll in their employer's health insurance plan?

8. You indicated that PERSON currently has private health insurance through his/her employer. Why is PERSON's spouse not covered under this health insurance plan?

9. You indicated that PERSON currently has private health insurance through his/her employer. Why are PERSON's children not covered under this health insurance plan?

Family Income (Questions will be asked for each identified family unit)

1. The next questions are about income that your FAMILY received during 2011. During the entire year of 2011, what was the total income for THIS FAMILY before taxes, including money from jobs, investments, social security, retirement income, child support, unemployment payments, public assistance, and so on?

2. IF REFUSE OR DK: It is important to understand incomes so we can better understand insurance coverage and concerns about insurance. Which of the following income ranges is closest to your family's 2011 total income from all sources?

Permission to Re-contact Household in the Future

In the future, the State of Vermont may be interested in gathering more information on health insurance issues. May we contact you again in the future on some of these issues?

Closing

That is the conclusion of this interview for your family.

If you would like more information about state health insurance programs for the uninsured, you can visit the Green Mountain Care website at www.greenmountaincare.org or reach them by telephone at 1-800-250-8427

Thanks again and good-bye.

Appendix 3. Survey Pretest Report

MARKET DECISIONS
RESEARCH • INSIGHT • STRATEGY

Survey Pretest

Vermont Division of Health

Vermont Health Insurance Survey

Prepared for:

Vermont Division of Health

September 2012

Prepared by:
Brian Robertson, Ph.D.
Jason Maurice, Ph.D.

Vermont Health Insurance Survey Pretest Survey Results

The pretest survey involved conducting live interviews with randomly selected Vermont residents to evaluate the functioning of the survey instrument. The respondents were asked to go through the survey and answer the questions. During the interview respondents are encouraged to comment on the survey questions regarding comprehension, effort to complete the survey, and any other suggestion they may have. Interviewers are also asked upon completion of the interview, to note instances where they felt that the respondent was confused, instances where there was some hesitancy in answering survey questions, the general tone of the respondent, and their respondent's reaction to the survey.

Respondent and interviewer comments are then reviewed by Dr. Robertson.

The pretest of the 2012 Vermont Health Insurance survey took place between August 30 and September 10, 2012. A total of 114 interviews were completed with Vermont residents. These interviews included

- 25 interviews with households with children
- 83 interviews with households in which at least one person was privately insured.
- 23 interviews with households in which at least one person was on state sponsored health insurance.
- 5 interviews with households in which at least one person was uninsured.

Pretest households ranged in size from 1 to 8 persons. On average, the pretest survey required 16 minutes to administer.

Recommendations

Based on the pretest, the survey instrument functioned as expected. Respondents did not express confusion or problems answering any of the previously used OR newly added questions. Surveys ran smoothly and interviewers did not note any confusion or hesitation on the respondents' part during the interview.

One potential issue discovered during the course of the pretest is a low number of households with uninsured. This was a pretest and skewed older than would be found during the regular interviewing, thus more households were covered by Medicare and the household uninsured rate was less than 5%. We would expect during regular interviewing where we would have a larger team of interviewers calling across a wider time span the uninsured rate would increase; however, it may be beneficial to increase calling efficiency for the uninsured over sample to use a pre-notification letter as detailed in the proposal.

As stated in the proposal, a pre-notification letter would serve as a screening tool to identify ineligible households in the uninsured over-sample. Given the small uninsured population in Vermont a pre-notification letter can help screen out households where all members have health insurance.

Market Decisions would recommend the use of a letter rather (accompanied by a business reply mail envelope) to allow a household to denote the insurance status of the members of the household, identifying those households that are ineligible since all members of the household have health insurance. These sample records would be removed from the over-sample in order to make calling more efficient and productive.

It is important to stress that the pre-notification letter would only help to identify those who are ineligible. In order to maintain the statistical properties of the sample, it would be essential to contact all telephone numbers within the generated over-sample UNLESS they were identified through the pre-notification letter as ineligible. That is, one cannot simply contact those returning surveys that identify a household as eligible. Such a process would introduce bias into the sampling process as well as the survey results. However, the use of a pre-notification letter represents an efficient mechanism for identifying ineligible households. This would in turn improve the data collection efficiency among over-sampled households and improve survey response rates among the uninsured over-sample.

If the Vermont Division of Health chooses this course, Market Decisions would recommend that pre-notification letters be sent approximately one week prior to the beginning of data collection for the uninsured over-sample. While we will begin calling on the regular sample immediately upon receiving the go ahead from the Division, it is important that the decision on a pre-notification letter happen very

Appendix 4. Defining Eligibility for the Exchange

Defining Eligibility for the Uninsured and Potential Eligibility for those with Private Health Insurance

Under the guidelines in the Patient Protection and Affordable Care Act (PPACA), uninsured as well as some privately insured residents may be eligible for coverage under the expanded Medicaid program or eligible for some level of premium assistance (tax credits) to assist in purchasing health insurance through the Health Exchange. The new eligibility rules enacted under PPACA extend coverage in Medicaid to most adults with incomes under 139% of FPL (including the 5% income offset). In Vermont, children in families with incomes of 300% of FPL or less would also potentially be eligible for coverage through the state Medicaid program. For those residents that do not meet the income requirements for Medicaid coverage, The PPACA provides tax credits that reduce premium costs. This includes those in families with incomes up to 400% of FPL. Adults in families with incomes between 139% and 400% of FPL (including a 5% income offset) and children in families with incomes between 300% and 400% of FPL who purchase coverage through the Health Insurance Exchange will be eligible for a tax credit to reduce the cost of coverage beginning in 2014.

The amount of the tax credit that a resident can receive will be based on the premium for the second lowest cost silver plan in the Exchange. A silver plan is a plan that provides the essential benefits and has an actuarial value of 70%, that is, the plan pays 70% of the cost of covered benefits. Further, the amount of the tax credit will vary by income. Those with a lower family income that purchase insurance through the Exchange will receive a larger tax credit to offset the cost of the health insurance. The tax credits are designed such that an individual or family will not spend more than a specific percentage of their income on health insurance premiums.

Under the guidelines, people eligible for public coverage and people offered coverage through an employer are not eligible for premium tax credits unless the employer's plan does not have an actuarial value of at least 60% or unless the person's share of the premium for employer-sponsored insurance exceeds 9.5% of income. People that meet the thresholds for unaffordable employer-sponsored insurance are eligible to enroll in a health insurance Exchange and may also receive tax credits (based on their family income) to reduce the cost of coverage purchased through the Exchange.

The PPACA also limits the total amount that people must pay out-of-pocket for cost sharing for essential benefits. Currently, the limits are based on the maximum out-of-pocket limits for Health Savings Account-qualified health plans (currently $6,250 for single coverage and $12,500 for family coverage). These values will be indexed to the Consumer Price Index until 2014 after which out-of-pocket maximums will be indexed to the change in the cost of health insurance.

The tables below provide a summary of these guidelines by family income categories. The first table includes the income thresholds for coverage through the state Medicaid program.   The table also provides the guidelines for the percent of income that would not be exceeded in purchasing through the Exchange (above which tax credits cover the cost) based on the second lowest cost silver plan.

The second table provides the maximum out of pocket limits for cost sharing based on the income of the family.

Maximum Out-of-Pocket Premium Payments Under PPACA

Federal Poverty Level	Maximum Premium under PPACA as a % of Income
Under 139%	Eligible for Medicaid
139% - 149%	3%
150% - 199%	4%
200% - 249%	6.3%
250% - 299%	8.05%
300% - 400%	9.5%
401% or more	No Premium Subsidy

Maximum Out-of-Pocket Health Care Expenses Under PPACA

Income (% of Federal Poverty Level)	Maximum Health Care Expenses Allowed Under PPACA	
	Individual Plan	*Family Plan*
100% - 200%	**$2,017**	**$4,167**
200% - 300%	**$3,125**	**$6,250**
300% - 400%	**$4,167**	**$8,333**
> 400% FPL	**$6,250**	**$12,500**

Using these general monthly premium guidelines, survey data were used to model eligibility for Medicaid or purchasing health insurance through the Exchange among the uninsured. The analyses were based solely on income determinations of eligibility based on self reported family income. They did not factor in other factors that may impact actual eligibility (such as potential access to other health insurance) or impact income which would affect either eligibility for Medicaid or the level of subsidy through purchase through the Exchange (such as additional state based income offsets that would reduce income in making determinations of eligibility).

Survey data were also used to model potential eligibility among those that are currently covered by private health insurance. In order to get better linkage between their current private health insurance coverage and their potential eligibility for the Exchange, the analysis looked at defining the eligibility in terms of potential economic benefit: Would a person or family that is currently covered by private health insurance benefit from purchasing through the Exchange rather than maintaining their current private health insurance plan (if eligible based on other criteria)? The benefit is expressed in terms of whether an individual or family would potentially

spend less money on monthly health insurance premium payments (factoring in tax credits) if they were to purchase health insurance through the Exchange AND/OR whether they would benefit since plans purchased through the Health Insurance Exchange limit out-of-pocket for cost sharing for essential benefits based on the income of the family. In this analysis, those meeting one or both of these conditions were considered underinsured thought in actuality is simply means it would be in their economic benefit to purchase health insurance through the Exchange (assuming they met all other eligibility requirements) since it would work to either control their health insurance premiums or their out of pocket costs. Based on the thresholds outlined in, residents with private health insurance were classified as income eligible <u>or underinsured</u> if:

- Based on their family income, their current monthly premium exceeded the premium threshold, that is, the percent of family income spent on premiums above which they would receive tax credits to offset the cost of purchasing the insurance through the Exchange.
- Based on their family income and their current health care expenses (aside from premiums) their current level of expenses exceeds the out-of-pocket for cost sharing limits established by the PPACA.

As with the uninsured, the analysis of eligibility for the expanded Medicaid coverage or to purchase insurance through the Exchange and receive tax credits is based on income eligibility and does not include other factors that might preclude enrollment in Medicaid or the ability to purchase health insurance through the Exchange.

Those with private insurance were thus groups into 4 categories:

- Underinsured due to high out of pocket expenses
- Underinsured due to high premium costs for their current health insurance
- Underinsured due to both high out of pocket expenses and high premium costs for their current health insurance
- Not underinsured based on these two criteria