

Major Applied
Research 5
Working Paper 6

**Determinants of
Health Worker
Motivation in
Tbilisi, Georgia:
A 360 Degree
Assessment in Two
Hospitals**

July 2000

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Partnerships
for Health
Reform



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- ▲ *better informed and more participatory policy processes in health sector reform;*
- ▲ *more equitable and sustainable health financing systems;*
- ▲ *improved incentives within health systems to encourage agents to use and deliver efficient and quality health services; and*
- ▲ *enhanced organization and management of health care systems and institutions to support specific health sector reforms.*

PHR advances knowledge and methodologies to develop, implement, and monitor health reforms and their impact, and promotes the exchange of information on critical health reform issues.

July 2000

Recommended Citation

Bennett, Sara, David Gzirishvili, and Ruth Kanfer. July 2000. *Determinants of Health Worker Motivation in Tblisi, Georgia: A 360 Degree Assessment in Two Hospitals*. Major Applied Research 5 Working Paper 6. Bethesda, MD: Partnerships for Health Reform Project, Abt Associates Inc.

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Contract No.: HRN-C-00-95-00024

Project No.: 936-5974.13

Submitted to: Robert Emrey, COTR
Policy and Sector Reform Division
Office of Health and Nutrition
Center for Population, Health and Nutrition
Bureau for Global Programs, Field Support and Research
United States Agency for International Development

The opinions stated in this document are solely those of the authors and do not necessarily reflect the views of USAID.

Abstract

This paper represents the second phase of a larger study examining health worker motivation in two hospitals in Tbilisi, Georgia. The overall objective of the 360 degree assessment was to begin to identify the major organizational, situational, and individual factors associated with health worker motivation, and to better understand how major constituencies (i.e., managers, supervisors, workers, and patients) perceive the hospital/work environment. Specific objectives of this study component were to:

- ▲ Assess congruence between managers, supervisors and workers on perceptions of hospital goals;
- ▲ Compare perceptions of hospital and worker characteristics among types of workers (physician, nurse, other) and levels of respondents (managers, supervisors, workers, patients);
- ▲ Identify possible factors for stimulating good performance and possible interventions for enhancing motivation.

The study used a semi-structured interview tool, that was applied to a sample of 129 workers and 40 patients in two hospitals in Tbilisi. The instrument adapted items used to investigate work motivation in the U.S. context to the Georgian context. Respondents answered questions relating to (1) their perceptions of hospital goals, (2) their attitudes towards the hospital environment and culture, (3) their perception of the characteristics of their fellow workers, (4) the possible benefits of different work conditions, and (5) the efficacy of specific interventions to improve motivation. While most questions took a Likert format, qualitative responses were also encouraged, recorded, and analyzed.

Neither of the hospitals had clearly stated organizational goals and consequently respondents were unclear about how their work could contribute to the achievement of hospital goals.

In terms of hospital and worker characteristics, respondents had a very positive view of social relationships between staff in the hospital and were also largely positive about hospital management structures. However, pay was perceived to be very inadequate, and respondents also had poor perceptions of how enjoyable the job was and the ease of accomplishing tasks. Many of these negative opinions about the hospital were linked to limited resources, such as shortage of basic supplies creating obstacles for health workers. Many significant differences emerged between different sub-groups of respondents.

Patients held appreciably more negative views of health worker and hospital characteristics than did health workers themselves.

The most critical group of factors in stimulating motivation were those related to the social environment, particularly good relationships with supervisors and coworkers. Job content issues were the second most important group of issues. Specific items, notably the availability of equipment and utilities and the chance of getting official training, were also highly rated. Job content issues and opportunities for skill development and career enhancement were particularly important for

physicians, especially younger physicians. All respondents emphasized better financial remuneration as a means to improve motivation.

Preliminary lessons are derived for managers of the hospitals, national policymakers, and the international research community.

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Acronyms

CHR	Children’s Republican Hospital
CH5	City Hospital No. 5
HR	Human Resources
PHR	Partnerships for Health Reform
USAID	United States Agency for International Development

Foreword

Part of the mission of the Partnerships in Health Reform Project (PHR) is to advance “knowledge and methodologies to develop, implement, and monitor health reforms and their impact.” This goal is addressed not only through PHR’s technical assistance work but also through its Applied Research program, designed to complement and support technical assistance activities. The program comprises Major Applied Research studies and Small Applied Research grants.

The Major Applied Research topics that PHR is pursuing are those in which there is substantial interest on the part of policymakers, but only limited hard empirical evidence to guide policymakers and policy implementors. Currently researchers are investigating six main areas:

- ▲ Analysis of the process of health financing reform
- ▲ The impact of alternative provider payment systems
- ▲ Expanded coverage of priority services through the private sector
- ▲ Equity of health sector revenue generation and allocation patterns
- ▲ Impact of health sector reform on public sector health worker motivation
- ▲ Decentralization: local level priority setting and allocation

Each Major Applied Research Area yields working papers and technical papers. Working papers reflect the first phase of the research process. The papers are varied; they include literature reviews, conceptual papers, single country-case studies, and document reviews. None of the papers is a polished final product; rather, they are intended to further the research process—shedding further light on what seemed to be a promising avenue for research or exploring the literature around a particular issue. While they are written primarily to help guide the research team, they are also likely to be of interest to other researchers, or policymakers interested in particular issues or countries.

Ultimately, the working papers will contribute to more final and thorough pieces of research work, such as multi-country studies and reports presenting methodological developments or policy relevant conclusions. These more polished pieces will be published as technical papers.

All reports will be disseminated by the PHR Resource Center and via the PHR website.

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Acknowledgments

We would like to thank the staff at the two study hospitals, particularly all those interviewed for this report, for their time and frank responses. The hospital directors, Dr. Tengiz Badradze and Dr. Tamas Sharashidze, are especially thanked for facilitating the interviews on which this report is based.

Ia Kotaladze and Ia Shekriladze provided invaluable assistance with the translation and adaptation of the research instruments and also with interpretation of some of the findings. IPM Georgia conducted data collection and processing in a timely and highly professional manner.

Many thanks also to Lynne Franco and George Gotsadze, who reviewed and provided thoughtful comments on the draft report.

1. Introduction

Work motivation is defined as the individual's degree of willingness to exert and maintain an effort towards organizational goals (Kanfer 1999). Worker motivation is often cited as a major constraint to health systems performance in developing and transitional countries, where working conditions, due to economic reforms or other situations, have often deteriorated. The Partnerships for Health Reform (PHR)¹ has undertaken this topic for exploratory research under its major applied research program. Although extensive research has been done on health worker motivation in the United States, little has been done in developing countries. Thus, the first phase of PHR's research activities in this area focused on the development of a multidisciplinary conceptual framework for examining the determinants of health worker motivation and how health sector reforms impact on it.² This framework lays out motivational determinants at several levels:

- ▲ The individual level: values, goals, self-concept, and expectations for consequences of work behavior
- ▲ The work context or organizational level: organizational structure and processes, organizational culture, and human resource management inputs
- ▲ The community health worker interaction level
- ▲ Broad socio-cultural factors

The research methodology for the study built upon this conceptual framework. Three distinct study components were identified:

1. A contextual analysis, which examines historical, social, and organizational factors characterizing the general working environment
2. A 360 degree assessment, which examines perceptions about the specific work environment held by workers themselves, supervisors, managers, and patients
3. An in-depth analysis, which focuses on the individual determinants and outcomes of the worker's motivational process

In Georgia these three study components were conducted sequentially, with the results from each component feeding into the design and analysis of subsequent components. The findings of the contextual analysis in Georgia are presented in Bennett and Gzirishvili (2000).

All three components of the study were conducted at the same two hospitals in Georgia:

The *Children's Republican Hospital*, a large teaching and tertiary level hospital in Tbilisi, which is comparatively better resourced than many other Georgian hospitals and is located on a site where several other specialty hospitals are also located.

¹ Funded by the United States Agency for International Development, under contract # HRN-C-00-95-00024.

² The conceptual framework is described in detail in Bennett and Franco (1999).

City Hospital No. 5, a medium to large general hospital that provides care to both children and adults and is located on the outskirts of Tblisi. This hospital was built during the Soviet period to provide care to the workers (and their families) at a nearby military factory. Since the break-up of the Soviet Union, production at the factory has declined dramatically, with deleterious effects on both the resources available to the hospital and the income of the local population.³

This report presents the methodology and results from the second component of this research program; namely, the 360 degree assessment. The overall objective of the 360 degree assessment was to begin to identify the major organizational, situational, and individual factors associated with health worker motivation, and to better understand how major constituencies (i.e., managers, supervisors, workers, and patients) perceive the hospital/work environment. Furthermore, given the fact that there has been very little prior work conducted on motivation in the Georgian context and no study of motivation among health workers in Georgia, this study component also aimed to enhance understanding of how health workers conceptualized motivational determinants. Accordingly the results of the 360 degree assessment were also used to shape the data collection instrument for the in-depth analysis of individual determinants and outcomes of motivation.

Specific objectives of this study component were to:

- ▲ Assess congruence between managers, supervisors, and workers on perceptions of hospital goals;
- ▲ Compare perceptions of hospital and worker characteristics among types of workers (physician, nurse, other) and levels of respondents (managers, supervisors, workers, patients);
- ▲ Identify possible factors for stimulating good performance and possible interventions for enhancing motivation.

Following Section 2, which describes the study methods, and Section 3, which presents a profile of respondents, this report presents findings related to each of these objectives. Section 4 focuses upon perceptions of hospital goals, Section 5 presents findings on hospital and worker characteristics, and Section 6 presents findings regarding which factors might stimulate better performance. Discussion and conclusions from this study component are included in Section 7.

³ Further background information on the two hospitals and why they were selected is available in Bennett and Gzirishvili (2000).

2. Methods

2.1 The 360 Assessment Instrument

Given the paucity of previous work in this area, a semi-structured interview format was used in order to:

- ▲ Provide quantitative data;
- ▲ Give respondents the opportunity to elaborate their responses so that the investigators could assess the appropriateness of the constructs used to the Georgian context;
- ▲ Enable in-depth assessment of constituent goals, perceptions, and expectations.

The initial draft of the interview questionnaire was based on knowledge of local conditions and prior research in work motivation in the United States, and testing and use of the instrument in a similar study in Jordan. Each of the individual items on the instrument was then discussed by a team made up of two Georgian work psychologists, a Georgian physician/researcher, a Georgian survey expert and a representative of the U.S.-based research team. This team discussed both the initial instrument and translations of the instrument. Relatively minor changes were made to the instrument to reflect both differences in the health care system in Georgia and knowledge about different concepts in terms of work motivation.⁴ The instrument was pilot tested on all levels of health workers at a hospital other than those where the study was conducted.

A copy of the instrument used in interviews of health workers is provided in Annex A. The instrument contained six major sections:

The first section, asked respondents to provide **demographic and background information** (for example, age, gender, years of experience).

The second section, asked respondents to describe their **perceptions of hospital goals and objectives**, and their views on how the work they performed contributes to these goals. Responses in this section were transcribed and subsequently coded into goal categories following data collection.

The third section, asked respondents 22 questions pertaining to their **attitudes and opinions regarding the hospital environment and culture**. Participants responded to each item using a five-point Likert scale format ranging from strongly disagree (1) to strongly agree (5). Examples of items in this section are “This hospital has a good reputation in the community,” and “It is obvious that this hospital cares about my co-workers”.

⁴ For example, a statement in the initial survey instrument was that “workers have a busy day.” As there is very widespread under-loading at Georgian hospitals, this was adapted to “workers have too much time on their hands.” In terms of concepts, one of the initial items mentioned “opportunity to develop one’s career.” During the Soviet era being “careerist” had highly negative overtones suggesting that the worker was more interested in their own advancement than the broader advancement of the organization, and hence the wording of this question was also changed to refer to “professional advancement.”

The fourth section, asked respondents 21 questions pertaining to their **attitudes and opinions regarding perceived characteristics and values of fellow workers**. Participants responded to each item using a five-point Likert scale format ranging from strongly disagree (1) to strongly agree (5). An example of items in this section is “Overall, my co-workers at this hospital are eager to do a good job”.

The fifth section, asked respondents 16 questions about their **attitudes and opinions regarding the possible benefits of various work conditions**. Participants responded to each item using a five-point Likert scale format ranging from very important benefit for stimulating good work (1) to least important for stimulating good work (5). An example of items in this section is “Chance of getting training and developing skills”.

The sixth and final section, asked respondents their **attitudes and opinions on possible ways to increase health worker motivation**. Participants responded to a series of 21 potential organizational changes using a four-point Likert scale format ranging from ineffective (1) to very effective (4). Examples of items in this section are “Providing workers with a better definition of their tasks and how to perform them” and “Increasing the variety of tasks performed in jobs.”

For all sections, participant comments about items or responses were encouraged and recorded.

Two separate versions of the interview instrument described above were developed for use with supervisors and managers, and with hospital patients. The patient version of the instrument was a shortened version of the health worker instrument with sections not relevant to patients being deleted. In the administration of the supervisor instrument, participants were asked to respond with respect to workers in their work units, and managers were asked about hospital employees in general.

2.2 Sampling

The sampling procedure focused on obtaining data from major levels and groups of hospital employees. A full list of employees, their positions, and their departments was prepared by human resource managers at each hospital. Human resource managers were also asked to indicate whether or not an individual was on unpaid leave.⁵ These lists were then used to calculate the number of each category of staff in the hospital. The following categorization was used:

- ▲ Doctors
- ▲ Nurses
- ▲ Hospital attendants
- ▲ Allied health professionals (for example, X-ray technicians, laboratory technicians, pharmacists)
- ▲ Ancillary staff (for example, porters, gatekeepers)
- ▲ Administrative staff

⁵ At the Children’s Republican Hospital in particular a large number of staff (20-30 percent) were on unpaid leave. The reasons for this phenomenon are explained in the contextual analysis (Bennett and Gzirishvili 2000).

▲ People on unpaid leave

The number of persons selected from each category was proportional to the size of the category. Within each category the number of respondents to be surveyed in each department was also determined by probability proportional to size. From a particular department for any given category, respondents were then selected by a simple random selection method. If during the course of the field work the desired person was not available and it was not possible to make an appointment to meet them later, interviewers were instructed to conduct the interview with the next person of that category named on the departmental list.

Patients were selected by simple random sampling of all inpatients at the facility on a particular day.

An initial sample of 126 hospital staff and 40 patients was interviewed (Table 1). After preliminary analysis of the sample it was found that very few (only four) senior management staff were included in the sample. Three additional interviews were conducted with senior management in order to increase the sample size of this group, bringing the total number of staff interviewed to 129.

It proved very problematic to interview people on unpaid leave at City Hospital No. 5, as many of them had left the city. At the Children’s Republican Hospital a total of seven such persons were interviewed, which was less than the target number. Furthermore during the course of the fieldwork the lists of staff provided by the human resource departments proved quite unreliable, many staff named could not be tracked down and had to be replaced by others on the list.

Table 1. Actual Sample Sizes for the 360 Degree Assessment

Category of Sample	Children’s Republican Hospital	City Hospital No. 5	TOTAL
By type of respondent			
Patients	20	20	40
Doctors	20	10	30
Nurses	24	13	37
Hospital attendants	10	6	16
Ancillary staff	6	3	9
Allied health professionals	6	7	13
Administrative staff	7	10	17
People on unpaid leave	7	0	7
By level of respondent			
Managers	4	3	7
Supervisors	21	11	32
Workers	55	35	90
Patients	20	20	40
TOTAL	100	69	169

2.3 Data Collection and Processing

Interviews were conducted by a private company specializing in data collection, and with particular experience in qualitative surveying.

Participants were informed of the voluntary and confidential nature of the interview and interviews were conducted in private in rooms specially set aside by the hospital for this purpose. Interviews varied in length, taking from 40 to 60 minutes. At the end of the interview, all participants were thanked for their time and assistance.

Most quantitative fields were pre-coded. Qualitative responses were also coded and all data was input into an SPSS file. Further textual analysis of qualitative responses was undertaken for responses of particular interest.

In addition to the professional categorization of the sample, respondents were also categorized by whether they were a worker, manager, or supervisor (see Table 1 for breakdown). Managers were defined to be those people who worked in central administration and also supervised people; thus they included the head doctor, head nurse, head of human resources department, and financial manager. Supervisors were defined as all staff who supervised more than five people but who were not in the central administration. This group was made up almost entirely of doctors, who may be heads of department or supervisors of units such as laboratories or diagnostic centers. All other individuals were categorized as workers.

3. Profile of Respondents

3.1 Profile of Hospital Workers

Respondents at both hospitals were predominantly female: 83.8 percent of respondents at the Children’s Republican Hospital and 73.5 percent at City Hospital No. 5. This is typical of the gender composition at most hospitals in Tbilisi. While 100 percent of nurses and hospital attendants were female, 57.6 percent of doctors and 64.7 percent of administrators were female.

Respondents were generally older; only 13.2 percent of respondents were in their 20s while 35.7 percent were age 51 or older. The Children’s Republican Hospital had a markedly older staffing profile than did City Hospital No. 5: 71.3 percent of respondents there were age 41 or older compared to 47.0 percent of respondents at City Hospital No. 5. The majority of respondents, 65.9 percent, were married.

Respondents, particularly at the Children’s Republican Hospital, had frequently worked at the same hospital for a very long period (Table 2). Length of service at the study hospital varied considerably with current position. Doctors and nurses were most likely to have worked at the hospital for a long time: 42.4 percent of doctors and 38.1 percent of nurses had spent more than 15 years at the hospital. Ancillary staff and administrative staff were most likely to have joined the hospital during the preceding five years (44.4 percent of ancillary staff and 35.3 percent of administrative staff).

Table 2. Number of Years Working at Study Hospital

Number of Years	Children’s Republican Hospital	City Hospital No. 5
5 years or less	18.8%	28.5%
6-15 years	25.0%	46.9%
More than 15 years	56.3%	24.5%
N	80	49

Generally, the more senior the staff were, the more likely they were to be male; 57.1 percent of managers were male compared to only 12.2 percent of workers. Although there was little difference in terms of how long different categories of workers had worked at the hospital, there were differences in their age. Managers tended to be somewhat older than either workers or supervisors (85.7 percent were over 40 years old).

3.2 Profile of Hospital Patients

The 20 patients interviewed at the Children’s Republican Hospital were fairly evenly spread throughout the hospital departments. In contrast 50 percent of respondents at City Hospital No. 5 had

received care in the trauma department. As the samples were based on simple random sampling, this reflects the relatively heavy workload of this department.

Mean age of respondents at City Hospital No. 5 was 49 years, and mean age of respondents at the Children's Republican Hospital was 34 years (parents were asked to respond on behalf of their children).

In terms of reasons for selecting the hospital, the primary reason given by patients at both hospitals was that the facility had been recommended to them. However at the Children's Republican Hospital, two respondents noted that they had acquaintances who worked at the hospital. The large majority of respondents (90 percent) said that they knew at least one person who worked at the hospital.

4. Understanding of and Contribution to Hospital Goals

Worker motivation depends critically upon alignment between the goals of the individual worker and the goals of the broader organization. In order for this alignment to occur it would seem necessary for workers to be aware of hospital goals. The section of the questionnaire on goals described what might constitute a goal of the hospital, and then asked respondents to name one or two goals, and how their work contributed to such goals.

Table 4 presents the main goals identified by managers, supervisors, and workers. The goals most frequently mentioned stressed the provision of a high quality service and included elements relating to the use of modern equipment and qualified personnel and the achievement of international quality of care standards. Next most frequently mentioned was “making patients healthy,” which could be viewed as a function of the hospital rather than a goal to strive for. Thirdly respondents said that they did their best for the patients. The Georgian word used to describe this goal, *ketilsindisieri*, is difficult to translate; it emphasizes not only doing one’s best but also doing more than fulfilling formal duties. In this regard the relationship between the health care provider and the client should not simply be a formal one, but the provider should really care for the well-being of the patient. While none of the seven managers mentioned this goal, it was frequently mentioned by workers. It should be noted that it is inappropriate to use this term with regard to an organizational goal; *ketilsindisieri* can only refer to the actions of an individual.

Many of the “other” goals mentioned addressed aspects of the financial status of the hospital and/or the staffing of the hospital, for example, increasing salaries, attracting patients, retaining staff, and bringing the hospital under the municipality (which might lead to increased government financing). It is interesting that such financial goals were mentioned primarily by managers at City Hospital No. 5.

Table 3. Goals Identified by Managers, Supervisors, and Workers (as % of total category of worker)

	Managers	Supervisors	Workers	Total
Provide high quality services	42.9%	34.4%	41.1%	39.5%
Make patients healthy	42.9%	37.5%	18.8%	24.8%
Do our best	0	15.6%	25.6%	21.7%
Other	14.3%	6.2%	8.9%	8.5%
Don't know	0	6.3%	5.6%	5.4%
Total	100%	100%	100%	100%
N	7	32	90	129

Differences also emerged between hospitals. Forty-nine percent of respondents at City Hospital No. 5, identified their main goal as providing high quality services, compared to only 33.8 percent at

the Children's Republican Hospital, while only 2 percent of respondents at City Hospital No. 5 mentioned making patients healthy compared to 38.8 percent at the Children's Republican Hospital. The percentage of respondents claiming that they did not know the goal of the hospital was considerably higher (12.2 percent) at City Hospital No. 5 than at the Children's Republican Hospital (1.3 percent).

In terms of how the workers own efforts contributed to the achievement of organizational goals the most common statements were "Everything we do is done at a high level" (33.3 percent), "We try our best, but have no money" (24.8 percent) and "We do our professional duties" (24.8 percent). Many respondents qualified their initial statement by referring to external factors that inhibited their work, notably the lack of money in the hospital and the lack of money among patients ("patients have no money and are not able to come").

5. Hospital and Workers Characteristics

5.1 Analysis of Hospital and Worker Characteristics

Sections 3 and 4 of the interview instrument contained 43 attitudinal items regarding workers perception of hospital characteristics and worker characteristics. Respondents were asked to state how strongly they agreed or disagreed with a series of statements, using a five-point Likert scale. As the reliability of individual attitudinal items is doubtful, the analysis combined items into six composite scales. These scales were defined through factor analysis.

For the factor analysis, all negatively worded items were reverse coded. Correlation matrices were inspected and any variable which had a very low correlation (less than 0.30) with *all* other variables was excluded from further analysis. Thirteen variables were excluded due to low correlations. A factor analysis, using a principal components method with a varimax rotation, was then conducted on all variables from both sections 3 and 4. A total of 10 principal components with eigenvalues over 1 were identified. While the communality was high for all variables the top five principal components explained only about 42 percent of the variation in the data.

Items with loadings below 0.4 were excluded from further consideration. Each principal component was then inspected for logical cohesion between items, and Cronbach's alpha was calculated. Items with loadings of less than 0.5 were only included in the final scale if they both contributed to Cronbach's alpha and were logically associated with the other variables in the scale.

Unfortunately Cronbach's alpha was found to be over 0.7 for only one scale. Further factor analysis was conducted on sub-groups (by hospital and by category of worker: manager, supervisor, worker) but this was not found to lead to any more reliable scales. Consequently an alpha of 0.5 or more was counted as acceptable. Table 4 presents the scales used in the analysis and alpha scores.

Table 4. Scales Used for Worker and Hospital Characteristics

Scale	Items	Cronbach Alpha
Supportive management structures	Management openness to suggestions Supervisors assist if problems arise Hospital shows that it cares about workers Hospital policies and rules are fair Hospital allows independent decision making	0.711
Pride/reputation	Workers are proud to work here Workers are proud to get a job here Hospital has a good reputation in the community	0.639
Hospital and workers are up-to-date	Workers have opportunity for training and improving qualifications Hospital gets modern equipment and staff have skills to use it	0.537
Trust between co-workers	Workers trust each other Workers are reliable and trustworthy Workers are able to work well together	0.541
Enjoyable job	Workers like many of the things they do It would be easy for workers to quit if they did not like their job The job does not cause stress or strain	0.505
Respect for supervisors	Workers respect their supervisors Workers trust their supervisors	0.572

Of the scales presented in Table 4, the first (more supportive management practices) was by far the most significant accounting for about 18 percent of the variation in the data.

On the final scale “respect for supervisors,” the item “workers are adequately paid” had the highest factor loading and was considered for inclusion in the scale. However, whether or not it was included made no difference to Cronbach’s alpha. There is a rationale why, in the Georgian context, adequacy of pay is linked to respect for supervisors. Given the reliance upon informal payments, workers’ supervisors are critical in determining their overall pay. This is for two reasons. First, a head of department with a good reputation may significantly increase the number of patients seeking care from the department and hence increase the incomes of all staff within the department. Second, supervisors generally are responsible for systemizing and managing informal payments within a department; so workers who feel that they are fairly paid may attribute this to the management skills of their supervisor. In the end it was agreed that “adequacy of pay” would be considered as a separate item rather than including it in this scale.

For each scale a simple arithmetical mean of the items within the scale was used for the analysis.

In addition to the scales identified above three single items were selected for further analysis. These items were selected because on a priori grounds they seemed to be important questions that were not reflected in any of the scales above. Second, they were identified by the factor analysis as

being items on which there was a high loading for particular factors, but there was not sufficient cohesion with other items identified under the factor in order to constitute a scale. The three additional items were:

- ▲ Accomplishment of tasks does not take worker's time and money
- ▲ Workers have the chance of promotion and progression in their career
- ▲ The hospital contributes to the well-being of the population

In the discussion below these scales are re-grouped: scales on supportive management structures, pride/reputation, up-to-date, ease of accomplishing tasks, promotion opportunities and contribution to well-being of the population are discussed as hospital characteristics. The remaining scales are discussed as worker characteristics.

An almost identical survey tool had been used to examine health worker motivation in Jordan (see Franco et al. 2000). The researchers involved in this study had also used factor analysis to identify composite scales. Using the data collected in Georgia we tried to re-construct the scales identified in Jordan. Alpha coefficients for these re-constructed scales were considerably below acceptable levels (see Annex B).

5.2 Hospital Characteristics

Table 5 presents mean scores by key groupings for the hospital characteristics scale. Standard deviations are shown in brackets, and results significant at the 5 percent level are highlighted in bold (t test for two group tests and one-way ANOVA for multiple group tests).

Table 5. Scores for Hospital Characteristics

	Supportive management structures	Pride/reputation	Up-to-date	Ease of accomplishing tasks	Career opportunity	Contributing to population
Overall (129)	3.32 (.82)	4.11(.74)	3.26(1.06)	2.29(1.08)	2.80(1.23)	4.50(0.74)
Workers (90)	3.28(.79)	4.10(.71)	3.85(1.01)	2.34(1.13)	2.82(1.22)	4.49(.72)
Supervisors (32)	3.22(.81)	4.01(.85)	3.17(1.19)	2.16(.85)	2.53(1.19)	4.47(.84)
Managers (7)	4.31(.58)	4.62(.36)	3.25(.85)	2.29(1.38)	3.86(1.07)	4.71(.49)
CRH* (80)	3.42(.80)	4.39(.55)	3.54(.95)	2.23(1.03)	2.89(1.31)	4.53(.69)
CH5* (49)	3.17(.82)	3.66(.79)	2.81(1.06)	2.41(1.15)	2.67(1.08)	4.45(.82)
Doctors (33)	3.15(.74)	4.15(.78)	3.30(1.22)	2.00(1.00)	2.64(1.11)	4.52(.57)
Nurses (42)	3.11(.89)	4.10(.77)	3.07(1.06)	2.26(1.06)	2.62(1.21)	4.40(.89)
Other (54)	3.60(.72)	4.09(.70)	3.39(.94)	2.50(1.11)	3.06(1.29)	4.56(.72)

Notes: Brackets = standard deviation, bold = results significant at 5 percent

*CRH = Children's Republican Hospital, CH5 = City Hospital No. 5

Overall respondents were most likely to agree or strongly agree with statements asserting that workers were proud to work at the hospital. Qualitative responses to the statements relating to pride in

work, emphasize the importance of relationships between staff and the technical quality of staff. The most frequently made statements were of the following variety:

- ▲ “We have clever and good doctors” (27.9 percent of respondents to question 3.1)
- ▲ “There are friendly relations between co-workers” (11.6 percent of respondents to question 3.2)
- ▲ “We work beside good doctors” (8.5 percent of respondents to question 3.2)
- ▲ “The staff are very good” (11.6 percent of respondents to question 3.8)

Statements regarding the ease of accomplishing tasks and the availability of career opportunities were least likely to be agreed with. The main reason given by respondents to explain the high personal cost associated with accomplishing their professional tasks was high transport costs. This was particularly a problem at City Hospital No. 5 where 34.7 percent of respondents at the hospital stated that “my salary is even less than I need for transportation to get to the hospital.”

In terms of the limited opportunities for promotion and career advancement, the most common explanation was that lack of finance in the hospital prevented promotion (nine responses). This view was most commonly held at City Hospital No. 5 (eight responses). But another 10 respondents stated that such a system was “not necessary.” Five respondents at City Hospital No. 5 noted that staff were only likely to be promoted if they had “a [senior] persons to back them,” suggesting that at least among some staff at this hospital, patronage was perceived to be a problem.

Significant differences emerged between groups over differing dimensions. Between workers, supervisors, and managers, managers routinely perceived hospital characteristics to be more positive than other groups, while supervisors were least likely to perceive them in a positive manner. These differences were only significant for the scale “supportive management structures” and the item regarding career opportunities.

In general, perceptions of respondents at the Children’s Republican Hospital were more positive than those of respondents at City Hospital No. 5. In particular, significant differences emerged with respect to pride in employment at the hospital, and the extent to which the hospital was “up-to-date.”

The only significant difference that emerged between different professions was for the supportiveness of management structures. Doctors and nurses perceived management structures to be less supportive than “other” category of workers (which included hospital attendants, administrative staff, ancillary staff, and allied health professionals) (Sheffe test significant at 5 percent level).

Analysis of hospital characteristics was also undertaken comparing means by gender and age of respondent. No significant differences were found across these dimensions. There were however significant differences on the pride/reputation scale and “up-to-date scale” according to the age of the respondent. People in their forties and older were significantly more likely to rate positively pride in working at hospital and the “up-to-dateness” of the hospital than younger workers.

5.3 Worker Characteristics

Table 6 presents mean scores by key groupings for the workers characteristics scale. As in Table 5, standard deviations are shown in brackets, and results significant at the 5 percent level are highlighted in bold (t test for two group tests and one-way ANOVA for multiple group tests).

Table 6. Scores for Worker Characteristics

	Trust between workers	Enjoyable job	Relationships with supervisor	Adequate pay
Overall (129)	4.27 (.67)	2.39(.87)	4.05(.77)	1.53 (.98)
Workers (90)	4.30 (.63)	2.39 (.83)	4.02 (.76)	1.40 (.83)
Supervisors (32)	4.15 (.78)	2.35 (.86)	4.00 (.83)	1.94 (1.32)
Managers (7)	4.52 (.54)	2.62 (1.41)	4.64 (.38)	1.43 (.53)
CRH* (80)	4.30 (.56)	2.37 (.87)	4.09 (.81)	1.68 (1.03)
CH5* (49)	4.22 (.83)	2.44 (.89)	3.98 (.70)	1.31 (.87)
Doctors (33)	4.21 (.63)	2.10 (.64)	3.68(.77)	1.55 (1.12)
Nurses (42)	4.40 (.56)	2.42(.89)	4.17(.77)	1.38 (.79)
Other (54)	4.21 (.77)	2.56 (.95)	4.19(.70)	1.65 (1.03)

Notes: Brackets = standard deviation, bold = results significant at 5 percent
 CRH = Children's Republican Hospital, CH5 = City Hospital No. 5

Overall relationships both with co-workers and supervisors appear good, with average ratings over 4. In contrast, ratings of the adequacy of pay were very low (lower than the rating of any other individual item) and ratings of “enjoyable job” also reflected poor perceptions.

If respondents agreed that their job was stressful (one of the items on the enjoyable job scale) then they were encouraged to explain why this was. The majority of answers stressed the difficulty of working in a resource-poor context (see Table 7). The response concerning “the extreme situation of patients” may relate partly to patients delaying seeking care for financial reasons. Respondents at City Hospital No. 5 were more likely to mention the extreme situation of patients compared to respondents at Children’s Republican Hospital (who were more likely to mention the fact that patients are children).

Table 7. Why Job Causes Stress

Reason	N*
The extreme situation of patients presenting at the hospital	35
Work is not financially rewarded	25
Patients are children	20
Patients have no money	19
Lack of medications and equipment	15
Other	16

* Respondents were allowed to give more than one explanation.

Qualitative responses on the statement “workers like the things they have to do” were also interesting. Eleven respondents stated that their co-workers did not like the things they had to do because they had to perform the functions of a hospital attendant. This response came mainly from administrative workers at City Hospital No. 5. Although the item “coworkers experience frustration and disappointment at work” was not included in the scale “enjoyable job,” qualitative responses to this question also provide insights (see Table 8). Lack of supplies, both medical and administrative, was a key source of frustration at both hospitals. In contrast the late payment of salaries was perceived to be a much greater problem at the Children’s Republican Hospital than at City Hospital No. 5. The reasons for this are unclear.⁶

Table 8. Why Respondents Experience Frustration and Disappointment at Work

Reason	Children’s Republican Hospital (N)	City Hospital No. 5 (N)	Total (N)
Lack of reagents and supplies	22	20	42
Salaries not paid on time	34	4	38
Lack of stationery	23	10	33
Low reimbursement/ salaries	11	8	19
Lack of patients	6	6	12
Other	7	2	9

In terms of the adequacy of pay, significant differences emerged both between hospitals and according to whether the respondent was a worker, supervisor, or manager. Unlike many of the other dimensions, supervisors tended to rate the adequacy of pay rather higher than workers (Scheffe test significant at 5 percent level).

In terms of relationships with supervisors, doctors were found to have a significantly less positive perception of this than other types of respondents.

No significant differences in perceptions of worker characteristics were found by age, length of service at the hospital, or gender.

5.4 Patient Perceptions of the Hospitals

Patient perceptions of the two hospitals were on the whole significantly worse than the perceptions of health workers themselves. It was not possible to reconstruct the scales used in sections 5.2 and 5.3 as not all of the items for these scales were used in the patient questionnaire. However it was possible to make comparisons for the pride/reputation scale. Table 9 compares perceptions, by hospital, between patients and workers for this scale (standard deviations in brackets). Scores awarded by patients were considerably lower than those awarded by workers, and this was also true of each individual item on the scale.

⁶ One possible explanation is that the management of the Children’s Republican Hospital tended to retain reimbursements from the state medical programs in order to purchase supplies (such as drugs) rather than pay salaries. Medical staff at this hospital are able to earn more from informal payments than staff at City Hospital No. 5.

Table 9. Differences between Patients and Workers in Perceived Pride in Work

Group	Mean Score
Overall Workers	4.11 (0.74)
Workers at Children’s Republican Hospital	4.39 (0.55)
Workers at City Hospital No. 5	3.60 (0.79)
Overall Patients	(1.00)
Patients at Children’s Republican Hospital	(1.12)
Patients at City Hospital No. 5	1.98 (0.85)

Note: Brackets = standard deviation

The characteristics that patients were most likely to rate poorly were characteristics of workers; lowest scores were awarded to “workers at the hospital work hard,” “workers are reliable and trustworthy,” and “workers are eager to do a good job” (Table 10). Factors relating to the hospital work environment (and the consequences of this for workers) were more positively perceived by patients, with highest mean scores awarded to “workers are not disappointed at work,” “workers face few obstacles at work,” and “the hospital has up-to-date equipment and machinery.” As Table 10 shows patients rated individual items in a very different way to workers. Workers rated highly the personal characteristics of their colleagues but awarded low scores to the hospital work environment and its effects.

Table 10. Differences in Scoring Patterns for Individual Items between Patients and Workers

	Workers’ Scores	Patients’ Scores
Characteristics of workers		
Work hard	4.62	1.65
Reliable and trustworthy	4.47	1.79
Eager to do a good job	4.76	1.79
Hospital environment and consequences		
Workers not disappointed at work	2.50	3.04
Workers face few obstacles in performing their job	3.05	2.96
Hospital has and uses modern equipment	3.51	2.83

Significant differences emerged in the way patients perceived the two hospitals across a surprisingly large number of characteristics. Table 11 shows the characteristics where there were significant differences. In all dimensions perceptions were better at the Children’s Republican Hospital than at City Hospital No. 5.

Table 11. Means Scores for Characteristics Where Patients Perceived Significant Differences between Hospitals

Characteristic	Children's Republican Hospital	City Hospital No. 5
This hospital makes its contribution to the well-being of the society	2.70 (1.34)	1.56 (1.04)
Workers of this hospital are proud of providing patients with good service	2.50 (1.40)	1.39 (0.50)
Workers in this hospital trust each other	3.18 (1.42)	1.59 (0.80)
Different types of workers at this hospital get along well	2.53 (1.61)	1.21 (0.54)
Workers here feel great responsibility to the hospital	2.47 (1.39)	1.53 (0.74)
Workers are eager to do a good job	2.20 (1.61)	1.33 (0.84)
Workers are more interested in the job than the money	2.90 (1.45)	1.95 (1.00)
Workers are reliable and trustworthy	2.53 (1.61)	1.10 (0.31)
Workers want the respect of their co-workers and patients	2.30 (1.49)	1.42 (0.77)
Workers respect their supervisors	2.61 (1.09)	1.25 (0.58)
Workers work hard	2.10 (1.25)	1.20 (0.70)
Workers help each other at work	2.58 (1.54)	1.74 (0.56)
Workers feel their workplace is a pleasant place to be	2.70 (1.63)	1.71 (0.69)
Workers trust their supervisors	2.94 (1.00)	1.62 (0.96)

Note: Brackets = standard deviation

6. Factors Stimulating Better Performance

6.1 Working Conditions

A variety of different types of factors might stimulate motivation to perform. Section V of the questionnaire asked respondents to state how important a variety of different factors were. Interviewees were asked to rate the factors on a five-point scale from 5 (very important) to 1 (least important). Table 12 presents the means for the whole sample.

Table 12. Importance of Various Factors in Stimulating Motivation to Perform

Factors that stimulate good work	Mean score*
Social Environment	
Pleasant co-workers	4.61 (0.71)
Good supervisors	4.84 (0.48)
Working with patients	4.19 (1.17)
Management Issues	
Adequate working hours	3.06 (1.27)
Improved definition of responsibilities and workload	3.94 (1.09)
Income	4.74 (0.72)
Working Environment	
Appropriate working space	3.67 (1.32)
Appropriate equipment and infrastructure	4.67 (0.83)
Skill and Career Development	
Opportunity of professional advancement	3.85 (1.39)
Opportunity of career promotion	2.91 (1.31)
Chance of obtaining new working habits and skills	3.69 (1.20)
Chance of getting official training and skill development	4.12 (1.15)
Opportunity of staying up-to-date with medical developments	3.96 (1.24)
Job Content	
Interesting working environment	4.21 (1.07)
Hard but interesting job	4.13 (1.15)
Prestige associated with working at the hospital	4.22 (1.02)

Note: Brackets = standard deviation

* All staff, N=129

If it is assumed that all factors rated over 4 are important ones in stimulating motivation, then there are a large number of important factors. The most critical group of factors appears to be those related to the social environment, particularly good relationships with supervisors and co-workers. Indeed good relationships with supervisors are rated as more important than income. Job content issues are perhaps the second most important group of issues. The other three dimensions identified in

the table—management issues, the working environment, and skill and career development—appear somewhat less important, although certain dimensions of them are highly rated. Notably, the availability of equipment and utilities and the chance of getting official training were highly rated.

Significant differences emerged between sub-groups across a number of dimensions. Significant differences by hospital are summarized in Table 13. Factors related to skill and career development appear to be more highly rated at City Hospital No. 5 than the Children’s Republican Hospital.

Table 13. Means for Factors Stimulating Motivation, for Those with Significant Differences by Hospital (significant at 5%)

Factor	Children’s Republican Hospital	City Hospital No. 5
Opportunity of professional advancement	3.60	4.27
Appropriate working space	3.88	3.33
Chance of official training	3.95	4.41

There were also differences according to the category of worker (see Table 14). Managers rated three of the factors significantly higher than did supervisors, who in turn rated them higher than did workers. The factors that managers and supervisors rated higher than workers relate primarily to the intrinsic interest of the job and opportunities for skill development.

Table 14. Means for Factors Stimulating Motivation, for Those with Significant Differences by Category of Worker (significant at 5%)

Factor	Manager	Supervisor	Worker
Chance of obtaining new working habits and skills	4.43	4.00	3.52
Hard but interesting job	4.71	4.53	3.94
Chance of official training	5.00	4.50	3.92

The sub-groups across which most significant differences occurred were the worker’s current profession (see Table 15). For the first three motivational factors listed in the table the key difference was between doctors and nurses, and other hospital staff (administrators, hospital attendants, etc.). However, for the final two factors, related to skill development, doctors perceived them to be more important to stimulate good performance than did the other two groups.

Table 15. Means for Factors Stimulating Motivation, for Those with Significant Differences by Category of Worker's Current Profession (significant at 5%)

Factor	Doctor	Nurse	Other
Good supervisor	4.91	4.95	4.70
Interesting working environment	4.64	4.21	3.94
Hard but interesting job	4.52	4.17	3.87
Chance of getting official training	4.73	3.86	3.96
Chance of staying up-to-date with new developments	4.67	3.81	3.64

6.2 Interventions to Enhance Health Worker Motivation

The final section moved from considering general factors that might contribute to improved motivation to specific interventions to improve motivation. Interviewees were asked to rate a total of 21 interventions on a four-point scale (1= not at all effective, 2 = slightly effective, 3= moderately effective, 4=very effective). The 10 interventions rated as most effective in improving motivation are shown in Table 16.

Financial remuneration was recognized as the most important way to increase work motivation. Furthermore several of the other items mentioned in the top five interventions could also be perceived to have implications for remuneration. Analysis of qualitative responses shows that this was indeed the case. Eighty-five respondents suggested monetary incentives as a means to recognize good work, and 94 respondents suggested that monetary incentives could be used to encourage a well-accomplished job. This was compared to 83 respondents who mentioned public thanks as a means to recognize good work and 35 who saw public thanks as a way to encourage a well-accomplished job. Furthermore the comments provided by respondents on the item “improvements in working conditions” frequently emphasized remuneration. Fifty-one respondents stated that there should be an improvement in financial conditions for workers. Twelve respondents mentioned an improvement in social conditions, whereas no one specified conditions of the work environment (which was the original intention of the question). In terms of establishing a fair income distribution, the most common suggestions were to more clearly link income to the quantity or quality of work performed.

Table 16. Interventions Considered Most Effective in Improving Motivation

Intervention	Mean score
Fair income distribution (according to the contribution made)	3.86
Improving work conditions (more safety, cleaner, less crowded, cold and hot water)	3.79
Recognition and appreciation of good work	3.79
Establishing of the encouraging system for the well-accomplished job	3.74
Putting more emphasis on getting things done correctly	3.70
Supplying with better, more up-to-date material	3.67
Assisting workers with childcare problems	3.64
Assisting workers with problems	3.59
Increasing opportunities to develop professional skills	3.46
Assisting staff in solving transport problems	3.26

Three other interventions highly rated by health workers involved the hospital in providing assistance to workers (in child care, problem solving, and transport). For the first two of these, monetary assistance was more frequently cited than any other form of assistance. For assistance with transport, the most common suggestion was the provision of special buses, followed by various forms of financial assistance.

Thus the only interventions out of the 10 most highly ranked that did not explicitly involving improvements in remuneration was “putting more emphasis on getting things done correctly,” “supplying with better and more up-to-date material,” and “increasing opportunities for professional development.”

Interestingly, the patient questionnaire also included a final question that asked patients to suggest ways in which health worker motivation at the study hospital could be improved. Fifty percent of respondents suggested that salaries of hospital workers should be increased, and 10 percent of respondents gave more precise suggestions stating that more money from the fee paid to the hospital should go direct to the doctor and not to the hospital.

Three interventions had a mean score less than 2.5 and thus (for the group as a whole) would not appear to be effective means to increase motivation. These were: increasing the possibility of promotion, increasing the variety of tasks performed in jobs, and allowing more flexible working schedules.

Statistically significant differences by hospital were found for ratings of eight interventions. The interventions that significantly differed between hospitals are shown in Table 17. For each of these interventions, respondents at City Hospital No. 5 rated them to be more effective than respondents at the Children’s Republican Hospital. The greatest difference between means was observed for the intervention “encouraging team work.”

Table 17. Interventions Rated Significantly Differently between Hospitals

Intervention	Children's Republican Hospital	City Hospital No. 5
Encouraging teamwork	2.68 (1.14)	3.22 (1.05)
Improving work conditions (more safety, cleaner, less crowded, cold and hot water)	3.69 (0.69)	3.96 (0.20)
Putting emphasis on the timely performance of the job	3.06 (0.97)	3.53 (0.84)
Supplying with better, more up-to-date equipment	3.50 (0.75)	3.94 (0.24)
Registering and evaluating the quality of accomplished work by the staff (what work has been done and how)	3.08 (1.09)	3.61 (0.67)
Providing workers with a better definition of the tasks and the ways on how to perform them.	2.90 (0.88)	3.35 (0.88)
Fair income distribution (according to the contribution made)	3.79 (0.54)	3.98 (0.14)
Possibility of developing of professional skills	3.33 (0.94)	3.67 (0.80)

Note: Brackets = standard deviation

On the whole managers tended to rate the potential effectiveness of interventions higher than supervisors, who in turn rated them higher than workers (see Table 18). High rating by managers was particularly evident for 'managerial' interventions such as improving work conditions, increasing job variety, or increasing the involvement of the supervisor. Just one intervention was rated significantly higher by supervisors than managers, this was possibility of developing professional skills

Scheffe tests confirmed that significant differences often existed between supervisors and workers whereas there were not significant differences between managers and supervisors, i.e., supervisors share attitudes more similar to managers than workers.

Table 18. Interventions Rated Significantly Differently between Different Categories of Worker (significant at 5%)

Intervention		N	Mean
Improving work conditions (more safety, cleaner, less crowded, cold and hot water)	Managers	7	4.00 (0.58)
	Supervisors	32	4.00 (0.00)
Improving work conditions (more safety, cleaner, less crowded, cold and hot water)	Workers	90	3.70 (0.64)
	Managers	7	3.86 (0.38)
	Supervisors	32	3.69 (0.64)
On a worker's first request increasing the amount of time the supervisor is involved in the worker's job	Workers	90	2.87 (0.95)
	Managers	7	3.14 (1.07)
	Supervisors	32	2.59 (0.84)
Increasing the variety of tasks performed in jobs	Workers	90	2.16 (0.85)
	Managers	7	3.71 (0.49)
	Supervisors	32	3.88 (0.42)
Possibility of developing of professional skills	Workers	90	3.29 (1.00)
	Managers	7	3.29 (1.11)
	Supervisors	32	3.13 (1.07)
Existence of professional standards	Workers	90	2.61 (1.08)

Note: Brackets = standard deviation

Analysis by the current occupation of the worker (doctor, nurse, other) (see Table 19), also found five interventions on which there were significant differences by sub-groups. Differences emerged primarily on interventions relating to job design and skill development; doctors tended to give greater priority to such interventions than other staff. For all but one of the interventions identified in Table 19, the Scheffe test identified significant differences between the doctors and both other groups of workers.

Doctors also rated the potential effectiveness of assistance with child care higher than other groups. Many doctors are women, and while nurses and other health workers may give up their jobs to stay at home with children, doctors are more likely to continue to work.

Table 19. Interventions Rated Significantly Differently between Workers with Different Current Occupations

Intervention		N	Mean
Assisting workers in solving child care problems	Doctor	33	3.91 (0.38)
	Nurse	42	3.57 (0.74)
	Other	54	3.52 (0.82)
Encouraging teamwork	Doctor	33	3.30 (0.92)
	Nurse	42	2.81 (1.19)
	Other	54	2.69 (1.13)
On a worker's first request increasing the amount of time the supervisor is involved in the worker's job	Doctor	33	3.36 (0.93)
	Nurse	42	3.26 (0.91)
	Other	54	2.87 (0.93)
Possibility of determining and controlling of one's personal work tasks	Doctor	33	3.15 (0.94)
	Nurse	42	3.02 (1.00)
	Other	54	2.61 (1.00)
Possibility of developing of professional skills	Doctor	33	3.88 (0.42)
	Nurse	42	3.50 (0.77)
	Other	54	3.17 (1.09)

Note: Brackets = standard deviation

There was only one intervention where statistically significant differences were found by age group, and this was for the intervention “developing professional skills.” As might be expected, the older respondents reported the lowest effectiveness of this intervention; as they were near the end of their careers they would benefit less (both personally and financially) from further training.

7. Discussion

7.1 Discussion of Findings

It was clear from the contextual analysis (Bennett and Gzirishvili 2000) that hospital goals were not clearly formulated. This was reflected in responses to this survey. Often goals cited by respondents were personal rather than organizational goals (for example, many respondents stated that the hospital goals was “To do our best”). Without a clearly articulated and well understood, overarching hospital goal it is not possible for workers at the hospital to align themselves with the goals of the organization for which they work.

Qualitative responses to the questions on goals often blamed external factors (notably the economic recession) for failure to achieve hospital goals. A similar pattern was observed in qualitative responses to other questions. This phenomenon has been noted as a characteristic typical of post-Soviet societies (Bennett and Gzirishvili 2000). While undoubtedly the economic situation in Georgia is bad, externalization is generally associated with a lack of willingness to take responsibility for solving problems. Problems arising within the hospital are perceived by many workers to be due to factors entirely outside of their control, and therefore they are passive and do not attempt to find solutions.

This study highlights the importance of social relationships in the workplace as a motivational determinant. The importance of social relationships is probably partly due to the context. Health workers in Georgia are paid a very low salary and even this is sometimes not paid. Hospitals are extremely underutilized so health workers have low workloads. In this context it is not surprising that social relationships become all important. Cultural values tend to reinforce this pattern. Social relationships are seen to be of great importance in Georgia; indeed one study of seven large industrial employers found that social solidarity was the *only* key value in the companies (Bennett and Gzirishvili 2000).

The findings reported here highlight the many ways in which lack of resources and economic crisis have an impact upon health workers. Poor pay is obviously a critical constraint upon health worker motivation. Improving pay was the intervention cited most frequently by health workers as a way to improve their motivation. Patients also held the same opinion. Lack of resources within the hospital also adversely affected motivation through the lack of basic supplies such as stationery and medical supplies; this was a key factor contributing to frustration among health workers. Equally important was the patients’ lack of ability to pay, leading to tension in the patient-provider relationship.

Patients held appreciably more negative views of hospital and worker characteristics than did workers. It was particularly interesting that the characteristics that patients were most critical of related to the personal characteristics of workers (their eagerness to do a good job, their trustworthiness, etc.). It is possible that the high prevalence of informal payments in hospitals contributes to this perception. If a patient is asked to make an informal payment for each procedure then this probably leaves the impression that they are really not interested in their work. This interpretation is strengthened by the common perception among patients that health workers should be better paid. Also from the contextual analysis, it was the researchers’ impression that informal

payment schemes were better organized at the Children's Republican Hospital than at City Hospital No. 5 and that this might also contribute to the better perception of this hospital among patients.

Patients also had a surprisingly positive view of many aspects of the hospital environment, such as the lack of obstacles workers faced, and the extent to which equipment was up-to-date; this was in direct contrast to the perspective held by workers themselves. Part of the problem may be that patients do not understand the context in which workers are working and therefore have unrealistic expectations. The contextual analysis suggested that outside of the consultation there was a lack of communication between providers and patients; for example, there were no representatives of the community on hospital boards.

Improved income would be an important factor stimulating better work among all groups; for doctors, job content and opportunities for training were also important. Opportunities for advancement were understandably more important for younger physicians than older ones, which accounts for the difference on this scale between the two hospitals.

Opportunities for career promotion were not perceived by any group to be important. There is currently no clearly defined career ladder for health workers, and it is possible that health workers did not fully understand how such a career ladder might work. In particular, given the resource scarce context, they may not have associated career promotion with higher incomes, and this might be one reason why they did not value it. General managerial reforms, such as improved job definition or flexibility in working hours, were not perceived to be very effective. In the current context the central management plays a relatively weak role; because of the reliance on informal payments, there is de facto a considerable degree of decentralization in hospital management, which is perhaps why centrally driven managerial reforms were perceived to be less effective. The degree of de facto decentralization within the hospital might help explain why supervisors tended to give lower scores to hospital characteristics than did other groups of workers. At the moment heads of department bear quite a lot of the day-to-day responsibility for providing services and meeting staff needs, whereas central management are at a greater distance from the problems.

7.2 Discussion of 360 Degree Tools and Survey Technique

In general the overall study design and survey instruments worked well. As the results show, there were clearly differences between how different groups of respondents viewed worker motivation and the hospital environment. The instruments could be improved upon in some minor respects:

- ▲ Respondents tended to score highly all the suggested interventions in Section 6 of the questionnaire, making it difficult to identify which interventions would be most effective. Asking respondents to rank interventions or select the three or four most important interventions would have been better;
- ▲ Negatively worded questions tended to elicit strong denials from the respondent. This was particularly the case where the subject was an interpersonal relationship. In Georgian culture it is socially unacceptable to say highly negative things about colleagues.

8. Conclusions and Recommendations

The conclusions presented here are preliminary. Findings from this study will be tested more rigorously and elaborated further through the third and final stage of the research, namely the individual worker questionnaires.

There are three distinct audiences for the findings of this study:

- ▲ Managers at the hospital level
- ▲ Policymakers at the national level
- ▲ Researchers and analysts at the international level

More than one type of audience may be interested in particular findings.

8.1 Lessons for the Hospital Level

- ▲ Hospital goals need to be defined, discussed, and communicated to the work force. When health workers are unclear what the overall aim of the hospital is then it is difficult for them to support the achievement of this goal;
- ▲ Management needs to develop and implement strategies that support supervisors in the many difficult tasks that they must perform. Supervisors, who in this study were largely heads of department, appeared to be the most alienated group of workers, awarding lower scores to hospital characteristics than any other group;
- ▲ Measures to create intrinsically more interesting jobs and to enhance the skills and career development of physicians, particularly young physicians, are important and relatively low cost ways to improve the motivation of this group;
- ▲ The very negative perceptions among patients deserves further research,⁷ but improving the coordination of informal payments at the departmental level and investing more effort in communicating hospital policies, strategies, and problems to the population served by the hospital may pay rich dividends;
- ▲ Health workers tend to shift blame for the problems encountered in the hospital sector to external actors. While health workers do not have control over *all* the problems facing the hospital, this attitude prevents them from seeking solutions. Management needs to encourage health workers to take greater responsibility in resolving the problems faced by the hospital; engaging health workers more in the day-to-day management of the hospital may help achieve this.

⁷ Particularly in the light of some patient satisfaction surveys (e.g., Zoidze et al. 1999), which suggest much more positive perceptions.

8.2 Lessons for the National Level

Many of the suggestions in section 8.1 are probably relevant to other hospitals in Georgia; hence national-level policymakers need to consider how they can contribute to the absorption of these lessons by the whole hospital sector.

In addition, the findings of this study highlight one central dilemma for the government of Georgia. On the one hand lack of finance is the key constraint for improving worker motivation. On the other, the one dominant value in the two study hospitals, is the importance of social relationships between workers. To date, the Ministry of Health has largely tried to decentralize responsibility for rationalizing the workforce by squeezing hospital budgets. Given the importance of social relationships it is easy to understand why this strategy has not worked; hospital managers would prefer to maintain the existing staff roll on lower salaries rather than lay off some workers.

It would seem most likely that rationalization of the work force can only be achieved in conjunction with rationalization of hospitals, i.e., whole hospitals need to be closed and staff made redundant rather than shrinking the workforce at existing hospitals.

8.3 Lessons (and Challenges) for the International Level

The 360 degree analysis highlights the complexity of conducting research into health worker motivation. This study has shown how the determinants of motivation differ between different professional groupings, by position within the hospital, and between hospitals in the same city. The multiple significant differences found between different sub-groups in this study suggest that once cannot generalize conclusions about worker motivation from one particular context to another. This is further supported by the attempt to apply scales derived in Jordan to the Georgian context: there are clearly considerable differences in the way in which respondents in the two countries conceptualize motivational determinants.

Finally, there has been appreciable debate in the literature about the importance of positive motivators (such as intrinsic job interest, achievement, and recognition) when certain basic conditions (such as adequate salary and working conditions) are not in place (Hertzberg et al. 1959). This study has shown the practical importance of these considerations in contexts such as Georgia, where salaries are extremely low and irregularly paid. In the developing world it is not uncommon for many basic conditions not to be met. More research is needed into which interventions are feasible in such contexts to improve worker motivation. The findings of this preliminary study suggest that at least among certain sub-groups of workers (primarily young physicians) intrinsic motivators are still be relevant.

Annex A. Health Worker Survey Instrument

Worker's Record

I am very grateful for you taking the time to talk with me. As you already know this short interview is part of a broader project. The final purpose of the project is to make recommendations on the arrangements to improve the interest and motivation of workers, and the content and quality of work performed those working in the health sector.

Respondent's number _____

Hospital _____

Department _____

I. General Information

Before you start answering to the questions, I would like to know a bit more about 'You'.

1. Your profession _____

2. For how long have you been working at the given hospital?

_____ (years, months)

3. And for how many years have you been working? _____

4. What kind of position do you occupy at hospital at the moment being?

A Doctor

A Nurse

A Sanitary assistant

Administration staff

Technical staff

Subsidiary or other staff

Write in _____

5. For how long have you occupied this position at hospital?

_____ (years, months)

6. Your marital status? —married—single—widowed—divorced

7. Your age? —

8. Gender: —female— male

9. Do you supervise any health worker/s?

—Yes —No

If yes, a) What type of workers

Doctor

Nurse

Sanitary assistant

Administration staff

Technical staff

Subsidiary or other staff

Write in _____

b)How many?

II. Goals and Objectives

This part concerns your opinions on the hospital's general goals and objectives.

A hospital's goal reflects what the hospital thinks is the most important thing it is seeking to accomplish. It may concern the quality of job performed by hospital staff, or the manner of treating patients, etc.

I would like to know what in your opinion is the main goal of your hospital. (Name one or two goals.)

Goal 1 (describe)_____

Please describe how your work meets this goal: _____

Goal 2 (describe)_____

Please, describe how your work meets this goal: _____

Today's interview will take approximately 45 minutes. We are interested only in your opinion on what you think and how you perceive current events. Naturally, there are no right or wrong answers. Confidentiality of the information given by you is guaranteed. Do you have any questions? Now, Let us start.

III. Hospital Characteristics, Culture

The questions given below concern your opinion on this hospital in general, about its general role and reputation, policy and various practices. Now I will read several statements and will ask you to express your opinion on each of them – whether you agree or disagree with each of them.

Note: On the statements concerning the co-worker/peers, the respondent should to answer about his/her direct colleagues, i.e.,

about doctors if he/she is a doctor

about nurses, if he/she is a nurse

about ancillary staff, if the respondent is an ancillary worker etc.

Please, express your ideas freely.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

1. _____ This hospital has a good reputation in the population

comments _____

2. _____ Most of my co-workers are proud to work here

comments _____

3. _____ This hospital gives to my co-workers the possibility of decision making and acting independently.

necessary comments: _____

4. _____ This hospital is very behind in getting modern equipment and skills of using it.

comments _____

5. _____ Suggestions of my co-workers on how to improve the work are as a rule ignored.

comments: _____

6. _____ This hospital makes its contribution to the well-being of the population.

comments _____

7. _____ For the badly performed work there are few cases of being punished at this hospital

comments: _____

8. _____ It is a source of pride to start working at this hospital.

comments: _____

9. _____ One rarely comes across the useless rules at this hospital.

comments: _____

10. _____ My co-workers in this hospital are proud they provide the patients with the good service.

comments: _____

11. _____ It is obvious that this hospital cares about my co-workers.

comments: _____

12. _____ This hospital encourages my co-workers to work as a team.

comments: _____

13. _____ My co-workers in this hospital do not trust each other.

comments: _____

14. _____ My co-workers in this hospital easily find a common language with workers of different categories. (e.g., doctors with the nurses, sanitary workers with nurses)

comments: _____

15. _____ Should a problem arise during the work, my co-workers at this hospital expect less assistance from their supervisors.

comments: _____

16. _____ The good and bad of the hospital is not a matter of concern of my co-workers.

comments: _____

17. _____ My co-workers in this hospital rarely have the chance of getting additional income.

comments: _____

18. _____ My co-workers in this hospital rarely have chances of the promotion and making career.

comments: _____

19. _____ The accomplishment of their professional tasks costs my co-workers at this hospital a lot of their time and money.

comments: _____

20. _____ My co-workers in this hospital consider their job dull.

comments: _____

21.———My co-workers in this hospital have less possibilities of attending official training courses and raising their qualification further.

comments:—————

22.———There is a severe competition between the employees of this hospital.

necessary comments—————

IV. Worker Characteristics, Values

In this part we would like to hear your opinion and views about your co-workers (for example, doctors if the R. is an MD; nurses if the R. is a nurse; ancillary worker if the R. is an ancillary worker, etc.). We are interested in you opinion about you co-workers, their values, orientations, etc.

1	2	3	4	5
completely disagree			completely agree	

Generally my co-workers in this hospital:

1.———Are eager to do a good job.

comments:—————

2.———Are less interested in financial compared to their job.

comments:—————

3.———Are reliable and trustworthy.

Necessary comments:—————

4.———Are interested in professional education and self-improvement.

comments:—————

5.———Are willing to be respected by their co-workers and patients.

comments:—————

6.———Are not able to work well together.

comments:—————

7.———Respect their supervisors

comments:—————

8.——Work hard

comments:—————

9.——Do not help each other at work.

comments:—————

10.——Do not like many of the things they have to do.

comments:—————

11.——It will be difficult for them to quit their job, even if they do not like it.

comments:—————

12.——Are frustrated and disappointed at the work.

Necessary comments:—————

13.——Get blamed of things (by co-workers, supervisors or managers) that are not their fault.

comments:—————

14.——Their working day is not busy.

comments:—————

15.——Do not trust their supervisors.

comments:—————

16.——Feel that hospital policy/rules are unfair.

comments:—————

17.——Being at work is pleasant for them.

comments:—————

18.——They rarely encounter obstacles when performing their job.

comments:—————

19.——Can freely talk with their supervisors about work issues.

comments:—————

20.——They are adequately paid.

comments:—————

21.——Their job causes strain/stress.

In case of a positive answer, What factors cause the stress?

Necessary comments—————

V. Working Conditions

The goal of this part is to identify some of the advantages and disadvantages to your group of workers for working at this hospital. Please, answer each question with respect to your group of workers (e.g., MDs, nurses, ancillary workers).

1. Now I am going to read several possible benefits. Please, indicate how important each of them is for increasing the level of interest, content and quality of job performed by workers at this hospital.

Please, also identify any other benefits (positive factors) that would encourage worker motivation and stimulation.

1=very important;

2=important;

3=somewhat important;

4=not so important;

5=least important;

1.——Opportunity of professional advancement.

comments—————

2.——Opportunity of career promotion.

comments—————

3.——Sufficiency of working hours.

comments—————

4.——Co-workers that are pleasant to work with.

comments:—————

5.——Working with patients.

comments—————

6.——Good supervision/supervisors.

comments—————

7.——Prestige associated with working at this hospital.

comments—————

8.——Chance of obtaining new working habits and skills.

comments—————

9.——Interesting working environment.

comments—————

10.——Hard, but interesting job.

comments—————

11.——Appropriate working space.

comments—————

12.——Chance of getting official training and skill development.

comments—————

13.——Appropriate equipment of the working place (Electricity, ventilation, heating, cold and hot water)

comments—————

14.——Income.

Necessary comments: —————

15.——Strictly defined responsibilities, volume of work and responsibility frames.

comments—————

16.——Chance of getting familiar with current information.

comments—————

17.——other (SPECIFY): —————

VI. Ways of Increasing Health Worker Motivation.

The following questions concern possible changes at the hospital that, in your opinion, might increase the level of interest and stimulate the motivation of the hospital staff.

For each of the listed change please indicate:

1. How effective/important would this change be for stimulating and motivating co-workers to work better?

2. *How do you think this should be done and what should it be like?*

1. Recognition and appreciation in case of good work.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

2. Putting more emphasis on getting things done correctly.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

3. Assisting staff in solving transportation problem.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

4. Assisting workers in solving child care problems.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective,- very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

5. Assisting the staff in coping with a problematic situation

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

6. Encouraging teamwork

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

7. Improving work conditions (more safety, cleaner, less crowded, cold and hot water)

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

8. Putting emphasis on the timely performance of the job

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

9. Supplying with better, more up-to-date equipment

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

10. On a worker's first request increasing the amount of time the supervisor is involved in the worker's job.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

11. Registering and evaluating the quality of accomplished work by the staff (what work has been done and how)

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

12. Possibility of determining and controlling of one's personal work tasks.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

13. Providing workers with a better definition of the tasks and the ways on how to perform them.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

14. Increasing the variety of tasks performed in jobs.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

15. Fair organizational policy for the non-attendance

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective- – very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

16. Fair income distribution (according to the contribution made).

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

17. Establishing of the encouraging system for the well-accomplished job.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

18. Working out more flexible (more convenient) work schedule.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

19. Possibility of developing of professional skills

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

20. Possibility of promotion

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

21. Existence of professional standards.

In your opinion, how important this would be? (*mark only one*)

Ineffective, - slightly effective, - moderately effective, - very effective

(*if moderately or very effective*) How do you think this should be done and in what form?

22. Other suggestions for change (*please, specify*)

VII. Additional Comments

Have you got any other opinions or comments about the issues that might increase health worker motivation?

.....
.....
.....

The end of the interview

Thank you very much indeed for your kind assistance. Should any queries arise do not hesitate to contact us on the following address:

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Annex B. Composite Scales Used in Jordan and Alpha Scores for Reconstruction with Georgian Data

Scale	Items	Jordan Alpha	Georgia Alpha
Pride/ reputation	Co-workers take pride in providing good service to patients Co-workers do not regard work as boring Hospital has good reputation in community Workers proud to work in this hospital	0.75	0.57
Job/career opportunities	Co-workers have opportunities for formal training and continuing education Co-workers have chances for career advancement Co-workers have opportunities for additional or supplementary payments	0.49	0.25
Social environment	Co-workers get along with other types of workers Hospital demonstrates that it cares about workers Hospital encourages co-workers to work as a team	0.71	0.48
Respectful working atmosphere	Co-workers respect their supervisors Co-workers can talk freely with supervisors Co-workers help each other at work Co-workers want respect from other workers	0.76	0.22
Perception of peers as hardworking	Co-workers are hardworking Co-workers are reliable and dependable Co-workers have less time available than needed to do work	0.55	Non-comparable due to different wording of final item
Perceived coworker intrinsic motivation	Co-workers are less interested in money than the job itself Co-workers are interested in learning and self-improvement Co-workers are eager to do a good job	0.79	0.09

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