STANDARDIZED PATIENTS AND THE MEASUREMENT OF HEALTHCARE QUALITY

FIELD GUIDE, MANUAL, AND SAMPLE INSTRUMENTS

MEDICAL ADVICE, QUALITY, AND AVAILABILITY IN RURAL INDIA

(MAQARI)

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This field guide is intended as an aid to persons and organizations interested in recruiting, training, and deploying standardized patients (SPs) in developing country settings for assessing quality of care or for training of medical providers. The lessons that inform this manual are derived from a successful study of provider quality using standardized patients in India undertaken in 2009-10.The SP study was developed to provide a detailed understanding of provider quality and adapt innovative methods of measurement of quality in primary care settings to the context of developing countries.

Simulated or standardized patients are considered to be the 'gold standard' method for assessment of clinical performance assessing provider communication skills and behavior. Although standardized patients have been used extensively for certification purposes and in medical education to train and assess competence of medical doctors, there have been relatively few attempts to use SPs as a research tool to evaluate the quality of care being provided to patients in developing countries. The SP based assessment in MAQARI required us to bring together a collaboration of medical experts, anthropologists, sociologists, SP training experts and economists to undertake this task. In the course of this project, we developed SP cases for 4 diseases to detect errors of omission and commission in medical practice. This field guide presents our experience and provides pointers for other investigators who intend to undertake similar SP-based assessments of quality of care in developing countries.

I. INTRODUCTION

This manual is intended as an aid to persons and organizations interested in recruiting, training, and deploying standardized patients (SPs) in developing country settings for assessing quality of care or for training of medical providers. The lessons that inform this manual are derived from a successful study of provider quality using standardized patients in India undertaken in 2009-2010. The SP study was conducted among over 300 health care providers offering primary care services in urban Delhi and rural Madhya Pradesh in India.

The tone in this document is not prescriptive; we do not aim to present the reader with a checklist to undertake SP work in developing countries. Contextual relevance is extraordinarily critical in this type of work. We have documented our experience and present insights that shaped our processes. Readers are urged to consider these experiences and insights and to adapt them to what might be most appropriate for the context they are working in.

The next section introduces the rationale for using SPs to measure quality of care. In Section 3, we discuss previous attempts to use SPs in research and the lessons learned from those efforts, and Section 4 presents a discussion of the challenges that may emerge in working with SPs in developing countries. Section 5 presents an overview of the SP study in India. Then we describe the process of developing a case for use with SPs in Section 6; recruitment, training, and script development in Section 7; and the management of fieldwork in deploying SPs for measurement of quality in Section 8. In Section 9, we describe the modifications in the case scenario and characteristics of the SPs that we made for the rural component of our study. All cases and modules developed for the study are included in the Appendix.

A. WHAT IS A STANDARDIZED PATIENT?

A standardized patient is an individual who is extensively coached to portray the historical, physical and emotional features of an actual patient accurately and in a standardized, consistent manner. They come from all walks of life and need to be emotionally mature, affable, and intelligent and have flexible schedules (for assignments are rarely regularly scheduled). Over the past 5 decades they have been referred to as 'surrogate', 'confederate' or 'programmed' patients but more commonly as 'simulated' patients. In research settings, SPs are sometimes referred to as 'incognito' or 'unannounced' SPs if the study design incorporates undercover clinical encounters where participating providers do not know when they will receive a visit. We prefer to use the term standardized patient to focus attention on the key feature of this method: the clinical case presented is *standardized*. Simulated or standardized patients are considered to be the 'gold standard' method of assessing provider communication skills and behavior. (Vleuten and Swanson 1990; Wallace 1997; Tamblyn 1998; Epstein 2007; Rethans, Gorter et al. 2007)

There are two components of the standardized patient - standardization and simulation. The objective of standardization is to present a case in a clinically accurate and consistent manner while the objective of simulation is to imitate the natural environment in which clinical encounters happen in any given social context. The goal is to "pass" as a normal patient without being detected by the medical service provider. All the SPs portraying a particular scenario are meticulously *trained and rehearsed* to ensure that the clinical presentation as well as the emotional, physical and psychosocial aspects of the patient they represent — speech, body language, dress, reactions to physical examinations—are *standardized* thus ensuring that each provider, when meeting an SP, will face the same clinical challenge. An ideal SP can also be coached to accurately recall details of his or her encounter with the healthcare providers, thus providing an opportunity to generate data on quality of care (e.g. to what degree a task is done or not done, whether or not a question is asked) and to provide feedback about the process.

B. THE RATIONALE FOR STANDARDIZED PATIENTS

The measurement of process quality in health care can be used for two related but conceptually different purposes. First, such methods can be used to provide population (or sample) estimates for process quality. For instance, consultation length and completion of vital signs are both important overall indicators. Second, such methods can be used to assess the determinants of quality. For instance, whether private sector providers provide different care from those in the public sector remains an important question, as does the relationship between case-load and quality. In both cases, but perhaps more so in the latter, the key issue that we face is determining the extent to which quality differences are driven by confounders arising primarily from differences in the case and patient-mix (for population or sample estimates, these may be important to the extent that the likelihood of seeking care differs across settings).

In this section, we briefly summarize the SP study undertaken as part of the MAQARI project and provide a rationale for the use of SPs both for measuring quality and for assessing its determinants. We compare the SP based methodology to other methods that have been used recently—*medical vignettes*, where doctors are presented with hypothetical cases in a non-clinic setting, and *direct observations of clinical interactions.*

The SP study builds on previous research efforts in low-income countries. One set of studies measured absence rates in primary health centers throughout India and found that 40% of providers in public facilities were absent during unannounced visits (Chaudhury et al. 2006). While presence of a provider can be thought of as the most binary and basic measure of quality of care available, a second set of studies sought a deeper and more detailed understanding of the quality of healthcare delivery by administering medical vignettes to healthcare providers in Delhi and recording their verbal responses to hypothetical cases, as well as by observing these providers in practice. Similar studies in Tanzania have also employed this two-fold measure to enable deconstruction of the quality of medical advice into provider competence or knowledge, obtained from medical vignettes, and provider effort or practice,obtained from direct observation of provider-patient interactions in clinics(Leonard and Masatu 2006; Das and Hammer 2007; Das, Hammer et al. 2008). The Delhi study found that doctors' medical knowledge was very low and that in four out of five typical medical cases, the average doctor's advice was more likely to harm than help. Further, the study revealed low levels of effort by the providers: for example, only 30% of providers checked temperature for patients complaining of history of fever. While this is surprising, it is also helpful to consider these results against the findings that even in developed country settings, doctors perform only up to 40-60% of guidelines/standards(Rethans et al. 1991).

While the vignettes and provider observation methods generate insight into the quality of care available, these methods have significant limitations. Vignettes can provide an accurate picture of provider knowledge for a wide range of illnesses and can control for case and patient-mix, but they do not reflect clinical practice, as a large know-do gap has been documented in a variety of settings (Rethans et al, 1991; Das et al., 2008; Leonard and Masatu 2010).

Direct clinical observation can provide information about clinical practice, but this method is limited in four ways. First, observed differences in quality may be confounded with differences in patients and illnesses presented. Although it is possible to control for case and patient mix using vignettes, observed measures of what happens in practice are subject to the usual confounders of severity and patient characteristics. Second, because the majority of patients on any given day present with self-limiting or "minor" illnesses, it is very difficult to assess process-quality for patients with severe or life-threatening illnesses. Third, since it is often not possible – due to ethical reasons – to have medically trained doctors as observers, it is difficult to assess whether the illness that the patient presented with or the course of treatment prescribed or administered by the providers were indeed correct. Finally, the presence of an observer in the clinic may itself change the provider's behavior—a phenomenon known as the "Hawthorne effect". Leonard and Masatu (2006) demonstrate such an effect in Tanzania, where doctors exerted greater effort when observers entered the clinic (a fact uncovered by comparing exit surveys before and after the entry of the observers) which gradually declined over time.

The SP methodology presents an opportunity to control the case mix and the patient presentation, thus enabling us to obtain a measure of quality that is comparable across all providers. It also provides a measure of clinical quality uncontaminated by Hawthorne effects. Compared to provider observation and vignettes, the use of SPs should give a more "real-world", and presumably more accurate, portrayal of a doctor's effort and expertise. Because vignettes measure the frontier of what the provider can do for a given case, they are relatively good at capturing errors of commission (where the provider *does* what is clinically inappropriate, possibly due to knowledge-related incompetence) but not as good at capturing errors of omission (where the provider fails to do what is clinically appropriate and essential, although he or she may have the appropriate knowledge). With the appropriate design of clinical cases and carefully trained SPs, it should be possible to detect both errors of omission and commission.

Conversely, SP-based studies also have their limitations. Perhaps the most restricting concern the kinds of cases that can be used in low-income countries. Due to ethical concerns, cases that look at childhood illnesses are by necessity eliminated, as are those that require invasive examinations. Although invasive examinations do not preclude the use of SPs in medical education in high-income countries, in typical clinics in low-income countries, any kind of invasive examination (including the use of a thermometer) can result in a health-risk to the SP. In addition, SP-based cases are also necessarily limited to those with no clear and highly visible symptoms. Note though, that this does not necessarily limit cases where the symptoms become noticeable only after further testing. For instance, we discuss below a SP-based case presentation of unstable angina. In this case, an ECG may rule out that the SP has unstable angina, but since such a test would have to be prescribed (clinics do not have ECG machines available), the interaction ends at the time that the doctor prescribes such a test. A discussion of these issues is included in Section IV.C.

The table below summarizes different quality measures by assessing (a) the extent to which they measure knowledge versus practice; (b) the extent to which they are able to provide estimates that account for confounders and; (c) the extent to which they are able to provide information on a broad set of illnesses, highlighting the advantages and disadvantages of different measures.

Measure of Quality	Measures Knowledge	Measures Practice	Accounts for Case-Mix	Accounts for patient-mix	Hawthorne effects?	Illnesses covered
Vignettes	Yes	No	Yes	Yes	By Design: Vignettes measure the maximum a provider can do	All
Clinical Observation	No	Yes	No	No	Yes: Leonard and Masatu	Limited in two ways. First, "serious" illnesses

					(2006) show big Hawthorne effects begin to decline with the time spent observing	like unstable angina will show up on a sporadic basis. Second, the observer never knows what the patient actually has—and doctors frequently make incorrect diagnoses.
Chart Abstraction	No	Yes	No	No	No	Similar to clinical observation, but providers rarely keep patient charts. Even when they exist, charts tend to be incomplete and don't accurately reflect patient-provider interactions.
Standardized Patients	No	Yes	Yes	Yes	No	Limited to (a) non-infectious diseases; (b) adults only; (c) diseases that don't have any obvious physiological symptoms that cannot be mimicked and (d) conditions that don't require invasive exams— particularly in low-income countries

The following section describes the development of SPs in medicine and previous efforts to employ the SP method when measuring quality of care.

III. PREVIOUS STUDIES USING STANDARDIZED PATIENTS

In 1963 in California, a technique of using actors to portray the clinical problems presented by actual patients was developed by neurologist Howard Barrows so that he could observe and assess his students interviewing and conducting examinations in a more controlled way

and with less intrusion on sick patients (Barrows and Abrahamson 1964; Barrows 1968). Dr. Barrows continued his innovative approaches at McMaster University and then Southern Illinois University.

In 1975 in Scotland, Dr. Ronald Harden brought in a new form of examination that was performance-based with SPs, called the Objective Structured Clinical Examination (OSCE). A group of students individually circulate through a series of 'stations' to perform different patient-focused tasks while being observed by an examiner with a binary checklist of specific items they wish to see demonstrated. By the end of the OSCE, each student will have conducted several standardized challenges to show their capabilities (Harden, Stevenson et al. 1975).This assessment process has evolved over the last decade to include qualitative holistic measures in order to more readily capture communication skills and behavior. (This distinction relates to the design of our study and the assessment instruments developed to debrief the SPs described in Section VII.F.) The following two decades saw the OSCEs take hold in the United Kingdom, Holland, Canada and the United States and along with it an evolving standardized patient methodology (Adamo 2003).

In 1992 Cananda introduced a performance-based SP component to the national licensing examination. In the United States, assessment of clinical skills using SPs was introduced for all international medical graduates in 1998 and for all U.S. medical students in 2004 (Papadakis 2004; Hodges 2010)

In addition to their role in high stakes assessment, SPs are now also well established in most medical training programs in several countries, and their contribution is growing in pharmacy, nursing and other health professions. While experience with 'real' patients is of utmost importance to clinical education, there are also challenges associated with their direct involvement in teaching and assessment. Real patients may be unwilling or unable to contribute. They cannot be 'standardized' for a sustained period, as they may feel compromised in their relationship with the clinicians caring for them (Cleland, Abe et al. 2009). Thus, the SP methodology can allow systematic delivery of curriculum to complement, amplify, and reinforce the more ad hoc learning opportunities in clinical settings. However, as Professor Brian Hodges warns in one of his lectures on developing OSCEs which has been delivered internationally:

> *"The degree to which these people can be effective SPs will relate to the amount of time available for their training and their careful selection."*

IV. CHALLENGES OF SP STUDIES IN DEVELOPING COUNTRY CONTEXT

Most of the studies using SPs have been conducted in developed countries and relate to the use of this methodology for purposes of medical education as well as examination and certification processes in high stake decisions (Dillon et al. 2004). A systematic literature review of the use of unannounced standardized patients in real practice found 40 papers referring to 21 projects, most which were conducted in primary care settings (Rethans,

Gorter et al. 2007). The authors of this review noted the need for more research on SP methodology and the need to evolve a consensus on how to report accuracy and consistency of standardized patients.

SPs are now routinely used in developed countries as a tool of medical education in which SPs are trained for short period of time to present a set of symptoms to medical students and the performance of the students is judged by a set of criteria related to an ideal medical examination. The interactions between SPs and medical students are observed by examiners through one-way mirrors or video recordings.

Most of the SP studies in developed countries also measure practice behaviors at a relatively high quality. For example, one key concern in the studies using SPs is the number of items on a checklist of items that a physician might be expected to demonstrate during a 10-15 minute encounter.(Gorter, Rethans et al. 2000; Whelan, Boulet et al. 2005) The context of medical practice stands in stark contrast to the Indian primary care context where the average time for each consultation was less than 3 minutes. (Das and Hammer 2007)

The key challenge in the context of primary care in rural areas in developing countries is not to identify physicians who fail to do 40% of items on the prescribed guidelines (as in the Western context), but rather to separate those who fail to do 95% from those who fail to do 80%.

The studies in developing countries have mainly focused on drug retailing practices or have been conducted in the context of family planning. A 1997 review of SPs in the study of healthcare providers lists 23 studies, of which only two focused on physicians - a study in Iran by Amidi et al. and a study in Thailand where hospital residents were approached by a case of sore throat and their responses compared to their responses on an earlier written test (Amidi et al. 1975; Thamlikitkul 1991; Madden et al. 1997). Most of the drug retailing studies (13 out of 16) involved patients (or parents/relatives of young children) approaching drug stores with complaints of diarrhea. The family planning cases typically featured women of various age-groups presenting at public and private clinics seeking advice on a contraceptive method. Several of these studies looked at discrimination based on social status and effectiveness of provider training on family planning counseling provided to patients.

More recently, the Healthy Highways Project in India used SPs to estimate gaps in knowledge and practice of healthcare providers. The case presented involved an SP with a possible penile infection. It was found that while an appropriate history was elicited by the majority of providers, very few examined the patient by inspection, looking for lesions and milking for discharge (<30%) and only 6% of qualified doctors prescribed the correct drug and dose. It is also noteworthy that in comparison to the published studies on SPs, the Healthy Highways Project had a much larger sample size (500). However, the project's SPs, were real patients who had already received treatment.

A. THE UNANNOUNCED SP

In studies from most industrialized countries, considerable attention is devoted to how SPs are introduced into clinics due to record keeping required either by government agencies or

insurance companies. Government health cards or health insurance identification cards are the entry point into the electronic system that tracks all activity. Creating false documentation for unannounced SPs and organizing visits with administrative staff require a layer of administrative design that may not be necessary in developing countries. In the Indian context, a relatively small share of the population has health insurance. Furthermore, most of the health insurance programs currently available in India are hospitalization benefits. This makes the presentation of SPs as new patients in primary care clinics more tractable in the Indian case.

The detection rate is one of the markers of success for SP based quality assessments, and studies would ideally want to aim for very low rates of detection. An interesting factor to consider when dispatching unannounced SPs to clinics is the possibility of their being recognized – certainly in small towns and rural communities but also in communities within large cities. The level of social interaction in such settings in which service providers and residents might be related through multiple ties might make it unusual that a complete stranger would come to a local clinic. Therefore consideration must be paid to developing scenarios with credible reasons for the appearance of patients unknown to providers.

We discuss ways to prepare SPs to avoid detection in the training section of this manual. In the MAQARI study, less than one percent cases were detected in the Delhi pilot (where providers were told to expect an SP), and no cases were detected in Madhya Pradesh.

B. CULTURAL CONTEXT OF SP STUDIES

The rich diversity of a nation like India also affects recruitment. Knowledge of which patient characteristics (race, gender, religion, class, etc.)could alter doctors' attitudes and responses is critical. For example, in India, caste/class issues as well as those of religious affiliation, which is often coded in dress and body markings, are arguably among the most important factors to consider in developing a cohort of SPs. Because the interest in our particular project is the care delivered to the members of the middle and lower classes, we were careful to recruit SPs from neighborhoods representative of those classes. We felt that it would be difficult for a person from an upper-class background to be able to learn and internalize the characteristics of a patient from a lower-class background. Previous attempts to develop SPs in developing countries have found a high degree of success working with local populations rather than with trained actors. For example, in 1998 a team from the University of Toronto recruited trained security guards to be SPs for the year three final performance-based student evaluation for the Clinical Skills Program at the International Centre for Health Sciences, Manipal, India. Although the security guards' schooling was minimal and with virtually no common language between them and the Canadian trainers, the SPs learned quickly, well, and were highly effective – they were actually able to grasp the complexities of the examination and its choreography sometimes more ably than students and faculty. Another advantage of recruiting people from subject communities, rather than actors, is the closer match to local population in appearance and dialect spoken. As described in Section VII on recruitment, we adopted a similar strategy in the MAQARI study.

However, the most important issue is that unlike the vignettes presented, where the scene of interaction is one in which the provider knows that the case being discussed is hypothetical, the SPs must bring the case to life and be prepared to give convincing answers, whether

relating to the clinical details of the condition they portray or their personal history. Further this prepared improvisation must be done in a manner that takes account of the cultural and social milieu of the patient – hence only patients drawn from low-income or middle-income neighborhoods would have the cultural knowledge to spontaneously come up with good answers. A disease, after all, is more than the sum of clinical symptoms. A patient is not only a body on which different symptoms appear, he or she is a social-cultural being. Thus, the patient's experience of disease is mediated by his or her social setting, the attitudes of others, and the languages (including words, tones, and gestures) that circulate in a given community. This requires an intuitive grasp over community norms that determine our sense of the "rightness" of ways of representing a disease in a particular local setting and an ability to answer questions posed by providers about one's medical as well as social history In the course of the discussion, we will provide examples to substantiate this point.

Once the spectrum of doctors under study and the relevant characteristics of the SPs have been determined, the clinical cases must be developed in consideration of factors contextually relevant to health and safety guidelines. For any given clinical scenario, "gold standard" treatment will vary to some degree between, for example, India and the United States. Expecting a rural health provider in India to refer a myocardial infarction case for Percutaneous Coronary Intervention would not be reasonable. Thus, discussion of clinical cases with local experts is key to aligning standards with local clinical expectations.

C. RISKS TO PARTICIPANTS

As in any project in which human subjects are used, risks to participants must be minimized. In the case of an SP project, the welfare of both the SPs and the doctors must be taken into account. As noted above, cases should be selected and developed to minimize the chance of invasive investigations. The developing world possesses some special challenges in this regard. For example, given how common dehydration is in the summer, a patient presenting with moderate to severe diarrhea might be strongly advised by the provider to receive intravenous fluids. This might require the SP to identify himself/herself to avoid exposure to potentially unsafe medical treatment. Therefore, although dehydration is an important clinical concern, this risk of invasive treatment necessitates exclusion of a case based on dehydration. Similarly, at least in India, intramuscular injections can be surprisingly frequent even in situations where an injection is not clinically indicated. Another less obvious example is the taking of temperature. Whereas non-invasive thermometers (e.g. thermometer strips that are placed on the skin) are widespread in the developed world, old-fashioned mercury thermometers that are kept in questionably hygienic conditions and that would ordinarily be placed in one's mouth are commonly used in low income urban neighborhoods and in rural areas in the developing world. So, as part of their training, SPs need to be prepared with various plausible strategies to avoid any procedure that could put them at risk.

In contrast to the risks to patients, the risks to participating doctors raises a different set of issues that are often discussed in terms of "deception" or "mystery shopping" (Norris 2004; Riach and Rich 2004). Riach and Rich review the ethical issues involved in using deceptive field experiments for documenting discrimination based on race or gender in the market place, usually in cases of hiring practices and access to housing. These studies use controlled experiments in which agents with different racial characteristics, for instance, apply for a job or try to buy a house though they do not intend to complete the transaction.

They withdraw from the transaction as soon as the employer or the estate agent replies. Riach and Rich argue that such studies are important since neither surveys nor interviews are likely to reveal the extent of the bias since respondents will either conceal their true responses or might even be unaware of the extent of their bias. They further argue that inconvenience caused to subjects is minimal and the public good that results from documenting the extent of racial or gender based discrimination far outweighs the slight inconvenience caused to the subjects.

Riach and Rich additionally note that practices of deception are so prevalent in the market place that, following the philosopher Sylvia Bok, we might conclude that there is no ethical transgression in the deceptions that field experiments entail since market place practices themselves involve a degree of deception as part of their normality (Bok 1989). We are not going to engage with the issues arising from philosophical consideration of lies that range from Kant's strict categorical imperative that rules out lies under any circumstances to Austin's delightful use of everyday examples of pretending.(Austin 1969; Kant 2011 [1785]) What we are concerned with here is a research practice, though we do not deny that wider ethical issues go beyond typical questions of legal liability. Norris argued that in the case of mystery shopping with pharmacists, the principle of informed consent of subjects has to be weighed against the public's right to know that their safety is not jeopardized (Norris 2004).

In our own case we felt that the best way the public good would be served would be to define this study not in adversarial terms with providers but by seeking their cooperation. We explained the general principles behind our study and the different methods that would be used, but we concealed some information about the precise nature of the SP visit with the permission of two institutional review boards for research with human subjects (Harvard University and Innovations for Poverty Action). We explain the procedure below.

In the Indian context with such a wide variety of medical providers and a rather loose regulatory system, providers on the "lower" end of the training/legal spectrum could perceive a SP project, especially if affiliated with a government health authority, as a "sting" operation in disguise. Attention to these concerns, as unusual as they may be, can help ensure cooperation from providers.

For our pilot project in Delhi, we obtained the consent of participating doctors and made it clear that this was an academic study that was not designed to bring them any measure of trouble. They agreed to answer questions posed through medical vignettes and to allow two researchers to observe them in their respective clinics and record the interactions with patients (without recording the names of the patients). It was also explained to participating providers that an incognito patient would visit them in a given time span but the exact timing, gender, or disease with which the patient would present were not revealed. If they recognized that a patient was simulated, they were asked to record the name of the patient, the date of visit, and the presenting symptoms in a diary but not to confront the patient directly. This step was necessary so that they did not end up confronting a genuine patient with the charge of being an SP. At the end of the study we visited each participating provider and inquired if they had identified the SP. We then revealed the details about the SP visit. We also promised to make available the final result of the study and to involve them in any intervention that might result from the study.

In the case of the rural areas in which the main study was implemented, providers were provided full details of the objectives of the study and were assured that the task was to make population level interventions and that no individual provider would be identified in the data or in the final reports. The details of vignettes and observations in the clinic were explained and consent was obtained. The details of the SP design were not revealed, and ethical clearance for this audit design was granted by an IRB. Many providers were located in remote areas and if they knew that an incognito patient would visit them in a given time frame, it would not have been possible for the SP to remain incognito.   The risks to providers and their patients were minimal, whereas accurate measures of provider practice were nonexistent. The expected length of clinical interactions, patient loads, and levels of provider anxiety induced by the cases were thought to be small, and SPs had to pay providers whatever they charged. At the time of recruitment, it was explained to providers that several methods would be used to assess quality of care at the population level and we would not reveal results of individual performance.

D. HETEROGENEITY OF TYPES OF PROVIDERS AND TREATMENT SYSTEMS

In addition to these practical and ethical considerations, one must ask the question: can one use "Western" standards to evaluate medical care in a complex, multi-cultural environment? In countries such as India, the quality and even the basic appearance of health care delivered differs widely based on whether one sees a provider in urban or rural areas, or a doctor with an advanced degree (such as an MD) versus a doctor with more basic training that combines traditional and biomedical training (e.g., BAMS (Ayurveda) or BHMS (Homeopathy)), or a doctor whose patient base is mostly Hindus versus Muslims. Is it fair to use a standard SP case to evaluate all of these doctors?

There are two different kinds of concerns here. First, in the context of medical pluralism in India, we might distinguish between physicians trained in biomedicine who are authorized to treat and prescribe allopathic medicines (MBBS, MD) and those who are trained in government recognized training institutions that combine elements of traditional (alternate) medicine with basic training in biomedicine (BAMS, BUMS, BHMS, etc.). The latter are also authorized to treat with allopathic medicines, but there is an assumption that their basic function is to treat easily treatable diseases in a community environment. Despite the differences in training, we feel that we could reasonably be expected to apply bio-medically defined standards to their practices, especially since these standards are equally accepted by professional medical bodies in India.

Second, when it comes to providers trained in traditional medicine alone, we feel that if they are indeed practicing according to the principles they have learnt in these systems, then it is reasonable to say that such a doctor would not be a viable subject for a biomedical SP project. On the other hand, in addition to purely allopathic physicians (e.g. MBBS-trained doctors), there exists a continuum in which doctors practice both traditional and allopathic medicine to varying degrees. These providers routinely use allopathic medicines including antibiotics and steroids, give injections, and thus should be expected to be judged by the methods developed in the SP project.

E. TRANSLATION

Translation of SP cases is a complex task. In training SPs, we needed to engage in translation at multiple levels. At the simplest level, medical education in India takes places in English, but most patients coming from low-income and middle-income neighborhoods speak in the vernacular languages. In Delhi, most patients coming from our study neighborhoods spoke in Hindi. Thus, the first step was to translate symptoms from English to Hindi. This, however, could not be done with a dictionary. Instead, it was necessary to find out the typical ways in which symptoms were reported by patients corresponding to the textbook notion of symptoms. For example, the breathing difficulties encountered in the case of asthma were typically conveyed by expressions such as *"mujhe lagaa ke meri upar ki saans upar reh gai hai aur neeche ki saans neeche"* – *I felt that my "top breath" remained on top and "bottom breath" remained on bottom.* This is not how a person fluent in English might have described the symptoms, but it seemed to precisely convey the experience of a breathing spasm.

Second, this is not simply a matter of deploying "local" categories versus "biomedical" terminology and descriptions. Due to the large volume of interactions with various languages, people, and professions (including healthcare providers), there a considerable amount of adoption and modification of terminology/language across these different systems. The meaning of an expression is conveyed more by how it is commonly used as opposed to a literal meaning (Das and Das 2007). For example, the only way that the episodic character of the asthma experience could be conveyed was to say that the patient had an "attack" of asthma. The English word "attack" is used by patients to convey the episodic character of an intense discomfort – e.g. *saans ka attack* (breathing difficulty that did not last long) or *khansi ka attack* (a bout of coughing). We finally arrived at satisfactory translations after listening to actual patients describe what had happened to them and incorporating their words and phrases in the case description. We also encouraged the SPs to discuss what seemed like a good expression of the condition to them.

The third critical issue in translation related more to the translation between experience and expression, of being able to imagine the experience of discomfort from the linguistic expression. In ordinary life, we can imagine that expression of a painful condition and the experience of pain are conjoined – to shriek in agony and to say "I am in agony" are expressing the same condition of being in agony. The SPs, by definition, were simulating their condition and they often felt that the language did not seem to carry the affect because they did not know what it was to have one's breath suspended in one's chest as the expression "*uppar ki saans uppar aur neech ki neeche*" seemed to convey. We needed to devise certain experiments to convey this sense to them. These included watching a video of a person who was in the middle of an asthma attack and trying to breathe with a straw with one's nose pinched closed. Obviously, not all cases required the same attention to conveying the relation between linguistic representation and experience of a condition.

V. OVERVIEW OF THE MAQARI SP STUDY

We now come to the specific study in which the SPs methodology was used and describe the cases. The study proceeded in two phases: a pilot phase in the summer of 2009 in Delhi that included 41 private providers and 23 public clinics and a full scale phase in 2010 in Madhya Pradesh that included 246 providers.

A. THE PILOT PHASE

In 2009, the study was piloted in urban Delhi among 41 private providers and 23 public clinics offering primary care in 6 neighborhoods of the city. We contracted with 41 providers who had participated in earlier vignette studies on provider quality and had agreed to participate in the pilot. These providers were from varying degrees of knowledge and training; they included both MBBS doctors and the whole alternate sector ranging from trained Ayurveda and Homeopathy doctors to providers with no formal training at all. These providers also agreed to be video-taped during the administration of the medical vignettes as well as during the provider observation studies, resulting in several hours of recorded interactions with patients. The project team had access to both the provider observation and medical vignette video-tapes to aid development of SP cases and to use in the training sessions. The providers in the pilot also knew they will be visited by simulated patients and agreed to the blind nature of the visit. Providers were told we would follow up with them to ascertain whether they could detect who the SP was. This also gave us the crucial ability to instruct our SPs to reveal themselves in case of any potential danger (thermometer use, injections, etc.) in the pilot phase.

Based on reviews of existing studies, feasibility of implementation, and consultation with clinical experts in India, three clinical cases were developed: Myocardial Infarction, Asthma, and proxy Pediatric Dysentery. In the pilot phase, each private and public provider received 4 SPs: male MI, male asthma, female asthma, and the mother of a child with dysentery. The male and female asthma cases were developed to examine if SP based assessment could be used to test for gender-based disparities in healthcare and treatment.

The training required a variety of specialists to be present. First, a professional SP trainer (Tabak) was needed to explain how one could assume a different character when entering a clinic and how to remain in character when confronted with a novel situation. Second, a medical doctor (Chan) had to check that the case presentations were being developed in a medically accurate way and that the SPs were indeed portraying the cases we intended them to. Given the considerable social distance between the research team and the target patient population of study (and the SPs themselves), we also required an anthropologist (V. Das) to advise on issues of cultural appropriateness of narratives, body language, and speech. Finally, to ensure that the information that the SPs were presenting and extracting from providers met the study's larger research objectives, economists (Holla and Mohanan) also participated in the training.

B. THE FULL SCALE STUDY IN MADHYA PRADESH

Please see Section VIII for a description of the modifications made to the study design, following our experiences from the Delhi pilot.

For the study in Madhya Pradesh (MP), we used the MAQARI project's census of all healthcare providers providing primary care to households in 60 villages in 3 districts in MP. Among these providers, who were spread across 107 villages, we excluded those who were in extremely remote villages to minimize SP detection rates. In extremely remote villages providers would expect to know almost all their patients and a new patient showing up unannounced would raise suspicion. We also limited the number of SP visits per provider to one per private provider and two per public clinic.

VI. SELECTION AND DEVELOPMENT OF CLINICAL CASES FOR STANDARDIZED PATIENTS

The three clinical cases (myocardial infarction, asthma, and dysentery) were selected because they are clinically important and can be reasonably portrayed by SPs without need for specific physical findings or invasive examinations. The myocardial infarction case is designed to test a provider's ability to recognize a medical emergency and appropriately refer the patient to a higher level of care, while at the same time giving necessary temporizing treatments. The asthma case tests a provider's ability to recognize a common, non-emergency scenario and treat the patient appropriately without unnecessary testing or referral. The dysentery case is unique because the true patient in the case (a two-year-old child) was represented by the SP, his "mother" (or "father" in the rural case) who relayed the history second-hand to the doctor. The objective of this case is to test a provider's ability to ask appropriate questions to arrive at a reasonable diagnosis and to treat appropriately.

Each initial case script included:

1. Opening statement to be volunteered by the SP
2. History of Present Illness presented in question-and-answer format
3. Review of Systems, Social History, Family History, Allergies
4. Relevant physical exam components
5. Other relevant examinations (such as ECG or x-ray)
6. Possible treatments, including educational measures and referral if necessary

Drafts of the cases were also reviewed by a range of expert doctors (MD level) from Delhi to help with placing the case in an Indian context. These doctors commented on questions likely and unlikely to be asked by an Indian doctor, commonly used medications in India, and appropriate socio-cultural background traits for the patients, among other issues. This process took approximately 2 weeks.

The central objective during this process of case development was to finalize clinical details that would describe a typical case, to include all signs and symptoms that are found in a classical case, and also to establish clearly the onset, duration, and progress of each disease until the date of the presentation. For example, in the asthma case, the clinical inputs we received helped establish the childhood history of chronic cough, and breathing difficulties that started one year ago, with worsening of symptoms over the past couple of months. Similarly, details about the increasing length of each episode of asthma were incorporated

into the case. These details were then incorporated into the 'script' that included personal and behavioral attributes of the SP, as described in the following section.

VII.   RECRUITMENT, TRAINING, AND SCRIPT DEVELOPMENT

A. RECRUITMENT

After several explorations, it was decided to recruit and train non-actors specifically for the SP work. We felt it was necessary to find SPs who would not only understand, but would be intensely familiar with, the needs and desires of the patients being portrayed.

During recruitment, we were not concerned about level of education so much as evidence of common sense, flexibility, and affability. Basic initial criteria for a desirable SP included:
- Reasonable level of intelligence
- Critical thinking skills
- No strong personal agenda for or against some aspect of the health care system

Additionally, we were looking for certain age and gender characteristics for each of the roles. The dysentery case called for a woman of child-bearing age who could portray a married woman with children. The asthma case called for either a man or a woman in their twenties or thirties. The MI case called for a man or a woman in their forties or fifties.

For all of these cases, we sought to recruit SPs in reasonably good physical condition. We did not want an SP's actual illness or condition to confuse the doctors. For example, a candidate who actually has a chronic productive cough would not be an ideal candidate for the asthma case, as his physical exam would potentially be misleading for a doctor. One way in which we contemplated weeding out such patients was a complete history and physical exam for each of the candidate SPs. However, we felt that this could be problematic—if an actual problem was discovered, we could potentially be responsible for the subject's subsequent care. The alternative that we decided upon was to administer a subjective self-assessment scale in which candidate SPs could rate their own health status. During the interview, each candidate was administered a self-rated health questionnaire used in surveys, where the candidate indicated his/her health status on a ladder with 10 steps. Most candidates reported health status between 8 and 10.

During the pilot, 17 SP candidates were shortlisted after the interviews. They were offered an honorarium for attending the initial orientation/screening sessions and the role development and training sessions. The honorarium was consistent with their earning capacities but was uniform across the group and was paid to all SP candidates that attended the orientation/screening/training sessions.

As we began to work with our novice SPs, qualities such as receptivity to feedback, ability to learn and adapt, the ability to be on time and to honor the notion of confidentiality proved key to their success. These are characteristics that are difficult to learn about, and the 2 week

long process of developing the personalities and draft scripts with the SPs gave us the right environment to observe and learn about these specific aspects of their personality. During the script development and training process, SPs were individually evaluated and given feedback on a daily basis about their performance and areas for improvement. Only those who demonstrated an adequate ability to learn, adapt and commit to improving their performance were retained. Over the course of the three weeks of training, 10 were eliminated based on ability to learn/perform, as well as on the basis of discipline. Based on our experience in the pilot, we interviewed 4 times as many candidate SPs as we planned to finally deploy in the field.

B. TRAINING

There is a considerable challenge presented to trainers when orienting the SPs to the fairly complex aspects of the job that lies ahead without completely overwhelming them. The training sessions began with an explanation of the details of clinical cases and script narratives to the SPs and a presentation of video excerpts of real providers at work. The SPs, along with team members, then broke into smaller groups to further develop the scripts and enact them to each other and to the training team. There was also the challenge of explaining the range of the project and the importance of confidentiality – what was reasonable for the SPs to talk about at home and what was not. This was especially salient in Delhi where the friends or families of the SPs could be patients of the providers in the study.

Although these steps were done in part under consultation with a range of Indian doctors (from premium institutions as well as from low-income neighborhoods), one of the exciting aspects of this process was that the candidate SPs, who had just been recruited at this time, also played a critical role. The narratives were presented to the candidate SPs, who then helped develop the personality traits and potential responses for the scripts. For instance, each case discussion began a reading of the narrative outline, followed by feedback from the SPs on their ideas about details of the economic, social, demographic, and personal aspects of the life of the person in the case. The SPs debated, for example, about whether the 45 year old male who presents with chest pain and runs a small grocery store in Delhi might be a native of Delhi or someone who migrated from another state some years ago. This detail about geographic background informed the subsequent discussion of the kind of language a person used, which, in the Indian context, is determined by a variety of factors including the age, class and gender of the patient. This was especially true for insertion of English expressions in the speech of the patient, a practice prevalent across various social groups, for imagining what the person might have been doing at the time that symptoms occurred, and for deciding what kind of family composition would account for the patient's arriving at the doctor's office accompanied by someone or alone. The work that the SPs put in actually improved the narratives, which were revised to address any inconsistencies or concerns that came up in these sessions.

At the same time, the training team was also able to evaluate the SPs "in action". Feedback was given to help the SPs improve their understanding of the cases and their ability to step into their roles. SPs who were unreliable, unable to understand important concepts, unable

to memorize the script and portray the roles, or found to have strong negative attitudes towards doctors based on their own or a family member's experience were gradually dropped from the project.

C. SCRIPT DEVELOPMENT

The process of developing the clinical case into a script involved three steps:
   a) Development of a case narrative, which was drafted in Hindi based on the clinical case, but read like a small story;
   b) Development of a complete "personality" of the case, including the person's background, behavior, likes and dislikes, language, etc;
   c) Development of the script, which included scripted responses to anticipated questions from doctors.

1. THE CASE NARRATIVE

The case narratives were first drafted by MAQARI investigators and ISERDD researchers. Some basics about the person's background were included in the narrative to anchor the case and the discussions. For example, during narrative development, the cases were assigned names, families, occupations, and areas of local residence along with very brief descriptions about their personalities (extroverted, ambitious, responsible, etc.). These pieces of information formed the basis of the later stages of personality and script development.

Subsequently, during the training sessions all aspects of the case presentation, including background details, personality attributes of the patient portrayed, education, body language, and demeanor were discussed with the SPs. A considerable amount of effort was devoted to understanding the *personality* of the patient: Is this person reclusive by nature? Is this person confident, and does this person take charge? We discussed how this hypothetical patient might react under a variety of settings; for example, we described an instance when the neighbors have music blasting late at night, and the patient's younger sibling was studying for school. What would the patient do? Would s/he take charge and explain to neighbors? Would s/he be worried about how such interactions could undermine cordial social relations? Would s/he ask the sibling to use earplugs and ignore the noise? It was during this process that the language used by the patient and script of the case were developed and finalized with inputs from SPs about the local context, language, and preferences. The personality of each patient that emerged through this process of finalizing the case narrative significantly influenced the choice of words and phrases, and even the accents that the SPs would portray. For example, depending on the education level of the patient, we introduced some common English terms in the responses of the SP. In this way, the case developed flesh and became more concrete for the SPs.

2. THE OPENING SENTENCE

In all our cases, arriving at the opening sentence was the most critical. We demonstrated through mock interviews how a different opening sentence for the same case could possibly

end up resulting in the clinical interaction's heading in different directions, thus establishing the absolute need to standardize the opening sentence. In addition, we conducted round robins in which every candidate SP repeated the opening sentence till it was pitch perfect.

Further, the research team and the SPs discussed each case at length to 'get under the skin' of the SP and to think about what the patient would say at the opening sentence. For example, we read the Asthma case narrative, and after developing personality traits, we tried to determine the state of mind that the young patient might be in when s/he presented at the doctor's office. (In this case, the patient had been experiencing worsening episodes of asthma. S/he was visiting relatives, and last night s/he experienced an especially terrifying episode of asthma, which prompted him/her to seek care.) Such painstaking details helped standardize the presentation of the SP, enabling us to attribute differences in treatment of patients to provider quality.

It is important to note the dynamic process involved in case development. After going through the various steps of development, multiple iterations and revisions based on reviews and comments from our expert panel of doctors, we created what we thought was the last iteration of the case script and narrative scenario. However, after sending SPs on trial runs with actual doctors (see below), even further editing of the cases ensued, especially during the pilot phase.

3. GROUP WORK

The process of script development was done in groups. SPs for each case were divided into two groups. In order to test if the process of script development in groups based on the collective narrative and personality development was actually doing what we hoped it would, we gave each group instructions that they were not to discuss what they were developing with the other group members. Each group was given a list of questions that a doctor might ask them and they were asked to come up with scripted responses for the case (including attention to diction, severity, affect, and portrayal). At the end of 3 days of script development, the groups enacted their scripts in front of the whole team and got comments and suggestions about how it might be improved.

Further, for the MI cases, we gave the two groups slightly different cues: one was told the patient is experiencing a lot of pain and the other was told that the pain was tolerable. This produced two *very* different portrayals of the same clinical case, and the final script and portrayal was developed based on inputs from both portrayals and comments from expert panel members about these different scripts.

D. PROVIDING MEDICAL DETAILS

Along the way, the SPs began to ask questions about the condition they were supposed to be portraying. This is a phase of training which often occurs as SPs begin to inhabit their role. Insecurities can surface because it becomes increasingly difficult to handle penetrating questions, about symptoms for instance, without understanding what it *feels* like. In essence the portrayal starts to feel like a lie so questions begin to emerge in pursuit of gaining authenticity. When they began to ask, SPs were given more training on the medical aspects

of the cases to give them a better understanding. Doing so actually proved to be something of a double-edged sword. One might argue that the SPs should just learn their scripts and symptoms and not be concerned with the pathophysiology of their conditions. In training the SPs about their diseases, we risked the SPs' becoming "too knowledgeable" and as a result acting in ways which would be unusual for a typical patient. With the asthma case, for example, at least one of the SPs tried to steer a few doctors toward an asthma diagnosis when he was unsatisfied with the doctor's questions.

However, on balance, we felt that the benefits of training the SPs on the medical aspects of the cases outweighed these problems. Most importantly, it helped the SPs "internalize" the cases. Most of the asthma SPs had never even heard of asthma, so it was difficult for them to truly understand what the patient they were portraying was going through. After we showed a video of an actual asthma attack, lectured them on some of the basics of asthma, and did a question-and-answer session regarding the disease, the SPs felt that the disease became more real to them and that they could then portray the patient better. With careful training we were also able to correct the problems that arose from being "too knowledgeable," ensuring that SPs were not offering too much information or presenting answers that appeared scripted or unrealistic.

E.   TEACHING RISK MITIGATION STRATEGIES

Threaded through the training sessions were explorations of strategies to employ if the SPs were compromised either by being asked to do something they were not comfortable with or by having to take a medication (e.g., sub-lingual nitro for MI patients). In one instance one of our SPs had his hand on the table and before he knew it, the provider had pricked him with a needle for blood-sugar testing. SPs were coached on how to refuse injections of any kind (the standard response to be offered was that he/she is allergic to injections and had passed out unconscious last time an injection was given). They were also coached to say that they were fasting and so could not consume any pills immediately but would eat the medicine after breaking their fast later in the day. During the training, they were reminded time and time again that their safety is of utmost importance and they should not allow themselves to be subject to any medication or any other physical harm. If a provider insisted on administering a treatment, they were coached to disclose their identity, thank the provider for his/her time, and ask the provider to contact the researchers if they had any questions.

During the pilot phase, after the final group of SPs was selected and the cases finalized, the SPs were all videotaped portraying their roles. These videos were also reviewed by all of the SPs and training team members with a special focus on ensuring a standardized presentation among all the SPs. Multiple iterations of role-playing, followed by criticism and revision, followed by more role-playing, etc. were undertaken to further help standardize the SPs.

F.   THE EXIT QUESTIONNAIRE

The exit questionnaire was intended to measure doctors' quality and effort with an "objective," quantitative means as well as a more subjective, patient-centered means. In addition to low detection rates, the success of the SP method in our context depended on how well the SPs performed on the exit questionnaire, which required an accurate

recollection of the clinical encounter and a non-medical assessment of the performance of the providers.

Each questionnaire included a list of elements specific to each clinical case that could possibly be discussed by the clinician. In addition to measuring whether the doctor asked the question specifically, we also decided to note whether the patient had volunteered the information. This would account for "answers" to particular questions that could have been addressed by an open-ended question or otherwise brought up in the encounter.

In addition to these case-specific elements, each exit questionnaire also included items such as:

- Fee charged by provider
- Total time taken by the provider
- Number of patients waiting at time of arrival
- Number of patients waiting at time of completion of encounter
- Any other questions posed by the provider that were not already on the questionnaire

To garner the SPs' more subjective impressions of the nature of the interaction, we began with simple yes/no questions with space for elaboration:

- Did you like this doctor?
- Would you go to this doctor again?

After a short time working with these two simple questions, two of the SPs portraying asthma patients actually volunteered on their own other questions that they felt were important in reflecting their opinions on the doctors' performance. This was an unexpected but welcome sign of initiative on their part. After discussion among the SPs and the training team, these questions were eventually included in the exit questionnaire:

- Did the doctor create an environment in which you could convey your symptoms and concerns easily?
- Did the doctor appear to be knowledgeable about your illness?
- Did the doctor address your worries seriously?
- Did the doctor explain anything about your illness?

Each of these four questions was graded on a three-point scale, indicating a favorable, neutral, or unfavorable response. SPs were also encouraged to explain their opinions in their own words, which were then recorded.

These subjective questions raised some interesting dilemmas. At this stage of their training, these SPs actually were trained in their illness and knew far more than most real patients would actually know. Thus, we had to determine whether the answers we would get to these questions would reflect the thinking of a trained SP or a "typical" patient who did not actually know what disease he or she had. Although we are not completely sure if one

opinion is "better" than the other, we at least tried to standardize it among the SPs by asking them to look at the doctor from the perspective of a typical patient. In this way, for example, a SP would not unfairly give negative marks to a doctor because he knew the doctor had not asked certain important questions that had been rehearsed. This is an important area for further research and experimentation.

We also showed videos of real provider encounters to engender conversation among the SPs and to get them thinking about what makes a provider effective or ineffective or an overall experience with a doctor favorable or unfavorable. In one video, for example, a provider was shown acting brusquely toward his young patient and then abruptly giving an injection to the wailing child without explaining the rationale or consoling the child. Other videos showed providers with much better "bedside manner." These videos gave the SPs plenty of fodder for discussion and helped them to articulate the reasons behind their ratings of doctors. We also introduced to the SPs the concept of a difference between the process and the outcome. We wanted to point out that a doctor might select a "correct" treatment not because of intelligent reasoning but because of pure luck, and for that reason, close attention to the questions a doctor asked and not just the final outcome of an encounter was important.

Again, this raises the question of whether the SPs' subjective opinions were swayed by the training they were given. However, we think we were able to give the SPs a standardized framework with which to come up with reasonable assessments of doctors that would not vary arbitrarily. We also expected that as the SPs gained more experience in the field, their opinions of doctors would naturally evolve as they became more informed about how "good" doctors behave and how other doctors underperform.

VIII.   SP FIELDWORK

A.   DRESS REHEARSAL

After the in-office training had been completed, SPs were sent to portray their cases to real doctors who were not part of the pilot group of doctors under study. These doctors had previously been cooperative on other projects and were felt to have trustworthy opinions. In some cases, the SPs were not told this was a rehearsal, but were told that this was their first "real" doctor. Similarly, the doctors were told they would get an SP, but were not told who this patient would be or what the case was. It was felt that performing the cases in front of "real" doctors would reveal unforeseen scenarios that could be recorded and used to revise the case. After this dress rehearsal, the SPs were debriefed and given feedback. We were also able to obtain feedback from the doctors, especially whether they were able to figure out if the patients were SPs. Fortunately, the SPs all did fairly well, and the experience allowed us to further revise the cases.

B.   LEARNING FROM ACTUAL FIELD INTERVIEWS

The ISERDD staff played a critical role in ensuring the success of this pilot. For each doctor appointment, including the aforementioned "dress rehearsal," the SP was accompanied by an

ISERDD staff member. The ISERDD staff member would leave the SP's side just before entering the doctor's office to avoid detection. Then after each encounter, the ISERDD staff member and the SP would meet up again. The ISERDD staff member would then debrief the SP and administer the exit questionnaires. This was also an opportunity to detect mistakes in the portrayal and provide immediate trouble-shooting for anything that occurred in the clinical encounter. The staff member could answer questions for the SP immediately or bring a question back to the larger research team.

This system allowed constant feedback and improvement during the entire pilot project. We found that a couple of the SPs, having been trained on the "correct" diagnosis, actually became frustrated when doctors would go down the wrong path and would inappropriately volunteer information to try to correct the doctor. In another example, an SP had to figure out a way to avoid having a thermometer put in his mouth. He reported this to the accompanying ISERDD staff member, who passed this along to the larger group which allowed us to train all the SPs in ways to avoid invasive testing. As field interviews continued, we continually heard from the ISERDD staff which aspects of the case were confusing, and we were able to meet with the SPs and address these aspects. We also addressed the unexpected questions not covered in their training that SPs encountered during their visits to providers. Not only did we standardize what SPs should say when presented with unexpected questions, but we revised the exit interview to make sure that all appropriate questions and observations were included and coded.

The process of ongoing feedback and improvement also allowed us to improve the work of the ISERDD staff. Because the ISERDD staffers are not medical professionals, it would not be surprising for some of the details of the clinical encounter to be "lost in translation" between the SP's memory and the ISERDD debriefer's recordings. The training and practice that the ISERDD staff obtained by observing interviews allowed them to improve their ability to ask the right questions and capture all the relevant information. Indeed, one of the SPs actually complained that the ISERDD staffers were not always asking certain questions in the exit interview in the same way. Once this discrepancy was noted, we were able to train the debriefing staff to be more consistent.

C. NOTES ON MANAGEMENT OF FIELD WORK

In order to minimize potential correlations between provider quality and SP characteristics, we randomized the provider assignment to SPs. Provider lists were compiled from field work conducted earlier and SPs were randomly allocated with the restriction that the same SP would not present at the same doctor with different illnesses. In MP, we also randomized male and female Asthma cases to providers (unlike in Delhi, where all providers saw both a male and a female case). This was done to minimize chances of detection.

Another critical dimension is that since the SP team is new to each provider and his/her settings, it was important for one of the field supervisors to go earlier to the physical location of the clinic to conduct reconnaissance. The MAQARI investigators and ISERDD team members conducted dry runs to finalize how the teams would arrive at local bus stations or similar large public spaces before heading out to the provider's clinics in teams of two (one patient and one accompanying person). Also, the team members would be given

clear instructions on a location where they were to report for debriefing after meeting the provider. This protocol served two purposes: (1) the exit interviews were conducted as soon as possible after the SP visit, and (2) the SPs had the confidence that their team members were close by if any complications arose and they had to reveal their true identity.

<p style="text-align:center">D. MODIFICATIONS MADE FOR THE STUDY IN MP</p>

In this section we briefly describe the modifications in training that we made for the training of SPs for the rural component where the project was actually implemented. An overview of these modifications will be helpful to see how the SP methodology can be modified and adapted for different social settings.

First of all, the narratives were modified in group discussions with the SPs that were recruited for the rural fieldwork. Now the narrative details had to take into account the fact that SPs would be going into clinics in areas where providers had some familiarity with the patients who normally visited them and the SPs, despite all attempts to make them dress like people from rural areas, would be marked as somewhat "foreign" to the areas in which they would be visiting the clinic. It was decided that in the case of clinics that were located in nearby small towns or "kasbas" that had a market, the SPs would narrate that they lived in a nearby village and had come to seek treatment because their home remedies did not work. In order to firm up this story, a team of SPs or ISERDD staff took a reckoning of some nearby villages and settled on the name of a village and a caste name for the SP that was appropriate for that micro-region. ISERDD staff tried to collect a lot of information on the basis of casual conversations with people in buses or on tea shops in the area. This kind of local knowledge has to be picked up from the area itself and hence the SPs and ISERDD staff were trained to do this anticipatory reconnaissance. In the case of more remote villages, the SPs were supposed to have come to visit relatives in a nearby village since in such remote villages even the minimal anonymity one could envisage for small town or a *kasba* would not be operative. Hence saying that they lived in a nearby village when they had never been seen in the area before would have raised suspicion.

In the case of MI, we had to alter the case to that of unstable angina. It simply did not seem realistic that someone with the severe pain of MI would be able to either walk from a nearby village or take public transport (a bus) since buses were infrequent and not very reliable. The case of unstable angina seemed more manageable since the pain was supposed to have occurred early in the morning but to have disappeared though some discomfort was still felt by the patient.

We modified the female asthma case to portray a married woman living in a joint family from a nearby village or a married woman who had come to visit her relatives in a nearby village along with her husband. It was also decided that she would go to the clinic accompanied with her husband's younger brother (or cousin) since young women did not usually go alone for any errand even in nearby markets.

Finally in the case of the child with dysentery, it was the father and not the mother who went to the clinic to try and get medication for the child.

We mentioned earlier that giving SPs some basic bio-medical information about the disease that they were portraying turned out to be a double edged sword. It raised the possibility that SPs came to know much more about the disease than an average patient from a rural or low-income urban area. Would this affect the way they interacted with the provider? In the rural study we divided SPs into two groups – half the SPs were "empowered" and were given lectures on the bio-medical characteristics of the disease. At the end of the consultation they were also instructed to inquire from the provider as to what diagnosis he had arrived at and what medications he was dispensing. The other half of SPs were taught how to portray their symptoms but were not given any information about the disease – nor were they supposed to initiate any questions of their own in the clinical interaction. We will analyze the data to check for differences in the clinical interactions of empowered and unempowered SPs.

Finally, we wanted to know if SPs could indicate their level of confidence in assessing the quality of interactions in the clinic. For this purpose we devised several games in which SPs were given 10 marbles and they had to distribute these in five cups with ranks of 1 to 5 in any order they considered appropriate. Thus, to the question, how would you rank this provider in terms of his knowledge of the disease where 1 is very poor and 5 is excellent, they had the choice to put 8 marbles in the cup with the number 5 and 2 in number 4 – indicating that they were reasonably certain that the provider was very good, but not absolutely certain. They could also distribute 5 marbles in into cups number 5 and 4 thereby indicating that the doctor was good but they were not as confident as in the first case that their judgment was correct. The idea was to let them try different combinations and to explain to them the meaning of the combination they had chosen. For instance, when some trainees repeatedly divided the marbles at the extreme ends of the continuum, putting 7 in number 4 and 3 in number 1, we asked them to explain their reasoning to which they often responded by saying (for instance) that in terms of the attention the doctor paid to me I would give him 7 but in terms of cleanliness of the clinic I would give him 3. We realized that they were thinking of different domains on which the quality of care was to be evaluated and not the degree of confidence with which an evaluation on the overall quality of care was being expressed. However, by identifying such errors we were able to better express the idea of probability distributions. However, throughout the fieldwork they had to explain the reason for the distribution they chose during the exit interviews. This new measure was a significant addition to the global assessment scales that we had adapted from studies done in the context of developed countries.

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A. SCREENING QUESTIONNAIRE USED IN SELECTION

Name of Applicant:				Date of Interview
Interviewers:				
Age	M/F	Second Language	Occupation before this interview	Is applicant a parent? *(age of children)*

MEDICAL HISTORY	
Interviewers: Again, please indicate to applicant that the following is confidential, and is intended to help determine if any roles would or would not be suitable. Because we believe a) it could be counter-productive or even harmful to the SP to be portraying a patient with similar conditions b) scars or other injuries could mislead or divert the provider from the expected task	
How would you describe your health in general?	Use Survey question on rating health 1-10
Have you had (Do you have) any health conditions or problems?	
Are there any health problems that your family has had to deal with?	
Do you have allergies? (e.g. to latex, certain foods) Do you smoke? Do you take any medication regularly?	Not necessary

ATTITUDE TOWARDS MEDICAL PROFESSION	
Interviewers: Please prepare the applicant for this discussion by mentioning the following: -Assure the applicant that all information is completely confidential. -It is best if the applicant is truthful. Our work has a way of bringing out issues that are best dealt with as early as possible.	
Do you make regular visits to doctors? If not, why not?	
How would you describe your relationship with them?	
What do you like and not like about your doctors?	
Have you had positive experiences with the medical profession? If yes please describe what the positive aspects were.	
Have you had negative experiences with the medical profession? If yes, please describe.	

TYPES OF ROLES	
Would you be comfortable doing general physical examination roles such as Stethoscope (listening to your heart and lungs), BP, pulse, etc.?	

AVAILABILITY AND PUNCTUALITY	
We plan to start training at the end of July and continue working on this project until September 2009. We will need a commitment from anyone joining our project to stay involved for the duration. Will you be available to work with us during this time?	
Most of our training happens during 10AM-5PM, at our office. Are you available for training at this time? Interviewers: Mention that we usually train here in our office. We will reimburse travel costs	
Our training also includes weekends. Are you available to work on weekends?	
Would you describe yourself as punctual? Interviewers: Discuss degree to which we can accommodate schedules.	

FEEDBACK (After Viewing Videos)	
How do you think the patient was treated in the video? (Good, Acceptable, Not Good)	
What made you feel the treatment was (G/A/NG)?	
What else do you think the doctor could have done better for the patient during that visit?	

-

OVERALL IMPRESSION
☐ Suitable for the SSP ☐ Not suitable for the SSP
After your applicant has left, complete the Communications Checklist form where you will have space to indicate your reservations in detail.
This form completed by:

The following pages include the final versions of the scripts that were employed in training the SPs for the MI, Asthma, and Dysentery cases. Since the scripts were finalized in Hindi as described in earlier sections of the text, we also include earlier versions that were developed in English. The exit interviews include questions in both Hindi and English.

ISERDD   *SSP EXIT INTERVIEW: "Radha & Rajesh"*   Form No: ☐☐☐☐

SSP Gender	Male = 1 Female = 2		☐		
1	State Name	*Madhya Pradesh*	1a	State ID	**23**
2	जिले का नाम District Name	*English*	2a	District ID जिले की आईडी	☐☐
3	गाँव का नाम Village Name	*English*	3a	Village ID गाँव की आईडी	☐☐☐
4	क्लीनिक का नाम Name of Clinic	*English*			
4a	क्लीनिक की फाईनल आई डी Final Clinic ID	☐☐☐☐☐☐			
5a	पहला / शुरूआत का नाम First Name	*English*	5b	आखिर का नाम Last Name	*English*
6	प्रोवाइडर की फाईनल आईडी Final Provider ID	☐☐☐☐☐☐☐			
7a	In time(Railway time)	☐☐ : ☐☐	7b	Out time (railway time)	☐☐ : ☐☐
8	Total time taken by Provider	☐☐ : ☐☐ : ☐☐ **HH MM SS**			
9	Date of Survey DD/MM/YYYY format	☐☐ / ☐☐ / ☐☐☐☐			
10a	SSP Name		10b	SSP ID	☐☐
11a	Interviewer Name		11b	Interviewer ID	☐☐

SECTION 1	QUESTION (HINDI)	QUESTION (ENGLISH)	NUMBER
N1	आप जब पहुचें तो क्लिनिक में कितने लोग इन्तजार कर रहे थे?	How many patients were waiting when you reached the clinic?	☐☐
N2	आप जब क्लिनिक से बाहर निकले तो कितने रोगी थे?	How many patients were in the clinic when you left?	☐☐
	आपने प्रारभिक वाक्य क्या बोला (नीचे लिखो)	Opening statement (Please write below)	
S1		Correct statement – 1 Incorrect statement – 2 If incorrect statement -2, write what the SSP said in S2	☐
S2	*Hindi*	*English*	

Data Page:1

NO.	QUESTION (HINDI)	QUESTION (ENGLISH)	ASKED-YES (1) NO (2)	If not *asked-* given by SP? YES (1) NO (2)
MEDICAL HISTORY				
H1	सांस की तकलीफ के विषय में सवाल (इस अटैक के बारे में)	Probes about breathing difficulty (current episode)	☐	☐
H2	खांसी।	Cough	☐	☐
H3	क्या खांसी में कुछ आता है, जैसे बलगम, खून या ये सुखी खांसी है?	Probes about expectoration, i.e. does anything come up such as mucus/blood or is this a dry cough?	☐	☐
H4	आपको सांस की तकलीफ इससे पहले भी हुई है?	Have you had breathing problems previously?	☐	☐
H5	सांस लेने में हुई मुश्किल पर खोज (पिछले अटैकों के बारे में)	Probes about breathing difficulties (previous episodes)	☐	☐
H6	सांस की तकलीफ कब से है?	Since when have you had these breathing problems?	☐	☐
H7	ऐसा कितनी बार होता है?	How often does this happen?	☐	☐
H8	सांस हर दम फूली रहती है या बीच-बीच में?	Is the shortness of breath constant or episodic?	☐	☐
H9	ऐसे कोई हालात जिनसे अटैक शुरु हो जाता है(जैसे कि धूल, प्रदूषण,वातावरण में घुमट, सर्दी?)	What triggers the episodes? (e.g. dust, pollution, bad air quality, cold)	☐	☐
H10	कितनी देर ये अटैक रहता है?	How long does an attack last?	☐	☐
H11	क्या ऐसी चीज खाई जो पहले कभी ना खाई हो?	Did you eat anything that you had not taken before?	☐	☐
H12	बचपन में बिमारी, विशेषकर खांसी या सांस की तकलीफ	Childhood illnesses especially re: cough or breathing problems	☐	☐
H13	उम्र ?	Age	☐	☐
REVIEW OF SYSTEMS				
H14	बुखार	Fever	☐	☐
H15	सीने में दर्द	Chest Pain	☐	☐
H16	वजन घटा है	Weight Loss	☐	☐
H17	रात को पसीने	Night sweats	☐	☐
H18	गला खराब या नाक से पानी बहना या सिर, नाक आदि में सर्दी जमना	Throat or upper respiratory symptoms	☐	☐

SOCIAL HISTORY				
H19	बीड़ी सिगरेट	Beedi-cigarette	☐	☐
H20	क्या काम करते हैं?	Occupation (Lit."What kind of work do you do?")	☐	☐

FAMILY HISTORY				
H21	परिवार के सदस्यों की बिमारी के विषय में सवाल	Questions regarding family history	☐	☐

SECTION 2	PHYSICAL EXAMINATION	Yes (1) No (2)
E1	Pulse	☐
E2	BP	☐
E3 a	Auscultation front	☐
E3 b	Auscultation back	☐
E4	Throat exam	☐
E5 a	Temperature attempted with thermometer?	☐
E5 b	Temperature taken by touch?	☐
E6	Other invasive examinations attempted? (please list)	☐
E7	Other investigations recommended? (please list)	☐

SECTION 3	TREATMENT					
T1	Medicines dispensed *Enter 1 if Yes and 2 if No* ☐	Name	Dose	Frequency	Duration	Medicine code
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐

T2	Medicines prescribed *Enter 1 if Yes and 2 if No* ☐	Name	Dose	Frequency	Duration	Medicine code
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐
T3	Prescribed\Offered inhaler	*Enter 1 if Yes and 2 if No*				☐
T4	Injection offered	*Enter 1 if Yes and 2 if No*				☐
T5	Education re: Breathing Problems	*Enter 1 if Yes and 2 if No*				☐

SECTION 4	FEES	
F1	*Fee charged by practitioner* Rs.	☐☐☐☐
F2	*Cost of medicines paid in addition* Rs.	☐☐☐☐
F3	*Total Fee* Rs.	☐☐☐☐

SECTION 5	DOCTOR FOLLOW UP QUESTIONS		
R1	क्या डॉक्टर ने आपको वापस बुलाया है? यदि हां तो निम्नलिखित में उपयुक्त कोड भरे	Did the doctor ask you to return? if yes ,then mark the following options	Yes =1 No =2	☐
R2	अगर तकलीफ ठीक ना हो।	If you do not feel better.	Yes =1 No =2	☐
R3	दोबारा दवाई लेने के लिये बुलाया है	To get a refill of the medicine	Yes =1 No =2	☐
R4	टेस्ट के रिजल्ट के बारे में जानकारी देने के लिये	After completion of recommended test	Yes =1 No =2	☐
R5	इतने दिनों के बाद	After so many days		☐☐
	हफ्तो के बाद	Weeks		☐☐

SECTION 6	DIAGNOSIS		
D1	डॉक्टर ने आपके साथ किसी डायग्नोसिस की संभावना के विषय में बातचीत करी? यदि हां तो Did the doctor discuss a possible diagnosis? If yes, then what was the diagnosis write in D2. If no =2, → A1	1 = yes 2 = no		☐

D2	What was doctor diagnosis (one or more than one)	Hindi
		English

D3	Was the diagnosis correct? Correct = 1 Asthma, Allergic Asthma, Bronchial Asthma Partially Correct = 2 = Allergies Incorrect = 3	☐

SECTION 7	SSP DOCTOR'S ANALYSIS			
Aux1	आपको डॉक्टर कैसा लगा?	Did you like this doctor?	Yes =1 No =2	☐
Aux2	आप इस डॉक्टर के पास दोबारा जाओगे?	Would you go to this doctor again?	Yes =1 No =2	☐
Aux3	कुछ नये सवाल आपसे पूछे।	Any other questions asked that were not on the previous list	Yes =1 No =2	☐

SECTION 8	GLOBAL ASSESSMENT SCALE	

Q1	क्या डॉक्टर ने ऐसा माहौल बनाया कि आप उसे अपनी तकलीफ आसानी से बता सकें।
	    निश्चित रुप से ==3
	    थोड़ा सा ==2
	    बिलकुल नही ==1
		Did the doctor create an environment in which you could convey your symptoms and concerns easily
		Definitely =3
		Somewhat =2
		Not at all = 1
			☐

Q2	आपको क्या लगा क्या यह डॉक्टर अच्छे जानकार हैं। क्या आप समझते है की उन्हें आपकी बीमारी की जानकारी है अच्छा जानकारी थी ==3 सामान्य जानकारी थी ==2 बिलकुल नही ==1	Did the doctor appear to be knowledgeable about your illness? Very knowledgeable =3 Somewhat knowledgeable =2 Not at all = 1	☐
Q3	क्या आपकी चिन्ता पर डॉक्टर ने पूरा ध्यान दिया? पूरा ध्यान दिया ==3 थोड़ा ध्यान दिया ==2 बिलकुल नही ==1	Did the doctor address your worries seriously? Very seriously =3 Somewhat seriously =2 Not at all =1	☐
Q4	क्या डॉक्टर ने आपको बीमारी के बारे में समझाया? बहुत अच्छी तरह से ==3 थोड़ा सा ==2 बिलकुल नही ==1	Did the doctor explain anything about your illness? Very well =3 Cursorily =2 Not at all = 1	☐
Q5	क्या डॉक्टर ने आपको इलाज के बारे में समझाया? बहुत अच्छी तरह से ==3 थोड़ा सा ==2 बिलकुल नही ==1	Did the doctor explain your treatment plan? Very well =3 Cursorily =2 Not at all = 1	☐

SECTION 9	Assessment with Confidence			
1	2	3	4	5

Village ID: ☐☐ Provider ID: ☐☐☐☐☐☐☐ Clinic ID: ☐☐☐☐☐☐☐☐☐

Quality Responses (narratives)

1. आपको डॉक्टर कैसा लगा?

Did you like this doctor? ☐

2. आप इस डॉक्टर के पास दोबारा जाओगे?

Would you go to this doctor again? ☐

3. कुछ नये सवाल आपसे पूछे।
Any other questions asked that were not on the previous list
I.
II.
III.
IV.
V.

Global Assessment Scale

1. क्या डॉक्टर ने ऐसा माहौल बनाया कि आप उसे अपनी तकलीफ आसानी से बता सकें।
Did the doctor create an environment in which you could convey your symptoms and concerns easily?

2. आपको क्या लगा क्या यह डॉक्टर अच्छे जानकार हैं। क्या आप समझते है की उन्हें आपकी बीमारी की जानकारी है।
Did the doctor appear to be knowledgeable about your illness?

3. क्या आपकी चिन्ता पर डॉक्टर ने पूरा ध्यान दिया?
Did the doctor address your worries seriously?

4. क्या डॉक्टर ने आपको बीमारी के बारे में समझाया?
Did the doctor explain anything about your illness?

5. क्या डॉक्टर ने आपको इलाज के बारे में समझाया?
Did the doctor explain your treatment plan?

Assessment with Confidence (explain the responses)
Begin with the largest number.

1	2	3	4	5

टिप्पणी:
Comments:

ISERDD   **SSP EXIT INTERVIEW: Ramlal Kol**   Form No: ☐☐☐☐

1	State Name	*Madhya Pradesh*		1a	State ID	**11**
2	जिले का नाम District Name	*English*		2a	District ID जिले की आईडी	☐☐
3	गाँव का नाम Village Name	*English*		3a	Village ID गाँव की आईडी	☐☐☐
4	क्लीनिक का नाम Name of Clinic					*English*
4a	क्लीनिक की फाईनल आई डी Final Clinic ID	☐☐☐☐☐☐				
5a	पहला ⁄ शुरूआत का नाम First Name	*English*	5b	आखिर का नाम Last Name		*English*
6	प्रोवाइडर की फाईनल आईडी Final Provider ID	☐☐☐☐☐☐☐☐				
7a	In time(Railway time)	☐☐ : ☐☐	7b	Out time (railway time)		☐☐ : ☐☐
8	Total time taken by Provider	: ☐☐ : ☐☐ : ☐☐ **HH** **MM** **SS**				
9	Date of Survey DD/MM/YYYY format	☐☐ / ☐☐ / ☐☐☐☐				
10a	SSP Name			10b	SSP ID	☐☐
11a	Interviewer Name			11b	Interviewer ID	☐☐

NO.	QUESTION (HINDI)	QUESTION (ENGLISH)	NUMBER
N1	आप जब पहुचें तो क्लिनिक में कितने लोग इन्तजार कर रहे थे?	How many patients were waiting when you reached the clinic?	☐☐
N2	आप जब क्लिनिक से बाहर निकले तो कितने रोगी थे?	How many patients were in the clinic when you left?	☐☐
	आपने प्रारभिक वाक्य क्या बोला (नीचे लिखो)	Opening statement (Please write below)	
S1		Correct statement – 1 Incorrect statement – 2 If incorrect statement -2, write what the SSP said in S2	☐
S2	*Hindi*	*English*	

Data Page: 1

NO.	QUESTION (HINDI)	QUESTION (ENGLISH)	ASKED- YES (1) NO (2)	If not *asked-* given by SP? YES (1) NO (2)
MEDICAL HISTORY				
H1	दर्द कहां है?	Where is the pain?	☐	☐
H2	कब शुरु हुई ये दर्द?	When did this pain start?	☐	☐
H3	कर क्या रहे थे जब ये दर्द शुरु हुई?	What were you doing when the pain began?	☐	☐
H4	दर्द ज्यादा है	Severity of Pain	☐	☐
H5	दर्द चल रही है	Radiation (is the pain "walking"/mobile?)	☐	☐
H6	पहले भी ऐसा दर्द हुआ है	Previous h/o similar pain	☐	☐
H7	इस तरह के दर्द पहले कब हुई है	Since when have you had these pains?	☐	☐
H8	दर्द बढ़ती घटती भी है ? क्या करने से दर्द बढ़ती है?	Does pain change? What do you do that makes it worse?	☐	☐
H9	किस तरह का दर्द (सीने पर भारीपन महसूस हो रहा है जैसे किसी ने कुछ वजन रखा हो या तेज दर्द जैसे छुरी भोंकीं)	Quality of pain (heavy/dull vs. sharp)	☐	☐
H10	सांस लेते या छोड़ते वक्त दर्द बढ़ती है	Does the pain change/ increase with inhalation or exhalation?	☐	☐
H11	सांस फूल रही है	Shortness of breath	☐	☐
H12	उल्टी, जी मिचलाना	Nausea or vomiting	☐	☐
H13	पसीना	Sweating	☐	☐
H14	उम्र	Age	☐	☐
H15	और कोई बीमारी	Other Medical History	☐	☐
REVIEW OF SYSTEMS				
H16	दस्त	Diarrhea	☐	☐
H17	कब्ज	Constipation	☐	☐
H18	पेट में दर्द	Pain in Stomach	☐	☐

H19	लेट्रिन् ठीक है	Stools normal?	☐	☐
H20	एसिडिटी या गैस संबंधित प्रश्न-खट्टे डकार, मुंह में खट्टा पानी आदि	Acidity/Gas-related questions	☐	☐
H21	बुखार	Fever	☐	☐
SOCIAL HISTORY				
H22	बीड़ी सिगरेट?	Beedi-cigarette	☐	☐
H23	ड्रिंक/ शराब	Drink (alcohol)	☐	☐
H24	क्या काम करते हैं?	Occupation	☐	☐
FAMILY HISTORY				
H25	भाई बहन या मां बाप में कभी किसी को ऐसी कोई दिक्कत हुई है?	Did brother, sister, or parents have a similar problem?	☐	☐

PHYSICAL EXAMINATION		Yes (1) No (2)
E1	Pulse	☐
E2	BP	☐
E3 a	Auscultation front	☐
E3 b	Auscultation back	☐
E4 a	Temperature attempted with thermometer?	☐
E4 b	Temperature taken by touch?	☐
E5	Other invasive examinations attempted? (please list)	☐
E6a	ECG offered in clinic	☐
E6b	ECG Referral outside	☐
E7	Other investigation suggested (please list)	☐

TREATMENT							
T1	Small pill under tongue	*Enter 1 if Yes and 2 if No*	☐				
T2	Medicines dispensed *Enter 1 if Yes and 2 if No* ☐	Name	Dose	Frequency	Duration	Drug code	
			☐☐	☐☐	☐☐	☐☐	
			☐☐	☐☐	☐☐	☐☐	

Data Page: 3

			☐☐	☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐	☐☐
T4	Medicines prescribed *Enter 1 if Yes and 2 if No* ☐	Name		Dose	Frequency	Duration	Drug code
				☐☐	☐☐	☐☐	☐☐
				☐☐	☐☐	☐☐	☐☐
				☐☐	☐☐	☐☐	☐☐
				☐☐	☐☐	☐☐	☐☐
T5	Injection offered	*Enter 1 if Yes and 2 if No*				☐	
T5	Referred to Hospital / Specialist	*Enter 1 if Yes and 2 if No*				☐	
T5a		*Enter NAME of HOSP/SPLST.*					

FEES

F1	*Fee charged by practitioner*	Rs.	☐☐☐☐
F2	*Cost of medicines paid in addition*	Rs.	☐☐☐☐
F3	*Total Fee*	Rs.	☐☐☐

DOCTOR FOLLOW UP QUESTIONS

R1	क्या डॉक्टर ने आपको वापस बुलाया है? यदि हां तो निम्नलिखित में उपयुक्त कोड भरे	Did the doctor ask you to return? if yes ,then mark the following options	Yes =1 No =2	☐
R2	अगर तकलीफ ठीक ना हो।	If you do not feel better.	Yes =1 No =2	☐
R3	दोबारा दवाई लेने के लिये बुलाया है	To get a refill of the medicine	Yes =1 No =2	☐
R4	टेस्ट के रिजल्ट के बारे में जानकारी देने के लिये	After completion of recommended test	Yes =1 No =2	☐
R5	इतने दिनों के बाद	After so many days		☐☐
	हफ्तो के बाद	Weeks		☐☐

D1	डॉक्टर ने आपके साथ किसी डायग्नोसिस की संभावना के विषय में बातचीत करी? यदि हां तो Did the doctor discuss a possible diagnosis? If yes, then what was the diagnosis write in D2. If no =2, → A1	1 = yes 2 = no	☐

D2	What was doctor diagnosis (one or more than one)	Hindi
		English

| D3 | Was the diagnosis correct? Correct = 1 = Heart Attack, MI, Myocardial Infraction, Angina Partially Correct = 2 = Heart Problems Incorrect = 3 | [ ] |

SSP DOCTOR'S ANALYSIS

Aux1	आपको डॉक्टर कैसा लगा?	Did you like this doctor?	Yes =1 No =2	[ ]
Aux2	आप इस डॉक्टर के पास दोबारा जाओगे?	Would you go to this doctor again?	Yes =1 No =2	[ ]
Aux3	कुछ नये सवाल आपसे पूछे।	Any other questions asked that were not on the previous list	Yes =1 No =2	[ ]

GLOBAL ASSESSMENT SCALE

Q1	क्या डॉक्टर ने ऐसा माहौल बनाया कि आप उसे अपनी तकलीफ आसानी से बता सकें। निश्चित रुप से ==3 थोड़ा सा ==2 बिलकुल नही ==1	Did the doctor create an environment in which you could convey your symptoms and concerns easily Definitely =3 Somewhat =2 Not at all = 1	[ ]
Q2	आपको क्या लगा क्या यह डॉक्टर अच्छे जानकार हैं। क्या आप समझते है की उन्हें आपकी बीमारी की जानकारी है अच्छा जानकारी थी ==3 सामान्य जानकारी थी ==2 बिलकुल नही ==1	Did the doctor appear to be knowledgeable about your illness? Very knowledgeable =3 Somewhat knowledgeable =2 Not at all = 1	[ ]
Q3	क्या आपकी चिन्ता पर डॉक्टर ने पूरा ध्यान दिया? पूरा ध्यान दिया ==3 थोड़ा ध्यान दिया ==2 बिलकुल नही ==1	Did the doctor address your worries seriously? Very seriously =3 Somewhat seriously =2 Not at all =1	[ ]
Q4	क्या डॉक्टर ने आपको बीमारी के बारे में समझाया? बहुत अच्छी तरह से ==3 थोड़ा सा ==2 बिलकुल नही ==1	Did the doctor explain anything about your illness? Very well =3 Cursorily =2 Not at all = 1	[ ]
Q5	क्या डॉक्टर ने आपको इलाज के बारे में समझाया? बहुत अच्छी तरह से ==3 थोड़ा सा ==2 बिलकुल नही ==1	Did the doctor explain your treatment plan? Very well =3 Cursorily =2 Not at all = 1	[ ]

Assessment with Confidence

1	2	3	4	5

Quality Responses (narratives)

1. आपको डॉक्टर कैसा लगा?
   Did you like this doctor?

2. आप इस डॉक्टर के पास दोबारा जाओगे?
   Would you go to this doctor again?

3. कुछ नये सवाल आपसे पूछे।
   Any other questions asked that were not on the previous list
   I.
   II.
   III.
   IV.
   V.

Global Assessment Scale

1. क्या डॉक्टर ने ऐसा माहौल बनाया कि आप उसे अपनी तकलीफ आसानी से बता सकें।
   Did the doctor create an environment in which you could convey your symptoms and concerns easily?

2. आपको क्या लगा क्या यह डॉक्टर अच्छे जानकार हैं। क्या आप समझते है की उन्हें आपकी बीमारी की जानकारी है।
   Did the doctor appear to be knowledgeable about your illness?

3. क्या आपकी चिन्ता पर डॉक्टर ने पूरा ध्यान दिया?
   Did the doctor address your worries seriously?

4. क्या डॉक्टर ने आपको बीमारी के बारे में समझाया?
   Did the doctor explain anything about your illness?

5. क्या डॉक्टर ने आपको इलाज के बारे में समझाया?
   Did the doctor explain your treatment plan?

Assessment with Confidence (explain the responses)
Begin with the largest number.

1	2	3	4	5

टिप्पणी:
Comments:

1	State Name	*Madhya Pradesh*		1a	State ID	**23**
2	जिले का नाम District Name	*English*		2a	District ID जिले की आईडी	☐☐
3	गाँव का नाम Village Name	*English*		3a	Village ID गाँव की आईडी	☐☐☐
4	क्लीनिक का नाम Name of Clinic	*English*				
4a	क्लीनिक की फाईनल आई डी Final Clinic ID	☐☐☐☐☐☐				
5a	पहला ⁄ शुरूआत का नाम First Name *English*		5b	आखिर का नाम Last Name		*English*
6	प्रोवाइडर की फाईनल आईडी Final Provider ID	☐☐☐☐☐☐☐☐				
7a	In time(Railway time)	☐☐ : ☐☐	7b	Out time (railway time)		☐☐ : ☐☐
8	Total time taken by Provider	☐☐ : ☐☐ : ☐☐ **HH** **MM** **SS**				
9	Date of Survey DD/MM/YYYY format	☐☐/☐☐/☐☐☐☐				
10a	ˮSSP Name		10b	SSP ID		☐☐
11a	Interviewer Name		11b	Interviewer ID		☐☐
12	Child Gender	1 = male 2 = female				☐

Section 1	QUESTION (HINDI)	QUESTION (ENGLISH)	NUMBER
N1	आप जब पहुचें तो क्लिनिक में कितने लोग इन्तजार कर रहे थे?	How many patients were waiting when you reached the clinic?	☐☐
N2	आप जब क्लिनिक से बाहर निकले तो कितने रोगी थे?	How many patients were in the clinic when you left?	☐☐
	आपने प्रारभिक वाक्य क्या बोला (नीचे लिखो)	Opening statement (Please write below)	
S1		Correct statement – 1 Incorrect statement – 2 If incorrect statement -2, write what the SSP said in S2	☐
S2	Hindi	English	

NO.	QUESTION (HINDI)	QUESTION (ENGLISH)		ASKED-YES (1) NO (2)	If not *asked-* given by SP? YES (1) NO (2)
MEDICAL HISTORY					
H1	बच्चे की उम्र	Age of child		☐	☐
H2	लेट्रिंन कैसी है (उसमें खून है)	Qualities of stool (including blood)		☐	☐
H3	दिन में कितनी बार	Frequency		☐	☐
H4	लेट्रिंन कम मात्रा या ज्यादा	Quantity of stool		☐	☐
H5	पेशाब के बारे में प्रश्न	Questions about urination		☐	☐
H6	क्या बच्चा खेल कूद रहा है? बच्चे का व्यवहार कैसा है?	Is child active/ playful? General behavior of child.		☐	☐
H7	बुखार	Fever		☐	☐
H8	पेट में दर्द	Abdominal pain		☐	☐
H9	उल्टी	Vomiting?		☐	☐
H10	बच्चे का स्वास्थ्य पहले कैसा था?	Previous health status		☐	☐
H11	पानी का स्त्रोत? पानी उबाल रहे हैं? नल से पानी? कैसे भरकर रखते हैं?	Source of drinking water? Boiling water? From tap? How is it stored?		☐	☐
H12	खाना बनाने की विधि	Food preparation		☐	☐
H13	बच्चे ने क्या खाया	What has the child eaten?		☐	☐
H14	पानी या दूसरा कुछ पी रहा है	Taking fluids		☐	☐
SOCIAL HISTORY					
H15	परिवार और पड़ोस के बारे में कोई भी प्रश्न किया?	Any question about neighborhood/family background		☐	☐
H16	पर्यावरण	Physical Environment		☐	☐

SECTION 2. TREATMENT

T1	Medicines dispensed *Enter 1 if Yes and 2 if No* ☐	Name	Dose	Frequen-cy	Duration	Medicine code
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐

T2	Medicines prescribed *Enter 1 if Yes and 2 if No* ☐	Name	Dose	Frequency	Duration	Medicine code
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐
			☐☐	☐☐	☐☐	☐☐

T3	सफाई के बारे में सलाह- खासकर हाथ धोने के बारे में Counseling on hygiene especially washing hands	*Enter 1 if Yes and 2 if No*	☐

SECTION 3. FEES

F1	*Fee charged by practitioner*	Rs.	☐☐☐☐
F2	*Cost of medicines paid in addition*	Rs.	☐☐☐☐
F3	*Total Fee*	Rs.	☐☐☐☐

SECTION 4. DOCTOR FOLLOW UP QUESTIONS				
R1	क्या डॉक्टर ने आपको वापस बुलाया है? यदि हां तो निम्नलिखित में उपयुक्त कोड भरे	Did the doctor ask you to return? if yes ,then mark the following options	Yes =1 No =2	☐
R2	अगर तकलीफ ठीक ना हो।	If you do not feel better.	Yes =1 No =2	☐
R3	दोबारा दवाई लेने के लिये बुलाया है	To get a refill of the medicine	Yes =1 No =2	☐
R4	टेस्ट के रिजल्ट के बारे में जानकारी देने के लिये	After completion of recommended test	Yes =1 No =2	☐
R5	इतने दिनों के बाद	After so many days		☐ ☐
	हफ्तो के बाद	Weeks		☐ ☐

SECTION 5. DIAGNOSIS			
D1	डॉक्टर ने आपके साथ किसी डायग्नोसिस की संभावना के विषय में बातचीत करी? यदि हां तो Did the doctor discuss a possible diagnosis? If yes, then what was the diagnosis write in D2. If no =2, → A1	1 = yes 2 = no	☐
D2	What was doctor diagnosis (one or more than one)		Hindi
			English
D3	Was the diagnosis correct? Correct = 1 dysentery, bacterial diarrhea Partially Correct = 2 = diarrhea Incorrect = 3		☐

SECTION 6. SSP DOCTOR'S ANALYSIS				
Aux1	आपको डॉक्टर कैसा लगा?	Did you like this doctor?	Yes =1 No =2	☐
Aux2	आप इस डॉक्टर के पास दोबारा जाओगे?	Would you go to this doctor again?	Yes =1 No =2	☐
Aux3	कुछ नये सवाल आपसे पूछे।	Any other questions asked that were not on the previous list	Yes =1 No =2	☐

SECTION 7. GLOBAL ASSESSMENT SCALE			
Q1	क्या डॉक्टर ने ऐसा माहौल बनाया कि आप उसे अपनी तकलीफ आसानी से बता सकें। निश्चित रुप से ==3 थोड़ा सा ==2 बिलकुल नही ==1	Did the doctor create an environment in which you could convey your symptoms and concerns easily Definitely =3 Somewhat =2 Not at all = 1	☐
Q2	आपको क्या लगा क्या यह डॉक्टर अच्छे जानकार हैं। क्या आप समझते है की उन्हें आपकी बीमारी की जानकारी है अच्छा जानकारी थी ==3 सामान्य जानकारी थी ==2 बिलकुल नही ==1	Did the doctor appear to be knowledgeable about your illness? Very knowledgeable =3 Somewhat knowledgeable =2 Not at all = 1	☐
Q3	क्या आपकी चिन्ता पर डॉक्टर ने पूरा ध्यान दिया? पूरा ध्यान दिया ==3 थोड़ा ध्यान दिया ==2 बिलकुल नही ==1	Did the doctor address your worries seriously? Very seriously =3 Somewhat seriously =2 Not at all =1	☐
Q4	क्या डॉक्टर ने आपको बीमारी के बारे में समझाया? बहुत अच्छी तरह से ==3 थोड़ा सा ==2 बिलकुल नही ==1	Did the doctor explain anything about your illness? Very well =3 Cursorily =2 Not at all = 1	☐
Q5	क्या डॉक्टर ने आपको इलाज के बारे में समझाया? बहुत अच्छी तरह से ==3 थोड़ा सा ==2 बिलकुल नही ==1	Did the doctor explain your treatment plan? Very well =3 Cursorily =2 Not at all = 1	☐

Assessment with Confidence				
1	2	3	4	5

Village ID: ☐☐ Provider ID: ☐☐☐☐☐☐☐ Clinic ID: ☐☐☐☐☐☐☐☐

Quality Responses (narratives)

1. आपको डॉक्टर कैसा लगा?

Did you like this doctor? ☐

2. आप इस डॉक्टर के पास दोबारा जाओगे?

Would you go to this doctor again? ☐

3. कुछ नये सवाल आपसे पूछे।
Any other questions asked that were not on the previous list
I.
II.
III.
IV.
V.

Global Assessment Scale

1. क्या डॉक्टर ने ऐसा माहौल बनाया कि आप उसे अपनी तकलीफ आसानी से बता सकें।
Did the doctor create an environment in which you could convey your symptoms and concerns easily?

2. आपको क्या लगा क्या यह डॉक्टर अच्छे जानकार हैं। क्या आप समझते है की उन्हें आपकी बीमारी की जानकारी है।
    Did the doctor appear to be knowledgeable about your illness?

3. क्या आपकी चिन्ता पर डॉक्टर ने पूरा ध्यान दिया?
    Did the doctor address your worries seriously?

4. क्या डॉक्टर ने आपको बीमारी के बारे में समझाया?
    Did the doctor explain anything about your illness?

5. क्या डॉक्टर ने आपको इलाज के बारे में समझाया?

1	2	3	4	5

Did the doctor explain your treatment plan?

Assessment with Confidence (explain the responses)
Begin with the largest number.

टिप्पणी:
Comments:

RAM LAL KOL (Adivasi)

अपने गमछे से पसीना पोंछकर राम लाल ने अपनी पत्नी से कहा "अब आराम हुआ"। शाम को खेत से मजदूरी करके आकर रामलाल चाय पीकर बैठा ही था जब सावित्री ने उनसे कहा "अजी सुनिये ये जो बाहर गेहूं की कट्टी है उसे अन्दर रख देना"। कट्टी अन्दर लाया ही था जब रामलाल को सीने के बाये तरफ दर्द उठा। उनको ऐसा दर्द पहले भी दो तीन बार हो चुका है। तब वो ट्युब लगाने से और आराम करने से कुछ देर में ठीक हो गये थे। इस बार भी रामलाल कुछ देर लेटकर आराम करने से ठीक हो गये। रात में दाल रोटी खाने के बाद सोने गये तो सावित्री ने कहा कि आप कल बाजार के लिये जा ही रहे हो तो डाक्टर को दिखा देना।

45 साल के रामलाल तीसरी पास है और उनकी दो एकड़ जमीन असिंचित है। वह अपनी पत्नी और छोटे लड़के के साथ पास के गांव में छोटे से घर में रहतें हैं। उनका एक बडा लड़का भी है जिसकी शादी हो चुकी है और वो अलग रहता है। दो साल पहले उनकी बेटी की शादी हुई और वो अब ससुराल में है। पिछले कुछ बर्षों में उनके घर में कर्जा बढ़कर अब पन्द्रह हजार से अधिक हुआ है तो रामलाल इसकी वजह से काफी परेशान रहते हैं।

रामलाल का परिवार पिछले कुछ सालों से आर्थिक तंगियों से जूझ रहा है। उन्हें कुछ सालों से शुगर की बीमारी है पर उसके लिये कोई दवा नही ले रहे। डॉक्टर के मना करने पर भी वो दिन में एक बन्डल बीड़ी और हफ्ते में दो तीन बार शराब पी लेते हैं। पांच साल पहले रामलाल के बड़े भाई श्यामलाल की भी मृत्यु अचानक हो गई । मृत्यु का कारण पता नही लग पाया, लेकिन उनको कई सालों से सीने में दर्द की शिकायत थी।

दूसरे दिन सवेरे रामलाल इस कस्बे में डॉक्टर के पास आयें हैं।

अन्य विवरणः
- बच्चों की उम्र बडा लड़का 25 लड़की 22   लड़का 20
- साल की मजदूरी से कमाई 10 से 12 हजार
- पहनावाः कुर्ता पज़ामा गले में गमछा पैरों में प्लास्टिक की चप्पल
- व्यक्तित्व और भावः मिलनसार स्वभाव लेकिन अब चेहरा मुरझाया और थोड़ी परेशानी है।

हां जी क्या हो रहा है?

डॉक्टर साहाब... कल रात को छाती दुख रही थी।

क्या अभी दर्द हो रहा है

नही।

अच्छा... कहां दर्द हुआ था?

अपनी छाती के बाईं तरफ पर हाथ घुमाकर... यहां पे

जब होता है तो दर्द कितनी देर तक होता है।

थोड़ी देर तक रहता है।

अच्छा तेज दर्द था?

हां रात को ज्यादा था।

दर्द किस तरह का है क्या ये भारी पन है या ऐसा लगता है कि कोई वजन रखा है।

हां डॉक्टर साहाब छाती भारी भारी सी लग रही थी।

एक ही जगह दर्द है या चल रही है?

अपनी छाती के बाईं तरफ से बाईं हाथ के ओर बताकर ... हां यहां से यहां तक दुखता था।

अच्छा कर क्या रहे थे जब ये दर्द शुरु हुई?

गेहूं की कट्टी उठा रहा था तो छाती दुखने लगी।

पहले भी ऐसा हुआ है या पहली दफा है?

हां डॉक्टर साहाब पहले भी दो तीन बार हुआ है।

कब से हो रहा है?

एकाध साल से।

ऐसा अक्सर होता है।

कभी कभी होता है

अब तक कितनी बार हुआ है।

दो तीन बार हो चुका है।

पिछली बार कब हुआ था।
        एक दो महीने पहले हुआ था।

तब क्या करने से दर्द शुरु होता था।
        भारी काम करने से दुखता था।

क्या सीने में कोई चोट लगी थी।
        नही।

क्या करने से दर्द में आराम होता है।
        थोड़ा आराम कर लूं तो ठीक हो जाता है।

सांस फूल रही थी?
        सर हिलाकर ... हां।

सांस लेते या छोड़ते हो तो दर्द बढ़ता या कम होता है?
        नही...कोई फर्क नही पड़ता।

उल्टी वगैराह आई है?
        नही उल्टी नही हुई पर उल्टी जैसा लग रहा था।

जब ये दर्द होता है तो पसीना भी आता है ?
        हां डॉक्टर साहाब... कभी कभी पसीने भी है।

रात को खाने में क्या खाया था?
        वो ही दाल रोटी सब्जी।

सब्जी में क्या था?
        आलू।

और कोई बीमारी है?
        पहले शककर की बीमारी थी।

कोई दवाई ले रहे हैं?

पहले शुरु शुरु में ली थी।

ये कब की बात है?
ये ही दो तीन साल पहले से।

अब क्यों नही ले रहे हो?
बस ऐसे ही।

दस्त हो रहे है?
नही ।

कब्ज है?
नही।

पेट में दर्द?
नही।

लेट्रिन् ठीक है?
हां वो तो ठीक है।

मुॅह मे खड्टा पान्त्री आता है?
नही।

बुखार है?
नही।

अच्छा बीड़ी सिगरेट पीते हो?
हां।

कितना पी लेते हो।
एकाध बंड़ल पी लेता हूं।

शराब पीते हो?
हां जी। कभी सभी

कितनी बार पीते हो?

हफ्ते में दो तीन बार ...

कितनी शराब पीते हो?

एकाद पव्वा।

क्या आप और कोई नशा करते हो?

नही।

आप क्या काम करते हैं?

खेती बाड़ी और मजदूरी का काम करते हूं।

भाई बहन या मां बाप को कभी किसी को ऐसी कोई दिक्कत हुई है?

बड़े भाई को छाती में दुखता था वो 5 6 साल पहले शांत हो गये

हार्ट अटैक आया था?

जी मालूम नही।

RADHA

"अरे राधा आज तो देर हो गई काम करते करते जल्दी रोटी सब्जी बना दो सभी को भूख लगी होगी"। मुन्ना की आवाज़ सुनकर राधा ने खाना बनाने के लिये चुल्हा जलाया जिससे काफी धुंआ निकल रहा था। उससे राधा को सांस लेने में तकलीफ होने लगी।

25 साल की राधा अपने पति मुन्ना और तीन साल की बेटी के साथ में पास ही के गांव में रहतीं हैं। उसके सुखी परिवार में सास ससुर और देवर भी रहतें हैं। उसके मायके में माता पिता और एक बड़े भाई हैं। दसवीं पास राधा सीधी साधी है तथा अपने पति के सिलाई के काम में हाथ बंटाती है।

सेहत को लेकर राधा के परिवार में कोई बड़ी परेशानी नही है। आमतौर पर उसके ससुराल और मायके में सबकी सेहत ठीक है। केवल उसके बड़े भाई को कुछ सालों से सांस की परेशानी है जिसके लिये दवाई ले रहे हैं। राधा की मां बताती है कि बचपन में राधा को बहुत खांसी आती थी। लेकिन जहां तक उसकी याददाश्त है जब वो 10-12 साल की हुई तब से उसे कोई परेशानी नही हुई।

राधा को पिछले कुछ महीनों से सॉस लेने मे मुश्किल हो रही है। ये तकलीफ एक साल से शुरु हुई थी, लेकिन गये कुछ महीनों से सांस और खांसी काफी बढ़ गई है। पिछले एक हफ्ते से रोज़ ही सांस चढ़ जाता है। सफाई करने से या चुल्हे के धूएं से सांस ज्यादा चढ़ जाता है। पहले तो ऐसा था कि कुछ मिनटों में ही ठीक हो जाती थी लेकिन अब तो इसको 10 15 मिनट लग जाते हैं ठीक होने में। उसे पूरी सांस लेने में तकलीफ होती है और सॉस लेने में सीटी जैसी आवाज आती है। उसके साथ ही सूखी खांसी बहुत आती है और रात में खांसी ज्यादा बढ़ जाती है। अदरक वाली चाय या गुनगुना पानी पीने से और आराम करने से उसकी तकलीफ कम हो जाती है, पिछले महीने जब वो मायके गई थी तो तकलीफ इतनी बढ़ी कि राधा ने अपने बड़े भाई की सांस की गोली खाई, तब जाकर कुछ आराम आया।

<u>राधा</u> : डॉक्टर साहाब कल रात मुझे सांस लेने में बहुत तकलीफ हो रही थी।

सांस लेने में क्या परेशानी हो रही थी ?
डॉक्टर साहाब सांस फूल रही थी और घबराहट हो रही थी

और क्या परेशानी थी ?
... जैसे पूरी सांस नही ले सकी और सीटी जैसी आवाज़ आने लगी।

कल क्या कर रहे थी जब ये सांस की परेशानी हुई?
कल रात को खाना बना रही थी तो मुझे सांस लेने में परेशानी होने लगी

सांस कितनी देर तक चढ़ी रही?
10 या 20 मिनट तक सांस लेने में तकलीफ रही लेकिन आराम आने में करीब दो घंटे लग गये। उसके बाद भी बहुत थकान लग रही थी।

खांसी भी हुई?
हां ... जब सांस फूली तो खांसी भी हुई।

खांसी के साथ क्या और कुछ आ रहा थी ?
नही ... सुखी खासी थी।

कल रात को आराम कैसे आया ... कोई दवाई ली ?
नही डॉक्टर ... दवाई तो कोई नही ली बस अदरक वाली चाय पीकर आराम कर लिया था।

ऐसा आपको पहले भी हुआ है?
हां ... कई बार

कब से है ?
एकाध साल से है ...

कितने बार होता है ... ऐसे अकसर होता है ... अच्छा रोज होता है ?
कुछ महीनों से ज्यादा होने लगा है... पिछले आठ रोज मे रोज ही हो रहा है।

अभी तक कही और दिखाया है

नही।

क्यों नही दिखाया

पहले इतना ज्यादा नही था कल रात को ज्यादा तकलीफ हो गई थी।

सांस कब चढ़ता है?   सांस क्या करने से चढ़ता है?

ऐसे तो ध्यान नही दिया पर साफ सफाई करने से या धूएं से तकलीफ़ शुरु हो जाता है।

कितनी देर तक चढ़ता है? (हमेशा 10 20 मिनट तक तकलीफ रहती है ?)

पहले एक दो मिनट रहता था लेकिन अब 10 या शायद 20 मिनट तक रहता है।

क्या रात को खांसी ज्यादा उठती है ?

जब सांस की तकलीफ होता है तो खांसी ज्यादा उठती है

क्या करने से आराम आता है ?

अदरक वाली चाय या गुनगुना पानी पीने से और आराम करने से तकलीफ कम हो जाती है

कोई दवाई ली ?

पिछले महीने जब मायके गई थी तब बड़े भाई की सांस की गोली खाई, तो जाकर कुछ आराम आया।

भाई को कब से है ?

कई सालो से है।

ये तकलीफ बचपन से है याद है कुछ?

मुझे तो याद नही। पर मम्मी बताती है कि जब छोटा थी ... तो बहुत खांसती थी।

ज्यादातर शाम को होता है?

नही...रात को ही ज्यादा होता है।

अच्छा बुखार है?

नही। बदन तो ठण्डा है।

सीने में दर्द ?
नही... डॉक्टर साहाब।

इस दौरान वजन घटा है?
नही...जी बिलकुल नही।

रात को पसीने आते है?
नही... ऐसा तो कुछ नही।

किसी तरह की एलर्जी है?
नही।

घर में किसी को है?
जी नही।

अच्छा...काम क्या करती हो?
अपने घरवाले के साथ सिलाई के काम में मदद कराती हूं।

RAJESH (राजेश)

मुन्नी ने खाना बनाने के लिये चुल्हा जलाया ही था जब राजेश चुल्हे के पास आकर बैठा और बोला "अरे मुन्नी आज तो देर हो गई काम करते करते जल्दी रोटी सब्जी बना दो सभी को भूख लगी है। भईया और भाभी शादी में गये है तब से घर का पूरा काम तुम्हें ही संभालना पड़ रहा है।" चुल्हे से काफी धुंआ निकल रहा था जिससे राजेश को फिर सांस लेने में तकलीफ होने लगी।

25 साल का राजेश अपने पत्नि मुन्नी और तीन साल की बेटी के साथ में पास ही के गांव में रहता हैं। उसके सुखी परिवार में माता पिता और बड़े भाई अपने परिवार के साथ रहतें हैं। दसवीं पास राजेश सीधा साधा है और घर पर ही सिलाई का काम करता है।

सेहत को लेकर राजेश के परिवार में कोई बड़ी परेशानी नही है। केवल उसके बड़े भाई को कुछ सालों से सांस की परेशानी है जिसके लिये वो दवाई ले रहे हैं। राजेश की मां बताती है कि बचपन में उसको बहुत खांसी आती थी। लेकिन जहां तक उसकी याददाश्त है जब वो 10-12 साल का हुआ तब से उसे कोई परेशानी नही हुई।

राजेश को पिछले कुछ महीनों से सॉस लेने मे मुश्किल हो रही है। ये तकलीफ एक साल से शुरू हुई थी, लेकिन गये कुछ महीनों से सांस और खांसी काफी बढ़ गई है। पिछले एक हफ्ते से रोज़ ही सांस चढ़ जाता है। घर पर सफाई या चुल्हे के धूएं से सांस ज्यादा चढ़ जाता है। पहले तो ऐसा था कि कुछ मिनटों में ही ठीक हो जाती थी लेकिन अब तो इसको 10 15 मिनट लग जाते हैं ठीक होने में। उसे पूरी सांस लेने में तकलीफ होती है और सॉस लेने में सीटी जैसी आवाज आती है। उसके साथ ही सूखी खांसी बहुत आती है और रात में खांसी ज्यादा बढ़ जाती है। अदरक वाली चाय या गुनगुना पानी पीने से और आराम करने से उसकी तकलीफ कम हो जाती है। पिछले महीने जब ऐसी तकलीफ हुई तो राजेश ने अपने बड़े भाई की सांस की गोली खाई, तब जाकर कुछ आराम आया।

राजेश : डॉक्टर साहाब कल रात मुझे सांस लेने में बहुत तकलीफ हो रही थी।

सांस लेने में क्या परेशानी हो रही थी?
    डॉक्टर साहाब सांस फूल रही थी और घबराहट हो रही थी

और क्या परेशानी थी?
    ... जैसे पूरी सांस नही ले सका और सीटी जैसी आवाज़ आने लगी।

कल क्या कर रहे थी जब ये सांस की परेशानी हुई?
    कल रात को खाना खाने के लिये चुल्हे के पास बैठा तो मुझे सांस लेने में परेशानी होने लगी

सांस कितनी देर तक चढ़ी रही?
    10 या 20 मिनट तक सांस लेने में तकलीफ रही लेकिन आराम आने में करीब दो घंटे लग गये। उसके बाद भी बहुत थकान लग रही थी।

खांसी भी हुई?
    हां ... जब सांस फूली तो खांसी भी हुई।

खांसी के साथ क्या और कुछ आ रहा थी ?
    नही ... सुखी खासी थी।

कल रात को आराम कैसे आया ... कोई दवाई ली ?
    नही डॉक्टर ... दवाई तो कोई नही ली बस अदरक वाली चाय पीकर आराम कर लिया था।

ऐसा आपको पहले भी हुआ है?
    हां ... कई बार

कब से है
    एकाध साल से है ...

कितने बार होता है ... ऐसे अकसर होता है ... अच्छा रोज होता है ?
    कुछ महीनों से ज्यादा होने लगा है... पिछले आठ रोज मे रोज ही हो रहा है।

अभी तक कही और दिखाया है
>   नही।

क्यों नही दिखाया
>   पहले इतना ज्यादा नही था कल रात को ज्यादा तकलीफ हो गई थी।

सांस कब चढ़ता है?   सांस क्या करने से चढ़ता है?
>   ऐसे तो ध्यान नही दिया पर घर पर साफ सफाई होता है या धूआ हो से तकलीफ़ शुरु हो
जाता है।

कितनी देर तक चढ़ता है? (हमेशा 10 20 मिनट तक तकलीफ रहती है ?)
>   पहले एक दो मिनट रहता था लेकिन अब 10 या शायद 20 मिनट तक रहता है।

क्या रात को खांसी ज्यादा उठती है
>   जब सांस की तकलीफ होता है तो खांसी ज्यादा उठती है

क्या करने से आराम आता है
>   अदरक वाली चाय या गुनगुना पानी पीने से और आराम करने से तकलीफ कम हो जाती है

कोई दवाई ली ?
>   पिछले महीने जब तकलीफ हइु तब बड़े भाई की सांस की गोली खाई, तो जाकर कुछ
आराम आया

भाई को कब से है ?
>   कई सालो से है

ये तकलीफ बचपन से है याद है कुछ ?
>   मुझे तो याद नही। पर मम्मी बताती है कि जब छोटा था ... तो बहुत खांसता था।

ज्यादातर शाम को होता है ?
>   नही...रात को ही ज्यादा होता है।

अच्छा बुखार है?
>   नही। बदन तो ठण्डा है।

सीने में दर्द ?
नही... डॉक्टर साहाब।

इस दौरान वजन घटा है?
नही...जी बिलकुल नही।

रात को पसीने आते है?
नही... ऐसा तो कुछ नही।

किसी तरह की एलर्जी है?
नही।

घर में किसी को है?
जी नही।

अच्छा...काम क्या करता हो?
सिलाई के काम कराता हूं।

अच्छा...बीड़ी सिगरेट पीते हो?
नही...जी हमारे घर में कोई नही पीता। सिगरेट दारु कुछ नही।

SHANKARLAL   शंकरलाल

संगीता ने अपने पति शंकरलाल से कहा "सुनो जी सोनू के लिये कोई दवाई ले आना। इसे इतने दस्त हो रहे है... अभी उसे साथ ले गये तो कपड़े खराब कर देगा।" सोनू को परसों रात से दस्त हुए है और रात भर चिड़चिड़ा भी था। कल रात से 8 9 बार दस्त हुए और वो पहले से ज्यादा रो भी रहा था। वो अभी सोया है तो संगीता ने सोचा वो घर का काम खत्म कर लेगी जब तक शंकरलाल बाज़ार से हो आयें।

शंकरलाल अपने पत्नी और दो बच्चों और मां बाप के साथ पास के गांव में रहतें हैं। 26 साल के शंकरलाल दसवीं पास हैं। वो खेती मजदूरी करता है और मवेशी पालता है और महीने के दो ढाई हजार रुपये कमा लेता है। संगीता घर को साफ रखती है पर उसे लगता है कि आस पड़ोस में बहुत गन्दगी है। वो हैंडपम्प का पानी पीते है और पानी को मट्के में ढक कर रखते हैं और पानी को नही उबालते।

उनकी बडी लडकी पूजा 5 साल की और छोटा बेटा सोनू दो साल का है उसे पूरे दांत आ चुके है। वो दिन भर उछल कूद करता है, ठीक ही बढ़ रहा है और खूब बातें करता है। उसको बचपन के सभी टीके लगे हुए है। उसे कोई बीमारी नही है। वो मां का दूध पीता है और घर में जो आम खाना बनता है वो ही खा लेता है पर बिस्कुट खाने का शौक है।

परसों रात से सोनू को दस्त लगे हुए हैं। पहले दस्त पतले पानी की तरह थे और अब दस्त में कुछ झाग है आंव भी है और टट्टी चिकनी चिकनी सी आती है। दस्त बदबूदार नही है। सोनू दिन में 8-9 बार टट्टी कर रहा है लेकिन हर बार थोड़ी थोड़ी करता है। सोनू रो भी ज्यादा रहा है और ऐसा लगता है कि उसके पेट में दर्द हो रहा है पर कोई उल्टी नही हुई है।

सोनू को भूख कम लग रही है लेकिन पानी काफी पी रहा है। वो थोड़ा कमजोर और थका हुआ सा लग रहा है लेकिन खेल कूद भी रहा है। सोनू का शरीर छुने पर थोड़ा गर्म लगता है।

कल रात से जब भी टट्टी करता है तो उसमें थोड़ा खून भी दिखता है। खून देखकर वो दोनों घबरा गये। दवाई तो उन्हें मालूम नही थी कि क्या देनी है पर पानी बहुत पिलाते रहे। संगीता ने उसे *ओ आर एस* भी दिया। बेचारा रात को रोता ही रहा, सो भी नही सका। अब उसकी जरा आंख लगी है तो शंकरलाल बाज़ार सामान लेने निकल गया।

डॉक्टर साहाब मेरे बच्चे को दस्त हो रहे हैं …कोई दवाई दे दो।

बच्चा कितने साल का है?
दो साल का

दिन में कितनी बार दस्त हो रहा है?
कल शाम से करीब 8 9 बार हुए हैं।

कब से है।
परसों रात से दस्त हो रहे हैं।

दस्त में खुन आ रहा है?
हां… कल रात से दो चार बार खुन भी आया।

क्या दस्त में चिकनाहट है
हां… है।

क्या उसको बुखार है?
हां… हल्का बुखार है।

पेट में दर्द है?
हां… शायद है दस्त होते वक्त पेट पकड़कर रोता है।

क्या बच्चा उल्टी कर रहा है?
नही।

बच्चा पेशाब ठीक कर रहा है?
हां।

कितनी बार कर रहा है
नॉर्मल करता है। दस्त के साथ भी करता है।

पेशाब का रंग कैसा है
पीले रंग का है।

बच्चा कुछ खा पी रहा है?
मॉ का दूध पी रहा है और दो दिन से चिड़चिड़ा है और ठीक से खा नही रहा है।

बच्चे को आपने दस्त के लिये और क्या दिया?
उसकी मां ने **ओ आर एस** पिलाया था।

पीने का पानी कहां से भरते हो।
हैंडपम्प से।

क्या घर में कोई और बीमार है?
नही।

उसको कान या दांत में कोई परेशानी है?
नही... उसके दांत सारे आ गये है।

STANDARDIZED PATIENTS CASES
DRAFT

**(NOTE: THE ENGLISH VERSIONS ARE EARLY PRECURSORS TO
THE FINAL HINDI CASES PRESENTED EARLIER)**

CASE I: ANGINA (CHEST PAIN)

SCRIPT—ENGLISH TRANSLATION (23/8/09)

Opening statement:
> I have been having pain in my chest.

Do you have pain now?
> No.

Where is the pain?
> [Patient points to left side of chest.]

Is it severe (n.b. Hindi word "tez" means severe or sharp)?
> Lately, I have a lot ("bahut") of pain.

When was the last time you had pain?
> Last night.

How long did the pain last?
> About ten minutes.

What were you doing when the pain began?
> I was carrying something up the stairs. *Moving a bag of grain.*

Is there radiation of pain (literally, is the pain "walking"/mobile?)
> Yes, sometimes when I have chest pain, I also notice pain moving down my left arm.

What is the quality of pain (is it heavy/dull or sharp)?
> It feels like a weight has been placed on my chest.

Have you had this pain before?
> Yes, I've had it before.

Since when have you had these pains?
> For a year or so.

What do you do that brings on the pain?
> The pain comes on when I am exerting myself or climbing stairs.

What makes the pain better?
> The pain gets better when I rest.

How often does the pain come?
> The pain used to come only once a month or so, but lately it occurs any time I am exerting myself.

Do you become short of breath?
> Yes, I usually feel short of breath also.

Does the pain change or increase with inhalation or exhalation?
> No.

Have you had nausea or vomiting?
> No.

Have you had sweating?
> Yes, sometimes I have sweating when I have the chest pain.

Have you had any gassiness, constipation, diarrhea, abdominal pain, sensation of acid in your mouth, or fever?
> No.

What have you been eating?
> Normal food (rice, dal, etc.)

Have you had any other illnesses?
> Yes, I've had problems with my sugar.

Do you take any medications for that?
> I did earlier, but not anymore.

When did this happen?
> A few years ago.

Do you smoke?
> [MEN] Yes, I smoke one pack per day. [WOMEN]: No.

Do you drink?
> [MEN] Yes, about once a week. [WOMEN]: No.

What do you do for work?
> I work in a grocery store.

Has anyone else in the family (mother, father, brother, sister) had any problem of this kind?
> My brother used to get pains like this.

How is he now?
> He died.

Did he have a heart attack?
> I don't know.

When was this?
> Five years ago.

Allergies: No known drug allergies.

Physical exam:
> Vital signs should be done (pulse, BP at least)
> Auscultation of heart and lungs (front and back) (Findings can be unremarkable)

Other examinations:
> If ECG is available nearby, the doctor should ask for this to be done. ECG will be obtained by patient and then he will return to office.
>
> If chest x-ray is requested, it would be produced by the patient and should appear normal
>
> If plausible, a stress test would be a reasonable next step.

Treatment:
> Depends upon the expertise of the doctor and the resources at his disposal. The doctor may

1) Recommend stress test and make recommendations based on results
2) Refer to cardiologist / specialty center

> In the meantime, the doctor should empirically start daily aspirin (exact dose not critically important).

RAM LAL KOL (Adivasi)

This is a story about Ram Lal, a common man living in a nearby village in _____ District. 45-year-old Ram Lal went to school till 3rd class and lives in a small house with his wife and youngest son, who is now 20 years. The older son, 25 years, lives independently with his wife and two children. Ramlal also has a daughter, 22 years, who is also married and lives with her husband and two kids. Ramlal has 2 acres of unirrigated land on which he cultivates one crop a year (chana). During the rest of the year, he also works as an agricultural laborer and earns about 10-12000 Rs a year. His younger son also works with him in the farm and as a laborer. His wife also works as a day laborer.

As a result of the two weddings in his family in the past few years, they have a debt of about 15000 Rs. He has been worried about this debt and also because his older son has not been able to find stable employment.

Over the past few years, Ram Lal's family has been dealing with health problems. He had been diagnosed with diabetes a few years ago when he has injured his foot on a crop stump, but has discontinued treatment for this. In spite of the doctor advising him not to, he continues to smoke a packet of beedis a day and also drinks alcohol (*kacchi desi)* 1-2 times a week.

About 10 years ago his father passed away. Five years ago, Ram Lal's older brother Shyam Lal also died at a young age of 45. No one was sure about the exact cause of his death, but in the last couple of years he had complained of chest pain.

Ram Lal, who loves spending time with friends and family, visits his relatives often. Just this morning, after his usual breakfast of chai and parathas, he went across town to help his cousin sister move into her new house. While carrying something heavy up the stairs, he suddenly felt a constricting pain in his chest. He was short of breath, started sweating profusely and felt nauseous. This was not the first time he had felt this way. He had even recently gone to a doctor for his chest pain. His doctor gave him medicines for his gas, which did little to relieve his problems and lately he has been experiencing chest pains more often. On earlier occasions, his pain had started when he was walking fast or going up the stairs, and rest usually made it better. But today it doesn't seem to be improving with rest. His cousin's neighbor suggested that there is a good doctor nearby and that he should probably go see him (her). An hour after the pain started, Ram Lal arrives at the clinic........

Appearance: Kurta Pajama, Gamcha, Plastic chappals, looks tired and worn out, sad, a bit tense. Personality: Cheerful (*milansaar) --- seedha sadha aadmi,* He has come alone to Doctor. Asks how much for the test.

Daily routine – wakes @ 5-6 Am, cleans up goes to work and comes back, eats and goes to sleep.

Diet: Roti – sabzi … roti chutney in the morning,

CASE II: ASTHMA

SCRIPT—ENGLISH TRANSLATION (20/8/09)

Opening statement:
    Doctor, I have had a problem with breathing, and last night it became terrible.

What difficulties were you having with your breathing?
    I was short of breath; I couldn't take a full breath. In Hindi: "The top breath stayed at the top, and the bottom breath stayed at the bottom."

What happened last night?
    I was at my sister's place and we were "shifting" [moving around furniture/cleaning]. At night I had an attack of breathing problems.

How long was the attack last night?
    It was bad for 15 minutes; then I felt a bit better, but didn't feel well for about 2 hours. Even after that I was exhausted.

Were you coughing?
    Last night, I was having cough.

Did you cough any sputum/mucus?
    No.

Do you have more cough at night?
    When I have this breathing attack, I have cough—but not otherwise.

Since when have you had this problem with breathing?
    This began one year ago.

How often does this happen?
    Over the last 3-4 months, it has occurred about once a month. Over the last week this started happening everyday.

What brings on the shortness of breath?
    It occurs when I am cleaning something, or if I am in a traffic jam, or when the pollution increases.

How long does an attack last?
> Earlier it was mild and lasted for only a few minutes. But it has been getting worse over the last 3-4 months.

Does anything make the symptoms better?
> During the last week, I have been taking my brother's medication and it has been helping.

So did you try this medication last night?
> I was at my sister's house "shifting" so the pills were not available.

Since when has your brother had this problem?
> For many years.

Except for your brother, does anyone else in the family have this problem?
> No.

Did you have this breathing problem as a child?
> I don't remember, but my mummy says I used to cough a lot.

Is this difficulty more pronounced in the morning or in the evening?
> More attacks have happened in the evening.

Do you have fever?
> No.

Do you have chest pain?
> No.

Are you losing weight?
> No.

Are you having night sweats?
> No.

Have you had any throat pain or upper respiratory symptoms (cold, sneezing, stuffiness).
> No.

What work do you do?
> I work in a garment store.

Do you smoke?
> No.

Asha Varma (Rajesh for male SP)

Every morning Asha Varma's commute to work involves navigating the crowded streets of Delhi. 25 year old Asha is a salesman in a readymade clothing store. She lives in a neighboring colony with her family including her parents, older brother and a younger sister. Her father works in a forging unit and mother is a housewife. The Varma family shares a very loving relationship. Asha's parents have both been responsible parents and his father has no vices at all. Asha leads a cheerful, tension-free life. On holidays and weekends, she hangs out often with his group of friends; goes out shopping with them or visits her relatives. She does not smoke or drink alcohol.

Being the friendly and helpful person that she is, she often visits his relatives to help out with all kinds of chores. This week, she has been going back and forth on a motorbike to her cousin's house everyday. Over the last week she has had an attack of breathing problems basically everyday. Because of this, she tried taking some of her brother's medicines, and they did give her some relief.

Last evening, she went over to her cousin's house to help her with their relocation. While she was there, she had an especially bad and scary attack. After eating a simple dinner of dal, rice and bottle gourd *sabji* they were cleaning the house when Asha started coughing and had a lot of difficulty breathing. She felt very bad for about 15 minutes; afterwards she felt tired and weak for hours and had to go to sleep. As compared to earlier episodes, this one seemed more severe and took a lot longer to settle. She was unable to take her brother's medication since she was not at home. Her cousin's neighbor suggested that she should visit a good doctor who practices nearby.

Next morning, Asha is feeling better but is still frightened by last night's attack. She has a light breakfast of bread and ginger chai and comes to the doctor's office….

Personality details:
Diet: roti sabzi and occasionally dal chawal;
Asha goes to dr with her brother in law (*dewar*).
Rajesh Kumar (Asha) .. 25 years, married @ 20; 1 three-year old girl;
Rajesh: lives w mom dad & older brother 27, married w 2 kids; has a younger sister who is married away. Older brother is a farmer. Rajesh is a tailor & wife also helps out with tailoring.
Rajesh eats gutkha – 5-6 times a day. No smoke / drink.

Asha: lives with husband & 1 kid; mom & dad in law; younger brother in law. Her maternal family also includes parents, 2 brothers, one older and one younger. Asha's husband is a tailor and she helps out with the tailoring.

Cooking on Chula @ home; roti sabzi and occasionally dal chawal. Asha goes to dr with her brother in law (dewar).

10th pass; (does he/she work with the thekedar or do they work with the village mainly?) Their family earns well and they are comfortable. Cheerful personalities; The older brother They don't know the name of the medicine that the older brother takes for breathing troubles.

Daily routine – wakes, cleans, works – takes break – works, eats, works, goes sleep.

Seedha Saadha swabhav;
Appearance – Asha wears a sari, with pallu; Rajesh wears a shirt pant.

Their family has been fortunate that they have not had any major health problems. All of them have been generally in good health, with the exception of Asha/Rajesh's older brother who had some breathing problems since the last couple of years and has been taking treatment for the same. Asha/Rajesh's mom often says that Asha/Rajesh used to cough a lot as a young child. However, as far as Asha/Rajesh can remember, from the time s/he was about 10-12 years old, she had no problems at all.

Over the past couple of months, however, Asha/Rajesh has developed some breathing problems as well. It started with an occasional episode a year ago, but over the last couple of months, s/he has had increasing attacks of breathing problems, about once a week. S/he seems to get attacks when s/he is opening an old stack of fabric, cleaning at home or is exposed to dust on the streets. Attacks have lasted for a few minutes at a time. S/he is unable to take full breaths and her breath gets noisy (whistling). It is often accompanied by dry cough, more so at night. During such episodes, she has often found relief when drinking a nice hot cup of ginger chai or warm water.

CASE III: PARENT OF CHILD WITH DYSENTERY

SCRIPT—ENGLISH TRANSLATION (20/8/09)

Opening statement:
>   My child has been having diarrhea.

How old is the child?
>   2 years old.

How many times has he passed stools?
>   About 8 or 9 times per day.

For how many days?
>   For the last couple of days.

Is there any blood in the stool?
>   Yes, last night we saw some blood.

Is there mucus in the stool?
>   Yes, and the stool is sticky.

Does he/she have fever?
>   Yes, his/her body seems warm.

Does he/she have abdominal pain?
>   Yes, he/she says his stomach is painful and he/she clutches at it when passing stool.

Is the child vomiting?
>   No.

How is the child behaving?
>   He/she seems tired but he/she is still playful.

Is the child passing urine normally?
>   Yes.

How many times per day?
>   It seems normal; the child is passing urine whenever he/she has a bowel movement.

What color is the urine?

It is normal, light-colored.

What have you given the child to eat?

I've made some khichti (rice and lentils) but he/she didn't eat much.

Is he/she drinking water or fluids?

Yes, he/she is drinking plenty of water.

What is the source of your water?

Tap water.

How do you store it?

In a covered vessel.

Do you boil your water?

Not usually, but right now I am giving him boiled water.

How is your child's health otherwise?

He is quite healthy.

Is he/she teething?

I haven't noticed.

Is there anyone else in the family who is sick?

No.

REKHA'S SON BUNTY (OR DAUGHTER BABLI)

Rekha has been living with her husband Suresh and two kids in this neighborhood in Delhi since the last two years. Her mother-in-law also lives with them in their 2 bedroom apartment. Suresh, who works as a salesman in a saree shop, earns about 6000 Rs per month. Rekha keeps her small house clean and tidy, but often complains that the surrounding areas are shabby because the municipal corporation fails to do its job well. They have piped water supply at home. So she has to collect drinking water early in the morning before the taps run dry and stores the drinking water in covered containers. They don't use water filters or boil this water.

Rekha's younger son Bunty is two years old. He is a playful toddler, running about all day long. He has been fully vaccinated, has been growing well and has been talking a lot lately. He has had no major illnesses. Six months ago, he was weaned off the bottle and has been drinking milk from a cup. He eats whatever is cooked at home, but loves biscuits.

Since the last two days, Bunty has been having loose motions. Earlier the stools were only watery, and then there was also mucus and stickiness in his stools. They did not smell particularly foul though. He has been going frequently (abt 8-10 times) to the toilet, but has not been passing much stool. He has also been crying more than usual and Rekha feels he probably has some tummy ache. He has not had any vomiting either. He seems to have lost his appetite, but has been drinking lots of water. He seems a little weak and tired, but is still playful. Rekha feels that his body has been warm to touch.

Since last night, every time Bunty has passed stools, there was some blood in it. Seeing blood in his watery sticky stools, Rekha and Sunil were quite worried. They had no medicines to give him, but gave him a lot of water to drink. The poor little kid cried all night long and was unable to sleep. Only a few hours ago, he fell asleep; so Rekha left him in his grandmother's care and has run over to the doctor to get some medicines....