

## Elements of Cover Memo and Front Page for Local Surveys

Unless all questions come from the SHEP (that includes the current VHA satisfaction surveys) or the Pool of Questions pre-approved by OMB, each locally-created survey requires review and approval from OMB. Approval is gained by submitting the proposed questionnaire along with a cover memo detailing the information described below. This memo should be signed by the director of the local facility (or his/her representative) and sent to the Deputy Under Secretary of Health for Operations and Management (10N) through the VISN QMO and VISN Director. (Copying VHA's OMB liaison, currently Ann Bickoff, may hasten the process.) 10N will forward to the appropriate people for processing and review.

### The cover memo needs:

#### Patients to be surveyed

Inpatient vs outpatients vs specific types of in/outpatients etc

#### Survey Method

How data will be collected (comment card vs hand distribution vs mailed vs PULSE vs personal interview, etc)

#### Sample sizes

Include **estimated total of patients** cared for in this setting, **how** they will be **sampled** (method should minimize bias due to sampling - some form of random selection is usually preferred), **how many** will be selected, **expected response rate**, **expected responses** per cycle (daily, weekly, monthly, whatever).

#### Estimated citizen burden (in hours)

Calculated as **average time** to complete survey (derived from piloting of survey in like kinds of patients – absolutely necessary) multiplied times **expected responses** per cycle times **total cycles per year / 60**

#### Method(s) used to insure that veterans are not sampled more than once per year for a local survey

#### How will data be analyzed and results used to improve care

Local contact with phone and fax numbers

Surveys that include only pre-approved questions do not need review by OMB, but be sure to keep track of the citizen burden hours. You will be asked to report these at the end of each fiscal year.

### The front page of each survey needs at least 3 items:

1. In the upper right hand corner (reduced font OK)  
**OMB Number 2900-0570**  
**Estimated burden:** *nn* minutes (where *nn* is average based on pilot or other experience)
2. Survey name
3. Paperwork Reduction Act statement (at bottom of first page, reduced font OK if necessary – insert appropriate number of minutes per response)

The **Paperwork Reduction Act of 1995** requires us to notify you that this information collection is in accordance with the clearance requirements of section 3507 of the Paperwork Reduction Act of 1995. The public reporting burden for this collection of information is estimated to average *nn* minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Customer satisfaction surveys are used to gauge customer perceptions of VA services as well as customer expectations and desires. The results of this survey will lead to improvements in the quality of service delivery by helping to shape the direction and focus of specific, programs and services. Submission of this form is voluntary and failure to respond will have no impact on benefits to which you may be entitled.

Questions: Call Charles Humble (919) 993-3035 x224

## Template for Developing Local Surveys

Local surveys can capture data on important steps in processes that drive the Veteran Healthcare Service Standard (VSS) scores from the national surveys. They are needed because processes of care delivery vary from clinic to clinic, and the Performance Analysis Center for Excellence is not staffed to develop surveys that address all issues that may be of interest at a given clinic. However, designing surveys is not simple. This document is designed to raise issues you need to consider as you develop a survey questionnaire and use it to collect data from your patients.

**Start by describing your goals and methods explicitly.** Ask yourself the following:

- purpose of the survey
- process(es) of interest
  - the ones of special interest (e.g., women’s clinic) or where problems seem to be happening (e.g., problems scheduling specialist visits)
  - process flow diagrams can help identify them
- type(s) of questions and data you wish to collect (see table on question types below)
- customer groups who will be queried
- method of administration (interview, mail, handout, combination)
- how the data will be used to improve care

Identifying the goal at the outset brings the development process into focus. Roughing out the Final Report with the key questions you hope to answer in advance will help, also.

### Selecting types of questions too use

Next consider the trade-offs among question types.

Question type (examples from Outpatient 2000 survey)	Pros	Cons
<b>Satisfaction</b> Q 57. All things considered, how satisfied are you with your health care in the VA?	Directly queries satisfaction and is preferred by executive reviewers	Responses tend to concentrate toward the top (“ceiling effect”) No insight on how to improve Slow to change
<b>Ratings</b> Q 4. How would you rate the courtesy of the person who made your appointment?	Better distribution of responses (more likely to ID problems) than satisfaction-type questions	May learn <b>where</b> you need to improve but not <b>how</b> to improve
<b>Report</b> (of actual experiences) Q 3 Were you able to get this clinic appointment as soon as you wanted?	Subject and responses well-defined	Need referent for problem scoring
<b>Expectation</b> (of desired experience) Q 38 How long do you think it is reasonable to wait to see this type of specialist?	Subject and responses well-defined Allow gap analyses	Lengthen questionnaire (may not need every round as expectations slow to change)
<b>Value</b> (of a queried item) (None in Outpatient 2000) How important is the time you have to wait to see . . . ?	Permits weighted analyses	Lengthen questionnaire (may not need every round as expectations slow to change) Ceiling effect
<b>Open-ended</b> (textual answers) Q 62 If you could change one thing about your VA healthcare ...what would it be?	Flexibility of responses allows identification of unqueried problems	Subjective answers can be <b>extremely hard to categorize and analyze</b>

PACE has developed a large set of questions pre-approved by OMB to cover a broad range of situations (a.k.a. The Pool.) Any questions you may wish to use from outside of the pre-approved pool will need to be submitted to OMB through your network office for review and approval. Go to the Toolkit link on the 10Q web page [ [vawww.oqp.med.va.gov](http://vawww.oqp.med.va.gov) ] for more detail.

## Method of Data Collection

Selection of a means for administering a survey involves its own set of trade-offs. For example, contracted phone surveys can run 10 times the cost per respondent versus a well-designed contracted mailed survey. Enlisting volunteers or other types of lower-paid workers (e.g., students) to make the calls can lower your costs considerably. Whatever method you use, the greater the degree of human contact in the data collection, the greater the probable bias toward more positive scores. That sounds like a good thing, but the goal of this and any other legitimate quality improvement process is to identify problems and fix them, not simply hide them through biased data collection. The following chart summarizes the possible tradeoffs of different data collection methods:

Survey type	Costs	Typical Response Rates	Probable Biases
Self pick-up with self-completion	Low	Poor	Many and of unknown direction
Hand delivered with self-completion	Low	Poor to Good	Higher scorers due to personal contact (ie, less confidential)
Interview (in person or by phone)	Moderate to High	Moderate to Good	Lower response bias but higher scores due to personal contact
Mailed	Moderate	Poor with single mailing Improves as add pre-notification, reminder cards & 2 <sup>nd</sup> mailing of questionnaire	Less due to personal contact but response bias can still be a problem without multiple contacts
Web / e-mail	Miniscule	Too new to know	Problems with confidentiality, poor coverage, incompatibility of computers/software

## Pilot, pilot, pilot

Once you have constructed the questionnaire and decided how it will be administered, you absolutely need to pilot it with a small (10 - 20 person) group who are like the people you want to answer the survey on a regular basis. Piloting identifies problems that you missed in the development process (e.g., language, phrasing, question ordering) and can rescue the entire survey effort. Piloting also is needed to estimate the average time to complete the survey, part of the information OMB requires before granting permission to do local surveys.

## Sample sizes and sample selection

Historically in the national Feedback Center surveys, the sample size of 175 per bed section or clinic ("unit") was used assuming that ~110 would respond giving statistical power to detect a 2% change in an average problem score of 25% with reasonable certainty. However, the goal of local surveys is not publication quality results as much as it is results that resonate with clinic managers and providers. Such results can be calculated for samples selected to represent individual clinics and providers. Statistical power is then gained by repeated surveys and tracking of results over time in run charts.

How many respondents do you need per period? Statistically rigorous sample sizes for questions with yes/no type answers can be estimated using the methods and tables that appear in Appendix A. Sample sizes for questions and standards with more continuous scores (e.g., Likert scales and Veteran Service Standards) are substantially smaller. However, feasibility and patient panel sizes usually drive the choices here. For example, the Press, Ganey organization suggests a minimum of 30 respondents unless the pool of respondents make up greater than half of a unit's (provider's, etc) patients. The Kansas City VAMC has settled on 30 patients per quarter in each of its inpatient units and larger outpatient clinics. They target 20 patients in the smaller CBOCs. Their short provider-specific surveys use 15 patient samples per quarter. See the "Example of an OMB Application" document on this web page for more information on Kansas City's survey process.

How you select patients to be surveyed is at least as crucial to producing representative results as the sample size. Whether you are sampling from among all patients receiving care or stratifying by provider or sex or some other factor that may bias your results, the goal is to give all patients in a

stratum an equal chance of being selected. Random pre-selection is an attractive approach but may not work in all settings and will miss patients who “drop in” for visits.

### **Obtaining approval to use a local survey from OMB**

Under the Paperwork Reduction Act of 1995, the OMB is charged with regulating and policing the collection of information from the public. This even applies to surveys designed to improve how services to the public are delivered. Focus groups with fewer than 10 participants in each group are typically exempted from this requirement. However, any other survey that involves 10 or more respondents and uses the same questions repeatedly (e.g., in a questionnaire) will need approval prior to use. Applications to OMB must include a final or near-final questionnaire, estimates of the average time to complete the survey (from your pilot) and the annual number of *respondents* you hope to have (not the targeted sample but those who actually respond). Finally, multiply the average time/survey times the expected number of respondents to calculate the expected “citizen burden hours”. Be sure that your questionnaire begins with the Paperwork Reduction Act statement that OMB also requires (see OMB Statements in Appendix B). Please note in your memo to OMB whether your questionnaire is comprised of questions from The Pool. Such questionnaires only require approval of the citizen burden hours; the questionnaire itself would be covered by the approval granted to The Pool by OMB.

### **Other resources**

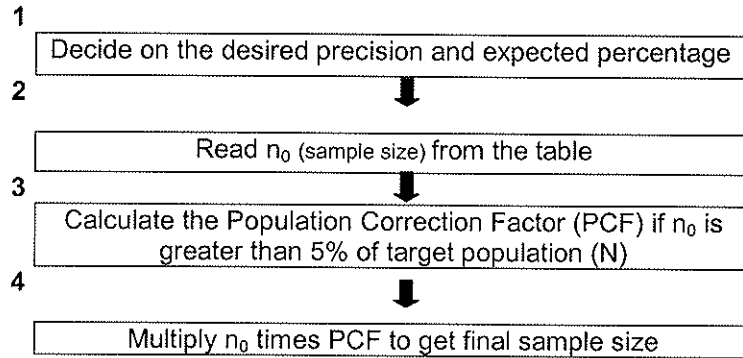
Readers wanting more information and specific references for books on survey methods and sampling strategies are directed to Appendix C - “Developing a Questionnaire – Some ‘How to’ Guidelines” by Mark Meterko, PhD., one of the creators of the VHA’s satisfaction surveys.

## Appendix A

### NOT TO BE USED FOR PROFIT-MAKING PURPOSES

#### Estimating Sample Sizes for Dichotomous Measures

Derived from Plsek P. Quality Management in Health Care 1994:2(2):76-81.



**Table of Values for  $n_0$**

Estimated Percentage	Desired Precision @ 95% Confidence									
	+1%	+2%	+3%	+4%	+5%	+6%	+7%	+8%	+9%	+10%
2 or 98	790	196								
4 or 96	1540	390	171	96						
5 or 95	1900	480	211	119	76					
6 or 94	2260	570	251	141	90	63				
8 or 92	2950	740	330	184	118	82	60	46		
10 or 90	3600	900	400	225	144	100	73	56	44	36
15 or 85	5100	1280	570	320	204	142	104	80	63	51
20 or 80	6400	1600	710	400	256	178	131	100	79	64
25 or 75	7500	1880	840	470	300	208	153	117	93	75
30 or 70	8400	2100	940	530	340	233	171	131	104	84
35 or 65	9100	2280	1010	570	370	253	186	142	112	91
40 or 60	9600	2400	1070	600	390	267	196	150	119	96
45 or 55	9900	2480	1100	620	400	275	202	155	122	99
50	10000	2500	1110	630	400	278	204	156	123	100

**Population Correction Factors (PCF)**

$n_0/N$	PCF	$n_0/N$	PCF	$n_0/N$	PCF
.05	0.96	.55	0.65	1.5	0.40
.10	0.91	.60	0.63	2.0	0.34
.15	0.87	.65	0.61	2.5	0.29
.20	0.84	.70	0.59	3.0	0.25
.25	0.80	.75	0.58	3.5	0.23
.30	0.77	.80	0.56	4.0	0.20
.35	0.74	.85	0.54	4.5	0.19
.40	0.72	.90	0.53	5.0	0.17
.45	0.69	.95	0.52	5.5	0.16
.50	0.67	1	0.50	6.0	0.15

## Appendix B

### Statements OMB Requires at the Front of Written Surveys

**Surveys that do not ask for personal identifiers (SSNs) may use a shortened version of the PRA/Privacy Act statements, for example:**

This information is collected in accordance with section 3507 of the **Paperwork Reduction Act of 1995**. Accordingly, we may not conduct or sponsor, and you are not required to respond to, a collection of information unless it displays a valid OMB number. We anticipate that the time expended by all individuals who must complete this survey will average 30 seconds per question. This includes the time it will take to read instructions, gather the necessary facts and fill out the form. Customer satisfaction surveys are used to gauge customer perceptions of VA services as well as customer expectations and desires. Disclosure of information involves release of statistical data and other non-identifying data for the improvement of services within the VA healthcare system and associated administrative purposes. Submission of this form is voluntary and failure to respond will have no impact on benefits to which you may be entitled.

**Surveys that do ask for personal identifiers should include both of the following:**

**The Paperwork Reduction Act of 1995** requires us to notify you that this information collection is in accordance with the clearance requirements of section 3507 of the Paperwork Reduction Act of 1995. The public reporting burden for this collection of information is estimated to average 30 seconds per question, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Customer satisfaction surveys are used to gauge customer perceptions of VA services as well as customer expectations and desires. The results of this survey will lead to improvements in the quality of service delivery by helping to shape the direction and focus of specific, programs and services.

### PRIVACY ACT STATEMENT

The information on this survey is requested by the Veterans Health Administration to assess veteran's perception of satisfaction with VA Healthcare. The information you supply will be confidential and protected by the Privacy Act of 1974 (5 U.S.C. 522a) and the VA's confidentiality statute (38 U.S.C. 5701) as implemented by 38 CFR 1.526(a) and 38 CFR 1.576(b). Disclosure of information involves release of statistical data and other non-identifying data for the improvement of services within the VA healthcare system and associated administrative purposes. Participation is voluntary; failure to furnish the requested information will have no adverse effect on any VA benefit to which you may be entitled.

## Appendix C

### Developing A Questionnaire ♦ Some “How To” Guidelines

Mark Meterko, PhD

Chief Survey Methodologist, VA Management Decision and Research Center  
(as modified by PACE)

#### Overview

The most important first step in developing a survey is to stop and think about the purpose of the data collection. What are you trying to find out? Do you want your customers to *evaluate the existing process of care*? Do you want to find out about their *needs and expectations*? Do you want to know how *important* particular aspects of care and service are to them? Each of these goals is different. For example, you may ask your customers to evaluate the existing process by which you deliver your service by asking them how long they waited for this or that to happen, was this or that person courteous and informative, and so on and on. However, such a survey will not necessarily provide information about a patient need that is being overlooked by the current process of service delivery. The point is that there are many different reasons for seeking feedback from your customers -- and while paper-and-pencil surveys are well-suited to achieving some goals, other methods such as focus groups or interviews are better for other goals.

One way to help clarify your goals is to ask: who are the customers *for the survey*? That is, who will get the results, and what will they use the data for? It is difficult to overemphasize the importance of clarifying the goal(s) of your survey at the outset. It has been said that data are facts, whereas information is the answer to a question. If you have not specified the question you are trying to answer, you will very likely end up with data, but no information.<sup>1</sup>

#### Getting started

The remainder of this discussion will assume that you are currently providing some aspect of medical care in a given way and want to know how your customers evaluate your performance -- in other words, that you are interested in *evaluating an existing process*. One effective approach to structuring such a survey is to *list the steps in the process of care*. This could be done in any number of ways. A process-flow diagram is the ideal tool for this task, but you could also use a table format.

Such a table might look like the following; for the sake of this discussion, I will use the example of an acute care outpatient visit.

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<sup>1</sup> An excellent way to help you clarify the goal(s) of your data collection is to “mock-up” the executive summary of your report. Imagine that you have your results and you are preparing a report or presentation of the major results. What would the five major bullet points be? What would the two major tables and/or graphs that summarize the results look like? Actually write out the bullet points and “dummy-up” the tables and graphs using fictitious numbers that represent what you think you will find. Just running through these issues mentally is not sufficient. The discipline required when you need to express your ideas out-loud or on paper to others is a key element in the success of this seemingly simple but quite demanding exercise.

Outpatient Visit Process Steps	
1	Pt. feels need for medical care
2	Patient calls office to make appointment.
3	Patient speaks with secretary; schedules appointment
4	Patient waits for apt. day
5	Patient travels to Dr. office on day of appointment
6	Pt. checks-in
7	Pt. waits in office; is called into exam room
8	Pt. waits in exam room
	<i>Etc. etc.</i>

Two questions frequently asked at this point are: (1) when does a process begin and end; and (2) how detailed should the process diagram be? Regarding the first issue, one could argue that it makes just as much sense to say that the “outpatient visit process” begins when the patient arrives at the clinic, or perhaps when the doctor and patient meet in the examination room. Similarly, one could diagram the process at various levels of detail. For example, “patient calls office” (step #2) could be broken down into several steps including determining what number to call, trying to get through and encountering a busy signal, trying to reach the right person (e.g., the assistant who handles the patients for a particular doctor), being put on hold, and so on. You could put any of these process steps under a higher power magnification in a similar manner. So, how much detail is enough?

**The key consideration in deciding on the boundaries of the process to be studied, and in deciding on the appropriate level of detail, will be the purpose of the survey.** This is one of the many places where any lack of clarity about your purpose will come back to haunt you! If you want an overview of the entire process, then you might begin with the felt need and end with a follow-up visit or specialist referral. If, on the other hand, you wanted to know a great deal about patients’ experience with phone access, or if you were concerned about the issue of emotional support and wanted to concentrate on the doctor-patient interaction, then you would map *those* processes in greater detail.<sup>2</sup> In summary, the scope and depth of your survey will depend on its purpose – i.e., on the question(s) you are trying to answer with the data you are planning to collect.

Let us return to the construction of our survey.

Now, three elements are typically involved at each step of almost every process:

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<sup>2</sup> Such a focused survey is often done to learn more about a particular area that has already been identified as an opportunity for improvement by a more general monitoring survey such as the annual NCFC inpatient or outpatient survey.



1. *people*, such as physicians, nurses, receptionists, technicians, and maintenance staff;
2. a *procedure*, such as registering, filling a prescription, making an appointment, having blood drawn; and
3. a physical "*environment*" such as a particular building or room, certain equipment, and so on that people use to carry out the procedure.

Adding this dimension to our table, we get:

	Outpatient Visit Process	People	Procedure	Environment
1	Pt. feels need for medical care			
2	Patient calls office to make appointment.			
3	Patient speaks with secretary (by phone); schedules appointment			
4	Patient waits for apt. day			
5	Patient travels to Dr. office on day of appointment			
6	Pt. checks-in			
7	Pt. waits in office; is called into exam room			
8	Pt. waits in exam room			
	<i>Etc. etc.</i>			

A third dimension to add is the particular features of the people, procedure, and/or environment that are *important to your customers*. These are sometimes referred to as key quality characteristics. For example:

#### People

- Technical skill: proficiency, knowledge
- Interpersonal manner: friendliness, courtesy, "warmth," concern, etc.
- Access/availability
- Responsiveness

#### Procedure

- Efficiency -- "smoothness," amount of time required
- Effectiveness/outcome

#### Environment

- Cleanliness
- Access/availability
- General condition (e.g., in working order?)
- Provisions for privacy / personal needs

Consider, for example, step 6, checking-in on the day of the appointment. One could ask customers for feedback regarding the skill and interpersonal manner of the people involved. Did the person at the front desk appear to know the check-in procedure? Was he/she courteous? One could ask customers to evaluate some features of the process/procedure itself: did it take a reasonable amount of time? And then there's the physical environment: was the check-in area easy to find? Was it clean? Did the layout allow sufficient privacy to discuss confidential matters if necessary? At this point, our "map" of survey contents looks something like this:

	Outpatient Visit Process	People	Procedure	Environment
1	Pt. feels need for medical care			
2	Patient calls office to make appointment.			
3	Patient speaks with secretary (by phone); schedules appointment			
4	Patient waits for apt. day			
5	Patient travels to Dr. office on day of appointment			
6	Pt. checks-in	<ul style="list-style-type: none"> <li>• Skill: knows check-in procedure?</li> <li>• Interpersonal manner: friendly and courteous?</li> </ul>	<ul style="list-style-type: none"> <li>• Ease of check-in: amount of paperwork required?</li> <li>• Efficiency: time required reasonable?</li> </ul>	<ul style="list-style-type: none"> <li>• Easy to find: signs/directions to check-in area sufficient?</li> <li>• Clean?</li> </ul>
7	Pt. waits in office; is called into exam room			

It is not necessary to ask *every* possible question about *each* step in the customer service process. For one thing, every "cell" in the table will not "make sense." For example, the "people" and "environment" cells at Step 4 (waiting for the appointment day) are "empty." And even for those cells that are not empty you will need to pick and choose among all the potential issues or you will end up with a 15 page questionnaire that no one will take the time to fill out.

At this point you are probably wondering: which issues should I ask about? How do you know what specific features of the people, procedures, and/or environment should be included? How do you know whether skill or efficiency or cleanliness are the things that patients are concerned about and pay attention to when going through a given medical process or procedure?

There's only one way to know for sure: you have to ask them.

Focus groups are probably the most frequently used technique for this purpose, but one-on-one interviews are also an option. A discussion of these methods is beyond the scope of this brief overview, but the take-home message is simple. You should use all of the usual sources of information available regarding what is important about the medical process you are studying:

- review of the patient satisfaction literature
- contacting colleagues who may know something about the topic both within your own organization and at other institutions
- reviewing available logs of patient compliments and complaints
- collecting surveys from other institutions that have studied the process you are interested in
- your own personal experience both as a clinician and/or as a person who has undergone the process/procedure yourself or accompanied a loved-one through that process.

All of these are valuable sources of insight regarding the meaningful, salient features of the medical process you are studying. But to be sure that the list of issues you come up with from these sources are indeed the “key quality characteristics” in the minds of *your* patients, ***you will need to ask them.***

Another important point to reiterate here is that, once again, the purpose of your survey will be a key consideration both before and after talking with your patients to find out what is important to them. Before your first focus group or interview, you will need to plan the structure of those discussions. If your project goal is to obtain an overview of an entire process, then you will need to review that entire process in the focus group(s) and/or interviews. If, on the other hand, you are interested only in a very specific sub-process -- for example, phone access to ambulatory care -- then obviously you will need to structure the focus group discussion or interview around *that more specific issue.*

At the other end, once you have conducted your focus groups and/or interviews and analyzed the contents, the purpose of your survey will again guide the translation of those findings into specific survey questions. To continue our example, if your goal was to obtain patient feedback on an entire process such as an inpatient stay, then you might ask two or three standard questions about each major step of that process. If, on the other hand, your goal was to study patients' experience with a more specific and limited process -- say, phone access -- then you could break-down that process into very small “pieces” and ask several questions about each one.

Two other thoughts before leaving this topic. One is that the complexity of modern health care means that *it will almost always take a team of people* to create an accurate description of any given patient care process. I know that in my business of survey research, for example, I would need to get our computer network manager to describe the sample selection process, because I know very little about the step-by-step details involved in getting the name and address labels for the recently discharged patients who should receive our inpatient survey.

One final recommendation is to always include an open-ended question or two in your survey, and to review the responses you get to see if patients are raising issues that you have overlooked.<sup>3</sup>

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<sup>3</sup> By open-ended question I mean something like: “Do you have any other comments?” or “If there were three things you could change about the inpatient care you received, what would they be?” You may want to ask for more than one comment, but remember that information from such questions **can be extremely hard to analyze.**

## References/Resources: Selected Bibliography

### Reliability and Validity of Attitude Measures

#### *General*

Thorndike, R.M., Cunningham, G.K., Thorndike, R.L., Hagen, E.P. Measurement and evaluation in psychology and education (5th edition). New York: Macmillan.

Scientific Advisory Committee, Medical Outcomes Trust. (1995). Instrument review criteria. Medical Outcomes Trust Bulletin, 3(4). Boston, MA: Medical Outcomes Trust.

#### *Of Patient (and other client) Satisfaction Measures*

Meterko, M., Nelson, E.C., Rubin, H.R. (1990). Patient judgments of hospital quality: Report of a pilot study. Medical Care, 28(9), S1-S56.

Davies, A.R., Ware, J.E. (1988). Involving consumers in quality of care assessment. Health Affairs, Spring, 33-48.

Rubin, H.R. (1990). Can patients evaluate the quality of hospital care? Medical Care Review, 47(3), 267-326.

Ware, J.E., & Davies, A.R. (1983). Behavioral consequences of consumer dissatisfaction with medical care. Evaluation and Program Planning, 6, 291-297.

### Measurement Development: Creating Assessment Tools

*All of the following include both general guidelines and specific suggestions for particular methods including paper-and-pencil questionnaires, telephone interviews, and face-to-face interviews.*

Converse, J.M. & Presser, S. (1986). Survey questions: Handcrafting the standardized questionnaire. Beverly Hills, CA: Sage.

Dillman, D.A. (1978). Mail and telephone surveys: The total design method. New York: John Wiley & Sons.

Fowler, F.J. (1984). Survey research methods. Beverly Hills, CA: Sage.

Sudman, S. & Bradburn, N.M. (1982). Asking questions. San Francisco: Jossey-Bass.

*Excellent, relatively brief and digestible chapters devoted to question phrasing and overall instrument design may be also be found in the books by Babbie and Aday listed under **Data Collection**, below.*

## Data Collection

*The books below are listed in association with the topic area that is, in my opinion, a particular strength. However, each work cited in this section includes some discussion of all major data collection issues. The exceptions are the works by Cook & Campbell and by Weiss in the Overall subcategory. Detailed information regarding sampling and the day-to-day aspects of data collection are outside of the purview of these works. These latter are, however, excellent resources on data collection design issues in the applied setting.*

### *Overall Research Design Considerations*

Cook, D.T. & Campbell, D.T. (1979). Quasi-experimentation: Design and analysis issues for field settings. Chicago: Rand McNally.

Plsek, P. (1994). Tutorial: Planning for data collection. Part 1: Asking the right question. Quality Management in Health Care, Vol. 2(2), 76-81.

Weiss, C.H. (1972). Evaluation research: Methods of assessing program effectiveness. Englewood Cliffs, NJ: Prentice-Hall.

### *Sampling*

Aday, L.A. (1989). Designing and conducting health surveys: A comprehensive guide. San Francisco: Jossey-Bass.

Fowler, F.J. (1984). Survey research methods. Beverly Hills, CA: Sage.

Henry, G.T. (1990). Practical sampling. Beverly Hills, CA: Sage.

Plsek, P.E. (1994) Tutorial: Planning for data collection, part III – sample size. Quality Management in Health Care, Vol. 3(1), 78-92.

### *Nuts and Bolts Details Of Collecting Data*

Babbie, E.R. (1973). Survey research methods. Belmont, CA: Wadsworth.

Dillman, D.A. (1978). Mail and telephone surveys: The total design method. New York: John Wiley & Sons.

*The Dillman work is highly recommended to anyone collecting survey data for the first time. Practical and detailed descriptions of all aspects of survey implementation using the three major methods -- paper-and-pencil, telephone, face-to-face interview -- are provided. One can readily and profitably pick and choose sections and chapters of immediate interest in this book. For this purpose, you may find the detailed table of contents more helpful than the somewhat sparse index.*

## Healthcare Examples of Patient Satisfaction in Intervention/Outcomes Research

The May 1996 (Vol. 22, No. 5) issue of the Joint Commission Journal on Quality Improvement is a special theme issue devoted to the use of patient feedback in the design and evaluation of changes in medical care processes. See especially:

Ancil, B. & Winters, M. Linking customer judgments with process measures to improve care.

Hickey, M.L., Kleefield, S.F., Pearson, S.D., McCabe Hassan, S., Harding, M., Haughie, P., Lee, T.H., Brennan, T.A. Payer-hospital collaboration to improve patient satisfaction with hospital discharge.

Niles, N., Tarbox, G., Schults, W., Swartz, W., Hale, R., Wolf, B., Robb, J., Plume, S., Maislen, E., Beggs, V., Bourbeau, T., Menduni, M.B., Nelson, E., Nugent, W. Patient feedback: Using qualitative and quantitative data to improve the quality of cardiac care.

## Analysis of Results in Run and Control Charts

*Run and control charts are an attractive method for presenting results from monthly, bi-monthly or quarterly surveys. Separate charts should be used with each patient group. The basic concepts, terminology and caveats for selecting and constructing run and control charts are given in the following articles:*

Sellick, J.A. Jr. (1993). The use of statistical process control charts in hospital epidemiology. Infect Control Hosp Epidemiol, Vol. 14: 649-656.  
(has several easy examples for constructing simple p, u and c charts for use with “attributes” – i.e., counted – data)

Finison, L.J., Finison, K.S., Bliersbach, C.M. (1993). The use of control charts to improve healthcare quality. J Healthcare Quality, Vol. 15 (1); 9-23.

Finison, L.J., Finison, K.S. (1996). Applying control charts to quality improvement. J Healthcare Quality, Vol. 18 (6); 32-41.

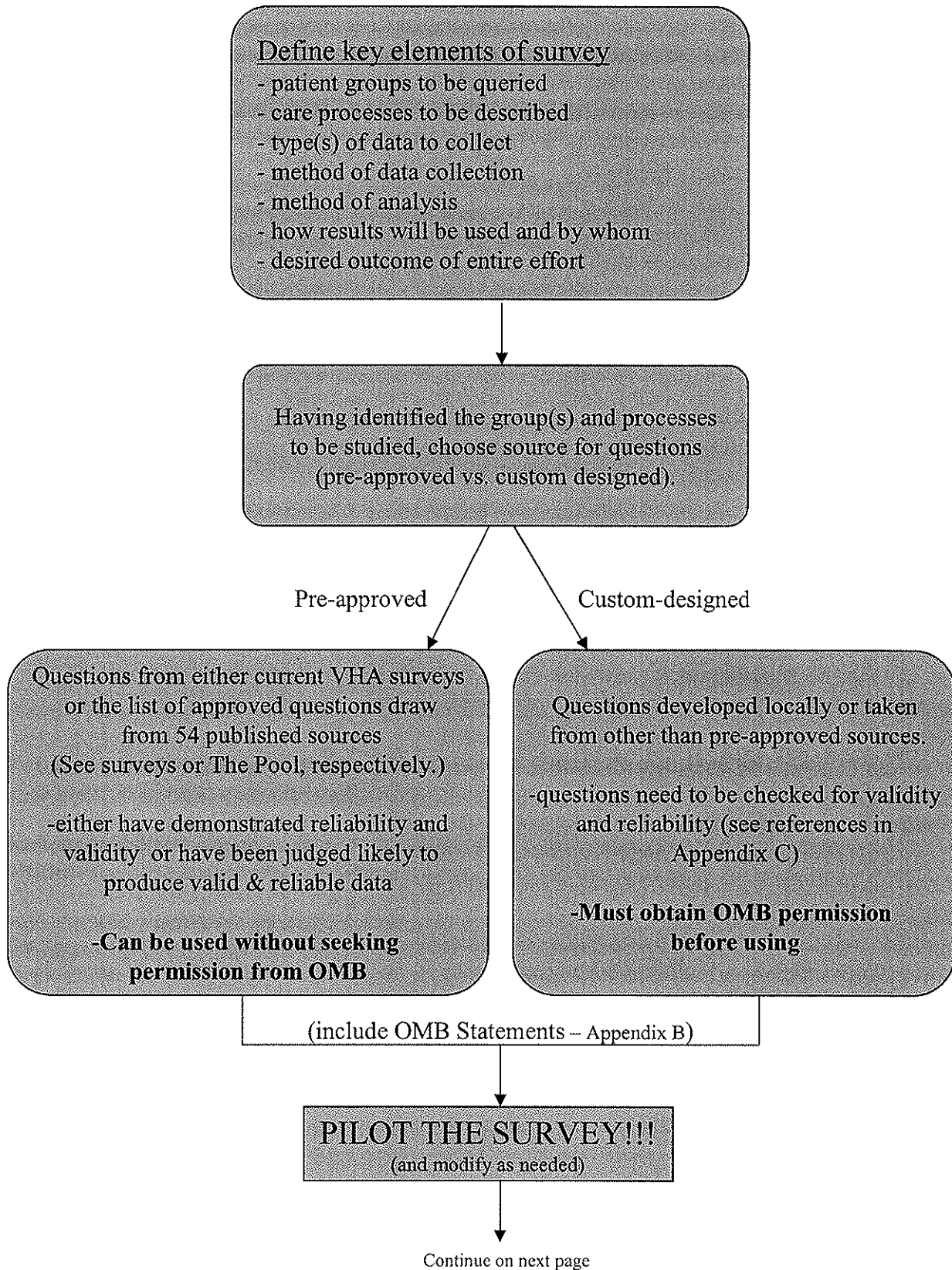
Humble, C. (1998). Caveats regarding the proper use of control charts. Infect Control Hosp Epidemiol, Vol. 19 (11):865-868.  
(has rules of thumb for selecting proper charts and avoiding pitfalls in their use)

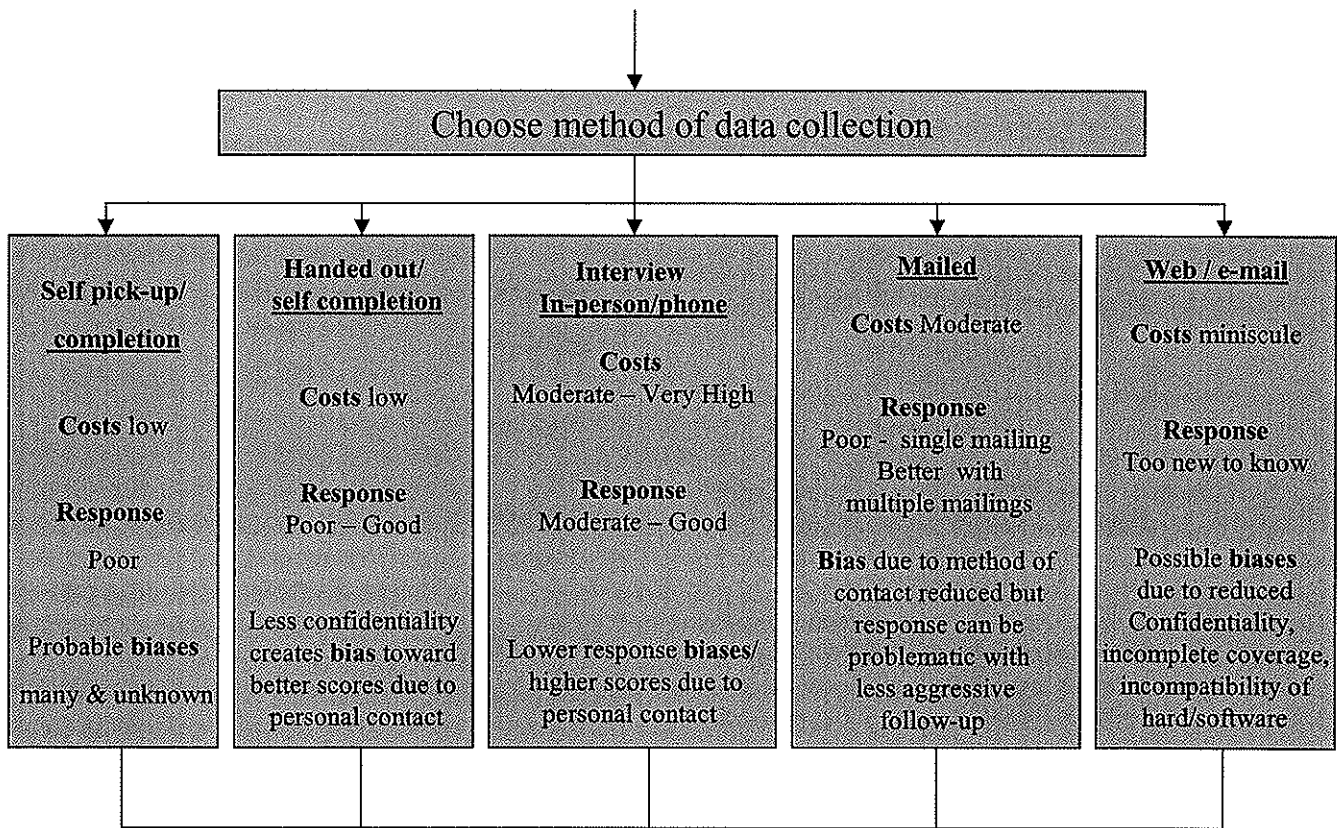
Benneyan, J.C. Statistical quality control methods in infection control and hospital epidemiology. Part 1: introduction and basic theory. Infect Control Hosp Epidemiol 1998;19(3):194-214; Part 2: chart use, statistical properties, and research issues. ICHE 1998;19(4):265-277.  
(for those wanting a more technical discussion of these topics)

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# Flow Chart for a Local Survey

Before proceeding, read Template for Local Surveys.





Re-Pilot using method selected!!

↓

Estimate required sample sizes  
(see especially tables from Plsek (1994) article in Appendix A)

↓

For **continuous** or “**variables**” data  
[eg. from Likert scales]

minimum of 20 (30 better) –  
more if data are badly skewed

↓

For **dichotomous** or “**attributes**” data  
[Yes/No and Problem/No Problem scores]

See especially pages 87-91 of Plsek (1994)  
Use Finite Population Correction  
factor in small patient panels

↓

**Plot results in Run and Control Charts**

- Be sure to use a chart type appropriate to data type
- Remember that 20 points of observation are needed before converting run charts to control chart
- See Humble (1998) from Appendix C reference list for guidance