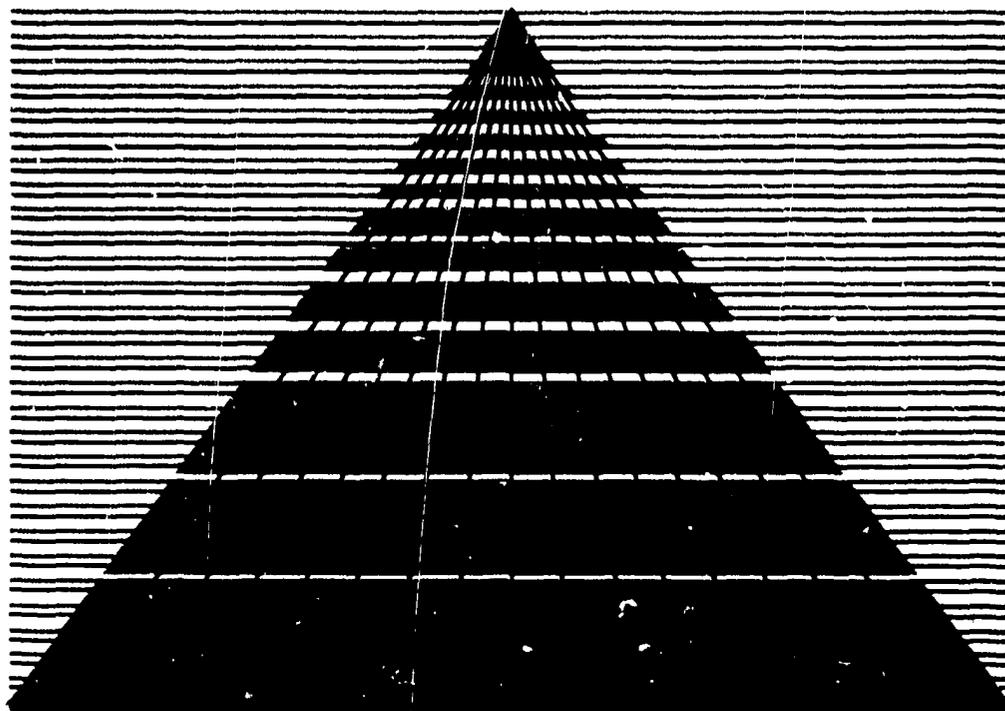


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**Management Assessment Of
Primary Health Care Services
In The
Perú Ministry Of Health**

Part A

Analysis and Recommendations

The PRISM Group

Projects in Agriculture, Rural Industry, Science & Medicine

PNABH-023

The Cono Sur PRICOR II Project
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PERU COUNTRY STUDY

Final Report - 1990 National Assessment

MANAGEMENT ASSESSMENT OF PRIMARY HEALTH CARE SERVICES IN THE PERU MINISTRY OF HEALTH

Part A

Analysis and Recommendations

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ABSTRACT

The PRISM Group's PRICOR II Peru Country Study ended in FY90 with a national assessment of six of the Peruvian Ministry of Health's (PMOH) child survival and maternal health programs at the health center level. Assessment teams comprising PMOH physicians and nurses were trained by PRISM staff in quality assurance assessment techniques and, then, carried out assessment visits to 54 PMOH health centers in seven of the PMOH's 28 health departments. These departments covered the three regions of Peru: the coastal desert, the Andean sierra, and the high Amazon jungle.

The process model for this assessment explicitly linked monitoring with immediate feedback or in-service training. It became known, therefore, as *Capacitación y Monitoreo en Salud (Servicio)*, or CYMOS (Monitoring & Training in Service).

The assessment produced many insights into the quality of primary health care service delivery in the PMOH. Among the most important are:

1) that health workers routinely perform far better in, and devote more energy to, the technical tasks of care-giving than they do in promotional/ educational efforts or in establishing a good rapport with the people they serve;

2) that simple ignorance or lack of awareness on the part of health workers and local deficiencies in the way services are organized - all correctable by targeted feedback and local "consciousness-raising" about quality management - appear to be more important determinants of specific performance deficiencies than do lack of motivation, supplies or program strategies (though availability of materials is a problem in its own right);

3) that the level of job satisfaction among health workers is high in spite of the extreme economic difficulty the PMOH is currently experiencing;

4) that basic coverage in communities closest to health centers is below desirable levels for some aspects of all programs studied but significantly better for the child survival programs (ORT, ARI, Growth & Development, and EPI) than for Maternal Health and Family Planning;

and

5) that mothers in these communities are generally satisfied with technical aspects of the treatment they or their children receive, less so with the manner in which they are treated, and least so with the effort made to inform them of what is being done and why, or to educate them about the health problems they face - which parallels our findings that mothers' basic knowledge in virtually all important program areas is poor.

The nation-wide assessment process showed that the CYMOS concept developed by The PRISM Group is both an effective and efficient method for coupling new and sophisticated evaluation techniques with targeted in-service training. The result is a process that yields a detailed, quality assurance profile of primary health care in the PMOH while providing immediate, on-site feedback to the health workers and local managers who participate in the assessment. Thus, the CYMOS Visit simultaneously addresses needs of the user community, front-line health workers, local supervisors and program managers, as well as providing reliable information to operations and strategic management at the department and national level.

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INTRODUCTION

International public health efforts during the 1980's have focussed on expanding the delivery of key Child Survival services - particularly immunizations, oral rehydration therapy, growth monitoring and maternal health services - to the most needy populations in the lesser developed countries. Attention is now shifting to closer examination of the delivery systems charged with providing these services. Improving the quality of service delivery is now believed to hold the greatest promise for increasing the effectiveness of Child Survival programs worldwide. The PRISM Group, through the PRICOR-II Peru Country Study, has developed a Primary Health Care (PHC) Systems Assessment Model which addresses both the measurement of quality in primary health care services and selected aspects of its control.

The goals of the PRISM PHC Systems Assessment Model are to:

- enable the accurate assessment of the quality of health services delivery at the peripheral health unit level

- facilitate rapid and sustained improvement in services found to be deficient

The approach taken involves the systematic and selective measurement of structure, process, and outcome indices encompassing the performance of the primary health care service unit (in this case, the health center), evaluated within an analytical framework which specifies relevant and testable relationships between the three classes of indices, and directed toward the identification of effective actions that can be taken by operations management to correct deficiencies or otherwise improve individual and organization performance.

System change is effected through three specific mechanisms:

- Worker performance deficiencies are addressed through feedback and training workshops held immediately following assessment sessions. Innovative assessment and analysis methodologies, including simulation exercises and rapid numerical techniques, enable quick transition from assessment to feedback.

- Structural and managerial deficiencies are addressed in formal briefing sessions held with health unit managers and regional directors.

- Finally, the health system is seeded with "master teachers" when members of the evaluation team return to their respective peripheral units.

The PRISM PHC Systems Assessment package comprises modules for the following six priority programs: ORT/Diarrheal Disease Control, Immunizations, Acute Respiratory Infections, Nutrition and Growth Monitoring, Maternal Health, and Family Planning. Each module consists of seven discrete assessment instruments, training materials, analysis worksheets and software as well as feedback and reporting aids.

An extensive report on the theoretical basis of the PRISM Systems Assessment Model and the development of indicators and instruments has already been submitted to USAID as Volume 1 of the Final Report of the PRICOR II Peru Country Study. Rather than repeat much of that material here, we refer interested readers to that report for a detailed description of this methodology.

We have included, as Part C of this report, a full set of the instruments used in the national assessment. These are in the original Spanish. A definitive English translation of each of these instruments is being carried out as a PRISM institutional effort independent of this USAID-funded project. Interested readers are requested to contact PRISM if they wish to obtain the English version when it becomes available.

THE 1990 NATIONAL ASSESSMENT OF PHC ACTIVITIES IN THE PERU MINISTRY OF HEALTH (PMOH)

The Systems Assessment package was used in a national assessment of PHC service delivery by health centers of the Peru Ministry of Health (PMOH) during the period March through May of 1990. This effort had four specific aims:

to carry out a management assessment, based on the PRISM PRICOR Systems Assessment Model, of the most important aspects of primary health care service delivery and coverage at the health center level in a sample of 8 *Unidades Departamentales de Salud (UDES)*, or health departments, of the PMOH and in a sample of *policlinicos*, or health clinics, of the Peruvian Institute of Social Security (IPSS)

to link this assessment to immediate feedback and training at the operations level (health centers and UDES) using mini-workshops targeted on the weaknesses and strengths actually found in each unit's performance

to produce a national database of baseline data on the performance and coverage of key peripheral services that program directors may use for more effective strategic planning and resource allocation

to serve as a pilot demonstration of a practice-based training program in the assessment and execution of Peripheral Health Services Management which could produce 40 or more certified health professionals annually to fill future needs for health center directors and program coordinators in the public sector

Because of its functional linking of assessment, or monitoring, with immediate feedback, or in-service training, the process model for the PRISM Systems Assessment Model became known as *Capacitación y Monitoreo en Salud (Servicio)*, or CYMOS. This is translated in English as Monitoring & Training in Service, or MTS. Since the effort has become widely known as CYMOS both in Peru and in the U.S., however, we will continue to use this acronym in the present report.

MATERIALS & METHODS

The basic concept

The basic concept was to create a 40-member evaluation group comprising experienced health professionals from the PMOH and IPSS. The evaluation group was trained in the management assessment of health services using the Systems Analysis Model developed by the PRISM PRICOR Project. The group was then divided into four 10-member teams, with each team sent to two PMOH UDES to carry out a 1-month assessment of key peripheral services in each UDES.

Each UDES assessment consisted of an intensive effort to collect performance data from a statistically valid sample of health centers and communities with analysis performed at both the health center and UDES levels. Special emphasis was placed on the assessment of Child Survival Programs since these are the main focus of the PRISM PRICOR Project and the USAID health agenda.

Assessment visits at health centers and at the UDES concluded with a series of training workshops based on the results of the assessment. These were designed to give immediate feedback to PMOH personnel involved on the strengths and weaknesses uncovered in their service delivery.

Human resources for the assessment team

Assessment Team. The Assessment Team initially comprised 50 health professionals (23 physicians, 16 nurses, and 11 nurse-midwives) selected competitively from all PMOH health regions.

Of the 50 Assessment Team members beginning the classroom phase of the national assessment, 40 were selected for the assessment effort, of whom 28 successfully completed the field work phase and were awarded with certificates. An effort is now underway to give this certification formal significance within the PMOH.

Additional PMOH personnel during the site visits. During site visits, the assessment teams were augmented by 5 people from the UDES so that local PMOH personnel might have an opportunity to become familiar with some of the approaches being used to assess performance. In addition, these people served as a source of immediate knowledge about local conditions - information the assessment teams needed in order to complete their work.

In assessment visits to individual health centers, the assessment teams were further assisted by at least one person from that health center assigned to the task during the length of the visit. Several additional personnel were assigned by the UDES or health center on an as-needed basis.

Training of assessment team members

Formal training commenced in January, 1990 and continued through February. The training team consisted of experts selected from the existing PRISM PRICOR project group.

The training included both theoretical aspects and practical exercises with all seven instruments of the PRISM Systems Assessment Model targeted to each of the six programs of interest. It included a thorough introduction to organization theory and behavior as well as methods of organization, performance, and effectiveness assessment. Techniques and protocols for assessing coverage by simple census, and cluster and lot quality assurance sampling were also covered in the training session. All trainees were given a thorough foundation in the operation of microcomputers and basic spreadsheet and wordprocessing software packages.

Framework of Analysis

The eight UDES composing the national sample were selected collaboratively by the PMOH and USAID. The final selection included Amazonas and Madre de Dios representing jungle UDES; Cajamarca, Cusco and Puno from the Sierra UDES; and Lima Este (east), Moquega and Lambayeque from the coastal UDES. Problems with air transportation eventually required that Amazonas be dropped from the study.

The core effort of an UDES assessment involved 1-week site visits to each of eight health centers (and their associated health posts). This sample was treated statistically as a lot quality assurance sample of the UDES.

Four health centers were selected at random from those "close" to the UDES or support hospitals and four were selected from those considered "distant". Operationally, "distant" centers were defined as being more than 6 but less than 16 hours travel from the UDES office. We also included 2 IPSS policlinicos in each UDES, where possible.

Health center assessments were done using the CYMOS model, which links assessment directly to in-service training as a unified approach to measuring and controlling the quality of primary health care services.

The assessment of health centers involved:

An assessment of organizational structure based on an *Organization Design/Function Worksheet (DFW)* and a *Job/Unit Design Questionnaire (JDQ)*. Support systems for direct service providers were considered structural factors underlying the process of service delivery.

Performance assessment of direct service delivery (care and education) was done using the following instruments:

Care/Counselling Simulation Exercises (CSX) – short role-playing exercises designed to demonstrate the best performance a worker is capable of under conditions of direct observation)

Basic Knowledge Examinations (JKE)

On-Site Observation Checklists (OSC)

Personnel Self-Reports (PSR)

Assessment of community outcomes (health status, practices, and user satisfaction) via interviews with selected mothers in the catchment community as part of a *Community Member Interview (CMI)*

The assessment was limited to the following programs:

ORT / Control of Diarrhea
Immunizations
Acute Respiratory Infections
Growth Monitoring and Nutrition
Family Planning
Maternal health

The statistical design for the assessment of each of the eight health center in the UDES included the following:

DFW interview carried out with health center head and coordinators/supervisors of targeted programs

JDQ questionnaires administered to all personnel of the health center who participated in performance assessments

Performance assessments (CSX, JKE, PSR) carried out with all health workers and direct supervisors assigned to each of the six target programs

On-site Observations made at the assigned facility in the health center for each targeted program

Community member interviews carried out with 15 mothers with one or more children aged less than 18 months: 10 living within 1km of the health center and 5 living at least 1 hours travel time away.

Anonymity, a critical aspect of all phases of performance assessment, was assured in order to guarantee objectivity and to avoid possible negative reactions, as much by the people evaluated as by health center directors and supervisors. Codes were assigned at random to all workers who participated in any of the CYMOS assessments. The process ensured that, when the CYMOS team had completed an assessment, an individual's code was known only by that individual; no code sheet was ever prepared.

Schedule for an UDES Assessment Visit: 8 weeks duration

Week 1: *Initial data collection and orientation of team members selected from the UDES*

Data collected: Geographic siting, Demographic data, Coverage, Record review
- monthly reports

Selection of 8 health centers

Orientation/training of UDES team members: the five persons assigned from the UDES received a one-week introduction to the procedures used to carry out the assessment and the principles underlying the approach.

Weeks 2-8: *Health Center visits*

The assessment teams were divided into mini-teams consisting of 2 physicians, nurses or nurse-midwives from the assessment team plus one person from the UDES. Each mini-team visited health centers for one week each.

Each health center assessment consisted of approximately 3-1/2 days of data collection at the center, ancillary posts, and the community by the mini-team and its health center aides. This data collection followed the framework of analysis specified above.

Immediate feedback was an important aspect and 1-1/2 days were dedicated to it at the end of each health center visit. All data collection instruments were designed so that critical scores could be tabulated quickly at the time of completion.

Feedback included:

a review of the performance of each health worker whose work had been assessed - done with that health worker immediately after he/she had completed the performance review process (role-playing exercise)

a meeting with health workers and supervisors in the last days of the visit to present findings concerning areas of weakness or strength in service delivery performance, coverage, or user satisfaction in the community; this was based on the preliminary tabulation of data from these sources

a meeting with the health center management/supervisory staff to:

discuss health center management on the basis of concrete examples developed during the assessment; and

show them how to carry out an in-center training program targeted to their weaker areas of service delivery using the performance checklists and manuals developed by PRISM as training tools to guide practical exercises

Week 6: *Data analysis and report production at the UDES*

Data entry was done using a portable microcomputer (one sent with each team) with reports produced on an accompanying portable printer. Data entry and analysis were done using Quattro (Borland, Inc.). A copy of this report was left with the UDES Director.

Prior to leaving the UDES, the team conducted a 1-day workshop for the UDES Director and health center directors/supervisors in which data from the UDES as a whole were used to pinpoint common weaknesses or strengths in service delivery, unmet needs in the community, levels of user satisfaction with PMOH services, etc. These themes were supported by concrete examples taken from the assessment just completed. Finally, the team also lead discussions aimed at eliciting appropriate management responses.

ASSESSMENT PROCESS IN AND SELECTED CHARACTERISTICS OF UDES

NOTE: The following summaries have been adapted from site reports made by the PRISM staff members who accompanied and assisted the efforts of the assessment team in each of the UDES. The data in the tables are taken from information collected in the Unit Design/Function Worksheet.

PUNO

The Puno UDES evaluation was carried out between February 27 and March 23, 1990. The evaluation team consisted of 10 health professionals advised by a PRISM expert. The project consultants met with the PMOH management to familiarize them with the objectives, methodology, and duration of the study. The programs to be evaluated were also reviewed. The establishments to be evaluated were also decided upon, and the UDES members were integrated into the team.

The following establishments were evaluated:

Distant:	H.C. Capachica (01) - H.C. Mañazo (02) - H.C. Desaguadero (03) - H.C. Acora (04)
Close:	H.C. Santa Adriana (06) - H.C. José Antonio Encinas (07) - H.C. Cono sur de Juliaca (08) - H.C. Chejoña (09)

The scheduled activities were completed in the following manner: the main activity of the first week (February 27 - March 2, 1990) was training the five UDES members in the methodology to use in applying the instruments. Data was collected from the UDES, and the mini-teams were formed. In some cases, the UDES member was assigned by his/her directors.

The health centers, both close and distant ones, were evaluated during the second and third weeks (March 5-16). In some establishments, the evaluation took place on Sundays because they were regular work days.

It was not possible to locate the directors of the UDES during the work weeks because of other events occurring simultaneously, i.e., planning for regionalization. However, the support provided by management and those responsible for the programs in each establishment evaluated allowed the assessment to be successfully completed.

The fourth week (March 16-20) was dedicated to the consolidation of data from the health centers and for feedback to the UDES management. Unfortunately, the director and the assistant did not attend; however, the director of the hospital, the officials responsible for programs in the UDES and some of the people from the participating health centers were present. It should be noted that many were surprised at the results because they thought the situation was much more critical than the results demonstrated.

SELECTED CHARACTERISTICS - PUNO

Indices	Health Centers								Total
	01	02	03	04	06	07	08	09	
Population	6,038	10,310	2,008	17,394	2,457	8,133	18,315	4,365	69,020
Workers									
Professionals	4	5	8	6	1	4	10	3	41
Serums	1	0	0	1	1	0	1	0	4
Nonprof	11	18	9	9	4	13	19	7	90
Accessibility*									
Geographic	4	4	3	2	3	3	3	3	
Economic	4	3	3	4	4	4	4	4	
Psychologic	4	3	3	4	4	4	4	4	
Technical	4	3	4	4	4	4	4	3	
Communities	12	37	47	41	7	10	27	15	196
Distance (km) to UDES	--	--	50	45	10	5	4	3	

* Accessibility is scored on a range from 1-Very Bad to 5-Very Good

CAJAMARCA

The evaluation of this UDES was the responsibility of 10 trained professionals, advised by the technical director of the Peru PRICOR project. The team stayed five weeks, during which time they evaluated eight health establishments of the Peruvian Ministry of Health (PMOH). The following health centers were evaluated:

Distant: Baños del Inca (09) - Chilette (06) - San Juan (07)

Close: Bambamarca (04) - Celendín (01) - San Miguel (08) - Tacabamba (02) - Tembladera (03)

The initial week (February 26 - March 3, 1990) was spent coordinating and training one official from the UDES and two from the IPSS. Unfortunately, we were not able to train more officials because our arrival occurred at a critical stage in the UDES - i.e., the UDES director was changed and several international agreements were signed. The team received the unconditional support of Dr. Izquierdo, Director of Cajamarca Hospital and the manager of IPSS.

Four mini-teams were formed in the second week (March 5-12) and covered four of the health establishments listed. These teams covered the other four health centers in the subsequent two weeks.

The fifth week (March 22-28) was spent in the UDES. Data were verified and tabulated, and a preliminary analysis was done. The UDES director, the UDES (sub-departmental administrative office) directors and the program coordinators of both levels received the feedback.

SELECTED CHARACTERISTICS - CAJAMARCA

	01	02	03	Health Centers		07	08	09	Total
				04	05				
Indices									
Population	21,662	15,193	5,525	30,566	4,719	4,795	20,125	13,197	115,762
Workers	32	14	18	26	14	4	6	5	119
Professionals	8	1	1	7	3	1	2	1	24
Serums	4	2	2	4	2	-	-	-	14
Nonprof	20	11	15	15	9	3	4	4	81
Accessibility									
Geographic	2	3	5	5	4	3	5	3	
Economic	3	4	4	5	4	3	4	3	
Psychologic	3	5	3	4	3	4	4	3	
Technical	3	4	3	4	3	4	4	3	
Communities	32	48	15	40	10	17	29	15	206
Distance (km) to UDES	123	32	113	120	87	43	320	7	

* Accessibility is scored on a range from 1-Very Bad to 5-Very Good

MADRE DE DIOS

The evaluation of five health centers in the Madre de Dios UDES took place from March 26 - April 18, 1990. The evaluation was carried out by 11 assessment team members under the direction of a PRISM assessment expert.

Upon arriving in Madre de Dios, the team first contacted the director of the UDES. The objectives of the study and evaluation methodology were reviewed, and the close and distant establishments to be evaluated were selected. The units were chosen in accordance with standard criteria used in all of the UDES. The participation of five UDES members was also requested, and it was explained that the involved personnel would have a very active role in the assessment process.

The centers chosen were:

Close: Tres Islas (01) - Cachuelas (03) - Laberinto (07) - Santa Rosa de Puerto Maldonado (05)

Distant: San Martín de Iberia (02)

Madre de Dios was the only UDES in which eight health establishments were not evaluated. There was an epidemic of malaria, torrential rains that made all roads totally inaccessible (that are normally very difficult to travel, anyway), and there were many establishments whose distance surpassed the established limits (more than 16 hours away). Because of these reasons, only five establishments were evaluated: one health center, two health posts and two support hospitals. The assessment teams had to travel by small aircraft (in the San Martín de Iberia center) and in cargo trucks (H.C. Laberinto) in order to complete their activities.

SELECTED CHARACTERISTICS - MADRE DE DIOS

Indices	01	02	03	Health Centers		Total
				05	07	
Population	1,577	2,842	879	18,228	4,609	28,135
Workers	1	35	1	194	5	236
Professionals	0	4	0	44	0	48
Serums	0	3	0	12	1	16
Nonprof	1	28	1	138	4	172
Accessibility						
Geographic	3	3	3	--	5	
Economic	4	3	2	--	5	
Psychologic	4	4	4	--	4	
Technical	4	4	4	--	3	
Communities	7	17	6	39	13	82
Distance (km) to UDES	30	10	12.5	15	55	

* Accessibility is scored on a range from 1-Very Bad to 5-Very Good

LIMA ESTE

The evaluation of the public health services in Lima Este was done from February 26 - March 23. The work team consisted of 15 persons - 12 from the assessment team and three from the UDES Lima Este. This group was divided into five mini-teams of three people each (two assessment team members and one UDES member). Each mini-team evaluated two health establishments.

The following eight PMOH health establishments were selected by the general management of the UDES to be evaluated:

Close: Vitarte (1) - La Molina (2) - Chancas de Andahuaylas (3) - Madre Teresa de Calcuta (4)

Distant: Cocachacra (6) - Chosica (7) - Moyopampa (8) - Ricardo Palma -

Data collection and training of the personnel from the UDES was done during the first week. Most information was obtained without difficulty but specific information about the health centers selected was unavailable. The training of UDES personnel was done in the auditorium of the Vitarte Health Center. There were five people designated by the general management - two physicians (one did not attend), one nurse (that abandoned the training), one nurse-midwife and a statistics technician. Only three of these, therefore, satisfactorily completed the training.

CYMOS visits were carried out in the close health centers during the second week (March 3 - March 10). CYMOS visits were carried out in the distant health centers during the third week (March 12 - 17). It was difficult to carry out the assessment visit in some centers because official notification had not arrived and the personnel were not, at first, willing to collaborate. Their attitudes changed after becoming

familiar with the CYMOS approach, however, and they then cooperated with the team and received the suggestions made during feedback with a positive attitude.

During the fourth week (March 19 - March 23), the results obtained from health center visits was tabulated to prepare a final report. Feedback related to the critical areas encountered in the child survival and maternal health programs was then given to the management team of the Lima Este UDES.

SELECTED CHARACTERISTICS - LIMA ESTE

	Health Centers								Total
	01	02	03	04	05	06	07	08	
Indices									
Population	-	24,599	12,969	-	-	2,476	12,959	11,978	-
Workers	48	23	21	14	16	10	37	30	199
Professional	11	6	5	5	5	3	8	7	50
Serums	-	1	1	1	-	1	-	-	4
Nonprof	37	16	15	8	11	6	29	23	145
Accessibility									
Geographic	4	2	4	3	4	2	-	5	
Economic	4	2	5	3	4	3	-	5	
Psychologic	1	4	4	3	3	4	-	5	
Technical	1	5	4	3	3	4	-	5	
Communities	28	5	1	4	13	4	2	11	89
Distance (km) to UDES	0.5	15	4	8	0.1	20	0.2	2	

* Accessibility is scored on a range from 1-Very Bad to 5-Very Good

MOQUEGUA

The evaluation of the Moquegua UDES was done from March 26 - April 18. The team was presented during a meeting with the UDES director and other officials. The PMOH personnel were informed of the objectives, goals and programs to be evaluated. The establishments were selected, and the UDES members were designated and integrated into the team.

The centers selected were:

Close: Miramar (01) - Alto Ilo (02) - Samegua (03) - San Francisco (04)

Distant: Mariscal Nieto (06) - Torata (07) - Carumas (08) - Omate (09)

The first week (March 26 - 29) was spent training the UDES members and collecting data (demographic, geographic, etc.). Visits to selected centers were carried out by the mini-teams during the second and third weeks. The fourth week (April 17 - 21) was spent in the UDES consolidating data and providing feedback to the directors, program directors and other personnel. They were informed of critical areas and pertinent recommendations.

SELECTED CHARACTERISTICS - MOQUEGUA

Indices	01	02	Health Centers					09	Total
			03	04	06	07	08		
Population	5,039	5,459	7,098	2,698	3,443	1,666	3,104	3,417	31,924
Workers	7	8	17	15	10	9	8	12	86
Professional	5	4	5	5	3	5	2	4	33
Serums	--	--	1	1	2	--	--	1	5
Nonprof	2	4	11	9	5	4	6	7	48
Accessibility									
Geographic	4	3	4	3	4	4	5	3	
Economic	4	3	3	4	3	3	4	4	
Psychologic	5	4	5	5	4	4	5	4	
Technical	4	5	4	5	4	4	4	4	
Communities	5	15	2	21	12	24	14	30	103
Distance (km) to UDES	2	2	6	--	--	48	--	2	

* Accessibility is scored on a range from 1-Very Bad to 5-Very Good

LAMBAYEQUE

The evaluation of the Lambayeque UDES was done between February 26 and March 23. The assessment project team leader and the UDES Director selected the eight establishments to be evaluated in a preparatory visit; however, nine other close and distant establishments had to be selected upon arriving at the UDES.

The health centers chosen were:

Close: La Victoria II (02) - Leonardo Ortiz (05) - San Antonio (04) - José Olaya (03)

Distant: Pueblo Nuevo (07) - Jayanca (10) - señor de la Justicia (09) - Ollotún (08) - Olmos (06)

The team met with the UDES management to give an in-depth presentation about the objectives, scope, methodology, evaluation time and the programs to be evaluated. The seven instruments to be utilized were presented to them, describing in global fashion how they would be applied.

From February 26 until March 2, data collection (demographic, coverage) was done and the UDES members were trained in the management and application of each of the instruments.

Five nurses were selected by the director of the UDES based on their experience in the child survival program. The nurses exhibited a lot of interest and a great sense of collaboration. They were also excellent guides in the zone, especially in the distant centers.

The second and third weeks (March 5 - 16) were spent doing evaluation visits to the close and distant centers. Each mini-team visited two health establishments,

and in each the personnel received immediate feedback upon finishing the assessment.

The fourth week (March 19 - 23) was spent consolidating the results from all of the establishments of the UDES and giving feedback to the UDES management.

SELECTED CHARACTERISTICS - LAMBAYEQUE

	02	03	Centro de Salud		07	08	09	10	Total	
			04	05						06
Indices										
Population	30,500	6,724	24,500	--	11,342	9,000	9,262	15,911	11,182	118,421
Workers	25	31	19	20	10	7	11	17	9	149
Professionals	4	10	5	6	2	2	3	2	1	35
Serums	1	2	0	2	0	0	0	2	0	7
Nonprof	20	19	14	12	8	5	13	18	8	107
Accessibility										
Geographic	--	--	4	4	--	--	4	4	3	
Economic	--	--	4	3	--	--	4	3	3	
Sicológica	--	--	4	3	--	--	4	4	4	
Technical	--	--	4	3	--	--	4	4	4	
Communities	4	14	4	8	19	10	19	7	16	101
Distance (km) to UDES	3	2	1	0	84	18	85	20	60	

* Accessibility is scored on a range from 1-Very Bad to 5-Very Good

CUSCO

The CYMOS visits to the health centers in the Cusco UDES were carried out by a work team of 12 members. Seven were from the assessment course (CYMOS group) and five were officials from the UDES. This group was divided into four mini-teams; each mini-team evaluated two health centers.

The general director and the technical team of the Cusco UDES selected the following PMOH health establishments to evaluate:

Close: Wanchaq (01) - Belenpampa (02) - San Sebastian (03) - San Gerónimo(08)

Distant: Maranura (05) - Combapata (06) - Acomayo (07) - Calca (04)

Data was collected and the UDES members were trained from March 26 - March 30. The five officials comprised four nurses and one nurse- midwife. All five demonstrated a great collaborative spirit and the capability to apply the instruments. Their participation was very important, especially in solving problems that arose trying to communicate with people in the community who spoke Quechua.

CYMOS visits were carried out in the distant health centers from April 2 - April 7. The same process was carried out in the close health centers from April 9 until April 12. The management teams and the personnel in both the close and distant

establishments were very cooperative and responded positively to the feedback with expressions of eagerness to improve the quality of the preventive-promotional services they provide.

The final report was done and feedback given to the management team of the Cusco UDES and the respective UTES during the week of April 13 to April 17. It is important to mention that the general director of the UDES and his technical team facilitated the work of the team that enabled them to carry out their activities.

SELECTED CHARACTERISTICS - CUSCO

	01	02	Health Centers				06	07	08	Total
			03	04	05					
Indices										
Population	17,373	15,959	17,470	17,301	12,083	3,176	34,024	18,147	135,533	
Workers	16	21	11	33	7	5	14	12	119	
Professional	5	9	5	12	2	1	2	4	40	
Serums	3	-	2	8	-	-	4	1	18	
Nonprof	8	12	4	13	5	4	8	7	61	
Accessibility										
Geographic	3	3	4	2	3	3	3	5		
Economic	1	4	4	5	3	3	3	4		
Psychologic	4	4	4	3	4	3	4	4		
Technical	4	4	4	3	3	3	3	4		
Communities	15	28	17	25	13	9	18	10	135	
Distance (km) to UTES	3	51	5	52	13	45	132	45		

* Accessibility is scored on a range from 1-Very Bad to 5-Very Good

HEALTH SERVICE OUTCOMES

Selected characteristics of mothers and children in communities served by participating health centers

For each Health Center to be evaluated, CYMOS Team personnel carried out 15 person-to-person interviews with mothers selected from the catchment community; 10 were chosen at random from the population living within 1km of the health center and another 5 from a population at least one hour travel time away. The sole selection criterion used in both populations was that the mother must have at least one child under the age of 18 months living with her at the time of interview. In all, 795 mothers were interviewed -- 120 each from Puno, Cajamarca, Moquegua and Cusco; 105 from Lima Este; 75 from Madre de Dios; and 135 from Lambayeque.

A detailed tabulation of the *Community Member Interview (CMI)* data obtained from these mothers is given in Part B. The following characteristics have been selected to provide a national overview of these data and demonstrate important aspects of health center performance that are reflected in outcome indices for these families.

It must be emphasized that the mothers interviewed do not represent a purely random sample of the catchment population, nor were they so intended. The intention of the CYMOS community survey is to signal the existence of poor outcomes related to local health center performance without calling for a precise estimate of actual rates. To this end, we have used a Lot Quality Assurance Sampling (LQAS) approach coupled with a sample skewed toward community members who are more likely than the average to be using health center services.

The catchment community of each health center composed a "lot" from which 15 mothers were sampled as just described. This is sufficient to distinguish health centers having serious problems from those that are performing adequately (e.g., by establishing a minimum standard of 10 "acceptable" responses out of 15, we would be able to distinguish $\geq 80\%$, or adequate, from $\leq 50\%$, or inadequate, coverage with both provider and consumer risk at 10%).

The survey obtains information from families who, due to where they live (less than 1 km versus over 1 hour travel time), represent the extremes of likelihood to use health center services. Distance is well-established as a dominant factor in utilization and, unlike economic and cultural factors, is reliably simple to apply in quick survey situations. The sampling ratio of 2 "near" for each "far" household was designed to produce indices that are more sensitive in terms of identifying the most egregious forms of inadequate performance, i.e., those which cause even the health center's immediate neighbors to have inadequate service coverage, while still capturing some indication of whether health centers were focusing all their attention on the neighboring population and failing to provide any service to remoter areas.

In general, we found little evidence that large discrepancies exist between the two populations in terms of serviced measured in the CMI. Differences were, of course,

found and generally supported the point that families closer to the health center received more services than those living farther away. Examples of this include:

The rate of measles immunization for families within 30 minutes travel time to the health center was 58% [472/540] versus 45% [154/183] for those further away.

In households within 30 minutes of the health center, 87% (239/410) of children had a growth/vaccination carnet compared to 84% (154/183) of those in households farther away.

A total of 50% (240/476) of mothers living within 30 minutes of the health center took their child to the health center during his/her last episode of ARI compared to 46% (70/152) of mothers living farther away.

In context of the truly large gaps found between a number of quality of service indices, however, the differences between "near" and "far" populations were small even if statistically significant. For this reason, we have pooled the two populations to produce the following analyses.

Pooling individual health center samples at the UDES level was done without weighting each estimate for the size of the catchment population. This is, strictly speaking, not appropriate for calculating coverage proportions from LQAS data, unless one is certain that there are no size differences between populations. We have, nevertheless, ignored the significant variations between health centers in pooling these data because trustworthy census data and precise definitions of catchment area boundaries is lacking. The implications of this are not, however, particularly worrisome since population variations as high as 2-fold for proportions also varying by as much as 2-fold, if they are normally distributed, produce estimates that are no more than $\pm 10\%$ greater or lesser than the weighted estimate. This is adequate for the current purpose.

DEMOGRAPHIC CHARACTERISTICS

The mothers interviewed were generally young (Fig. 1). This was due to the selection requirement that they have at least one child under 18 months. Within this population, however, the two southern Sierra departments (Cusco and Puno) had a significantly higher proportion of mothers in the >30 year age groups and significantly fewer mothers in the <20 year group. These are also the departments whose mothers reported having the most number of children living with them (Fig. 3). The causal factors underlying this age difference are beyond the scope of the CYMOS survey but it seems likely that it is the result of the heavy out-migration from these two departments caused by economic problems and increasing terrorism over the past decade. Such migration is known to involve younger individuals and families preferentially, leaving older mothers with more children as an increasing proportion of the remaining population.

With respect to the mother's educational level (Fig. 2), the bias between coastal (Lima Este, Moquegua, and Lambayeque) versus sierra/jungle (Madre de Dios is jungle; the rest are sierra) communities is also apparent in the fact that approximately 30% of mothers in the former have completed their secondary

education compared to only about 15% in the latter. On the other hand, the illiteracy rate among coastal mothers was close to 5% compared to almost three times that level among mothers in the sierra/jungle.

As mentioned, the families in our survey were generally younger and smaller than the average for Peru due to our selection criteria. Overall, slightly more than half of the mothers interviewed had 1 or 2 children and approximately 16% had 5 or more children (Fig. 3). A comparison between Figures 3 and 4, however, reveals that, in all UDES, the family size these mothers reported they desired was significantly lower than the number of children they actually had at present. Overall, the force of this discrepancy (seen, for example, in a comparison of the percentage who actually have 3 or more children versus those desiring the same) was strongest in the coastal communities, though Puno, which had the highest number of children per mother, also showed a pronounced discrepancy in this regard.

HOUSEHOLD FACILITIES

Figure 5 shows the distribution in access to potable water and sewerage in the populations involved in the household interview. Again, the advantages enjoyed by families in the coastal UDES (Lima Este, Moquegua, and Lambayeque) are clear in that 40-60% live in households with both piped water and sewerage compared to 10%-20% in Cajamarca and Puno. Only in Cusco, the most developed of the sierran UDES, did the evaluation encounter a rate comparable to the coastal UDES. In all three sierra UDES, potable water was most frequently obtained from standpipes. In Madre de Dios, virtually all communities are close to flowing water and, thus, non-potable water from these sources was overwhelmingly the most common source of water for drinking and cooking, as well as for all other household uses.

Households in the significantly more urbanized communities of the coastal UDES also had a higher frequency of household latrines, corresponding to virtually all households that did not have sewerage connections (Fig. 6). The reason for this appears to be that these communities do not have nearby fields or other areas in which defecation can be carried out in a socially acceptable manner. Over 60% of the households in Madre de Dios were also found to have latrines, which may be attributable to the fact that the land surrounding these households is frequently wet and muddy. Among the sierra UDES, Cusco, again, resembles the coastal UDES in its pattern of most households without sewerage having a latrine. In both Puno and Cajamarca, on the other hand, over 50% of households report being without sewerage or a latrine; defecation in the surrounding fields is, therefore, almost certainly practiced with greater frequency in these areas than in the other UDES.

With the exception of Madre de Dios, the majority of families reported having a hot plate or cooking unit in the household for food preparation. In the jungle UDES, the most common form of cooking is by open fire since wood fuel is easily obtained while other fuels are extremely expensive. With respect to refrigeration, only Lima Este and Moquegua reported over 20% of households possessing a refrigerator. In the sierra, the need for refrigeration is felt to be minimal because of the generally

low ambient temperatures during most of the year, while in Madre de Dios, the purchase cost as well as the lack of electricity mitigate profoundly against such an appliance.

INDICES OF CARE COVERAGE

ORT/Diarrhea Control

Mothers interviewed were asked what treatment facilities they used for the last episode of diarrhea their child experienced. They were permitted to indicate as many facilities as they wished in answering this question and the results are compiled in Fig. 7.

An average of 62% of mothers reported seeking treatment at a PMOH health center or post; only in Madre de Dios did fewer than 50% of mothers report using these facilities (see Part B of this report for details). Of the other facilities, only treatment at home came close to these reported rates and even that was significantly lower in all UDES except Madre de Dios and Moquegua. The reported use rate for any of the other facilities, including *curanderos*, was 15% or less.

We assume that these reported rates probably overestimate the actual case but, nevertheless, it seems clear that the survey is dealing mothers that are, or perceive themselves to be, relatively active users of their neighborhood health center. It was not possible within context of the CYMOS survey to confirm mothers' reported behavior on this issue but other, verifiable indices, such as possession of growth and development carnets and complete vaccination series, would tend to bear out the fact that these mothers do use PMOH services for their children.

When asked what form of treatment their child received at the health center or post during his/her latest diarrheal episode (Fig. 8), 67% of the mothers reported that oral rehydration was used compared to only 1% reporting the use of I.V. solution (NOTE: None of the health centers observed had I.V. supplies in stock in their pharmacy). We note that Moquegua had the lowest reported use of ORT at 44% (the next lowest UDES is 56%), which is somewhat surprising since this UDES generally scored in the top range in other indices of performance in the diarrhea

A NOTE ON THE INTERPRETATION OF HIGH-LOW GRAPH FORMAT

Figure 7 is the first of many graphs presented in a "high-low" format with each vertical line representing the minimum and maximum values obtained. For this and most succeeding figures, the level of analysis is the UDES and, thus, the vertical line represents the overall range of UDES scores or percentages. In Figure 7, for example, 73% of mothers in Lima Este reported using the health center or post (maximum) versus only 37% of mothers in Madre de Dios (minimum).

The high-low format is a convenient and easily interpretable way of summarizing a large amount of data to show important patterns in a given index. A further refinement is the addition of a single tick mark on each vertical line, which represents the average (mean) value for the index. When the tick mark is close to one extreme, as is the case for health center/post usage, it indicates that most individual values fell close to that extreme with only one or two "outliers" at the other extreme. In the current case, for example, only Madre de Dios had a value of less than 50%, while the other six UDES fell between 53-73%.

The actual distribution of scores for any index summarized in the following figures can be studied in detail by turning to the appropriate tables in Part B of this report.

control program as well as in other programs. There is no evidence that rehydration efforts are being shifted selectively to the home in this UDES which might provide an acceptable explanation for this finding.

Approximately 30% of all mothers reported that the treatment at the health center or post included antibiotics and a similar percentage reported the use of anti-diarrheals. Reports of these practices were highest (41% and 43%, respectively) in Lima Este, where such medicines are readily available. (It is worth noting that, in Lima Este, the overall rate of diarrhea with mucus and blood in the stool is reported to be about 10-15% of all diarrheas, which might justify the use of antibiotics in 1/4th to 1/3rd of the cases in which they were reportedly used). On the other hand, in Madre de Dios, where antibiotics are difficult to obtain but not antidiarrheal agents, the equivalent rates were 13% and 42%, respectively, making this UDES the lowest for antibiotics but the second highest, next to Lima Este, for antidiarrheal agents.

With minor variations, all mothers in all UDES reported that the health center/post personnel resorted to antibiotics and/or antidiarrheals at a rate that must be considered unacceptable. This frequent, reported use of antibiotics and antidiarrheal agents is consistent with results from the CYMOS Simulation Exercise for ORT/Diarrhea Control which showed that 30% of the program workers failed to promote correctly the avoidance of these agents in uncomplicated diarrhea. It is also consistent with the overall average in the self-report of the workers themselves (see results of PSR-CED in Part B) that they recommended such agents "occasionally".

Figure 9 summarizes the actions the mothers said that they took at home in order to treat their child's latest episode of diarrhea. Three out of four mothers said they gave more liquids and almost half said they breast fed more often. Almost 20%, however, said they quit breast feeding and almost 50% said they gave "medicines".

A review of the detailed data in Part B of this report reveals some interesting differences between regions in how mothers dealt with their child's diarrhea. While most mothers reported giving more liquids overall, those from the sierra communities showed a marked preference for herbal infusions compared to their counterparts in the coast or jungle, while *panatela* (a broth made from toasted bread and other ingredients) was more often mentioned by mothers from the coast. By a significant margin, in all UDES, one or the other of these liquids was the preferred home treatment over ORS either from packets or prepared at home (*suero casero*).

Mothers from Madre de Dios and from Lima Este reported the highest use of "medicines" in their home treatment. They were also the ones most likely to report that the treatment given at the health center the last time they took their child there for an episode of diarrhea involved a heavy use of antibiotics and antidiarrheal agents. This parallelism may not be coincidental and suggests that it would be worth assessing the extent to which the mothers' wishes are influencing health center worker performance and vice versa. In any case, it is possible that a self-reinforcing cycle may be acting to maintain this undesirable practice.



In summary, the evidence gathered from community interviews suggests that a coherent diarrhea control program is being carried out in all UDES in our sample and that, in some UDES, it is having some measure of success in meeting some of its important targets. Nevertheless, there is clearly room for improvement even in the indices with highest scores.

Control of Acute Respiratory Infections

When mothers were asked about the treatment facilities they used for their child's latest episode of ARI, their responses closely paralleled those obtained when diarrhea was the focus (Fig. 10). Overall, a significant shift to less frequent health center/post involvement was found while home treatment remained unchanged. These two were still by far the most commonly reported facilities with averages of 50% and 36%, respectively. Other facilities were used far less often, with hospitals, private physicians, and pharmacies each accounting for about 7-8% usage.

Figure 11 shows the responses of mothers when asked what they, themselves, did to treat their child's latest ARI episode. Somewhat more than half said they gave more liquids, continued normal feeding, and breast-fed more frequently. In these indices, there was only a slight difference in favor of the coastal UDES over their sierra counterparts but Madre de Dios was significantly poorer than the other six UDES.

The tendency among all mothers was to treat ARI at home with medicines; reported rates were 50% for cough syrup, about 30% for antibiotic use, and over 70% anti-pyretics. This is significantly higher than the reported use of medicines for home-treatment of diarrhea and is probably related to the fact that the Ministry's program in ARI is relatively new and is still being instituted in many parts of the country. The ORT/diarrhea control program, on the other hand, is one of the two most mature programs in the Ministry with wide diffusion annually of key messages in the mass media. As we will discuss later, the actual educational effort in the health center itself is unlikely to be a major factor in changing the behavior of many of these mothers because it is honored in the breach far more often than it is in the practice.

Expanded Program of Immunizations

Even if it is not meeting its current 1990 targets, EPI is unarguably the most successful program of the Ministry has in terms of coverage, participation and health worker performance (Fig. 12). Almost all mothers possessed vaccination cards for their child and, of these, virtually all were filled out as called for. Only in Madre de Dios did fewer than 80% of mothers have a carnet for their child.

In all UDES but Puno (and Madre de Dios for DPT), over 80% of children had the necessary number of immunizations for their age for both DPT and polio. BCG coverage was also high across all UDES, though 3 fell slightly below 80%. BCG is routinely administered to all hospital-born children before discharge which helps

ensure that coverage remains high. Coverage against measles, however, is significantly below the desired level in almost all UDES; Cajamarca is the only one above 80%, while the overall average is only 60%.

NOTE: This is a good point to emphasize again the nature of the CYMOS survey sampling frame, which is designed to be particularly sensitive to "worst" performance. When coverage rates are relatively high as in EPI, this process will not detect a number of problem areas, such as specific underserved populations. We reiterate that the sampling frame is skewed toward heavy users of the health center; thus, the rates quoted here represent the best case situation, not the typical case for the Ministry as a whole. All we can say is that EPI has a lower level of performance problems than do other programs, not that EPI does not have any problems.

Parallel measures of current infrastructure and capabilities associated with the EPI program do not reveal any clear reason why rates should be lower for measles immunization but the greater dependency of this vaccine on a consistently functioning cold chain may have militated against it being as readily available as the other vaccines.

Figure 13 shows the frequency with which mothers in each UDES reported receiving tetanus antitoxin, either during their latest pregnancy or at any other time. While the rates of coverage are not good for any UDES, Puno is revealed as particularly in need of a major effort to upgrade coverage in this important preventive activity.

Child Growth & Development

As shown in Figure 14, a high proportion of mothers had their child's growth and development carnet in their possession and this carnet was, with few exceptions, correctly filled out with respect to identifying data and vaccinations. The same carnet was, in fact, used for both the G&D and EPI programs in most UDES and this fact certainly contributed to the high degree of compliance found in this aspect.

Substantially more problems were detected in the portions of the carnet dealing with the growth curve and the recording of well-child visit dates. Errors were detected in the growth curve in almost 40% of the carnets examined. It is, perhaps, not coincidental that the error rate found in this review of actual carnets is almost exactly parallel to that observed when health workers filled out similar carnets during the simulation exercise for this program (Item 9 of Figure 41).

When mothers were asked how often they have taken their child for well-child visits since birth and how long ago was the last time, the results revealed a wide variation between UDES (Fig. 15 a & b). Mothers in Madre de Dios most frequently reported never having taken their child for a well-child visit (39%) while only 4% of those from Moquegua said their child had never been seen. On the other hand, slightly more than 60% of the children in the Moquegua sample had been seen within the two months previous to the survey, which was over twice as many as reported in

Lambayeque (26%). The child's carnet was used to confirm these visits reported by the mother. Overall, approximately 60% of children had been taken for a well-child visit within the previous 6 months and 85% had been seen 3 or more times since birth.

Maternal Health

The maternal health program of the Ministry is in its infancy and has been instituted on a minimal basis throughout the country. While most health centers have delegated someone to coordinate the program and provide services, neither the logistics nor program targets and norms have been adequately established at the local level.

The data obtained on PAP examinations (Fig. 16) bears this out, showing that over 70% of the mothers in our sample have not had such an examination for at least 2 years. In fact, anecdotal data collected at the time of this survey suggests that a substantial majority of the women in this group have never had a PAP smear.

Ministry norms in recent years have limited PAP examinations to women who are over 35 years old in order to establish a priority for the severely limited resources available to this program. As previously noted, only about 10% of the mothers sampled are in this age group. Only in Lima Este, with almost immediate access to central Ministry resources, have a significant number of mothers been examined (69% within the previous 2 years). Overall, only one health center in three had any available kits to do PAP examinations at the time of the CYMOS visit (see OSC-PFM tabulations in Part B).

The undeveloped nature of the maternal health program is probably also responsible for the low rates of anti-tetanus immunization noted earlier (Fig. 13) and, as will be discussed below, for generally poor findings with regard to other performance indices at the health center level.

As shown in Figure 17, most mothers gave birth either at a Ministry hospital or with the assistance of a traditional *partera* or *comadrona*. Hospital use was, as anticipated, highest in the coastal UDES such as Lima Este (62%) and Moquegua (60%) while *parteras* or *comadronas* were preferred in the sierra and jungle.

Given the fact that performance by program staff at health centers leaves much to be desired (discussed below) and the fact that these workers report almost no effort to educate parteras (Item 23 of PSR-PFM tabulations in Part B), it seems probable that the practices of these traditional birth attendants may have serious deficiencies as well and should be made an early focus for efforts to put the maternal health program on a more solid foundation.

Family Planning

Figure 18 presents the only index included in the current community survey concerning family planning coverage: a simple question about whether these mothers are using any form of family planning method at the time of the interview. It must be remembered that this is a highly selected population of women, two-thirds of whom live within 1 kilometer of the health center, all of whom have had a child within 18 months, and many of whom express themselves as actually wanting fewer children than they already have. In spite of this selection bias, fewer than 30% currently claim to be using family planning of any kind. This index alone is sufficient to indicate that the program is obviously not reaching its target group with anything close to the desired effectiveness.

Other indices, including mothers' knowledge of family planning methods and performance of promotion/education by program staff, are equally low and confirm that this program is seriously deficient in all parts of the Ministry system.

INDEX OF PROMOTION/EDUCATION COVERAGE

The sole index of promotion/education activities in the community currently included in the CMI survey is mothers' recollection of hearing a talk on a given program in the past 6 months (Fig. 19). The averages for all of the programs included fall between 10% and 30%, suggesting that the typical mother in the survey sample (a sample highly skewed toward women within easy reach of health center efforts) may participate in a talk concerning a particular program once every 2-3 years.

This is certainly not sufficient to meet the goals the Ministry has set for itself in fostering the capacity of community members to participate in their own health maintenance, as sought by the primary health care movement. As we next discuss mothers' knowledge, it will be clear that this community educational effort is, indeed, woefully inadequate.

HEALTH KNOWLEDGE OF MOTHERS

Mothers in our survey were tested on 100 basic health knowledge items grouped into the 20 indices reported in Figure 20. These indices were scored on the range used in Peruvian primary and secondary schools in order to provide a familiar scoring for Ministry staff (see accompanying box).

The 100 items included in the set of basic health knowledge were selected by experienced Ministry health workers based on the norms and targets currently in force for each program. These items, therefore, reflect the messages the Ministry is attempting to get across to mothers through counselling, promotion, and diffusion in the mass media. It is clear from the results in Figure 20 that these messages are not getting through with anything remotely like the efficacy desired.

While approximately 70% of mothers showed an adequate understanding of why their child should be immunized, the average scores for the other 19 indices all fell below 10 (50% correct). Overall, mothers did appreciably better on items dealing with the child survival programs (Indices 1-12) than with those dealing with maternal health and family planning (Indices 13-20). This is most probably due to the longer period in which the former programs have been active and the greater diffusion given to their messages over the years.

Nevertheless, it must be remembered that these levels of knowledge reflect a population of mothers who are active users of Ministry service, who frequently sought help at their health center/post during their child's latest episode of diarrhea and/or ARI and who take their child on relatively regular well-child visits as well. This fact suggests that the level of basic knowledge found in the general community would be even lower, assuming that the Ministry is a major source of health information for the community compared to other possible sources of the same information.

The sole index that scored above 10, "reason for immunization", is consistent with a view that the Ministry is, for all its limitations, a relatively important source of health information. This is the key message of their most successful program, a message heavily broadcast by TV, radio, print media, and individual counselling over a 3-month period every year during the annual immunization campaign. The other, strictly informational messages concerning vaccination -- i.e., at what age and number of doses required -- are clearly ancillary in this effort to the important "why" messages designed to motivate. The results are clearly seen in the relative differences in scoring between the three indices dealing with EPI.

The low levels of basic knowledge found among community members is consistent with the generally low scores found for health worker's performance of education/promotion activities in simulation exercises and the low level of effort they, themselves, report making in this area (see PSR self-report tabulations in Part B).

As would be expected, the coastal UDES, with a younger, better educated group of mothers in the sample and with greater access to sources of information, did better than their counterparts in the sierra or jungle UDES. The differences, on the order of 2-fold better on average, were significant but not, however, very impressive given the low levels of knowledge represented by even the best scores.

A NOTE ON THE PERUMAN SCORING SYSTEM

Figure 20 and subsequent graphs dealing with knowledge or performance are scored on a scale from 0-20, which is the range used in Peruvian primary and secondary schools. This was done to make the scoring familiar to Ministry staff who are, finally, the intended clients of the CYMOS (M&TS) assessment effort.

It is, of course, a simple matter to convert these scores to a percent scale by multiplying each value by 5. In general, we have used the 20 point scale for indices in which there is a sense of performance being assessed and a percent scale when the index refers to a simple proportion without the sense of "grading" being present.

We have arbitrarily set the minimum score for "adequate" performance at 14 (or 70%), leaving to future assessments the effort to determine if a higher (or lower) standard is more appropriate. We have also set a "red flag" zone at 10 (50%) or below to indicate when the score for a given index is low enough to justify very serious efforts to improve it. This level can, of course, also be adjusted in future. The value of establishing such breakpoints, however, is that they permit one to calculate sample sizes for Lot Quality Assurance Sampling or other statistical techniques based on process control.

PROGRAMS/ACTIVITIES IN THE COMMUNITY

The Ministry places a great deal of stress on community participation, an emphasis for which it is still seeking a viable operational model. The national assessment has revealed, in its questioning of health center staff concerning infrastructure and program performance, that interaction with the community is fundamentally limited in most health centers to providing care services (see JDQ, DFW and PSR tabulations in Part B and discussion of structural indices, below).

Mothers in our survey sample were asked about community participation, as well, from two perspectives: health programs and activities that are currently being carried out in the community and how much community members participate (in any sense the mother wishes to interpret it) in Ministry-associated health programs.

In Figure 21, mothers reported that, to their knowledge, relatively few of the programs we mentioned were operating in their community. The most common was a mothers' club; slightly more than 60% of mothers stated that their community had an active mothers' club. Two activities -- the "Glass of Milk" program and communal kitchens - were mentioned by over half of the mothers in Lima Este, but by less than 25% of mothers in the other UDES. The remaining activities were unknown to virtually all of the mothers interviewed; if they exist, their impact on these women is minimal.

The amount of any community participation in most Ministry program activities is also uniformly minimal according to these mothers, with the exception of participation in the annual vaccination campaigns (Fig. 22). Over 50% of mothers recognized their community's active participation in this event.

These indices were designed to be sensitive to any awareness in the community of "community participation" in health care activities or programs. It is clear that programs which truly are known to mobilize or involve a substantial portion of the community (such as mothers' clubs and the vaccination campaign) are reflected in these indices. The fact that most of the other programs and activities are barely recognized does not suggest that they do not exist. Rather it suggests that they have not yet attained the critical mass of community involvement on a continuing basis that would cause them to be easily recognized by individuals in the community.

Without this easy recognition, a program is marginalized with respect to the support it can muster for future efforts, especially if it is competing for resources with programs that have a great deal more "weight" in the public mind. This is what has happened with the annual vaccination campaign. Without judging its intrinsic merit or health impact, it is fair to point out that the annual campaign has clearly become a centerpiece of the Ministry's "service to the community" image and, thus, has acquired a political value beyond that of other Ministry programs. This value is reflected in the extent to which other programs are temporarily de-emphasized each year in order to mobilize the Ministry and the communities for the immunization campaign.

SATISFACTION WITH HEALTH CENTER PERFORMANCE

There has been little investigation, in the past, of the satisfaction felt by members of the community with the services provided at Ministry health centers. In our survey of a relatively frequent group users of maternal-child health services, we were surprised to find that the level of satisfaction appears, with some reservations, to be adequate (though just so) in most UDES.

Figure 23 presents a series of indices dealing with task-associated satisfaction, i.e., satisfaction felt for how well the health center is meeting one's physical and intellectual, as opposed to emotional, needs. Items 1-7 deal with issues of "access". It is no surprise that the "health center is close to home" since this was a primary selection factor. Nevertheless, the selection criteria are not confounded with the other items and it is clear that our sample of mothers felt relatively satisfied with hours of attention, presence of a health professional, and the basic cost of a consult. They were more critical of the waiting time to be treated and particularly unsatisfied with the costs of laboratory analyses and medicines.

In Items 8-14, mothers revealed that, while they felt the attention received was good (Item 8) and health center staff answered their specific questions (Item 9), not enough was told or explained to them about their problem, what was being done, or what was being requested of them (Items 10-14). This parallels what we observed in all of the simulation exercises, as well: that health workers are technically adequate in many cases but do not include any form of effective communication as part of their interaction with their patient.

In Figure 24, mothers were asked about the socio-emotional aspects of their interaction with health center personnel: in admissions, in triage, and in the examination itself. The pattern of responses was almost identical, suggesting that these mothers are "lumping" all three functional areas together in forming their opinion. Triage is given a marginally higher score on the positive items "made me feel important" (Item 1) and "I felt well-treated" (Item 2) but the differences are not significant. It is clear, nevertheless, that the health center staff is not treating these mothers as valued clients at least in the mothers' eyes.

In general, scores for the negatively worded items (e.g., "appeared in a hurry") were strongly negative (Figure 24 expresses these as the reverse-score, i.e., positively worded and scored; see CMI questionnaire for original wording). It appears from reviewing the results on this set of items with Ministry health workers that the wording is probably too strongly negative to elicit much variation between health facilities. Mothers may be hesitant to agree with such strong criticisms. Nevertheless, the fact that an average of almost 1 in 4 did so suggests that these undesirable behaviors on the part of at least some health center staff is having a serious negative impact on a critical factor in the satisfaction of the individuals they are trying to reach.

HEALTH SERVICE STRUCTURE

Selected characteristics of health center infrastructure, organization, and environment

Fifty-four health centers were included in the CYMOS national assessment. In each, the health center director, program directors and supervisors, and health workers were questioned about the tools and resources they have at their disposal, of the physical and organizational settings in which they work, and about some of the relatively stable characteristics about themselves as health providers. This information was gathered from a checklist-controlled interview (DFW) with the health center director and program coordinators, and from a general job questionnaire (JDQ) filled out by 249 health workers and supervisors. Copies of these two forms are included in the manual of instruments; Part B of this report presents detailed tabulations of responses to individual items in these instruments.

The health workers asked to fill out the job design questionnaire were the same ones who participated in the performance assessments (described in the subsequent section). All workers responsible for direct service activities in the targeted programs, therefore, are represented in this assessment. Administrative and other support workers, with the exception of the health center head and program coordinators, were not included. The 54 health centers had 484 professionals currently assigned (cf. Section on DFW in Part B). Our study sample, therefore, covers approximately one of every two professionals.

CHARACTERISTICS OF HEALTH WORKERS

In this section, we will present an overview of some of the most important structural indices that have been calculated from these responses. The first set of indices deal with relatively stable characteristics of the health care providers, themselves. These include the general physicians, nurses, nurse-midwives, health auxiliaries and health technicians who actually are charged with direct provision of services.

These indices are presented for the PMOH as a whole rather than breaking each down to the departmental level since the number of respondents from each of the seven departments is too small to yield meaningful differences between them for many of the distributions characterized.

The age distribution of respondents and their gender are presented in Figures 25 and 26, respectively. The mean age for health care providers is in the range of 30-35 years and females greatly predominate, representing 78% of the total. The age curve is extremely narrow, with workers from 30 to 44 years making up 80% of the total. Virtually all of these workers report that they are responsible for the support of two or more people in addition to themselves (Fig. 27); the mean for number of dependents falls approximately midway between 3 and 4.

Figures 28-30 show, respectively, the distribution of job assignments among respondents, the degrees they hold, and the number of years they have of post-secondary education. Over half of respondents reported having five or more years of post-secondary schooling (Fig. 30).

The years of service in the PMOH by respondents and the number of years spent in the current health center are shown in Figures 31 and 32, respectively. Figure 31 shows a significant peak at 2-3 years and a second from 5-7 years. Considering the history of the PMOH during the previous government (1985-1990), it seems clear that the "bimodal" character of these two large peaks reflects the heavy turnover and new hiring that took place in the second and third year of that government -- i.e., after the new directors had been firmly established down to the departmental and sub-departmental level and were able to exert influence on personnel selection/retention.

Subsequently, in 1987, the plummeting national economy which lasted through the remainder of this government made further new hiring extremely difficult for the PMOH and this is reflected in the low percentage of respondents with less than 2 years of service. The *Instituto Peruano de Seguro Social* -- or social security administration --, the other national health institution, continued to hire new personnel until this year, partly thanks to the fact that mandated employee/employer payments which represent its income did not decrease as rapidly or profoundly as did tax revenues.

Whatever its cause, the current situation in the PMOH is one in which approximately half of its professional/technical cadre has less than five years experience in the institution. Approximately three-quarters of the staff also have had three years or less at their current health center.

These indices suggest a relatively high level of turnover in staff, not, perhaps, high enough to preclude effective continuing training, but certainly high enough to inhibit organizational acculturation -- i.e., the development of an awareness of "traditions" and a sense of shared responsibility and team effort -- which is, we argue, necessary for optimal health center functioning. In regard to turnover, the situation in the PMOH should not be characterized as disastrous, but it is clear that long-term employee retention is something that the new PMOH management which took charge this year ought to consider as a medium-range priority.

CHARACTERISTICS OF THE JOB AND WORKPLACE

Most of the structural indices included in this assessment were modified from a series of measures developed by Andrew Van de Venn and Dianne Ferry for organizational assessment in the 1960's. For a full discussion of the original indices, the reader is referred to their book on the subject (Van de Venn, A. & D. Ferry, *Measuring and Assessing Organizations*. New York: John Wiley and Sons, 1981). The following is a brief summary of each index; the numbers given after the name are the same ones as used in Figures 33-36.

Unit standardization (#1) - Clarity of unit performance standards; preciseness of unit rules, policies, procedures; degree performance criteria quantified; percent unit rules, procedures written out; extent rules violated; strictness of rule enforcement.

Job standardization (#2) - Job standardization is the degree to which the roles and tasks that make up a job are clearly detailed and the rules and procedures clearly established to guide the job incumbent in work performance. Job standardization is measured as the average of the following six items asked of the job incumbent as respondent: Number of written job rules; detail of job rules; percent time have standard operating procedures (SOP's); extent follow SOP's; clarity of job performance standards; extent job description specifies performance standards.

Task interchangeability (#3) - This index measures the ease and facility with which workers can assume one another's duties. Task interchangeability is measured as the average of the following four items: proportion of staff doing the same basic tasks, proportion of staff qualified to do another's work, ease of reassigning work without further training, and actual frequency of rotation.

Job priority (#4) - Job priority is the importance given to the job done for a given program in its competition for time and resources with other programs. Job priority is measured as the average of the following three items asked of the job incumbent as respondent: Compared to what you do in other programs, your job in this program merits how much of ... your time ... support services ... emphasis from "the system".

Distribution of unit authority (#5-#11) - Unit employee authority, unit and program supervisor authority, unit collegial authority, external PMOH authority, and community authority measured as: Say on unit tasks; say on performance criteria; say on performance appraisal; say on rules, policies, procedures.

Job autonomy (#12) - Job autonomy is defined as the amount of discretion or influence that the job incumbent exercises in making job-related decisions regarding: (a) what tasks, projects, and assignments constitute the roles and responsibilities of the job; (b) how the work is to be done in terms of what procedures and rules to follow; (c) how work exceptions and problems are to be handled; and (d) what performance criteria are established and to be attained in performance appraisals.

Job pressure (#13) - Job pressure refers to the amount of work load assigned to a job incumbent, the lead time available to perform it, and the extent to which the job incumbent can control the pace of his/her work. High amounts of job pressure imply that the job incumbent can exercise little job discretion. Job pressure is measured as the average of the following four items asked of the job incumbent as respondent: Heaviness of work load; control over work pace; work lead time; difficulty achieving performance standards.

Job accountability (#14) - Job accountability is the degree to which the job incumbent feels personally responsible and feels that he or she is, in fact, asked to answer for his or her work decisions and behavior. Job accountability is measured as the average of: held accountability - for work decisions and for achieving standards; felt accountability - fairness of job appraisal standards; take credit or blame for work results; feel personally responsible for work; don't care if work done right.

Job feedback (#15) - Job feedback is the degree to which the job incumbent receives information about the procedures and results of his/her work efforts. This can be feedback from the job itself (simply by assessing the procedures and the results of one's own work) and feedback from others (supervisors and co-workers). Job feedback is measured as the average of the following seven items asked of the job incumbent as respondent: Feedback

from job; feedback from co-workers; feedback from supervisor - frequency of meeting with supervisor; time since last meeting with supervisor; frequency with which supervisor "gets back" with solutions to problems; degree supervisor discusses performance standards; frequency of practical suggestions from supervisor; supervisor is more "critic" than "teacher".

Task difficulty (#16) - Task difficulty refers to the ability of the job incumbent to understand the characteristics of the work encountered: in other words, the analyzability and predictability of the work. Task difficulty is measured as the average of the following four items asked of the job incumbent as respondent: Difficulty of knowing work; correct; unsure of work outcomes; frequency problems arise; time spent solving problems; access to expert advice when needed (from supervisor, from other unit members).

Incentives (#17) - Expectation of rewards refers to the degree to which the job incumbent anticipates that good job performance will result in some reward. Expectation of sanctions refers to the degree to which the job incumbent anticipates that poor job performance will result in some punishment. Expectation of rewards is measured as the average of the following three items asked of the job incumbent as respondent: Recognition for good job; chance of promotion for good job. Expectation of sanctions is measured as the average of the following three items asked of the job incumbent as respondent: Reprimand for poor work; chance of demotion for poor work.

Unit communications (#18) - Unit communications is measured by four items reflecting the frequency of meetings between various members of the unit: between supervisors and workers, between workers themselves, ad hoc among unit staff to resolve problems, ad hoc with persons from outside unit to resolve problems.

Unit conflict (#19) - Frequency of supervisor-subordinate conflict; frequency of conflict among unit members; frequency of conflict with other units; members get ahead at expense of others; agreement on unit performance criteria

Methods of unit conflict resolution (#20-#23) - by avoiding issues; by smoothing over issues; by confronting issues; by referral to superiors in the hierarchy

Satisfaction with unit support systems (#24) - Satisfaction with unit support systems is defined as the degree to which the job incumbent feels that the other elements within the unit succeed in providing the support expected to the work that he or she is doing. Satisfaction is the average of five items asked of the job incumbent as respondent: Job receives adequate management/planning; job receives adequate supervisory support; job receives adequate logistics support; job receives adequate training support; job receives adequate information/feedback support.

Satisfaction with job (#25) - Job satisfaction is an affective reaction or feeling by the job incumbent on how happy or satisfied he or she is with the various key aspects of his or her job. Job satisfaction is measured as the average of the following nine items asked of the job incumbent as respondent: satisfied with job; satisfied with immediate supervisor; satisfied with pay; satisfied with co-workers; satisfied with past career; satisfied with career potential; often thinking of quitting; satisfied with status in the community; satisfied with physical work environment.

Job training (#26) - Job training is the amount of educational preparation for the job in terms of formal education, length of job-entry orientation and training, and the amount of time spent by the job incumbent in on-the-job training and reading necessary for upgrading and remaining current in the knowledge needed to perform the job. The following five items are asked of the job incumbent as respondent: length of job-entry training; time in

self-generated on-the-job training (OJT); frequency of systematic OJT; most recent systematic OJT; hours of training in past 6 months.

Resource limitation (#27) - This index is measured as the average of the following twelve items: frequency with which direct service delivery lacks sufficient equipment, key materials, medicines, educational materials, time, and personnel; frequency with which lack of time, personnel, or resources resulted in patients not being treated; problems with transport to transfer patients or to carry out other program activities; and adequate physical facility.

Perception of unit performance (#28) - This index is measured by the following 8 items: objectives accomplished, quantity of work, quality of work, new ideas introduced, reputation for good work, targets met, efficiency, morale.

Each of these indices is a construct measured by a limited number of items. The items used to measure each index have been mentioned in the index summaries given above; the actual construction of each item used in the survey questionnaire may be seen in the copy of the JDQ instrument included in the set of instruments accompanying this report. It should be noted that index scores do not represent an easily definable range of values but, instead, a range from "worst/least/weakest" to "best/most/strongest" -- the exact interpretation of extremes depending on the nature of the index.

Most responses were measured on a 5-point Likert scale and, again, a review of the actual instrument is necessary for one to fully appreciate the scoring system. In all cases, however, a score of 3.0 represents the neutral mid-point while 5.0 is a strongly positive and 1.0 a strongly negative expression of the index according to the respondents. Note that two of the indices were originally calculated so as to reflect a negative sense, i.e., that the higher the score the poorer the rating. These two indices were unit conflict (#18) and resource limitation (#27). The scoring on both has been reversed so that the direction is positive just like the other 26 indices. The purpose of this is to make comparisons between indices less complicated. In keeping with this reversed scoring, we will rename unit conflict as "unit accord" and resource limitation as "resource availability" in the following discussion.

Figures 33 and 34 present the 28 indices as high-low ranges (and mean) for two related frames of reference. Figure 33 shows differences between the six child survival and maternal health programs assessed: i.e., the set of points that make each line comprises the average value for each program across all seven departments. Conversely, each line in Figure 34 shows the range of average values for all six programs in each department. The ratings given for each of the six maternal-child programs came from only those respondents indicating that work in the specific program was their primary current activity.

The overall mean of each index (indicated by the tick mark) is, of course, the same in both figures, but the high-low range varies substantially for certain indices. In general, it can be clearly seen that the variation in scoring between departments is significantly greater for most indices than between programs. This result is intuitively reasonable; it says that the environment at the health center level is much

the same for all programs at the health center (so differences between programs are small) but that differences between departments can be very large -- a fact already noted in outcome indices at the community level.

Not surprisingly, a review of the number of items in each index reveals that those indices with the greatest variability comprise only a single item or two items while indices comprising four or more items have narrow ranges. It is inappropriate, therefore, to compare high-low ranges between indices. There is little or no significance that can be attributed to such differences in the current framework of analysis. This fact is made clearer by Figure 35, in which the overall means of the 27 indices are plotted in rank order, with the high-low ranges (for both departments and programs) plotted as lines of variation. Aside from "spikes" associated with the single- or double-item indices, these lines show no tendency to expand either directly or inversely with increasing values of the mean. Though not definitive, this simple analysis suggests that, taken as a whole, the variance of these measurements is reasonably homogeneous.

A further argument for the validity of these indices is the extent to which the scores of the individual respondents for most fall on impressively normal curves. This set of figures is too extensive to be incorporated in the main body of this material, we have included the 27 figures as an Annex. A review of this material will show clearly that, with the exception of single- and double-item indices, scores for most of the indices are distributed in well-defined unimodal or bimodal curves.

Part B of this report contains the tabulations of item scores across all programs on a department-by-department basis so that interdepartmental differences can be seen more fully. Since the inter-program differences were, in fact, relatively small, tabulations for them were omitted from Part B.

A review of Figure 35, in conjunction with the two earlier plots, leads to a number of important conclusions about the state of the work environment at the health center level. As a further visual aid to the following discussion, we have plotted the score for each index as the distance from the overall mean score for all 28 indices (Fig. 36). This makes it easy to see which groups of indices rank higher or lower than the others and by how much.

We believe that one of the most important issues is an individual's perception of how demanding his or job is compared to the kinds of help he/she gets to do that job. The former is measured by three indices: autonomy (#12), pressure (#13), and accountability (#14) -- these rank 2, 3, and 6 in Figure 35. The second is measured by five indices: feedback (#15), incentives (#17), communication (#18),

KEY TO FIGURES 33-36

- 1 - Unit Standardization
- 2 - Job Standardization
- 3 - Task Interchange
- 4 - Job Priority

Distribution of authority:

- 5 - Program head
- 6 - Supervisor
- 7 - Individual worker
- 8 - Group as a whole
- 9 - Outside PMOH staff
- 10 - Health center head
- 11 - Community served

- 12 - Job autonomy
- 13 - Job pressure
- 14 - Job accountability
- 15 - Job feedback
- 16 - Task difficulty
- 17 - Incentives
- 18 - Unit communication
- 19 - Unit accord

Conflict resolution:

- 20 - Ignore it
- 21 - Smooth things over
- 22 - Confront openly
- 23 - Call on superiors

- 24 - Satisfaction: support
- 25 - Satisfaction: job
- 26 - Job training
- 27 - Resource availability
- 28 - Unit rating

training (#26) and resources (#27) -- these rank 19, 22, 27, 21, and 4, respectively. Overall, there is over a full point difference (on a five-point range) between the two sets of indices.

It seems clear that workers do not feel that the demands of their job are excessive; the scores for autonomy, pressure, and accountability fall between 3.8 and 3.7, which is equivalent to saying that each factor is recognized as present in their work but not at exceptionally high levels. A review of the individual items composing these indices (see JDQ tabulations in Part B), reveals a number of points that make this assessment more concrete:

The frequency with which workers report that they have too many patients to attend to falls about midway between "sometimes" and "almost always". This assessment is supported by a separate set of questions in the personnel self-report (PSR) in which workers were asked to estimate the number of patients seen per day. For ORT and ARI, the estimates fell heavily into the <5/day range while for EPI it was 5-10/day and for the rest it was 10-15/day. These averages were consistent with impressions gathered from reviews of daily patient registries.

Most workers report that they have "a lot" of autonomy to determine their daily tasks but "little" autonomy to manage exceptions to the work when they occur. This potential source of workload -- having to seek out a supervisor to get a decision on an exception -- does not, however, seem to be a major issue, at present, since workers also report (in one of the items for Task Difficulty) that exceptions occur "rarely".

Workers across all seven departments report that they feel a relatively high degree of personal responsibility for their work and, to a lesser extent, that they ought to be congratulated or criticized for their work. Supervisors were rated as "usually" holding workers responsible and willing to back them up. The workers judgement on the criteria for evaluating work performance is that they are "fair in some ways", but not fair in others. We believe that a closer examination of this last item may reveal that the unfairness may stem largely from workers feelings that they are held responsible for things for which the system doesn't provide the necessary tools to do the job.

In marked contrast to the three indices just discussed, workers uniformly feel that the task difficulty of the jobs they are called upon to perform is low. They believe they know what they are to do and how well they do it, and they report that problems and exceptions are rare. The demands of the job, therefore, appear to be in the organization of the work effort and not in the work itself.

On the other hand, workers clearly feel that they get little help from the PMOH system in doing their jobs. The following specific points can be noted:

Unit communications are truly abysmal -- almost non-existent. The clearest evidence on the state of this activity comes from the curve of individual responses for this index (Figure 18 of Annex) in which it is clear the responses form a normal curve centered on 1.0, the minimum score possible!

With respect to training, the average time reported for initial training and orientation when individuals began working in a given program was 1 day. In-service training was reported, on average, as taking place once every 6-12 months for between 2-6 hours. This training intensity was further confirmed in the PSR reports (Part B).

Specific responses regarding feedback make it clear that it is the work itself and immediate results that provide most of the feedback perceived by the respondents. While some feedback from co-workers and supervisors was admitted, it was rated as very infrequent. Nevertheless, the attitude of supervisors in giving feedback was recognized as more aimed at helping workers to improve rather than as simply finding fault.

Incentives, both positive and negative and for both individual and group, were uniformly weak. Nevertheless, workers reported that being called out for poor performance was more frequent than being praised for good performance. They also reported that while they might be singled out for recognition occasionally, it never would result in any substantive change in their work status (e.g., promotion or demotion).

The workers' assessment of resource availability for direct services appears to be better than the ratings they gave the other kinds of support the PMOH system was expected to provide. This must be interpreted, however, in light of the specific items used to measure this index and in light of our findings (On-Site Checklist - OSC - discussed below) that equipment and supplies for each program were often not available for use at the time our team visited the health center. In assessing resource availability, workers were not unaware of difficulties with supplies, equipment, and transport but they reported that the lack of resources was only rarely critical enough to prevent them from treating a patient. Nevertheless, the fact is that they also reported feeling a lack of equipment, key materials, medicines, educational materials, time and personnel support as often as several times a month.

We suggest that many workers may have learned to compensate for constant gaps in resource availability by adopting a minimal service strategy that makes fewer demands on the logistics support system. Acceptance of this strategy, which we call the "rote protocol", is also driven by other factors which will be discussed in more detail in the following section dealing with direct service performance. In any case, its effect in the present context would be to dull workers' sensitivity to a lack of resources.

The fundamental problem expressed by the respondents, then, is not that excessive demands are being made them or that they are being asked to meet targets in the face of a total lack of resources. The problem is that Ministry management makes almost no attempt to recognize and support their efforts, as professionals, to do a good job. The symptoms of this problem are no feedback, no training, and no incentives -- in effect, no meaningful communication and control of any kind. It is fair, we believe, to summarize this viewpoint in the words of one of our evaluation team members (in "regular" life, also a general physician in a PMOH health center), "We can do the job we are asked to do by the Ministry, but someone 'up above' ought to care about how well we are doing and let us know it."

This feeling is echoed in the two indices of satisfaction (with support - #24 and with the job itself -#25). When asked if their job received adequate support in terms of management, supervision, training, feedback, and transport, the overall response was "very little". On the other hand, when asked about their job itself -- the work, health center director, supervisor, pay, co-workers, progress, status, and work environment -- the responses, with one exception, ranged from "somewhat satisfied" to simply "satisfied". The exception, pay, was definitely unsatisfactory: not surprisingly so, since the current economic state of Peru has caused government salaries to drop during the past five years from minimal to starvation wages.

Nevertheless, the scores on the job satisfaction index suggest that a reservoir of good will exists within the PMOH's key service personnel that management should count on as it begins the task of rebuilding and restructuring the Ministry.

With regard to other structural indices, almost all workers felt that their job was reasonably well standardized (#2) while most reported that standardization of functions at the unit level (#1) could be tightened up in all programs. An important issue in this latter index is the low frequency with which written material (manuals, memos, etc. -- see JDQ tabulations in Part B) concerning norms and procedures is available in the health center (a fact also documented during the on-site observations, discussed below under performance).

The distribution of authority (#5-#11) described by the workers was distinctly hierarchical and centered on the health center director, program heads, and supervisors. They also recognized some influence of the work group as a whole, but felt that the individual worker had significantly less say. Nevertheless, even individual workers appear to have far more influence than the community served by the health center and than individuals from the PMOH but outside the health center unit.

Within this self-influencing and self-managing unit, workers say that the level of conflict (unit accord - #18) is almost nil: less than one serious instance in three months. Most of what conflict does occur tends to be "smoothed over" and some of it is dealt with openly in at least some centers. The workers deny strongly that there is any tendency to ignore conflict or to call in outsiders to resolve it (see Figures 20-23 in the Annex).

Figures 37 and 38 present indices of the relationship between this unit and, respectively, the UTES (area office of the PMOH responsible for health center management and support) and the community served (related tabulations will be found under DFW Instrument in Part B). These indices parallel in meaning similar intra-unit indices and tend to show a modest degree of coordination, some formalization of the relationship, generally poor communication, relative accord (though the level of conflict with the UTES is somewhat higher), limited cross-influence, and some (though not striking) satisfaction with the relationship. It should be noted that these indices reflect the opinions of the health center director, program heads, and supervisors and not those of the workers.

The image of the health center, we conclude, is of a unit existing in fairly close relationship in a simple management structure involving people who see themselves as "all in the same boat" and at a bit of a distance from other elements such as the UTES or community. This sense seems to pervade their thinking far more than they notice the differences in official status between themselves. To be sure, the designated health center authorities are recognized as having a larger say in the running of the unit but there is no apparent gulf between "management and labor" at this level.

Most workers rated both the priority of their job and the performance of their unit as modestly positive: "a bit better than average in performance and deserving some more support (but not a lot) compared to others." This sets a positive note on which to conclude this section: a note that we interpret to mean that, despite all the difficulties the PMOH is currently experiencing, the workers at the service edge of the Ministry still have pride -- tempered, it is true, by a sober reality -- but clearly measurable, nonetheless, in what they and their work group are doing.

Our conclusion from this, along with the other indices discussed above, is that the health centers -- the community service units of the PMOH -- are resilient and sound, if somewhat battered by circumstances. They are a firm foundation on which the Ministry can build for the future and we would be remiss in this report if we failed to give them the recognition they deserve.

HEALTH SERVICE PROCESS

Selected characteristics of the performance of direct care and promotion/education services by health workers

The performance of direct care and promotion/education services by health workers was assessed using four instruments: on-site observation checklists (OSC) that covered the important physical aspects of readiness in each program (i.e., facilities, equipment, supplies, record-keeping), basic knowledge examinations (JKE), care/counselling simulation exercises (CSX), and personnel self-reports (PSR).

The health workers who took the JKE and CSX and who filled out the PSR for a given program were those individuals who were primarily responsible for that program. The OSC was filled out by one of the assessment team members on a walk-through visit to the assigned program area. All scores are expressed on the Peruvian grading scale of 0-20 with scores above 14 considered adequate for the present and scores of 10 or below considered definitely inadequate.

RESULTS OF ON-SITE OBSERVATION OF FACILITIES

The high-low graphs in Figure 39 show the mean scores and high-low ranges for the six indices used to assess each of the maternal-child health programs. Note that the Family Planning and Maternal Health program have been combined in this assessment. This is because a single facility was used by both programs since the same person, usually a nurse-midwife, was in charge of both and used many of the same materials and supplies.

The six indices used in the facility assessment comprised:

Facility - the special room or area assigned for program activities, furniture, lighting, water supply, bathroom, and other permanent features needed to provide optimal care

Equipment - Large or small equipment and/or items of a non-consumable or non-disposable nature used in the delivery of program services

Supplies - Consumables including medicines used in the delivery of program services

Readiness for care-giving - State of items which determine whether or not the facility would be ready to deliver called-for services immediately if a patient entered at the moment of assessment

Readiness for promotion/education - State of items which determine whether or not the facility would be ready to deliver called-for services immediately if a patient entered at the moment of assessment

Record-keeping - State of the primary records (patient register and monthly report summary) in which health workers record service delivery

The results shown in Figure 39 suggest that facilities, equipment and supplies are deficient in the majority of health centers. Two-thirds of the average scores (10/15) fall into the range 10-14. A review of the scores for individual items that compose these indices (see OSC tabulations in Part B) shows that, while there is some tendency for health centers to have on hand the more crucial materials for each program, the lack of even some of these can be profound. For example, only slightly more than half of health centers had a thermometer in working order available for either their ORT or ARI clinic.

NOTE: Through an oversight in the final drafting of the OSC instruments, we left out the complete set of contraceptive supplies from the assessment form for the Family Planning program. Incredibly, this fault remained undetected in the final review process by the PRICOR team and the Ministry, throughout the formal coursework and for both rounds of UDES visits. It was finally noticed by Edward Scholl of the USAID Mission in Peru during a visit he made to Cusco when the UDES presentations were being made at the end of the assessment.

We have corrected this deficiency in the OSC instrument included in Part C, since we assume that the copies being distributed may be used by some readers as guides to carry out their own assessments.

Regrettably, therefore, we have only anecdotal data concerning the availability of contraceptives in health centers at the time of the CYMOS visits. These data come from the debriefing of the assessment teams carried out after the second cycle of UDES visits and suggest only that "many" health centers were without supplies entirely or had only a limited stock of condoms on hand.

In EPI, though cold chain equipment and supplies were found to be adequately maintained and used in virtually all health centers (the exceptions were mainly in Puno), the vaccines themselves were only found to be actually available at about three-quarters of the health centers. Ancillary materials such as cotton, alcohol, and soap (which can be and, often, are purchased locally by the health center), were available in about 90% of the health centers.

While the EPI program scored somewhat better on these three indices than the other programs, the differences are marginal given the fact that the average scores among the 15 facility indices (three indices for each of five program areas) ranged from 10-15 (equivalent to 50%-75%). This corroborates the general problem with logistics reported as a structural constraint by health center staff responding to the JDQ, above. Our spot check revealed serious deficiencies and the staff responses suggest strongly that this is a chronic problem at almost all health centers. The fact that this includes even those in Lima Este which is literally only a few kilometers from the main warehouses of the PMOH suggests that the problem is not simply transport logistics.

NOTE: In fact, PRISM's systems analysts working on the Health and Management Information System (HIS/MIS) for the PMOH (as a component of USAID's Child Survival Action Project) have identified one major reason for supply problems. Each request from the health center, even for something as simple as a single pencil, must pass through 11 discrete operations before the item is officially delivered to the requesting unit. The existence of such a significant administrative overhead applying to every supply transaction suggests strongly that this bottleneck should be dealt with globally. Instead, program logistics are currently characterized by attempts to bypass the basic system with ad hoc logistics justified on a "special program" basis. This just adds to the confusion and produces spaghetti instead of a system.

The two indices concerning "readiness" are based on a judgement as to whether or not the person carrying out the on-site observation would have been able to receive immediate care or counselling had he/she actually been a patient or seeking service. The two indices do not include needed materials that were already covered in one of the three facilities indices just discussed. Thus, "readiness for care giving" covers three items only: whether someone is currently assigned to a service, whether he/she is present at the time of the visit, and whether the materials that are available for the service are actually ready to be used (e.g., if boiled water is already prepared for ORT or would need to be boiled if a patient came). The "readiness for promotion/education" index measures the extent to which educational materials are displayed to facilitate counselling.

There is a wide discrepancy between the two readiness indices across all five program areas. For care-giving, the average scores range from 14 to 18, while for promotion/education they range from 6 to 9. This is consistent with data from both community interviews, personnel self-reports, and the simulation exercises discussed below that neither health workers nor the PMOH place much real emphasis on the educational aspects of their work.

Record-keeping, the final index measured during on-site observation, was assessed with regard to the daily patient registry and to the monthly tabulations. In general, record-keeping is inadequate but, of the two forms, the monthly records are better maintained. The reason for this is obvious since the monthly record is the one actually sent in to the Ministry, while the daily registry remains "hidden" at the health center.

BASIC KNOWLEDGE OF HEALTH WORKERS

From the beginning of the PRICOR II Peru Country Study, we have believed that a major factor in poor task performance on the part of PMOH health center workers was simple unawareness of correct practice. The fact that our on-site visit found PMOH manuals in only 25%-60% of health centers, depending on the program, suggests that ignorance of program goals, norms, and protocols might be an important problem. This possibility is strengthened by the workers' reports of how little training they have received in the programs for which they are responsible.

The Job Knowledge Examination (JKE) was designed to test health workers' basic knowledge about the program they were working in. The questions were developed with the assistance of several focus/informant groups comprising health center workers. Each examination was pilot tested with 50-120 PMOH service providers and then reviewed by the technical director of the respective program at the central Ministry. The consensus of these directors and the focus/informant groups was that the content and difficulty level of these examinations was such that a health worker with adequate knowledge of the program should be able to score a 14 (70%) or higher.

Groups taking the examination were given enough time to complete the work without time pressure and each question was explained by an assessment team member if any member of the group requested it to resolve ambiguities or difficulties in comprehension. The examinations ranged from 30 to 45 questions, all of which were multiple-choice or true/false.

The overall department scores for each program are given in Figure 40, while Figure 41 shows the distribution of individual scores. Scores are all lower than the levels specified before we embarked on the national assessment. Only the best department score in the maternal health examination, out of 42 department-test combinations, achieved an average of 15 or better (the all-department average for maternal health was 13). Given the extent of training and materials available to these health workers, this result is not really surprising and simply indicates that this aspect needs to be addressed seriously in by the PMOH human resources development effort in the future.

Figure 41 shows essentially normal score distributions for all six programs. The distributions are generally unimodal, as well, with the exception of IRA and, perhaps, EPI. Both of these programs have a large number of personnel assigned to work on an on-again-off-again basis far more frequently than do, for example, the ORT, FP and MH programs. It may be that these results are distinguishing between two groups of workers in IRA and EPI, one of which is, in fact, better trained than the other.

SIMULATION EXERCISES

Basic concepts of SIMULEX

The most significant innovation we have introduced in assessment methodology is the introduction of simulation exercises (SIMULEX) as a means of measuring performance. SIMULEX, or role-playing, has been introduced as an alternative to observations of actual patient encounters. The instruments developed for use with SIMULEX have, in fact, been designed to serve in either context.

While observation of actual encounters has undeniable strengths, it also has serious disadvantages in that:

- observations are made in uncontrolled and non-standard situations so comparisons between them are difficult to make;
- observing many types of encounters depends on waiting (perhaps long periods) for unscheduled clinic visits;
- it is often impossible to collect "negative" observations of the health worker (e.g., that he/she notes that the child does not have a rash or a cough or a broken arm);
- procedural reactivity (the effect of the observation process on subject behavior) undercuts, to an unknown extent, the assumption that typical performance is being observed.
- it places the person being observed under public scrutiny and, therefore, can be more threatening -- this will limit its usefulness as a part of an in-service training effort

Role-playing is an effective way of collecting information on health services performances because it approximates real life situations and the assessment function of the exercise can be integrated with health care worker training.

The validity and reliability of the data collected through role-playing is generally good due to the ability to control for ambiguity and extraneous factors (i.e. every participant is presented with the same situation which is designed to have one relatively clear-cut proper response.)

Use of SIMULEX in assessing performance

Our approach has been to employ SIMULEX with standardized situations to test the performance of health service delivery personnel in basic care-giving and educational activities. The evaluation is done within a non-threatening context in which the exercise is treated as the first stage of a personalized in-service training session. It is made clear to the subject that he or she is being asked to perform as well as possible so that the observer/trainer can see what the person's real strengths and/or weaknesses are in the topic activity. Such simulation exercises carried out in this way avoid most, if not all, of the theoretical and practical weaknesses of direct encounter observation.

The data obtained from simulation exercises clearly represents maximal as opposed to typical performance. Inadequate maximal performance (a fairly common result in our testing) can be taken as an excellent index of inadequate typical performance. This has been confirmed both by direct encounter observations and by interviews with the supervisors of these individuals. Workers who routinely fail to do something right in their day-to-day activity are unlikely to be able to change when challenged by the reasonably fast-paced simulation exercise we have designed.

Simulation exercises are interpreted, in general, as performance tests of tasks that are important in their own right rather than as measures of specific abilities. We assume that most adults have the ability to learn and do all of the expected PHC activities. The question to be answered is are they proficient enough at the given task under consideration? This was addressed using six instruments in the Care/Counselling Simulation Exercise (CSX), one for each program.

The CSX was performed by participating unit members responsible for program direction or supervision and for direct services delivery. In all, our assessment involved 78 workers for ORT/Diarrhea, 55 for Growth & Development, 62 for ARI, 84 for EPI, 48 for Family Planning, and 40 for Maternal Health.

The SIMULEX protocol was kept as simple as possible. One of the assessment team members acted as a surrogate mother with a child needing attention. A second member acted as a new health auxiliary to whom the subject was to demonstrate what is to be done to deal with the problem or need presented. The team made sure that all supplies and equipment necessary for proper service delivery were at hand at the SIMULEX site. A doll was used in certain instances to simulate the child.

The subject was presented with a situation, or *vignette*, that closely approximated one of the common or most important service situations he/she faces in the program being assessed. Since his/her role calls for "teaching" the surrogate health auxiliary, it was stressed that he/she should explain every step in as much detail as practicable. The surrogate-student/observer stood at the side and unobtrusively scored the exercise while continuing to monitor the effort and asking questions appropriate to his/her role.

Each subject was debriefed immediately after each SIMULEX exercise in a short debriefing session that pointed out what he/she did exceptionally well and what areas needed improvement.

The same indices were used for all programs though, of course, the items used to measure them were different. Indices for some programs are far more extensive than are those for others. This is a result of the nature of the service being provided. The specific items used for each index can be studied in the copies of the CSX forms included in the set of instruments that accompany this report.

Indices used in SIMULEX

The following indices have been developed for the assessment of care-giving and counselling services in primary health care:

History taking - History taking covers all verbal aspects of clinical assessment, including the asking of appropriate open and closed questions of patient characteristics and symptoms, and success in eliciting patient disclosure of pertinent information).

Physical examination - Physical examination includes all physical contact between the care-giver and the patient involved in the evaluation of signs pertinent to the complaint or reason for the encounter.

Diagnosis - Diagnosis refers to the critical analysis of data obtained from clinical assessment in order to identify or determine the nature of the clinical problem or state present in the patient being examined. In context of the CSX, this variable is limited to an index of practical diagnostic proficiency: the ability to come up with a correct diagnosis in a real-life or simulated situation based on the data at hand.

Treatment strategy - Treatment refers to the ability of a care-giver to select and apply remedies or therapy in response to a given diagnosis with the object of affecting a cure. Treatment strategy covers the selection of the optimum action(s) to be taken in response to a given diagnosis. It measures the appropriateness of the treatment without regard to how that treatment is implemented.

Treatment technique - Treatment technique refers to the technical skills demonstrated during the implementation of the selected treatment. It measures the detailed operational familiarity with the physical reality of actually applying a given treatment rather than the content knowledge of the verbal description for that treatment.

Counselling strategy - Counselling strategy is defined as the use of specific strategies for patient/guardian education in an attempt to increase the clarity and persuasiveness of the messages included in the counselling effort.

Case-specific counselling content - This index covers those messages which are called for in dealing with the case immediately at hand. This includes giving directions and instructions related to the clinical examination, current treatment, future treatment, and followup. It also includes giving information and orientation about the specific nature of the existing illness and its treatment.

General counselling content - This index covers those messages which, according to program norms, should be presented as an educational effort during all care-giving encounters, and which are not particularly linked to the immediate case at hand. Such messages include giving information and orientation related to (and attempting to persuade the patient concerning) the general characteristics of an illness (e.g., what is diarrhea), to noting signs and symptoms, and to prevention.

Documentation - This index covers aspects of recording data and filling out required forms correctly.

Comportment - Comportment is defined as behavior that is relevant to creating a positive emotional climate for the interaction between the health worker and the patient or caretaker. It includes greeting the patient or caretaker, smiling, and making introductions.

Attitude - Attitude refers to the impression given by the health worker to the observer who is assessing his/her performance. Attitude is expressed as a series of four characteristics: bored-interested, irritable-pleasant, worried-confident, and arrogant-respectful.

Task satisfaction - Task satisfaction is defined as the degree of patient/caretaker satisfaction with the health worker's performance in task-associated behaviors during the simulation exercise. Tasks are those technical skills for which the health worker was consulted.

Humaneness satisfaction - Humaneness satisfaction is defined as the degree of patient/caretaker satisfaction with the way he/she was treated as a person by the health worker.

It should be emphasized that a some indices are actually used as a set of "sub-indices" to measure certain programs because of the extensiveness of the primary index. Thus, for example, Treatment Technique in the ORT/Diarrhea program (Fig. 42) is divided into three specific sub-indices while for Family Planning (Fig. 46), History-taking contains seven sub-indices.

DIFFERENCES IN PERFORMANCE BETWEEN PROGRAMS

The scores by index for each of the six programs assessed are presented in Figures 42-47. These are high-low graphs in which the range represented by the vertical lines is the range between departmental scores. We will consider the relationships between indices in the section immediately following. In the current section, we will assess the relative performance between programs.

The first point which we note is that only one index for any program has scores high enough to preclude improvement in the future. This index is EPI history-taking and its scores ranged from 18-20. On the other hand, the overall average of all indices across all programs is only 12, which means, by the criteria established by our F/I Groups, that the actual performance of health worker services in all programs is highly inadequate.

Nevertheless, there are important differences between programs. The distribution of average scores for all indices in each program is as follows:

Program	14 or greater	10 or less
ORT/Diarrhea	31% (5/16)	25% (4/16)
Growth & Dev.	28% (4/14)	28% (4/14)
ARI	42% (5/12)	33% (4/12)
EPI	64% (9/14)	14% (2/14)
Family Plng.	16% (4/25)	44% (11/25)
Maternal Hlth.	31% (8/26)	31% (8/26)

In general, between 1/4th to 1/3rd of the average index scores fall above and a similar proportion fall below our scoring benchmarks of 14 and 10 for the ORT/Diarrhea, Growth & Development, and Maternal Health programs. The ARI has a slightly higher proportion of scores in the acceptable range but this is not significantly different from those already mentioned.

The Family Planning program, however, has only 16% of its scores in the acceptable range and 44% in the low range and this is significant, indicating that performance scores in this program are well below those in the other programs. In contrast, the scores for EPI show clearly that performance in this program is substantially better than the rest.

The fact that EPI is the most mature and, currently, the most emphasized and supported program probably explains much of this difference as does the fact that family planning is poorly organized and only intermittently supported help explain why this program does more poorly in this comparison. It should be remembered that scores on other indicators have also generally been poorer for FP than for other programs.

Another point to note is that the range of scores is significantly narrower in the programs that are better and longer established, suggesting that the normative effort of the PMOH has, over time, produced a more standardized level of performance than seen in the newer programs.

Program directors and coordinators can use these data plus the detailed item-by-item tabulations in Part B as a set of empirical measures of the status of their programs. As a practical matter, the sample taken for each program is large enough to justify using these measures to establish performance targets which those responsible for program implementation can work toward.

DIFFERENCES IN PERFORMANCE BETWEEN INDICES

While the figures just presented will allow individual program directors and coordinators to focus on the strengths and deficiencies of his/her program in a strictly empirical sense to meet operational goals, it is possible to see the fundamental patterns of performance better if the indices are grouped by type rather than by program. This has been done in Figures 48-58.

These graphs are based on the calculation of a Relative Performance Index (RPI) based on the average score for each program-index. The RPI for each index is simply the difference between the individual index average score and the average score across all 127 indices in the CSX assessment package. This overall average score was 12, as already mentioned. In Figures 48-58, this overall average becomes the zero-line and the scores of individual indices are shown relative to it as positive or negative differences.

The program measured by a specific index is shown on the Y-axis. For indices not divided into sub-indices, no further specification is given. If there are sub-indices, however, these are indicated by a short phrase to the left or right of the baseline of the appropriate bar in the graph. The seven History-taking sub-indices for Family Planning, for example, are shown in Figure 48 with the same code on the Y-axis but identified specifically by the phrase to the right of the base of the seven bars for FP.

Each graph is arranged with the lowest scoring index in the group at the bottom and the highest at the top to facilitate comparisons.

The overall patterns show a remarkable consistency in performance within the groups of indices. The indices fall into the following three categories relative to the overall average:

CONSISTENTLY BETTER	CONSISTENTLY WORSE	MIXED BETTER/WORSE
Diagnosis (Fig. 50)	History (Fig. 48)	Physical Exam (Fig. 49)
Treatment Strategy/ Technique (Fig. 51)	Counselling Strategy (Fig. 53)	Counselling (Fig. 52)
Documentation (Fig. 54)	Compartment (Fig. 55)	Task Satis. (Fig. 57)
Attitude (Fig. 56)		
Humaneness Satis. (Fig. 58)		

It is clear that workers across the country and across programs did better in Diagnosis, Treatment (both Strategy and Technique) and Documentation than they did in History-taking, Physical Examination, and Counselling (both Strategy and Content). The reasons for this, we believe, lie in the Ministry's emphasis on a "rote protocol" which we have mentioned previously.

The rote protocol

The PMOH, in its norms and its training materials, has followed the internationally recommended tendency to focus limited training resources and effort on establishing a simple, almost rote, protocol for dealing with patients or caretakers. As mentioned above, this rote protocol also reduces demands on supply logistics. From the perspective of our assessment framework, the task areas stressed in the rote protocol fall most heavily in the four indices whose scores were above average.

History-taking and Physical Examination are indices that measure more than the bare minimum of items necessary to ensure even marginally acceptable diagnosis and treatment. It is at this higher level of competence that the scores drop off markedly suggesting that some health workers know the rote protocol (though even at this level the scores are not very high) but very few can demonstrate a true understanding and mastery of the treatment paradigm for their particular program.

The question this raises is whether the restriction of performance knowledge to the rote protocol is not, in the end, self-defeating. It is well-known that retention of facts is poor unless they are "embedded" in a matrix of mental relationships that allow one to make sense of them and re-create them with consistency: i.e., that promote true understanding of what the facts "mean" in some sense. The current level of performance knowledge does not seem to meet this standard and, thus, we would anticipate that workers forget what they have learned relatively quickly and, thereby, drift into unacceptable practices more frequently.

The bias against counselling

Counselling (Strategy and Content) is also done significantly less well than the rote protocol, with the exception of some specific messages which are, in fact, the promotion/education facet of the rote protocol. This set can be seen at the top of Figure 52. The better performance on these specific messages is distinctly skewed toward the child survival programs -- those for Family Planning and Maternal Health are below average -- which, again, reflects the greater time and effort that has gone into institutionalizing these programs in the Ministry.

Nevertheless, most Counselling is not effectively part of the rote protocol. The main reason for this is time. Contact time between the health worker and patient or caretaker is kept low because of pressure from waiting patients and because the Ministry measures worker productivity by the number of patients seen per shift. Thus, the emphasis is clearly on quantity over quality and the workers respond to this measurement bias in the predictable fashion: they cut back on the amount of services per patient to save time.

The most expendable services are those dealing with "non-essential" counselling. Workers, thus, give the patient/caretaker the minimum set of instructions needed to support the treatment and then move on to the next client. This sense of being hurried and unable to take time to explain things or ensure that the patient or caretaker understands does not come out solely in the SIMULEX exercises. It can also be found in the CMI indices concerning mother's impressions of service delivery, in the JDQ items dealing with job pressure, and in the PSR items covering what the workers themselves say they deal with during visits.

Attitudes and comportment

We measured attitude and comportment in SIMULEX with some misgivings since this is an obvious area in which the health worker would be on "best behavior" knowing that he/she was being evaluated. Nevertheless, we assumed that comportment, which comprises objectively measurable actions such as smiling at the mother and child, might be less subject to this bias than attitudes, which are subjective impressions of one of the assessment team members.

We were surprised, nevertheless, to find that comportment scored at or below average in all programs. Obviously, these little personal actions being measured are simply not part of most health workers current repertoire of patient contact behavior. This seems to be an obvious target for program directors and coordinators to focus on in the near future. It seems likely that simply sensitizing workers to the fact that they are forgetting to perform some simple acts of courtesy and friendliness will alter their behavior for the better.

Attitude and Humaneness Satisfaction indices score higher than average, which was not surprising. What was somewhat surprising was how closely the assessment team members scoring paralleled that of the mothers in the community who were

remembering actual service encounters with these same health workers. It may be that the SIMULEX was picking up a genuine tendency rather just a facade for the evaluators. Of course, the positive tendency was more pronounced in the SIMULEX scores than in the data from the mothers. This seems to indicate that a "best behavior" bias does, indeed, exist. Nevertheless, the mothers' responses suggest that, even when they are not being watched, at least a reasonable proportion of these workers treat health center users with some measure of consideration.

RECOMMENDATIONS

1. *Immediate efforts to improve specific aspects of service delivery*

Many of the deficiencies noted in this assessment could be corrected at the health center level if health center teams were simply made aware of their existence. Since such data do not exist for every health center in the PMOH system, we suggest that the national or regional scores might serve as a surrogate -- i.e., that health center teams could use the results for their region or the nation as a whole to indicate where their health center might also be experiencing deficiencies in performance. We, therefore, recommend that the:

- NECESSARY FEEDBACK TO DO THIS BE ACHIEVED BY THE UNIVERSAL DISTRIBUTION OF THE CURRENT 3-SECTION REPORT TO THE NEWLY CREATED REGIONS, TO THE UDES AND UTES, AND, ESPECIALLY, TO THE HEALTH CENTERS OF THE PMOH (APPROXIMATELY 1500 COPIES).
- DISTRIBUTION BE COORDINATED THROUGH THE UDES OR REGIONAL HEALTH OFFICES AND THAT FOCUS/INFORMANT GROUPS FOR EACH BE EMPLOYED TO PRODUCE AN ANCILLARY SET OF REGIONAL COMMENTS AND SUGGESTIONS TO ACCOMPANY THE NATIONAL REPORT.
- PMOH SEEK OUT AND DELEGATE THOSE MINISTRY PERSONNEL WHO PARTICIPATED SUCCESSFULLY IN THE NATIONAL ASSESSMENT AND, THUS, HAVE EXTENSIVE CYMOS EXPERIENCE, AND UTILIZE THEM TO GUIDE THIS FEEDBACK PROCESS WHEREVER POSSIBLE.

2. *The PMOH should emphasize systemic improvements in a limited number of aspects of service delivery in the near- and medium-term.*

While the national assessment has revealed sub-optimal performance in virtually all aspects of direct service delivery within the PMOH health center system, this does not mean that the Ministry ought to embark on an immediate, system-wide effort to improve all of the areas identified. It simply does not have the resources to invest the critical mass of effort necessary in each area to ensure a change for the better. Furthermore, some aspects of service delivery are being managed well enough currently that the feedback just recommended ought to be sufficient. We, therefore, recommend that the PMOH:

- GIVE GREATER THOUGHT AND EMPHASIS TO THE OPERATIONS MANAGEMENT OF ITS PROGRAMS IN MATERNAL HEALTH AND, ESPECIALLY, FAMILY PLANNING,

BOTH OF WHICH SHOW MANY INDICATIONS OF BEING MARGINALLY FUNCTIONAL OR WORSE.

- MAKE A SPECIAL EFFORT TO DEVELOP A MEANINGFUL INSTITUTIONAL EMPHASIS ON PROMOTION/EDUCATION EFFORTS IN ALL PROGRAMS, BEGINNING WITH A STUDY OF THE COMMON, REAL CONSTRAINTS THAT INHIBIT HEALTH WORKERS FROM PROVIDING THIS SERVICE ON A MORE USUAL BASIS DURING THEIR INTERACTIONS WITH PATIENTS, CARE-TAKERS, AND MEMBERS OF THE COMMUNITY.

3. ***The PMOH needs to make a long-term commitment to quality management of primary health care services.***

A viable quality management orientation for the Ministry must include, in addition to the active commitment of its senior management, the following four components: a) the health center as the basic quality site, b) a sub-departmental supply system responsive enough to ensure that health centers can maintain minimum inventories yet meet current demand, c) CYMOS, or something similar, as a proactive quality assurance system, and d) a health management information system that is fully integrated with operations as well as strategic management.

The results of the national assessment reveal many health centers across the country whose basic functioning is reasonably sound considering the difficult political and economic situation which the current year has presented to the Ministry. Indices of staff, as well as user group, satisfaction and commitment to the local unit are encouraging. Moreover, the performance and outcome indices, while low, do not suggest that any irreparable breakdown in service delivery has occurred or is in the process of occurring.

We have reached the conclusion, however, that the PMOH does not effectively focus on quality or on the management of quality and that this is a fundamental causal factor of many of the deficiencies we detected in performance.

The second conclusion we have reached is that the PMOH is simply not using its base of service units effectively even granting the severe limitations it currently faces. A restructuring of how programs are managed coupled with a deeper responsibility for health centers could enhance both the quality and the quantity of primary health care service delivery without demanding additional outlays of limited financial and other resources by the Ministry.

Finally, we conclude that the primary deficiency in support for health center operations lies in the design of the basic communications and control infrastructure of the PMOH at the departmental, sub-departmental and local level. This affects not only logistics but all other operations management functions critical to the provision of high quality services.

To this end, we recommend that:

- HEALTH CENTERS BE GIVEN MORE MANAGEMENT INDEPENDENCE AS DECENTRALIZED SERVICE OUTLETS WHILE AT THE SAME TIME RE-ORIENTING THEM TOWARD CONSUMER-DRIVEN QUALITY PERFORMANCE AND INCREASING THE REAL ACCOUNTABILITY OF LOCAL MANAGEMENT
- THE PMOH RE-ORIENT AND RE-STRUCTURE ITS TRAINING PROGRAMS TO INCORPORATE THE CYMOS MODEL FOR QUALITY ASSURANCE MONITORING AND IN-SERVICE TRAINING (WHICH HAS, IN FACT, BEEN TAILORED SPECIFICALLY FOR THE PMOH SINCE WE BEGAN WORKING ON THE DESIGN THREE YEARS AGO). CYMOS TEAMS AT THE DEPARTMENTAL OR SUB-DEPARTMENTAL LEVEL CAN PROVIDE A DYNAMIC AND PROACTIVE LINK BETWEEN THE NORMATIVE FUNCTIONS OF THE PMOH AND THE OPERATIONAL REALITIES OF THE HEALTH CENTERS.
- THE PMOH EXAMINE ITS SUB-DEPARTMENTAL SUPPLY SYSTEM WITH A GOAL OF DESIGNING A MODIFIED OR ALTERNATE MODEL THAT WILL FACILITATE THE REPLENISHMENT OF SUPPLIES ON A SCHEDULE THAT PERMITS HEALTH CENTERS TO MAINTAIN MINIMUM INVENTORIES YET ENSURE THAT THEY ARE ALWAYS ABLE TO MEET CURRENT DEMAND. THIS EXAMINATION OF ALTERNATIVES OUGHT TO CONSIDER PUBLIC/PRIVATE SECTOR HYBRID MECHANISMS AS WELL AS LOCAL SOURCES AS POSSIBLE WAYS TO INCREASE THE EFFICIENCY OF THIS CRITICAL SUPPORT SYSTEM.
- THE PMOH DEVELOP AN OPERATIONAL PLAN FOR A QUALITY MANAGEMENT INFORMATION SYSTEM AT THE DEPARTMENTAL OR REGIONAL LEVEL WHICH INITIALLY INTEGRATES COMMUNICATIONS AND MANAGEMENT CONTROL ACTIVITIES FOR ALL ELEMENTS OF THE PMOH SYSTEM AND WHICH CAN THEN BE EXPANDED TO OTHER HEALTH SERVICE PROVIDERS OUTSIDE THE PMOH SYSTEM.

GRAPHS

Figures 1-58

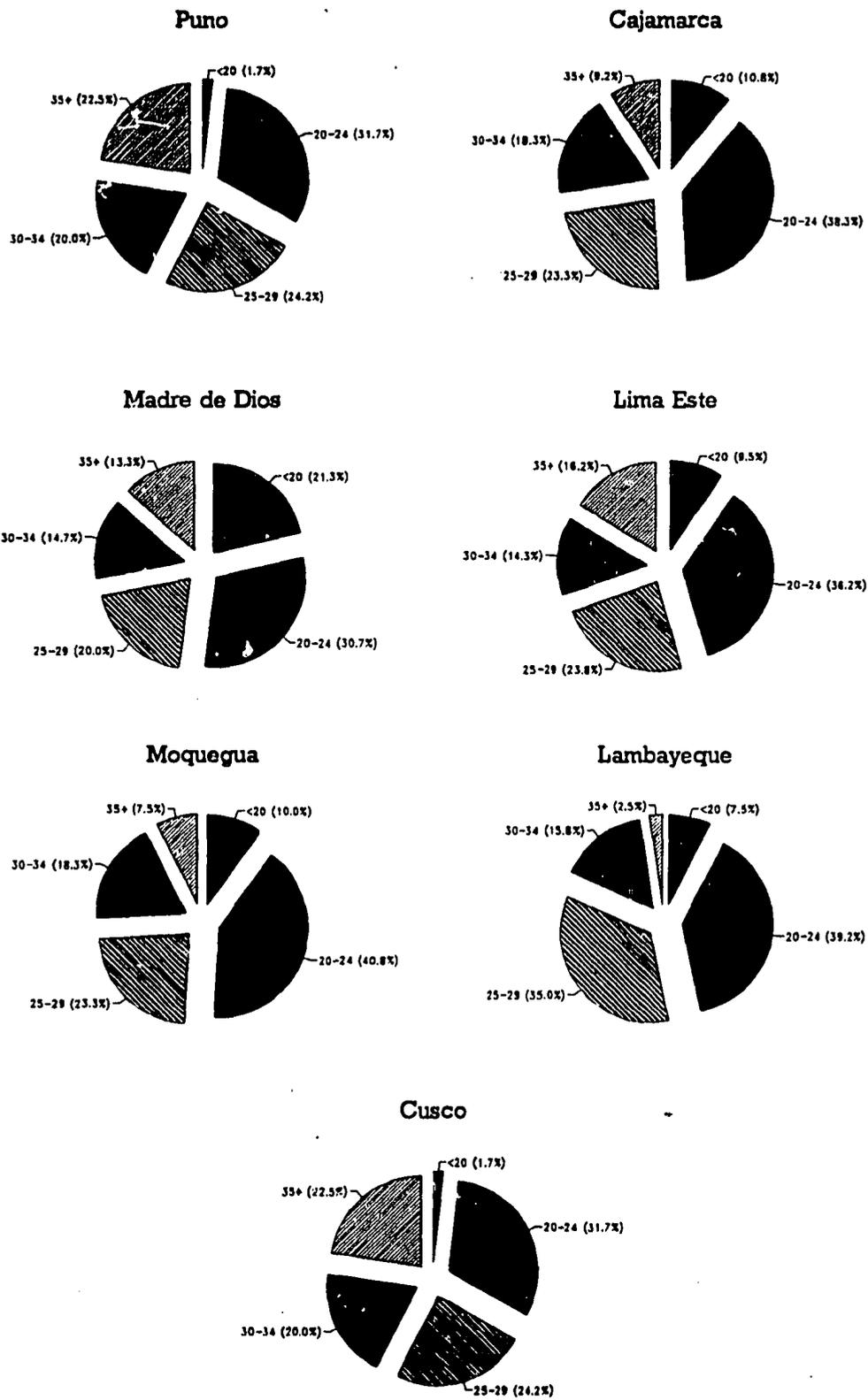


Figure 1. Age Distribution of Mothers in Community Member Interview

94

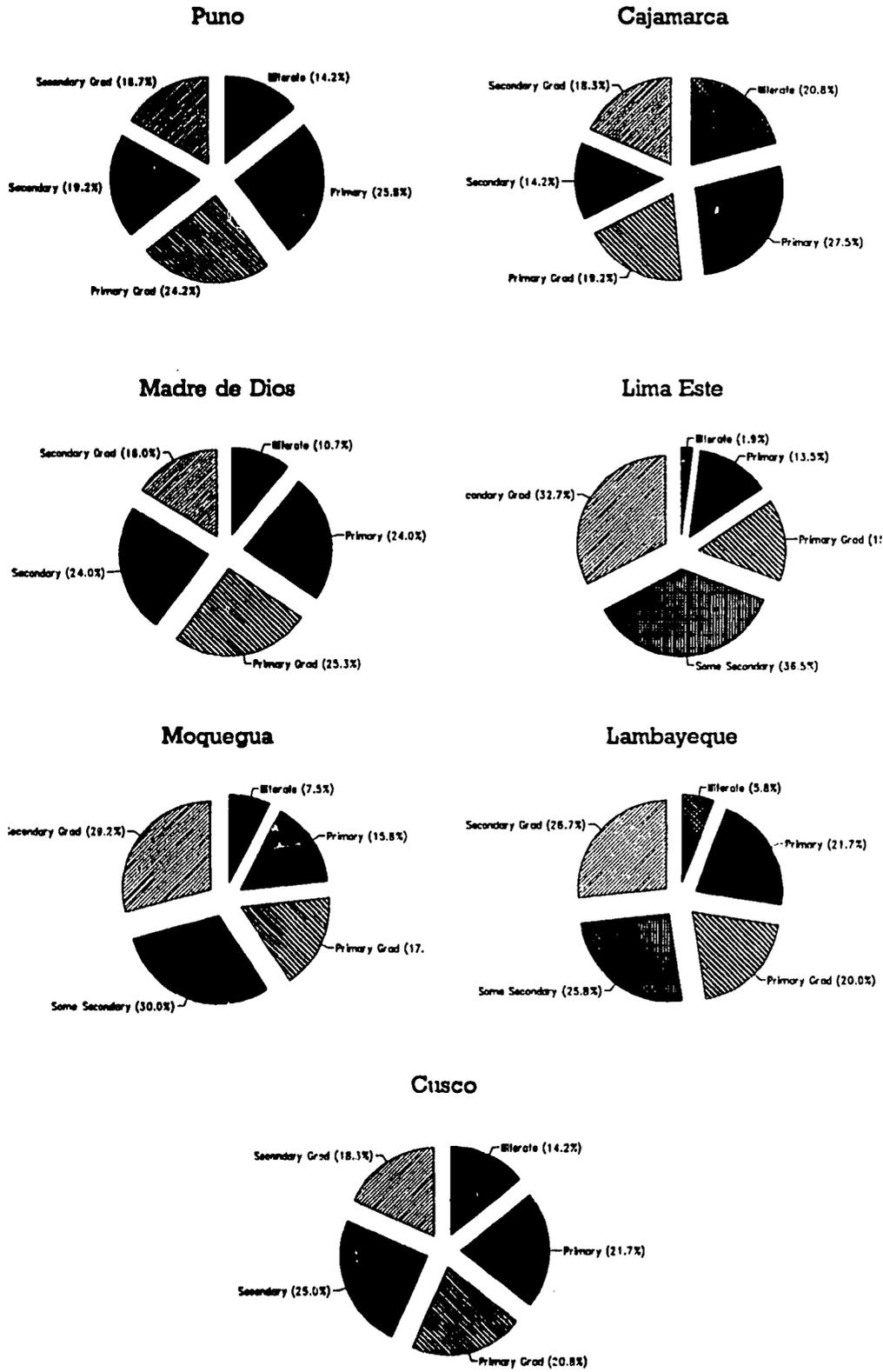


Figure 2. Education Level of Mothers in Community Member Interview

55

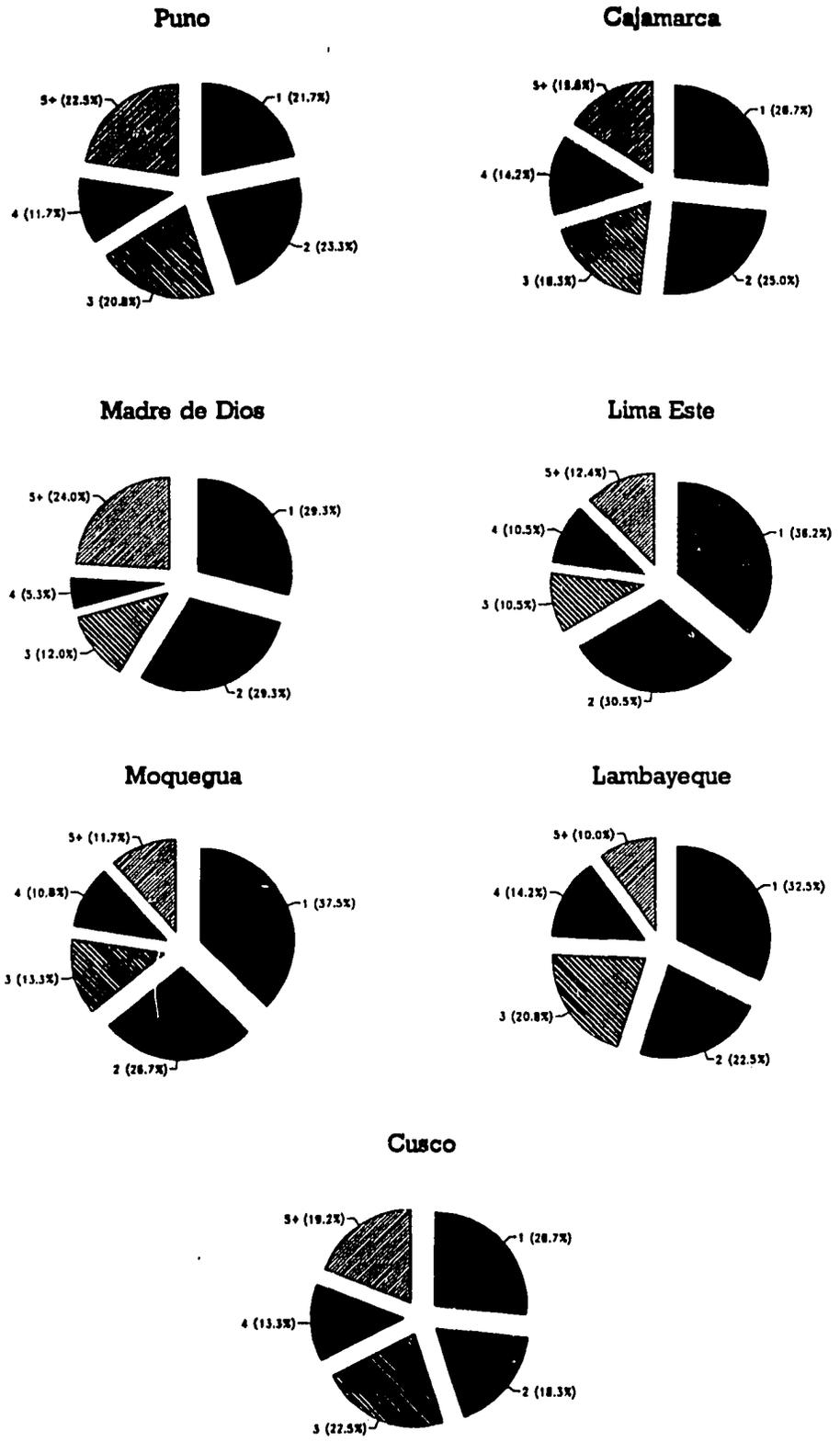


Figure 3. Number of Children in Family of Mothers in Community Member Interview

56

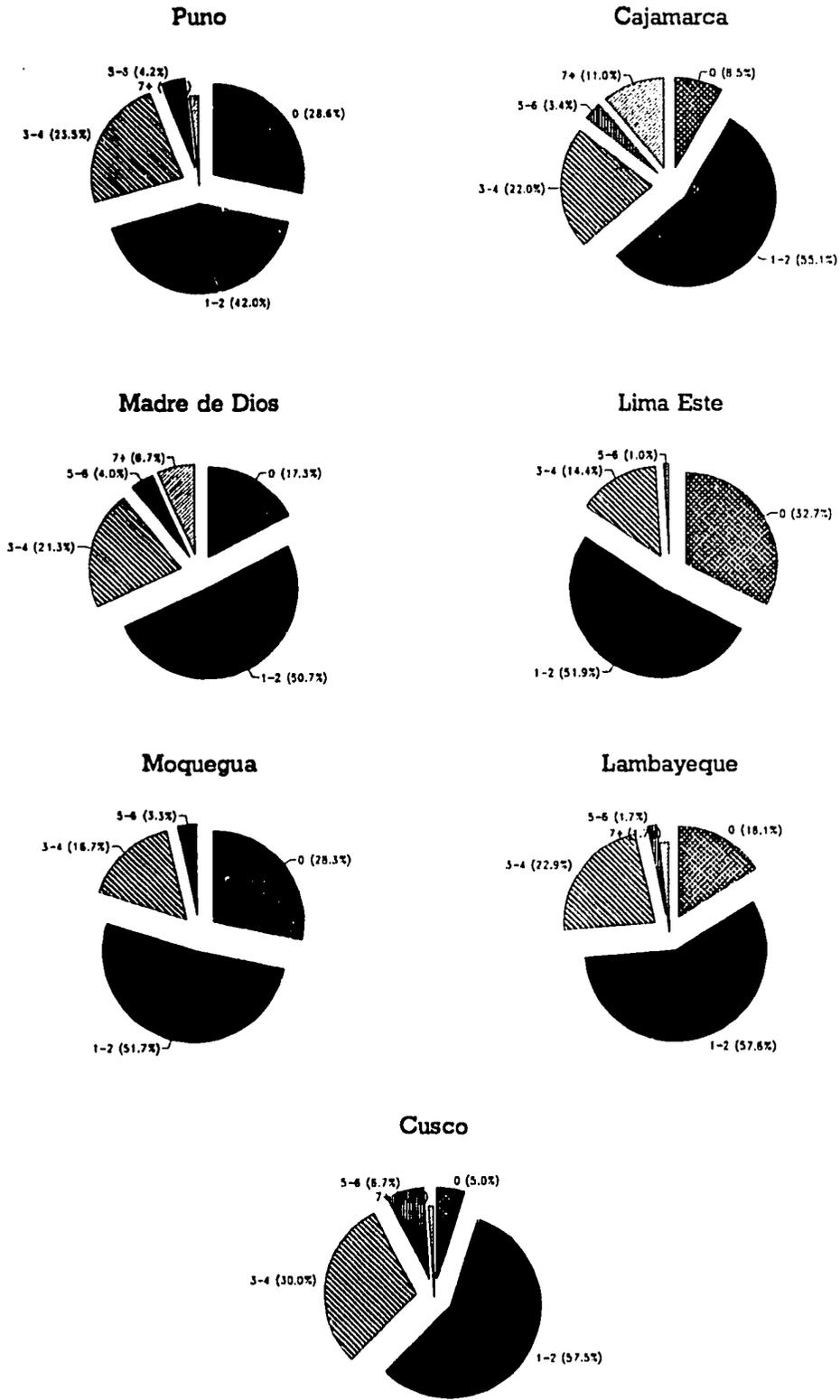


Figure 4. Number of Children Desired by Mothers in Community Member Interview

51'

COMMUNITY MEMBER INTERVIEW
Water and Sewerage Service

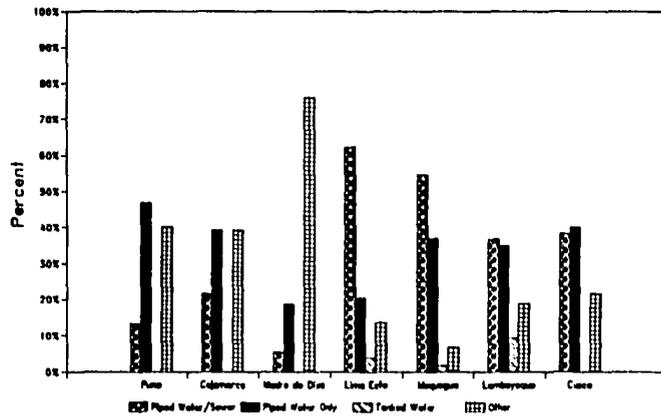


Figure 5. Community water and sewerage services

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COMMUNITY MEMBER INTERVIEW
Household Facilities

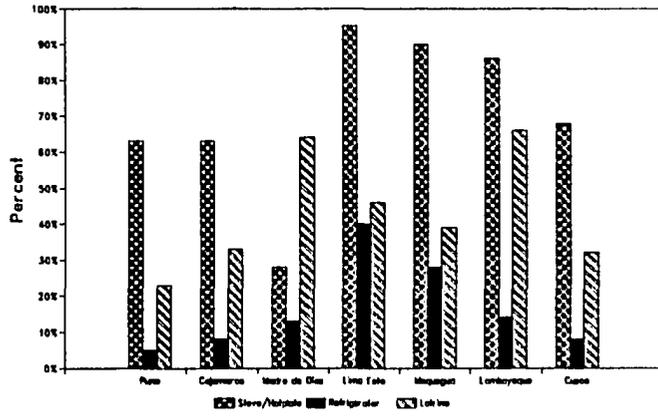


Figure 6. Household facilities

59'

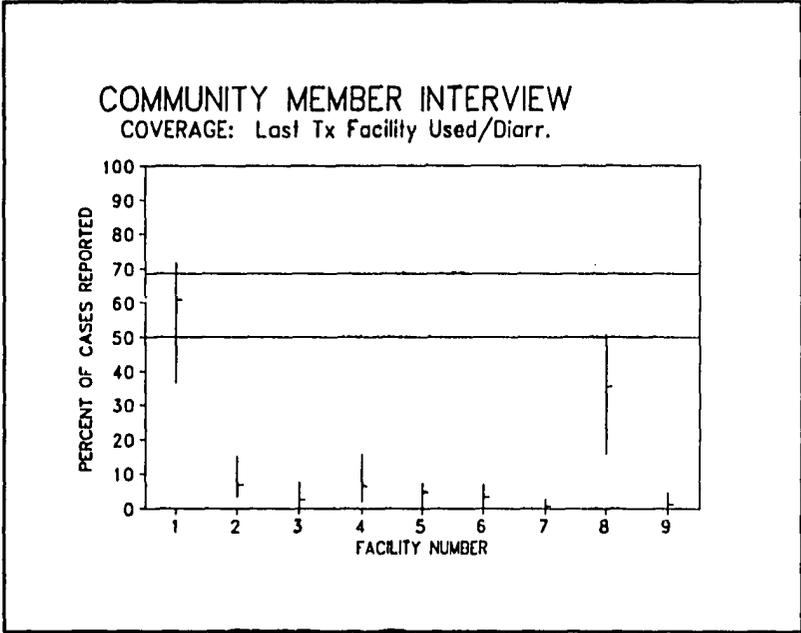


Figure 7. LAST Tx FACILITY USED / DIARRHEA

- 1 - HEALTH CENTER OR POST
- 2 - HOSPITAL
- 3 - SOCIAL SECURITY (IPSS) FACILITY
- 4 - PRIVATE PHYSICIAN
- 5 - PHARMACY
- 6 - CURANDERO
- 7 - COMMUNITY REHYDRATION CENTER (URO)
- 8 - TREATED AT HOME
- 9 - PRIVATE VOLUNTARY ORGANIZATION

60.

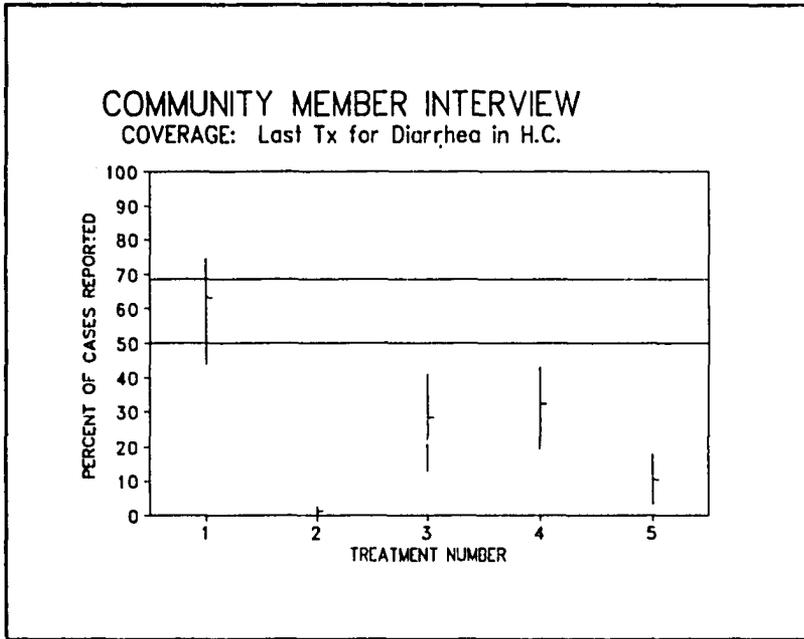
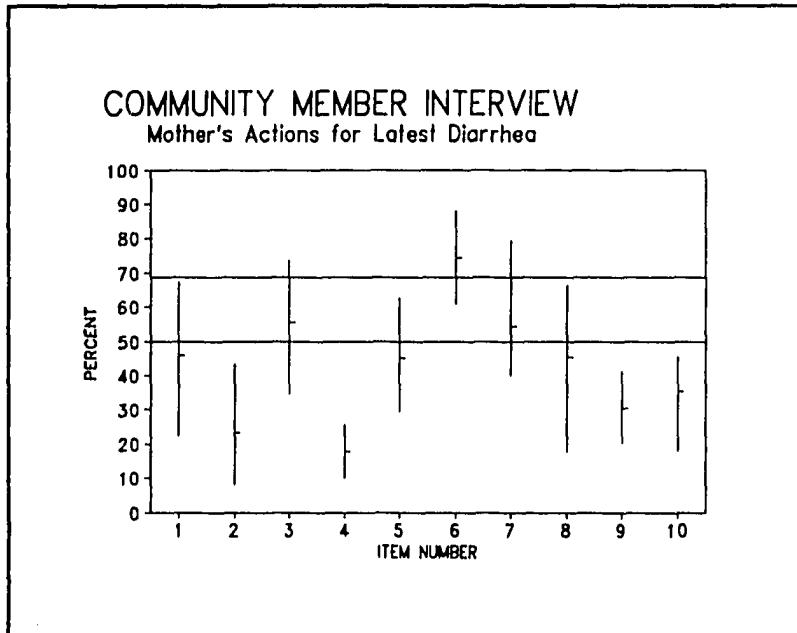


Figure 8. LAST TX FOR DIARRHEA

- 1 - ORS
- 2 - I.V.
- 3 - ANTIBIOTICS
- 4 - ANTIDIARRHEALS
- 5 - OTHER

61-



**Figure 9. MOTHER'S ACTIONS FOR LATEST
DIARRHEA EPISODE**

- 1 - GAVE MEDICINES
- 2 - CHANGED CHILD'S DIET
- 3 - GAVE HERBAL INFUSIONS
- 4 - QUIT BREAST-FEEDING
- 5 - BREAST FED MORE OFTEN
- 6 - GAVE MORE LIQUIDS
- 7 - CONTINUED WITH NORMAL FEEDING
- 8 - GAVE PANETELA (RICE-BROTH)
- 9 - GAVE HOMEMADE ORAL REHYDRATION SOLUTION
- 10 - GAVE ORS MADE FROM PACKET

62.

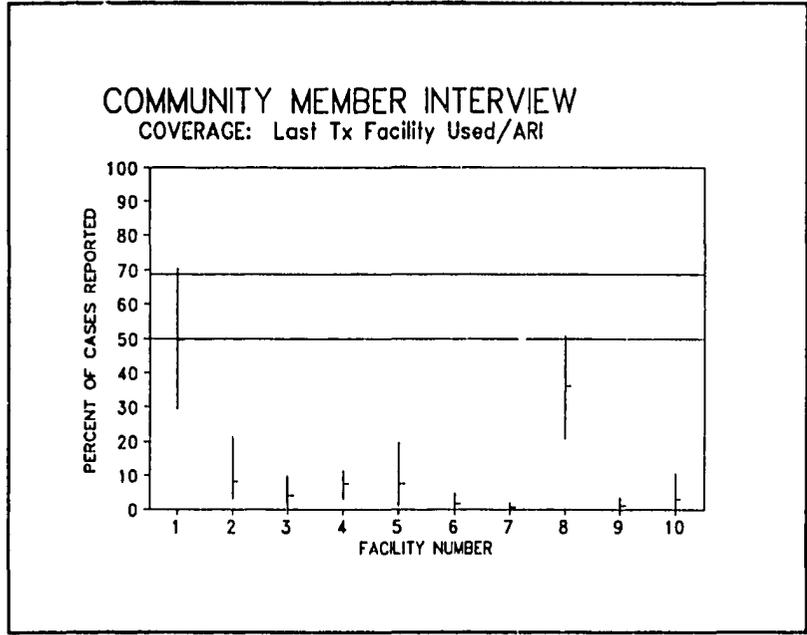
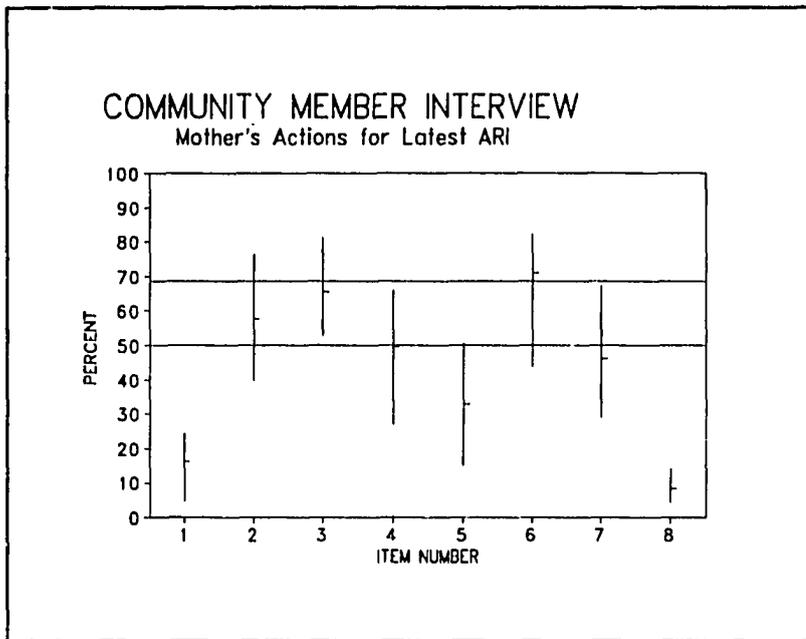


Figure 10. LAST Tx FACILITY USED / ARI

- 1 - HEALTH CENTER OR POST
- 2 - HOSPITAL
- 3 - SOCIAL SECURITY (IPSS) FACILITY
- 4 - PRIVATE PHYSICIAN
- 5 - PHARMACY
- 6 - CURANDERO
- 7 - COMMUNITY REHYDRATION CENTER (URO)
- 8 - TREATED AT HOME
- 9 - PRIVATE VOLUNTARY ORGANIZATION
- 10 - NOT TAKEN ANYWHERE



**Figure 11. MOTHER'S ACTIONS IN LATEST ARI
EPISODE**

- 1 - PUT SALINE DROPS IN NOSE
- 2 - GAVE MORE LIQUIDS
- 3 - CONTINUED WITH NORMAL FEEDING
- 4 - GAVE COUGH MEDICINE
- 5 - GAVE ANTIBIOTICS
- 6 - GAVE MEDICINE FOR FEVER
- 7 - BREAST FED MORE FREQUENTLY
- 8 - QUIT BREAST-FEEDING

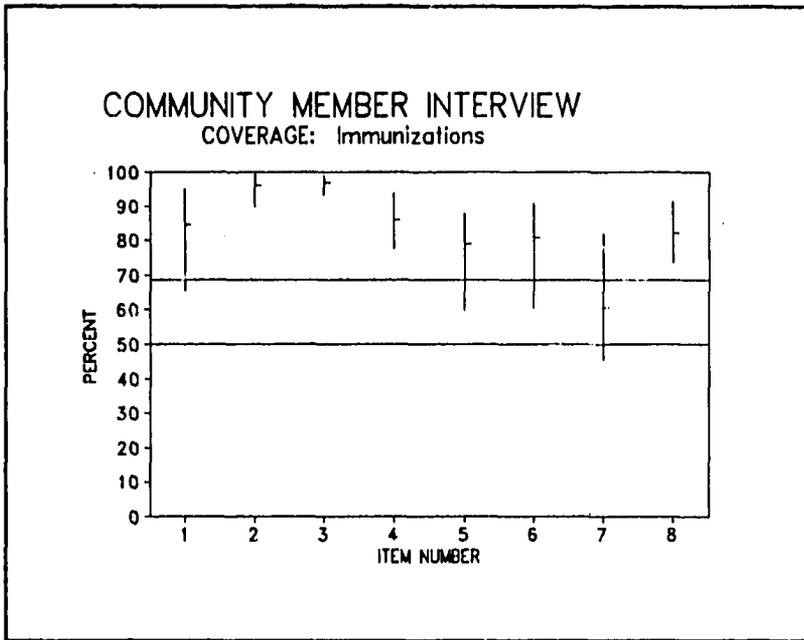


Figure 12. IMMUNIZATION PROGRAM

- 1 - HAS VACCINATION CARNET**
- 2 - CARNET HAS CORRECT IDENTIFYING DATA**
- 3 - CARNET HAS DATES OF IMMUNIZATIONS**
- 4 - CARNET HAS DATES FOR FURTHER IMMUNIZATIONS**
- 5 - CHILD HAS NECESSARY DPT FOR AGE**
- 6 - CHILD HAS NECESSARY ANTI-POLIO FOR AGE**
- 7 - CHILD HAS NECESSARY MEASLES FOR AGE**
- 8 - CHILD HAS NECESSARY BCG FOR AGE**

65-

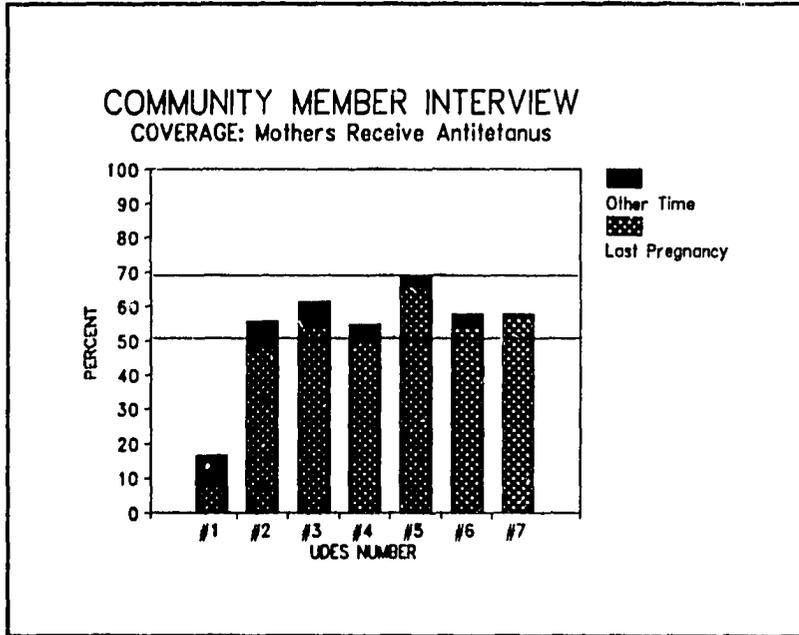


Figure 13. UDES

- 1 - PUNO
- 2 - CAJAMARCA
- 3 - MADRE DE DIOS
- 4 - LIMA ESTE
- 5 - MOQUEGUA
- 6 - LAMBAYEQUE
- 7 - CUSCO

-66-

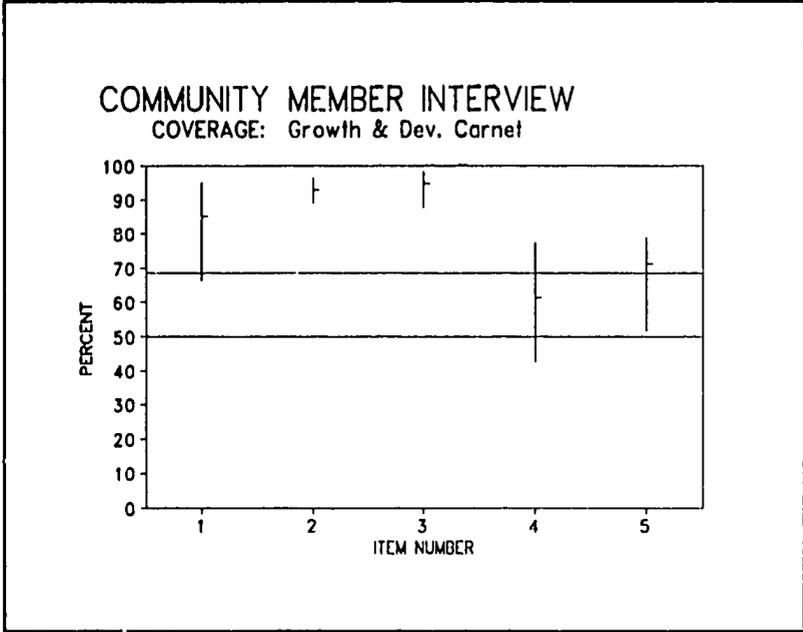


Figure 14. CHILD'S GROWTH & DEVELOPMENT CARNET

- 1 - HAVE CARNET**
- 2 - IDENTIFYING DATA RECORDED CORRECTLY**
- 3 - VACCINATIONS RECORDED CORRECTLY**
- 4 - GROWTH CURVE NOTED CORRECTLY**
- 5 - VISIT DATES INDICATED CORRECTLY**

67

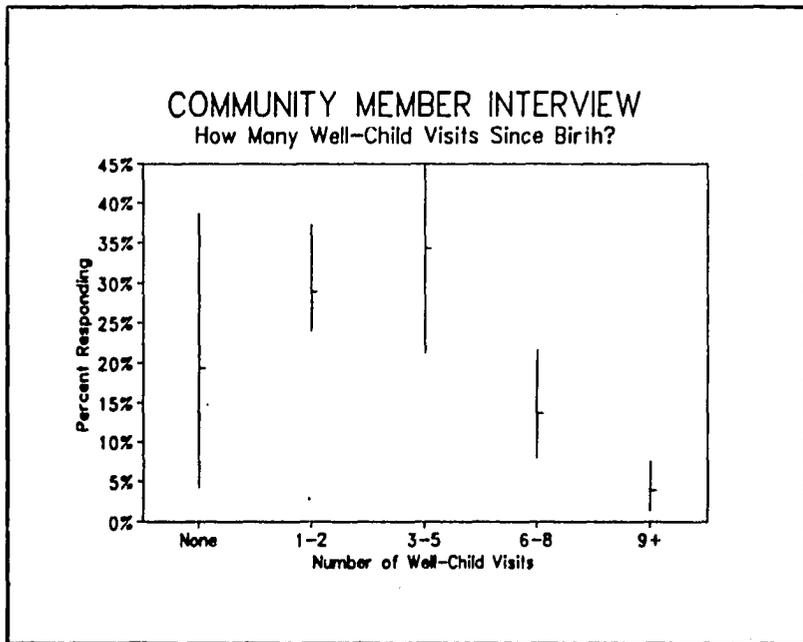


Figure 15 (a&b). Well-child visits

68

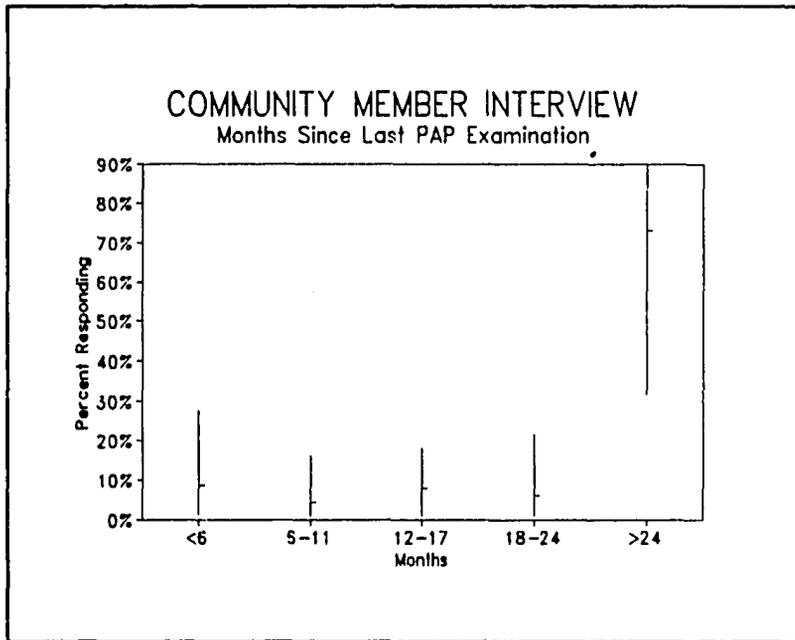


Figure 16. Latest PAP Examination for mothers interviewed

69

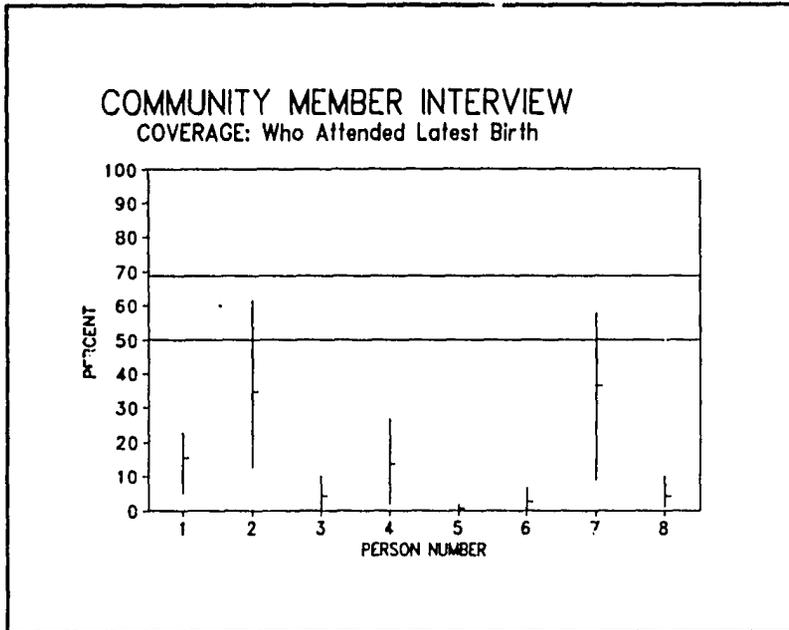


Figure 17. WHO ATTENDED LATEST BIRTH

- 1 - PERSONNEL FROM HEALTH CENTER OR POST
- 2 - PERSONNEL FROM HOSPITAL
- 3 - PRIVATE PHYSICIAN
- 4 - NURSE-MIDWIFE
- 5 - PHARMACIST
- 6 - CURANDERO
- 7 - PARTERA OR COMADRONA
- 8 - PERSONNEL FROM SOCIAL SECURITY (IPSS)

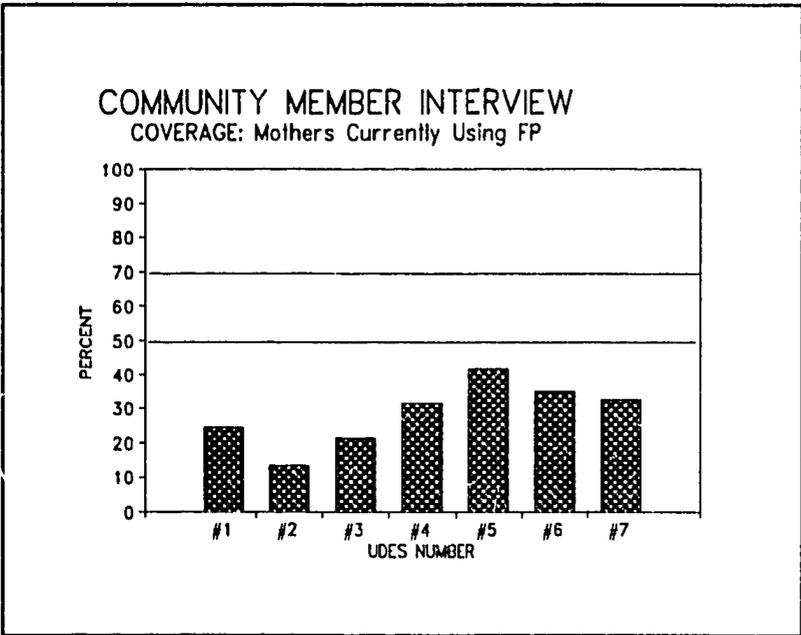


Figure 18. UDES

- 1 - PUNO
- 2 - CAJAMARCA
- 3 - MADRE DE DIOS
- 4 - LIMA ESTE
- 5 - MOQUEGUA
- 6 - LAMBAYEQUE
- 7 - CUSCO

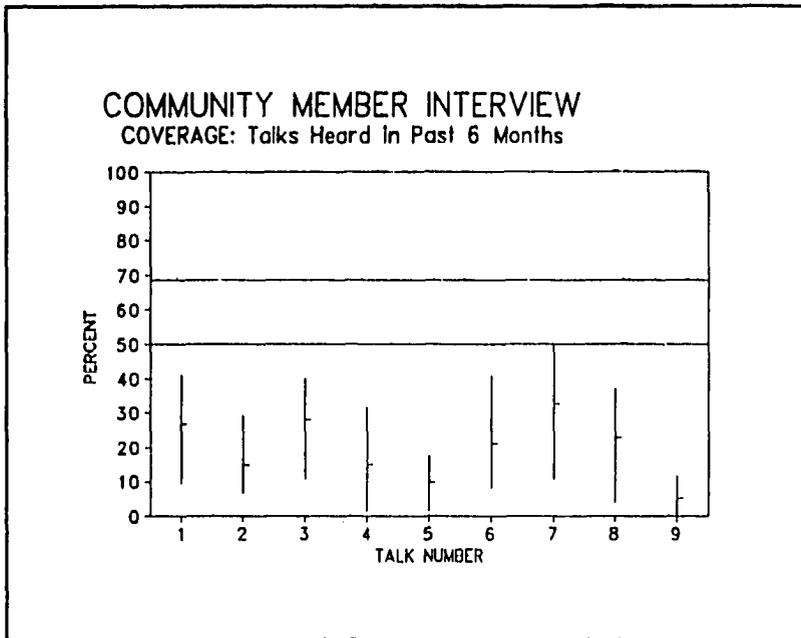


Figure 19. COMMUNITY HEALTH TALKS - SUBJECTS

- 1 - CONTROL OF DIARRHEA
- 2 - ACUTE RESPIRATORY INFECTIONS
- 3 - FAMILY PLANNING
- 4 - PREGNANCY AND PRE-NATAL CARE
- 5 - TUBERCULOSIS
- 6 - CHILDHOOD GROWTH & DEVELOPMENT
- 7 - IMMUNIZATIONS
- 8 - BREAST-FEEDING
- 9 - OTHER

72'

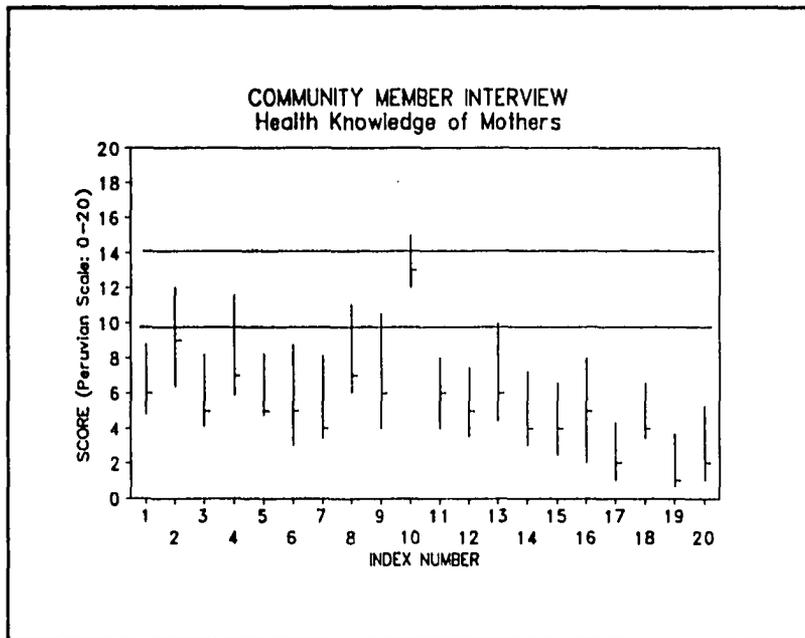


Figure 20. MOTHERS' HEALTH KNOWLEDGE

- 1 - DIARRHEA KNOWLEDGE
- 2 - DIARRHEA PREVENTION
- 3 - DIARRHEA CASE TO HC
- 4 - DIARRHEA TREATMENT
- 5 - ARI KNOWLEDGE
- 6 - ARI PREVENTION
- 7 - ARI CASE TO HC
- 8 - ARI TREATMENT
- 9 - CHILD GROWTH KNOWLEDGE
- 10 - REASON FOR IMMUNIZATION
- 11 - NUMBER OF VAC. DOSES
- 12 - AGE FOR VACCINATIONS
- 13 - PRE-NATAL EXAMS
- 14 - PRE-NATAL ALARM SIGNS
- 15 - POST-NATAL ALARM SIGNS
- 16 - WHAT IS PAP
- 17 - NATURAL FP METHODS
- 18 - ARTIFICIAL FP METHODS
- 19 - SECONDARY EFFECTS OF PILLS
- 20 - SECONDARY EFFECTS OF IUD

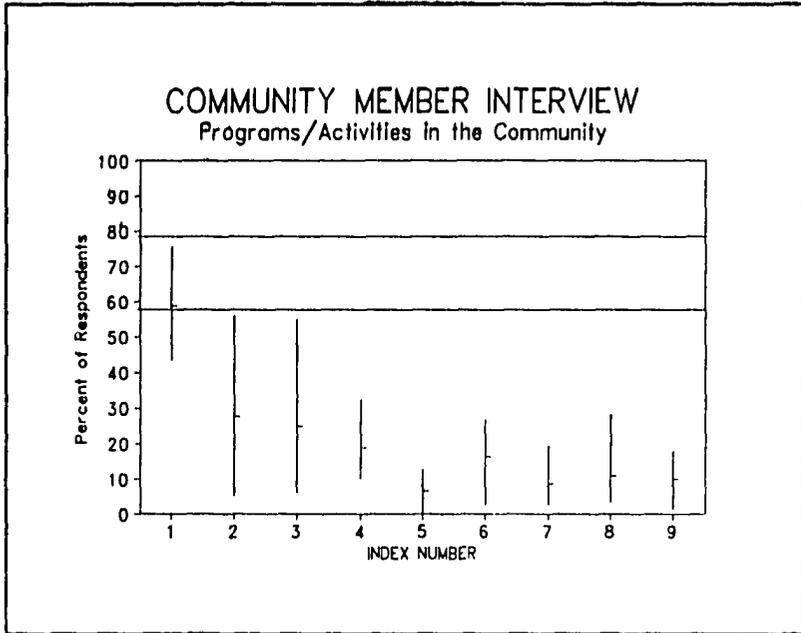


Figure 21. PROGRAMS/FACILITIES IN COMMUNITY

- 1 - MOTHER'S CLUB
- 2 - 'GLASS OF MILK'
- 3 - COMMUNAL KITCHEN
- 4 - HEALTH PROMOTERS
- 5 - PVO ACTIVITIES
- 6 - RELIGIOUS GROUPS
- 7 - COMMUNITY HEALTH COMMITTEE
- 8 - MUNICIPAL HEALTH PROGRAM
- 9 - COMMUNITY REHYDRATION CENTERS

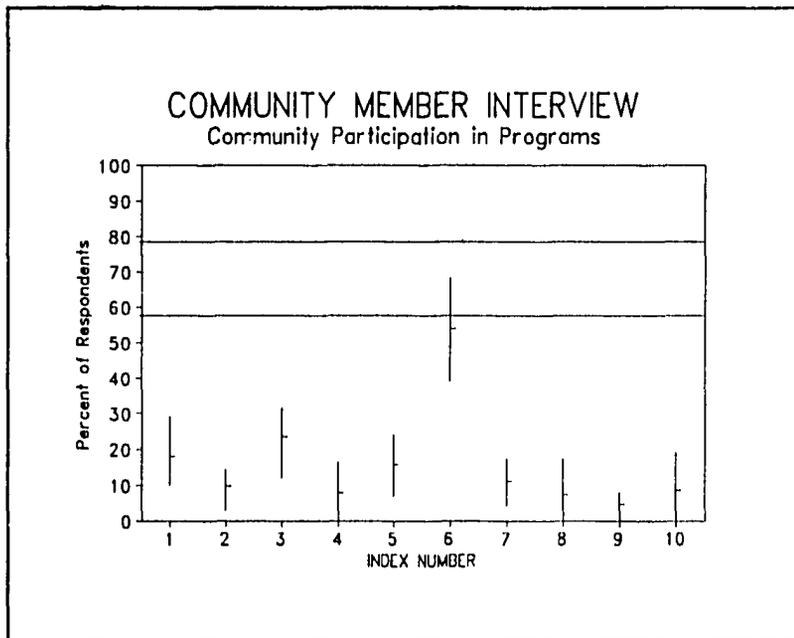


Figure 22. COMMUNITY PARTICIPATION IN PROGRAMS

- 1 - CONSTRUCTION OF LATRINES
- 2 - HEALTH TRAINING
- 3 - WATER SUPPLY
- 4 - COMMUNITY REHYDRATION CENTERS
- 5 - GARBAGE/TRASH REMOVAL
- 6 - VACCINATION CAMPAIGNS
- 7 - FAMILY PLANNING ACTIVITIES
- 8 - PRENATAL CARE ACTIVITIES
- 9 - UTERINE CANCER SURVEILLANCE
- 10 - NUTRITIONAL SURVEILLANCE

25

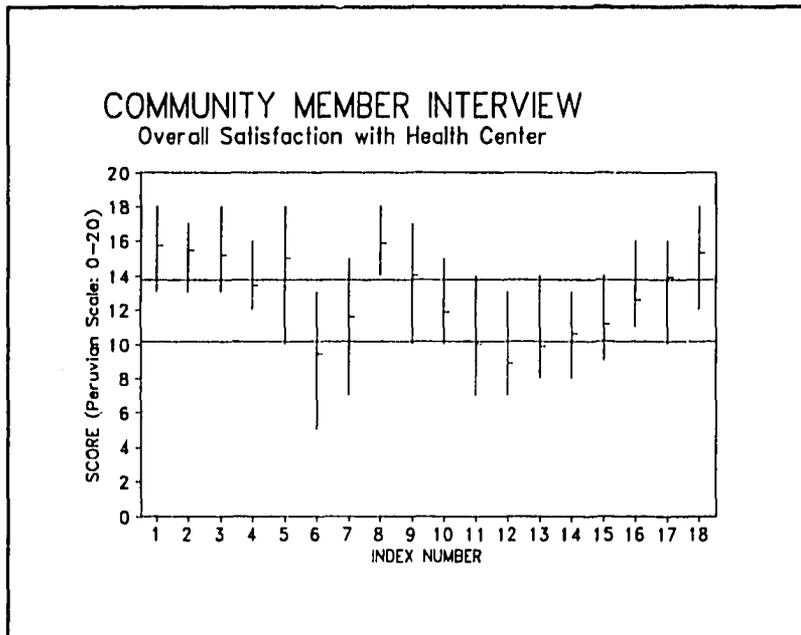


Figure 23. OVERALL SATISFACTION WITH HEALTH CENTER

- 1 - HEALTH CENTER IS CLOSE TO HOUSE
- 2 - FOUND PROFESSIONAL AT H.C.
- 3 - REASONABLE HOURS OF ATTENTION
- 4 - REASONABLE WAIT TO BE TREATED
- 5 - REASONABLE COST FOR CONSULT
- 6 - REASONABLE COST FOR ANALYSES
- 7 - REASONABLE COST FOR MEDICINES
- 8 - ATTENTION GIVEN WAS GOOD
- 9 - ANSWERED MY QUESTIONS
- 10 - EXPLAINED MY PROBLEM CLEARLY
- 11 - EXPLAINED EXACTLY WHAT WAS BEING DONE
- 12 - EXPLAINED WHY CERTAIN THINGS WERE DONE
- 13 - EXPLAINED WHY I WAS TO DO CERTAIN THINGS
- 14 - ATTENDED MY NEEDS
- 15 - REASONABLE WAIT TO BE ATTENDED
- 16 - FOUND MY MEDICAL HISTORY QUICKLY
- 17 - FOUND THE ORIGINAL COPY OF MY MEDICAL HISTORY
- 18 - RESPECTED THE ORDER IN WHICH PEOPLE ARRIVED

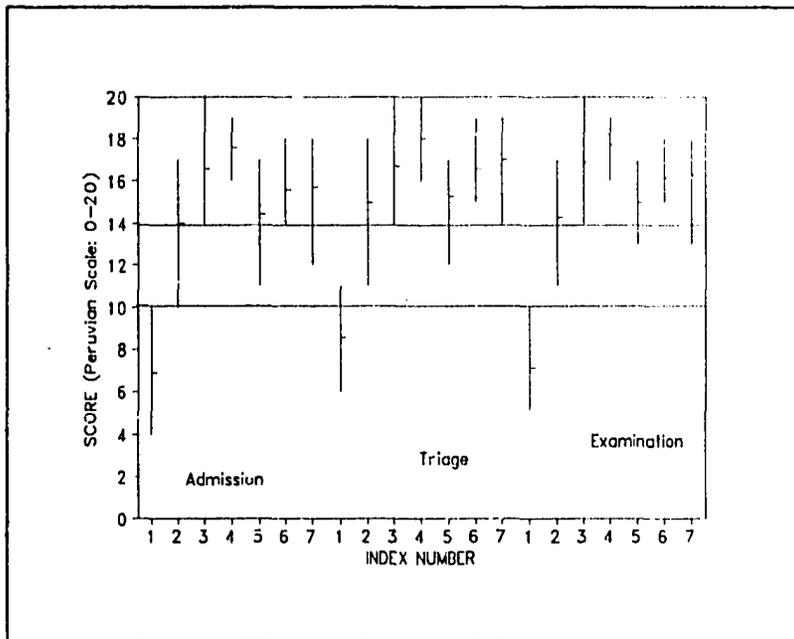


Figure 24. SATISFACTION WITH H.C. COMPONENTS

- 1 - MADE ME FEEL IMPORTANT
- 2 - I FELT WELL-TREATED
- 3 - DID NOT INTERRUPT ME
- 4 - TREATED ME WITH RESPECT
- 5 - DID NOT APPEAR IN A HURRY
- 6 - DID NOT ACT LIKE THEY WERE DOING ME A FAVOR
- 7 - DID NOT APPEAR UPSET

17.

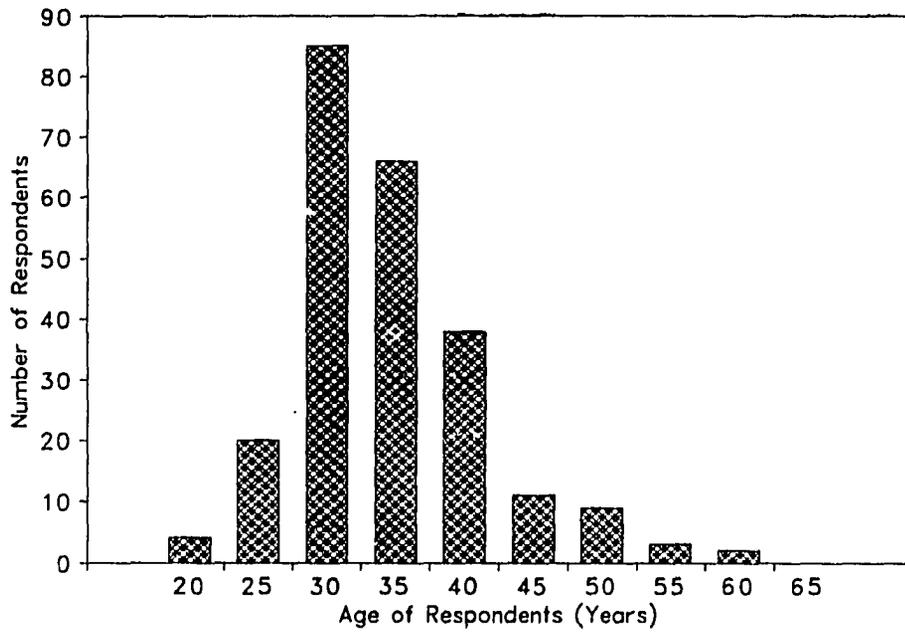


Figure 25 Age Distribution of Respondents

- 78

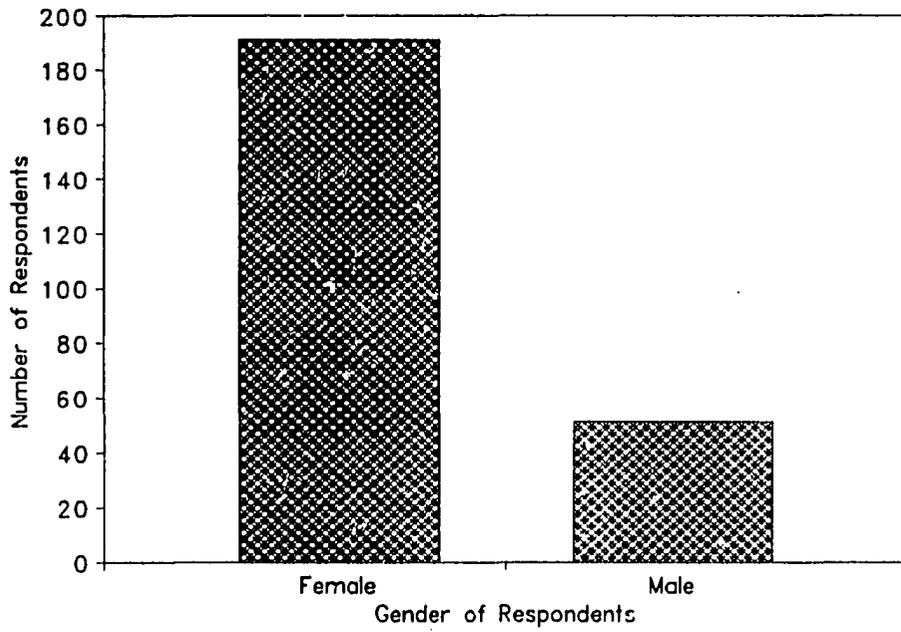


Figure 26. Gender of Participants

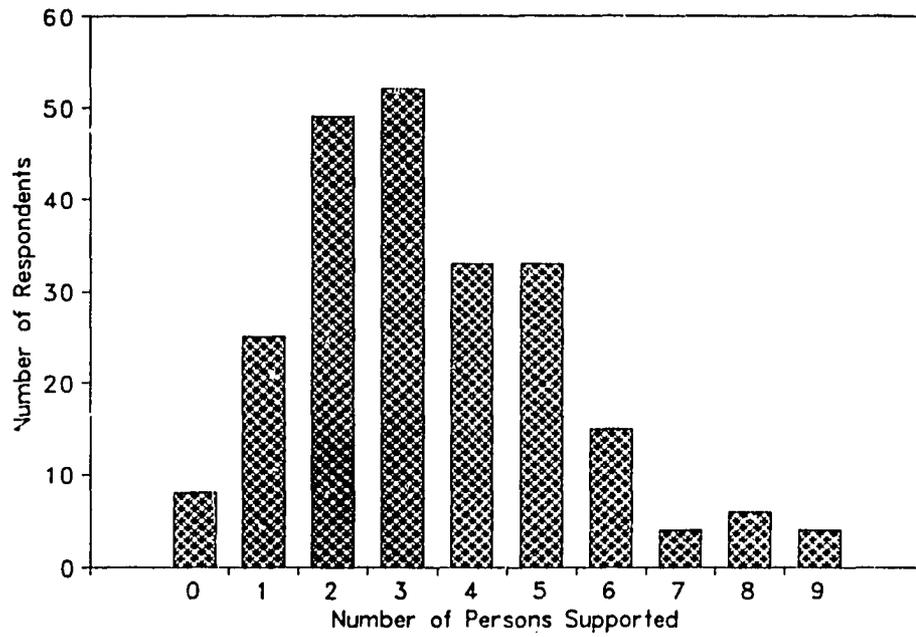


Figure 27. Number of Dependents Supported by Respondents

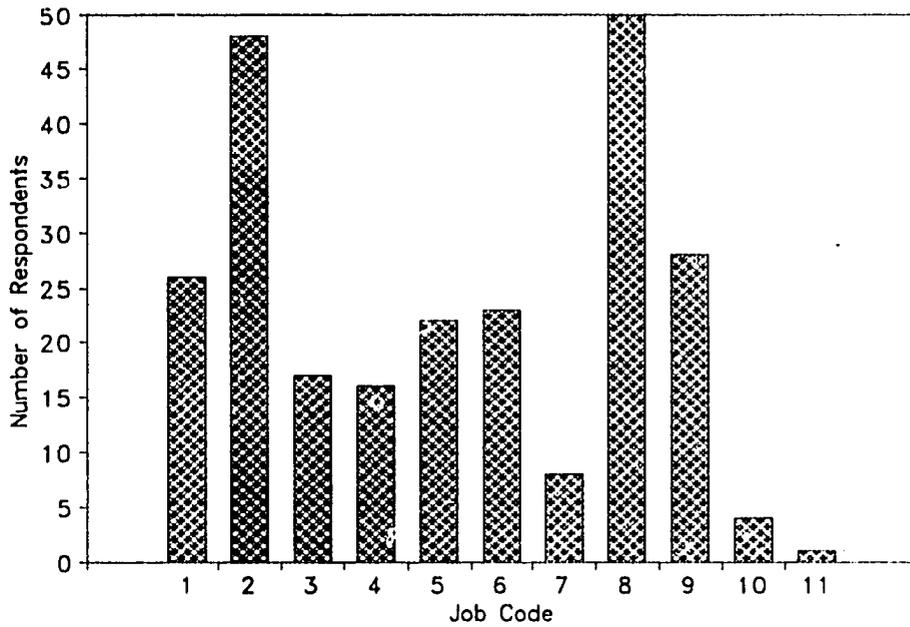


Figure 28. Job Assignments Held by Respondents

JOB ASSIGNMENT CODES

- 1 - Nurse Auxiliary
- 2 - Nurse
- 3 - Chief Nurse
- 4 - General Physician
- 5 - Health Center Director
- 6 - Nurse-Midwife
- 7 - *Scrum* (public service intern)
- 8 - Nursing Technician
- 9 - Sanitary Technician
- 10 - Pharmacy Technician
- 11 - Others

81

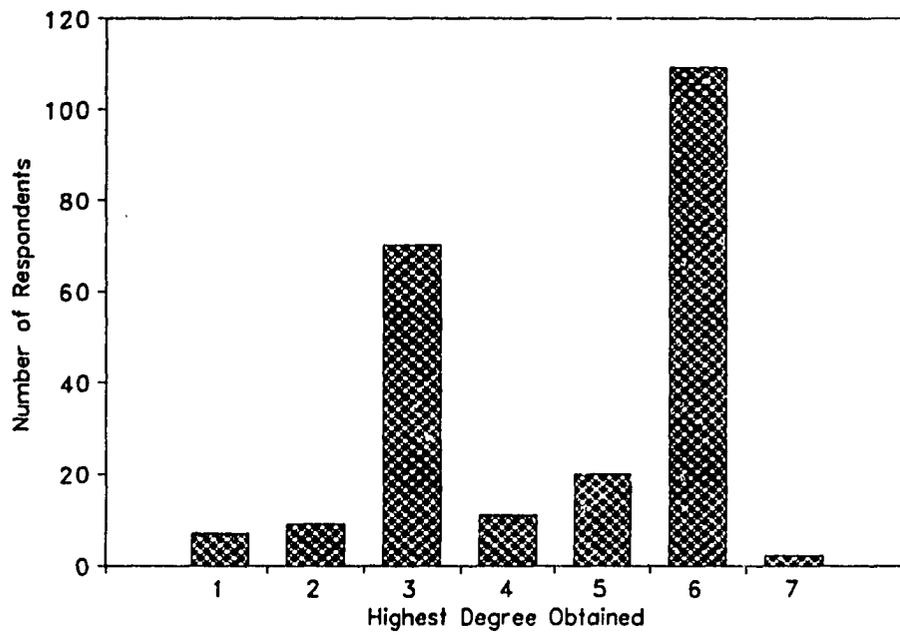


Figure 29. Professional Degrees Held by Respondents

HIGHEST DEGREE CODES

- 1 - Primary Diploma
 - 2 - Secondary Diploma
 - 3 - Technical Certificate
 - 4 - Bachelor's Degree
 - 5 - License
 - 6 - Professional Title
 - 7 - Master's Degree
-

82.

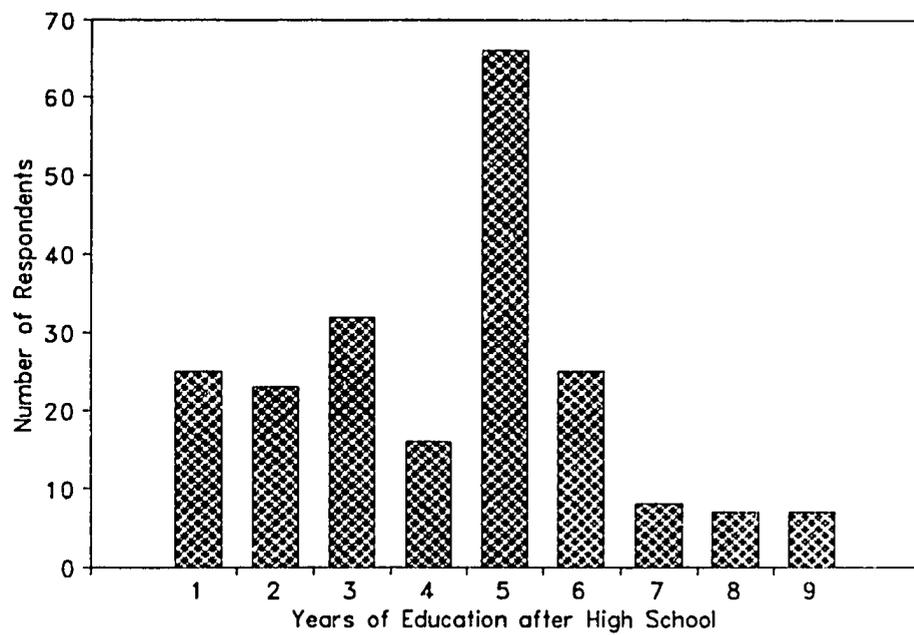


Figure 30. Years of Post-Secondary Education for Respondents

83

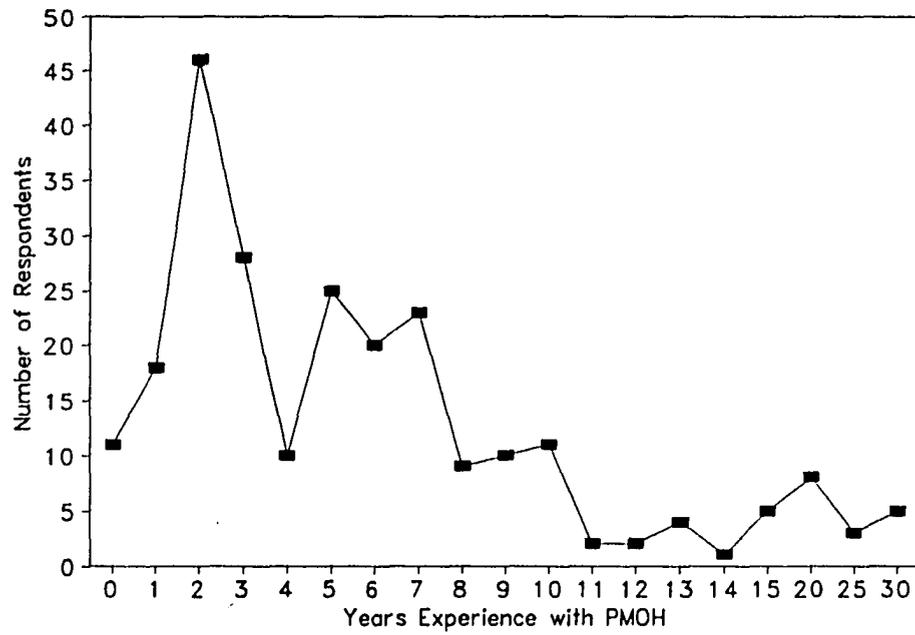


Figure 31. Years of Experience in PMOH by Respondents

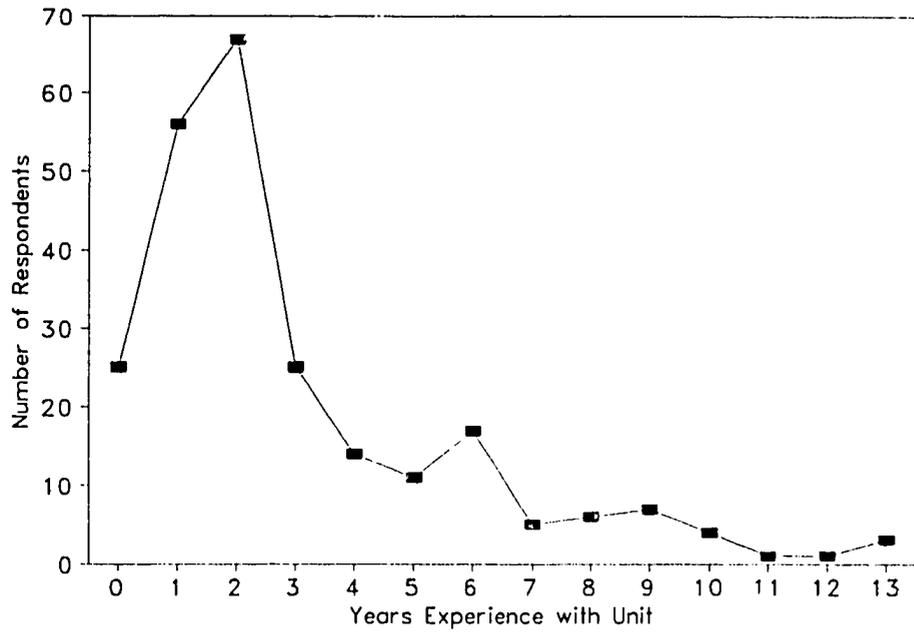


Figure 32. Years of Experience in Unit for Respondents

8-

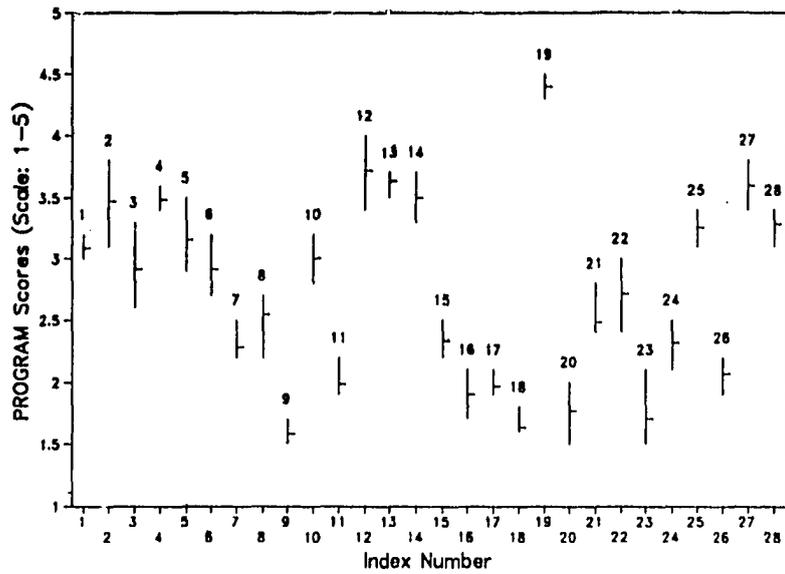


Figure 33. Overall Job/Unit Design Indices Scores: Range for Programs

KEY TO FIGURES 33-36

- 1 - Unit Standardization
- 2 - Job Standardization
- 3 - Task Interchange
- 4 - Job Priority

Distribution of authority:

- 5 - Program head
- 6 - Supervisor
- 7 - Individual worker
- 8 - Group as a whole
- 9 - Outside PMOH staff
- 10 - Health center head
- 11 - Community served

- 12 - Job autonomy
- 13 - Job pressure
- 14 - Job accountability
- 15 - Job feedback
- 16 - Task difficulty
- 17 - Incentives
- 18 - Unit communication
- 19 - Unit accord

Conflict resolution:

- 20 - Ignore it
- 21 - Smooth things over
- 22 - Confront openly
- 23 - Call on superiors

- 24 - Satisfaction: support
- 25 - Satisfaction: job
- 26 - Job training
- 27 - Resource availability
- 28 - Unit rating

86

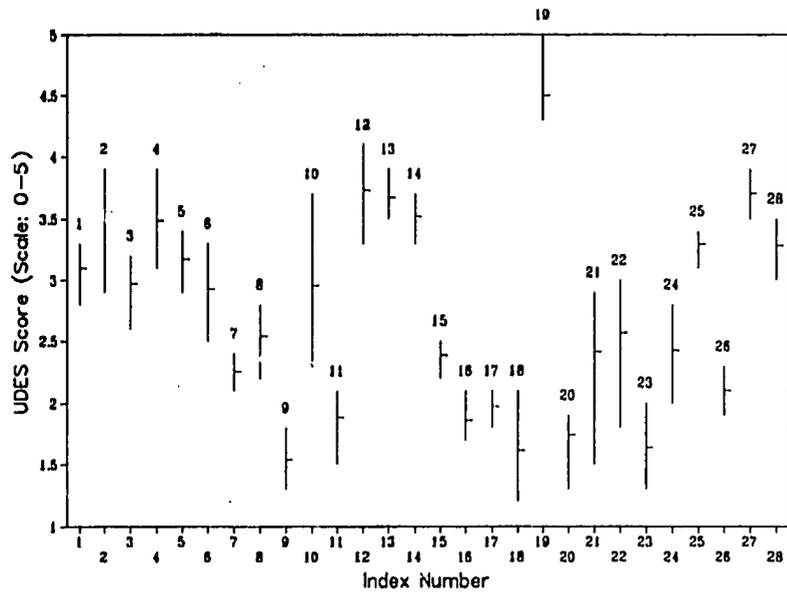


Figure 34. Overall Job/Unit Design Indices Scores: Range for UDES

KEY TO FIGURES 33-36

- 1 - Unit Standardization
- 2 - Job Standardization
- 3 - Task Interchange
- 4 - Job Priority

Distribution of authority:

- 5 - Program head
- 6 - Supervisor
- 7 - Individual worker
- 8 - Group as a whole
- 9 - Outside PMOH staff
- 10 - Health center head
- 11 - Community served

- 12 - Job autonomy
- 13 - Job pressure
- 14 - Job accountability
- 15 - Job feedback
- 16 - Task difficulty
- 17 - Incentives
- 18 - Unit communication
- 19 - Unit accord

Conflict resolution:

- 20 - Ignore it
- 21 - Smooth things over
- 22 - Confront openly
- 23 - Call on superiors

- 24 - Satisfaction: support
- 25 - Satisfaction: job
- 26 - Job training
- 27 - Resource availability
- 28 - Unit rating

87

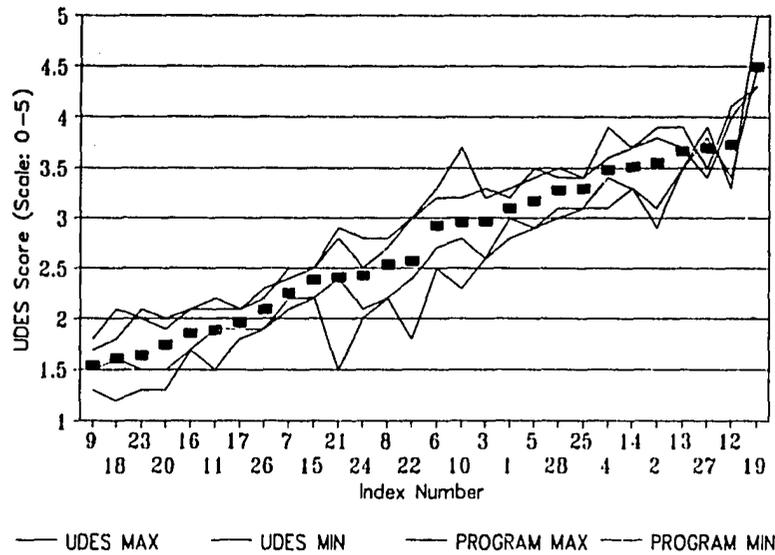


Figure 35. J/U Design Indices with MIN/MAX ranges for UDES and Programs

KEY TO FIGURES 33-36

- 1 - Unit Standardization
- 2 - Job Standardization
- 3 - Task Interchange
- 4 - Job Priority

Distribution of authority:

- 5 - Program head
- 6 - Supervisor
- 7 - Individual worker
- 8 - Group as a whole
- 9 - Outside PMOH staff
- 10 - Health center head
- 11 - Community served

- 12 - Job autonomy
- 13 - Job pressure
- 14 - Job accountability
- 15 - Job feedback
- 16 - Task difficulty
- 17 - Incentives
- 18 - Unit communication
- 19 - Unit accord

Conflict resolution:

- 20 - Ignore it
- 21 - Smooth things over
- 22 - Confront openly
- 23 - Call on superiors
- 24 - Satisfaction: support
- 25 - Satisfaction: job
- 26 - Job training
- 27 - Resource availability
- 28 - Unit rating



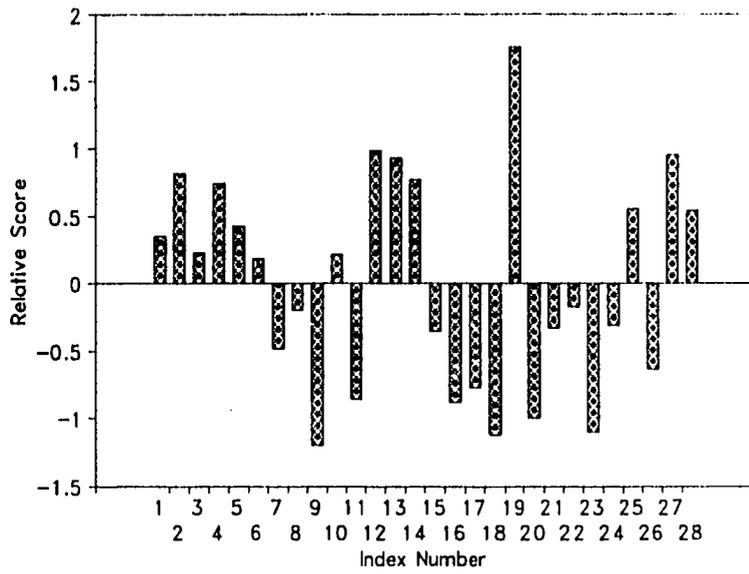


Figure 36. Relative Score for J/U Design Indices

KEY TO FIGURES 33-36

- 1 - Unit Standardization
- 2 - Job Standardization
- 3 - Task Interchange
- 4 - Job Priority

Distribution of authority:

- 5 - Program head
- 6 - Supervisor
- 7 - Individual worker
- 8 - Group as a whole
- 9 - Outside PMOH staff
- 10 - Health center head
- 11 - Community served

- 12 - Job autonomy
- 13 - Job pressure
- 14 - Job accountability
- 15 - Job feedback
- 16 - Task difficulty
- 17 - Incentives
- 18 - Unit communication
- 19 - Unit accord

Conflict resolution:

- 20 - Ignore it
- 21 - Smooth things over
- 22 - Confront openly
- 23 - Call on superiors

- 24 - Satisfaction: support
- 25 - Satisfaction: job
- 26 - Job training
- 27 - Resource availability
- 28 - Unit rating

89

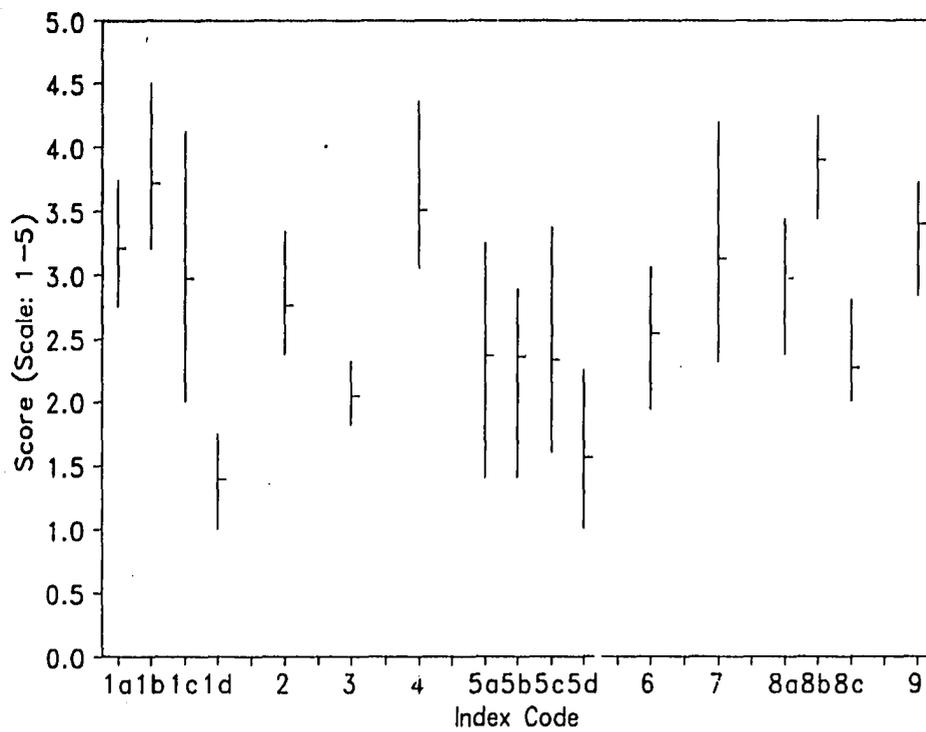


Figure 37. RELATIONSHIP WITH UTES

- 1a Coordination with Hospital
- 1b Coordination with UTES
- 1c Coordination with UDES
- 1d Coordination with MINSA

- 2 Formalization with UTES
- 3 Communication with UTES
- 4 Accord/Conflict with UTES

- 5a Minimize importance
- 5b Smooth over
- 5c Discuss openly & together
- 5d Outside intervention

- 6 Unit influence over UTES
- 7 UTES influence over Unit

- 8a UTES meets its obligations
- 8b Unit meets its obligations
- 8c Balance of "give / receive"

- 9 Satisfaction with relation

90

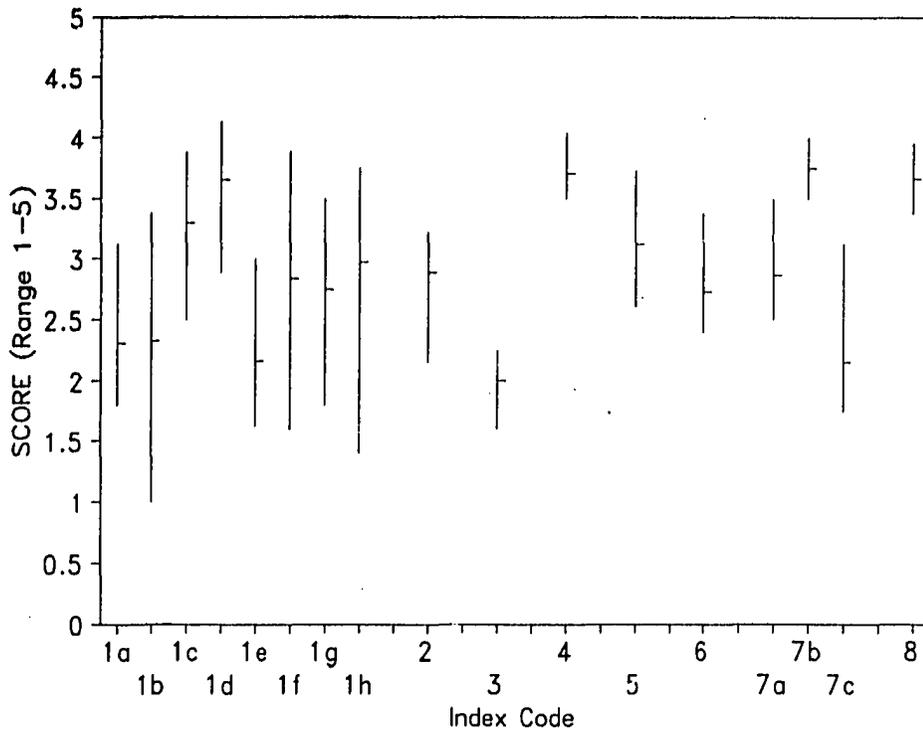


Figure 38. RELATIONSHIP WITH COMMUNITY

- 1a Coordination w/ curanderos
- 1b Coordination w/ health comm.
- 1c Coordination w/ promotores
- 1d Coordination w/ schools
- 1e Coordination w/ church
- 1f Coordination w/ other inst.
- 1g Coordination w/ infrml comm.
- 1h Coordination w/ other org.

- 2 Formalization of relation
- 3 Communication
- 4 Agreement/Conflict
- 5 Unit influence on community
- 6 Community influence on unit

- 7a Unit meets responsibilities
- 7b Comm. meets responsibilities
- 7c Balance "give/take"

- 8 Satisfaction w/ relationship

91-

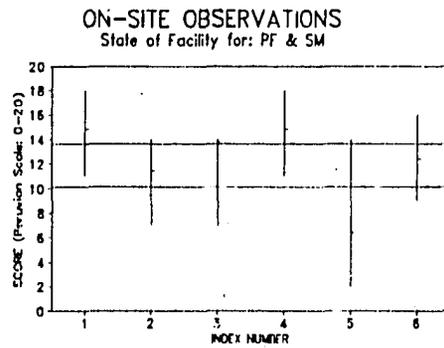
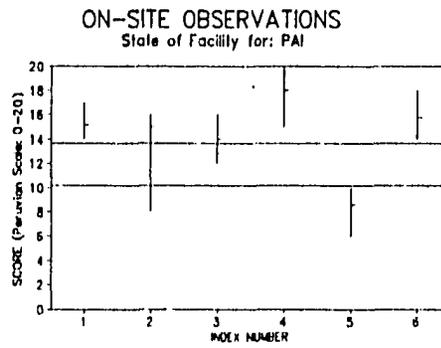
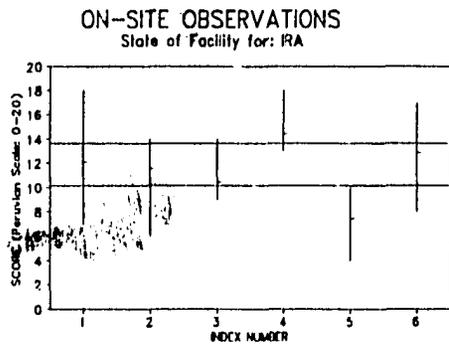
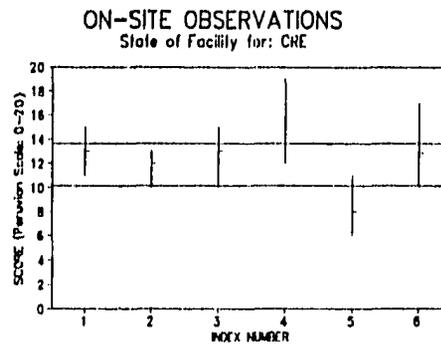
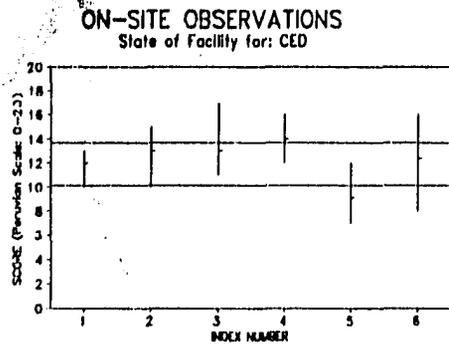


Figure 39. ON-SITE OBSERVATION INDICES

- 1 - FACILITIES**
- 2 - EQUIPMENT**
- 3 - SUPPLIES**
- 4 - READINESS FOR CARE-GIVING**
- 5 - READINESS FOR EDUCATION**
- 6 - RECORD-KEEPING**

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BASIC KNOWLEDGE EXAMINATION
Overall Scores by Program

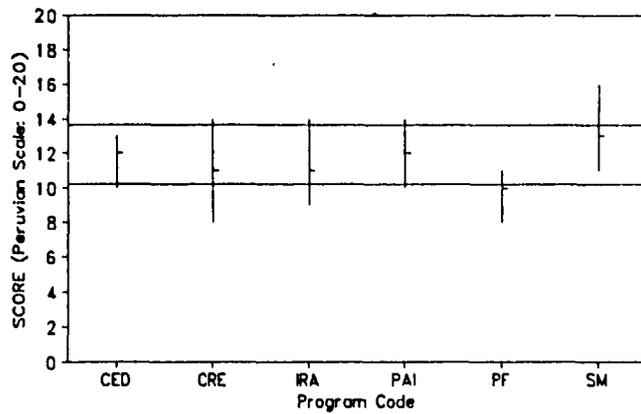


Figure 40. PROGRAM CODES FOR BASIC KNOWLEDGE EXAMINATION

CED - ORT / DIARRHEA CONTROL
CRE - WELL-CHILD, GROWTH & DEVELOPMENT
IRA - ACUTE RESPIRATORY INFECTIONS
PAI - EXPANDED PROGRAM IN IMMUNIZATIONS
PF - FAMILY PLANNING
SM - MATERNAL HEALTH

93

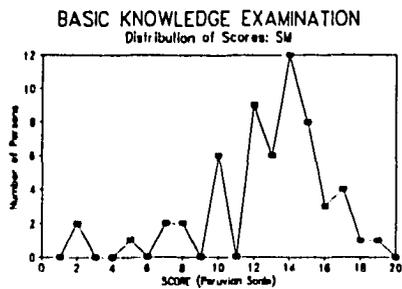
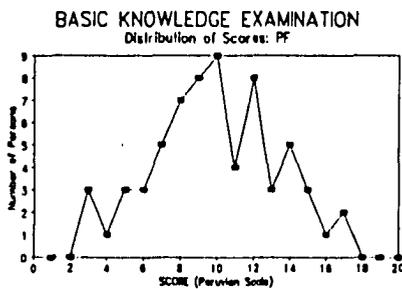
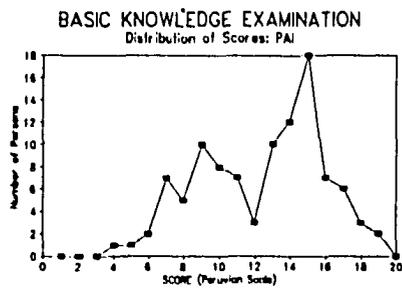
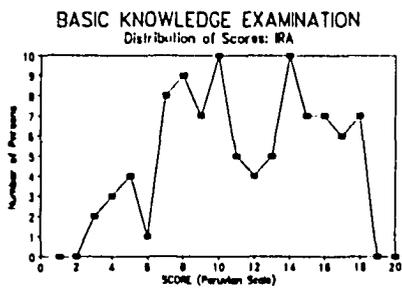
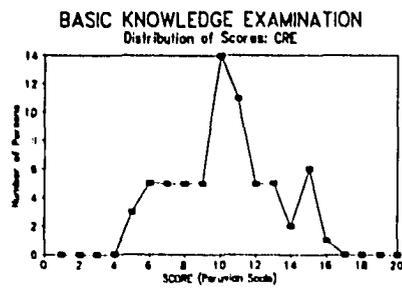
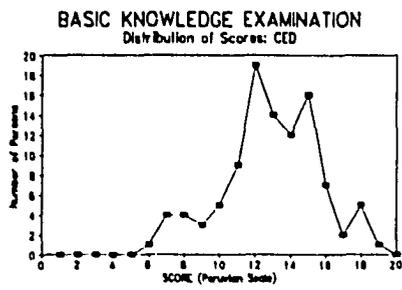


Figure 41. Frequency Distribution of Scores in each Program's Basic Knowledge Examination

94'

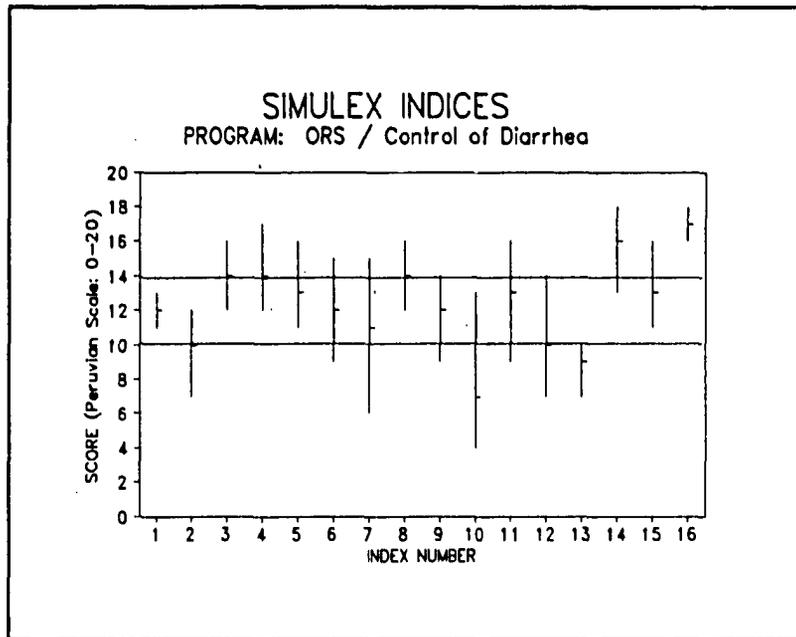


Figure 42. SIMULEX INDICES: ORS / CONTROL OF DIARRHEA

- 1 - HISTORY-TAKING
- 2 - PHYSICAL EXAMINATION
- 3 - DIAGNOSIS
- 4 - TREATMENT STRATEGY
- 5 - TREATMENT - ORS PREPARATION
- 6 - TREATMENT - ORS ADMINISTRATION
- 7 - TREATMENT - PROBLEM-HANDLING
- 8 - EDUCATION - TREATMENT-SPECIFIC
- 9 - EDUCATION - PREP. & USE OF ORS
- 10 - EDUCATION - SIGNS OF DEHYDRATION
- 11 - EDUCATION - DIARRHEA PREVENTION
- 12 - EDUCATION STRATEGY
- 13 - BEHAVIOR
- 14 - ATTITUDE
- 15 - TASK SATISFACTION
- 16 - HUMANENESS SATISFACTION

2/

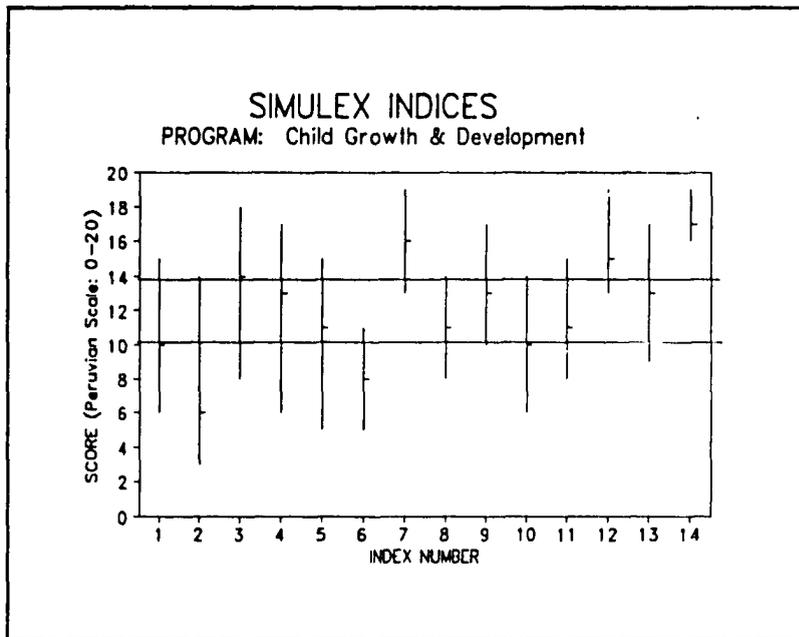


Figure 43. SIMULEX INDICES: CHILD GROWTH & DEVELOPMENT

- 1 - HISTORY-TAKING - CHILD
- 2 - HISTORY-TAKING - FAMILY
- 3 - PHYSICAL EXAMINATION - WEIGHT
- 4 - PHYSICAL EXAMINATION - HEIGHT
- 5 - PHYSICAL EXAMINATION - OTHER MEASURES
- 6 - PHYSICAL EXAMINATION - DIRECT OBSERV.
- 7 - EDUCATION - TREATMENT SPECIFIC
- 8 - EDUCATION - GENERAL MESSAGES
- 9 - DOCUMENTATION
- 10 - EDUCATION STRATEGY
- 11 - BEHAVIOR
- 12 - ATTITUDE
- 13 - TASK SATISFACTION
- 14 - HUMANENESS SATISFACTION

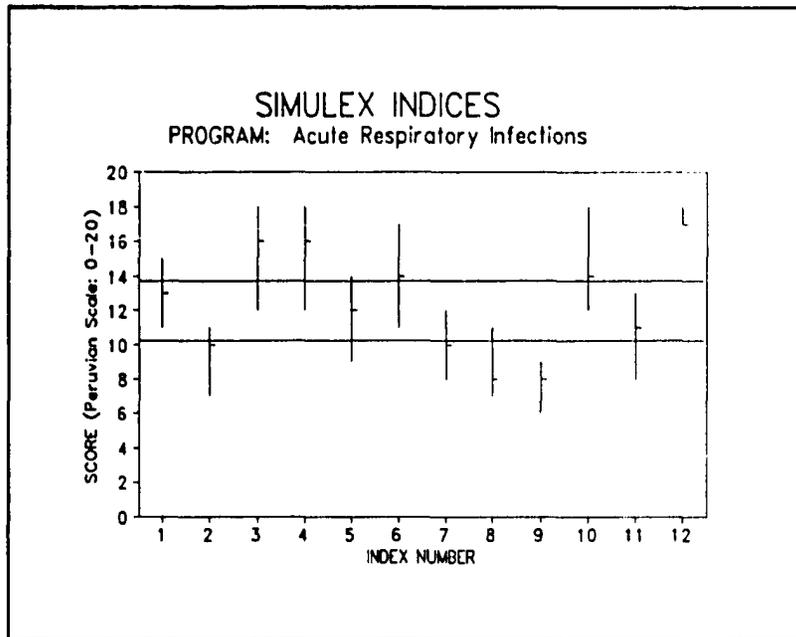


Figure 44. SIMULEX INDICES: ACUTE RESPIRATORY INFECTIONS

- 1 - HISTORY-TAKING
- 2 - PHYSICAL EXAMINATION
- 3 - DIAGNOSIS
- 4 - TREATMENT STRATEGY
- 5 - EDUCATION - TREATMENT PLAN A
- 6 - EDUCATION - TREATMENT PLAN B
- 7 - EDUCATION - GENERAL MESSAGES
- 8 - EDUCATION STRATEGY
- 9 - BEHAVIOR
- 10 - ATTITUDE
- 11 - TASK SATISFACTION
- 12 - HUMANENESS SATISFACTION

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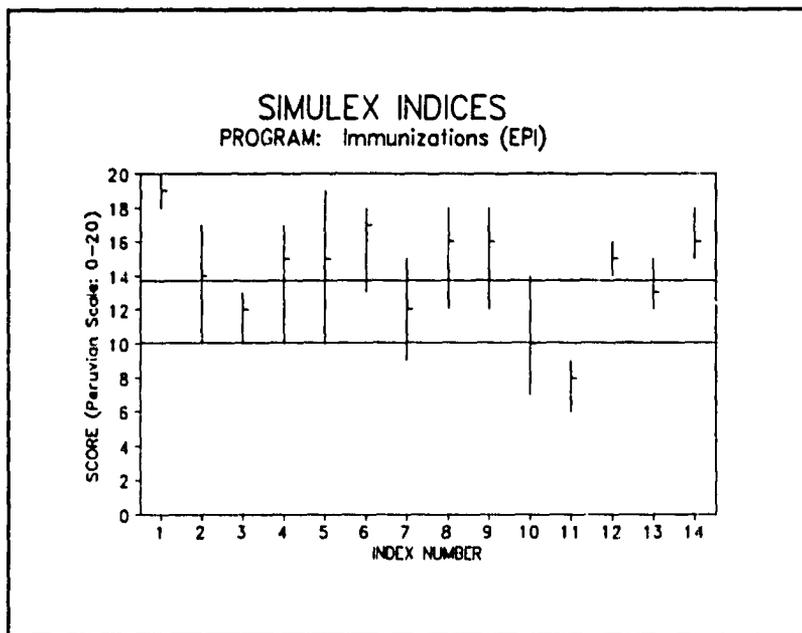


Figure 45. SIMULEX INDICES: IMMUNIZATIONS (EPI)

- 1 - HISTORY-TAKING
- 2 - PHYSICAL EXAMINATION
- 3 - DIAGNOSIS
- 4 - TECHNIQUE - APPLICATION
- 5 - TECHNIQUE - COLD CHAIN
- 6 - TECHNIQUE - STERILITY/CONDITION
- 7 - EDUCATION - TREATMENT SPECIFIC
- 8 - EDUCATION - GENERAL MESSAGES
- 9 - DOCUMENTATION
- 10 - EDUCATION STRATEGY
- 11 - BEHAVIOR
- 12 - ATTITUDE
- 13 - TASK SATISFACTION
- 14 - HUMANENESS SATISFACTION

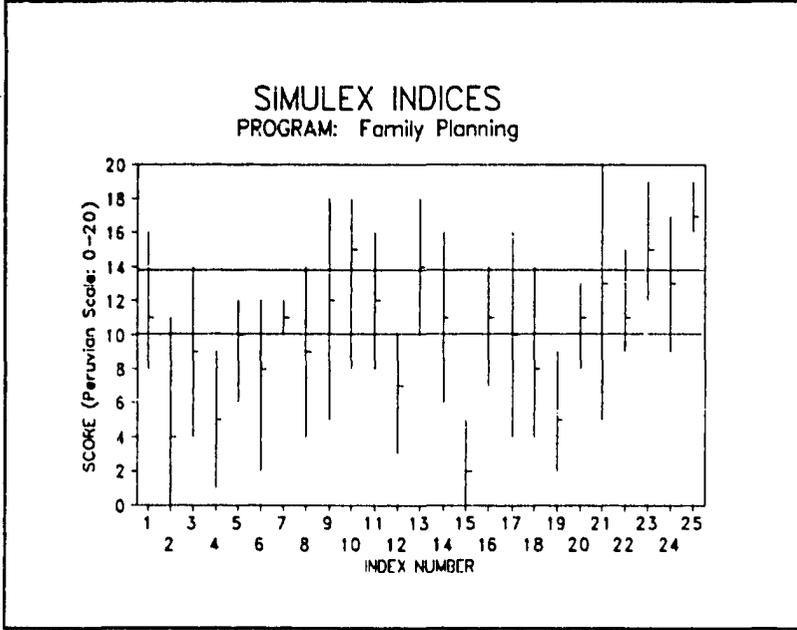


Figure 46. SIMULEX INDICES: FAMILY PLANNING

- 1 - HISTORY - Personal
- 2 - HISTORY - Family
- 3 - HISTORY - Gynecological
- 4 - HISTORY - Medical Problems
- 5 - HISTORY - Obstetric
- 6 - HISTORY - Contraceptive
- 7 - HISTORY - Current Condition
- 8 - PHYSICAL EXAMINATION
- 9 - DIAGNOSIS
- 10 - TREATMENT STRATEGY
- 11 - EDUCATION - Pills
- 12 - EDUCATION - IUD
- 13 - EDUCATION - Condoms
- 14 - EDUCATION - Injectables
- 15 - EDUCATION - Diaphragm
- 16 - EDUCATION - Contraceptive Jelly
- 17 - EDUCATION - Rhythm
- 18 - EDUCATION - Billings
- 19 - EDUCATION - Basal Temperature
- 20 - EDUCATIONAL STRATEGY
- 21 - DOCUMENTATION
- 22 - BEHAVIOR
- 23 - ATTITUDE
- 24 - TASK SATISFACTION
- 25 - HUMANENESS SATISFACTION

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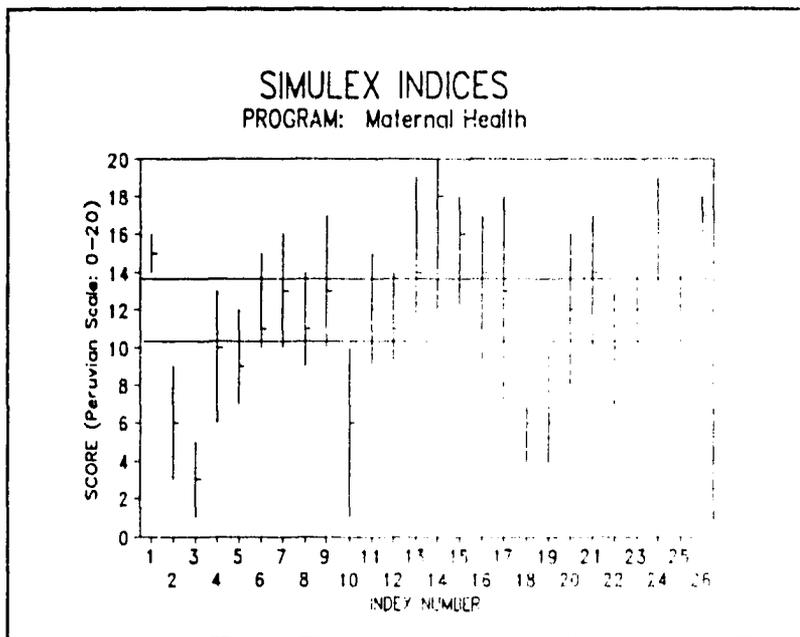


Figure 47. SIMULEX INDICES. MATERNAL HEALTH

- 1 - HISTORY - 1ST VISIT: Personal
- 2 - HISTORY - 1ST VISIT: Family
- 3 - HISTORY - 1ST VISIT: Med Problems
- 4 - HISTORY - 1ST VISIT: Gynecological
- 5 - HISTORY - 1ST VISIT: Obstetric
- 6 - HISTORY - 1ST VISIT: Current Cond.
- 7 - HISTORY - SUBSEQUENT VISITS
- 8 - HISTORY - POST-PARTUM: Birth
- 9 - HISTORY - POST-PARTUM: Curr. Cond.
- 10 - HISTORY - POST-PARTUM: Birth Cont.
- 11 - PHYSICAL EXAM - 1ST VISIT
- 12 - PHYSICAL EXAM - POST-PARTUM
- 13 - DIAGNOSIS - 1ST VISIT
- 14 - DIAGNOSIS - POST-PARTUM
- 15 - TREATMENT STRATEGY - 1ST VISIT
- 16 - TREATMENT STRATEGY - POST-PARTUM
- 17 - EDUCATION - SPECIFIC TO 1ST VISIT
- 18 - EDUCATION - GENERAL MESSAGES
- 19 - EDUCATION - PRE-NATAL CARE
- 20 - EDUCATION - POST-PARTUM CARE
- 21 - DOCUMENTATION
- 22 - EDUCATION STRATEGY
- 23 - BEHAVIOR
- 24 - ATTITUDE
- 25 - TASK SATISFACTION

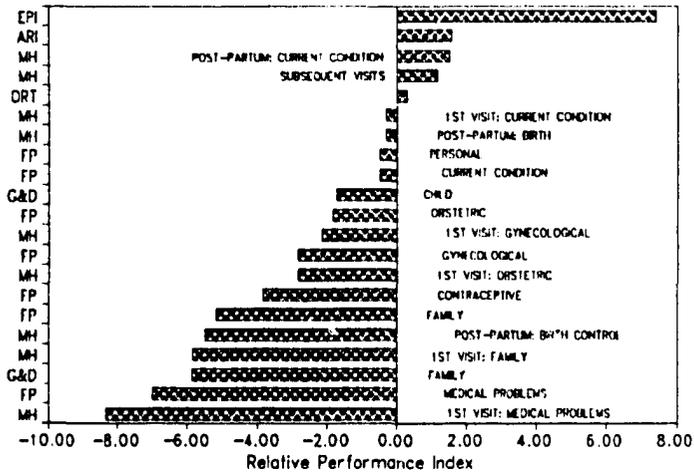


Figure 48. Relative SIMULEX Performance on HISTORY

101

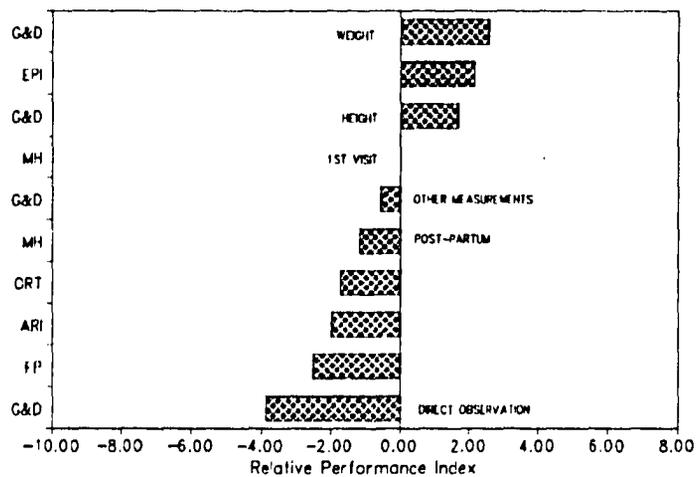


Figure 49. Relative SIMULEX Performance on PHYSICAL EXAMINATION

102

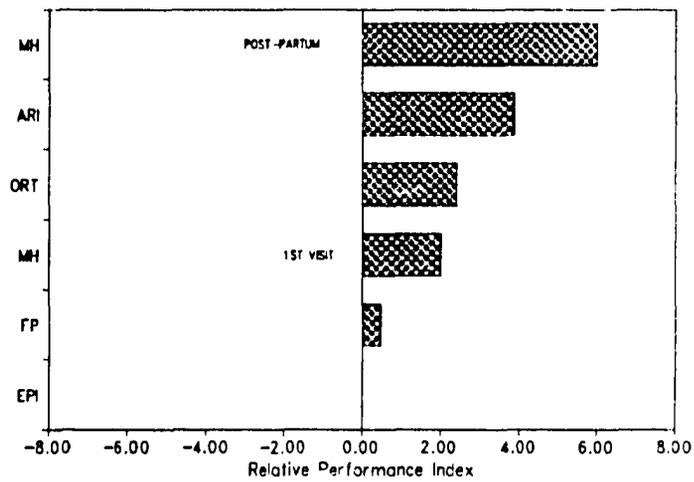


Figure 50. Relative SIMULEX Performance on DIAGNOSIS

103

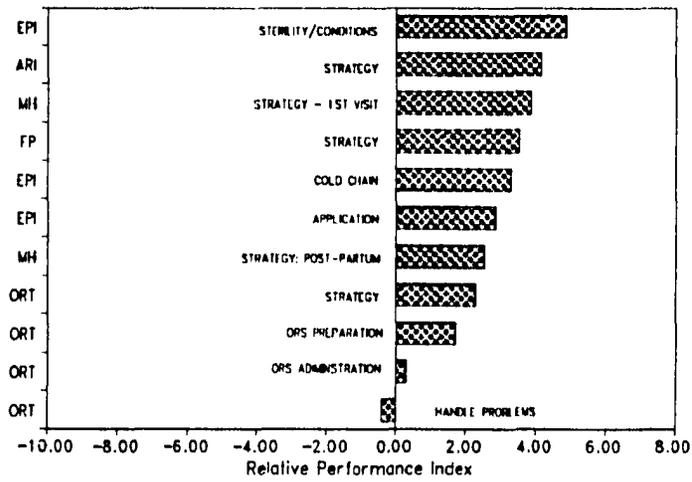


Figure 51. Relative SIMULEX Performance on TREATMENT

107.

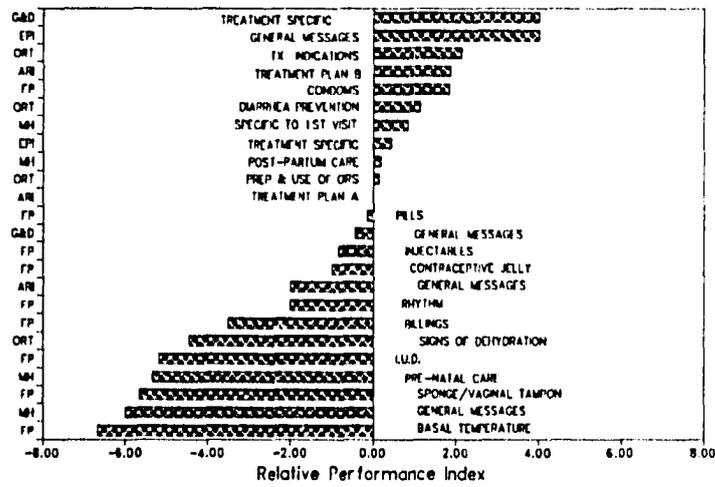


Figure 52. Relative SIMULEX Performance on EDUCATIONAL MESSAGES

105-

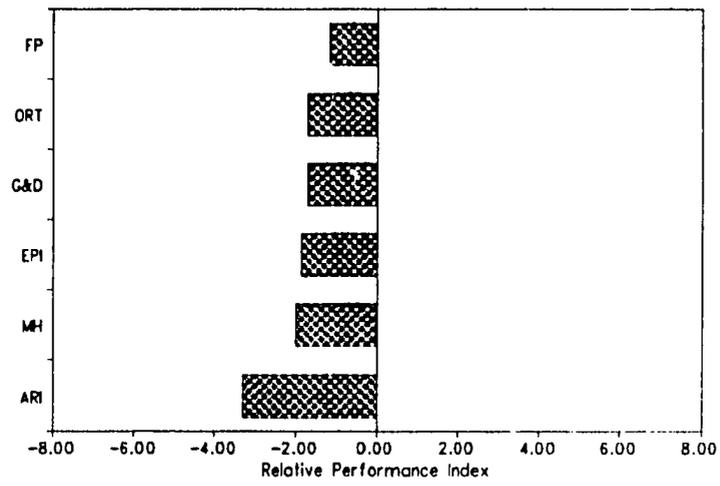


Figure 53. Relative SIMULEX Performance on EDUCATIONAL STRATEGY

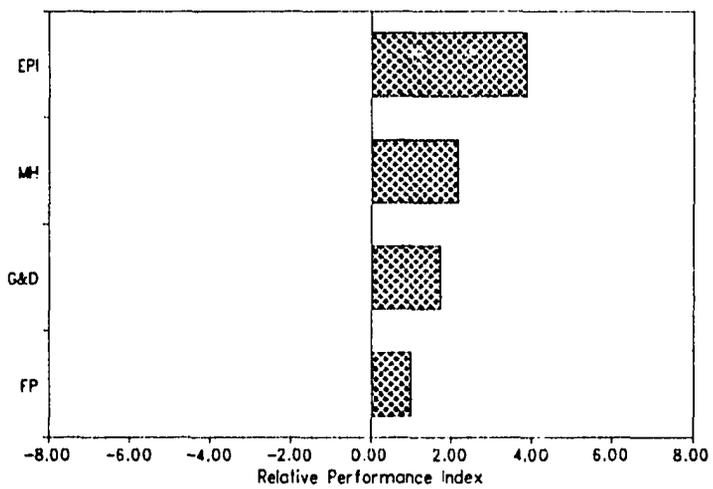


Figure 54. Relative SIMULEX Performance on DOCUMENTATION

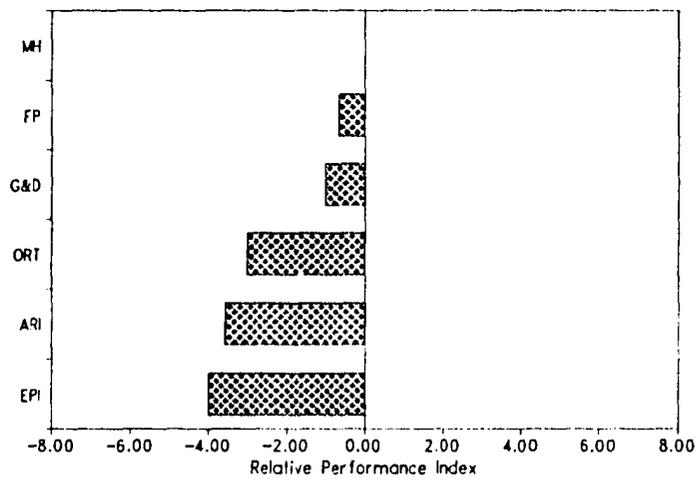


Figure 55. Relative SIMULEX Performance on BEHAVIOR

108-

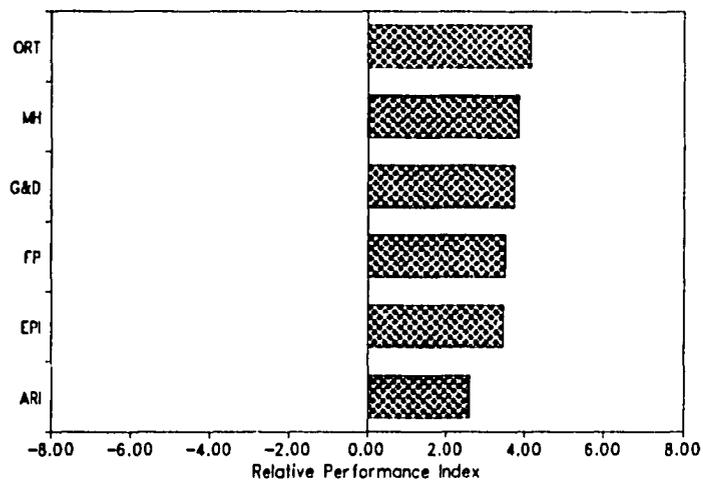


Figure 56. Relative SIMULEX Performance on ATTITUDE

109

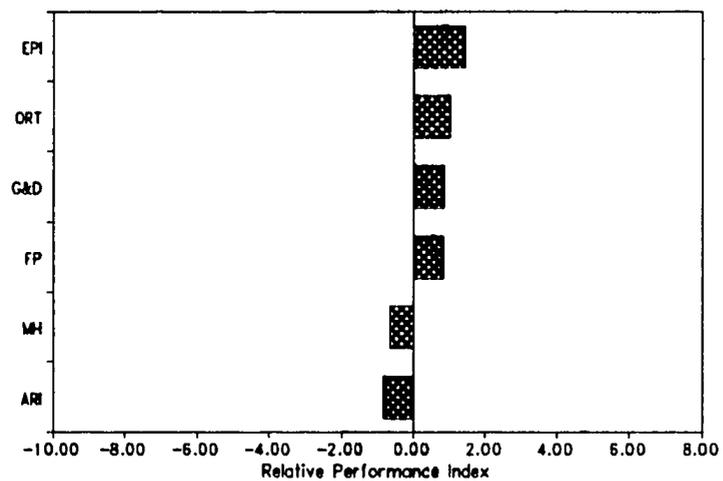


Figure 57. Relative SIMULEX Performance on TASK SATISFACTION

110.

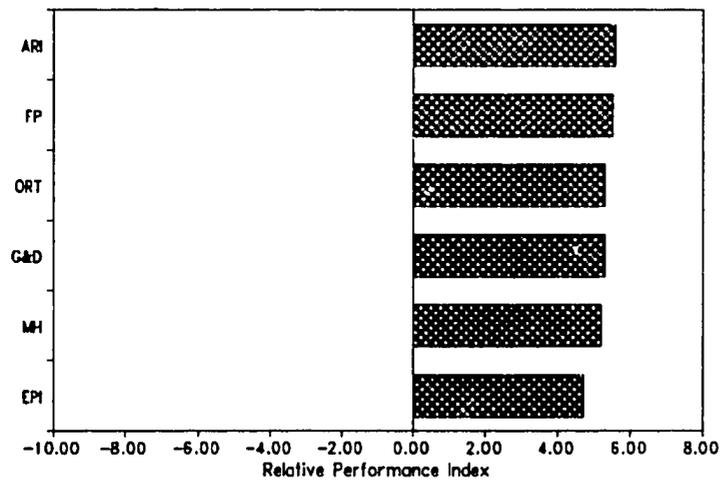


Figure 58. Relative SIMULEX Performance on HUMANENESS SATISFACTION

III

ANNEX

Figures A1-A28

Frequency Distributions for JDQ Indices

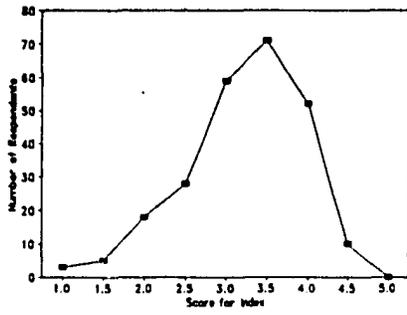


Figure A1. Unit Standardization

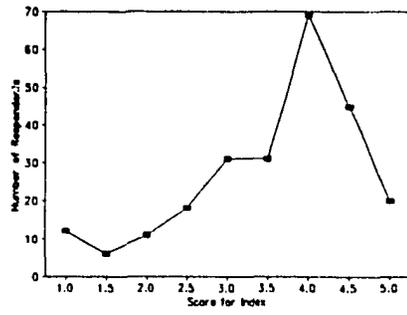


Figure A2. Individual Job Standardization

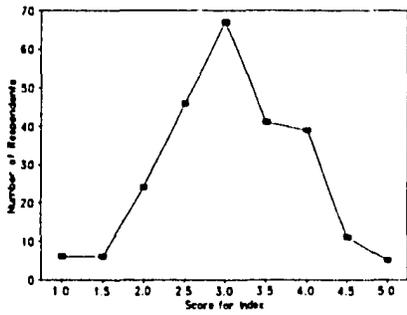


Figure A3. Work Interchangeability

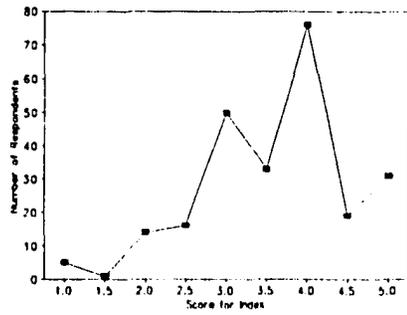


Figure A4. Job Priority

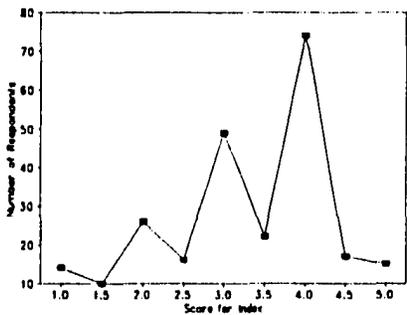


Figure A5. Program Director Authority

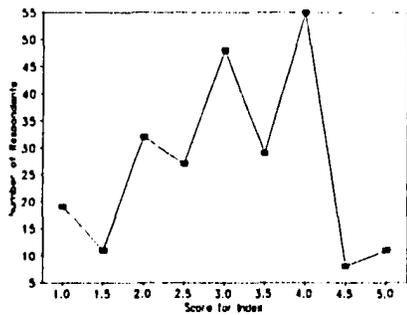


Figure A6. Supervisor Authority

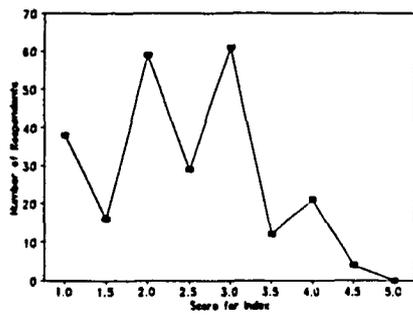


Figure A7. Unit Employee Authority

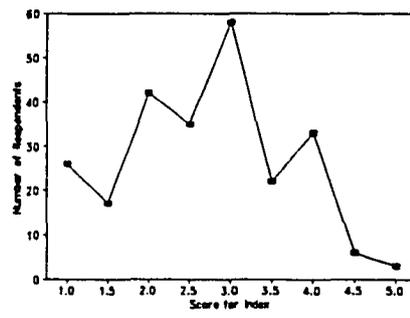


Figure A8. Unit Collegial Authority

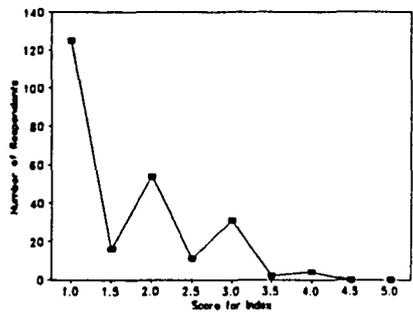


Figure A9. Outsider (PMOH) Authority

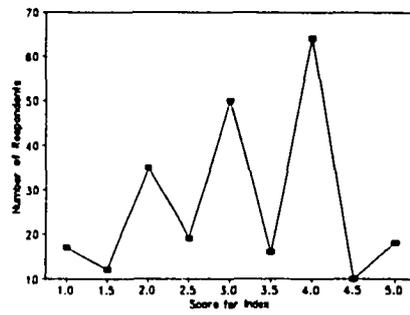


Figure A10. Health Center Head Authority

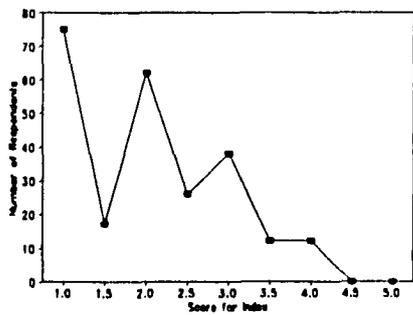


Figure A11. Community Authority

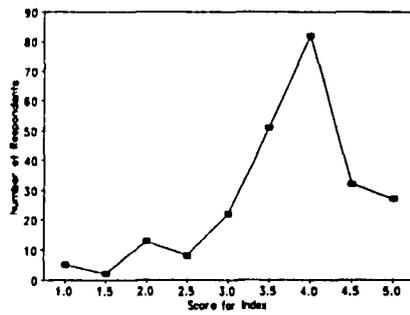


Figure A12. Job Authority

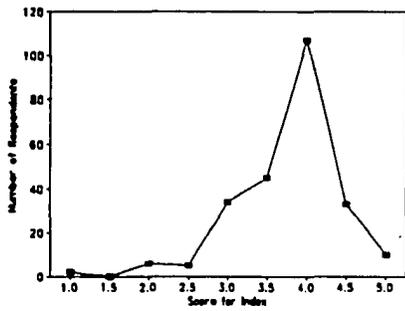


Figure A13. Job Pressure

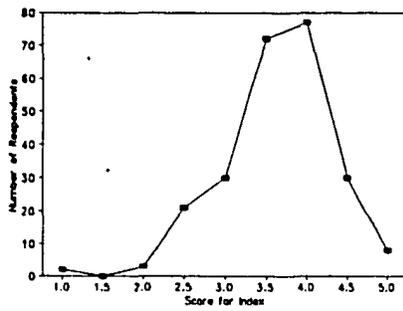


Figure A14. Job Accountability

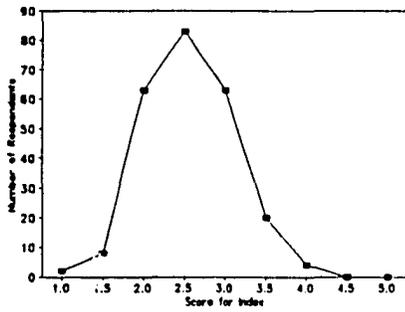


Figure A15. Job Feedback

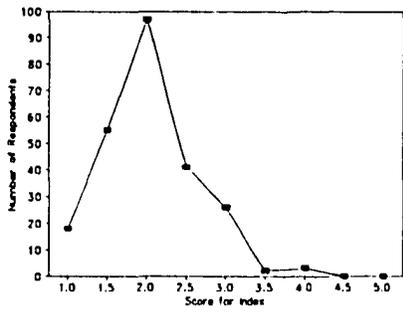


Figure A16. Job Difficulty

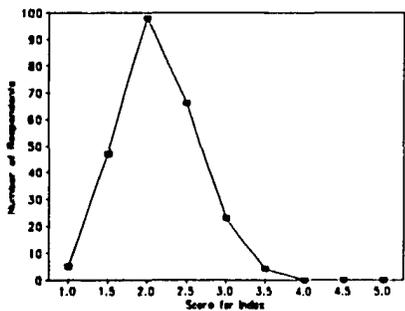


Figure A17. Job and Unit Incentives

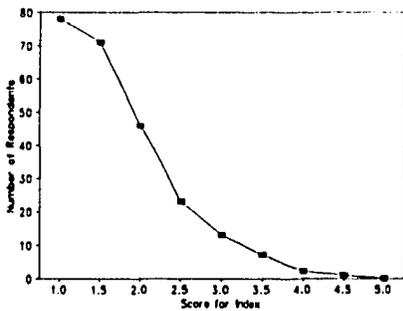


Figure A18. Communications in Unit

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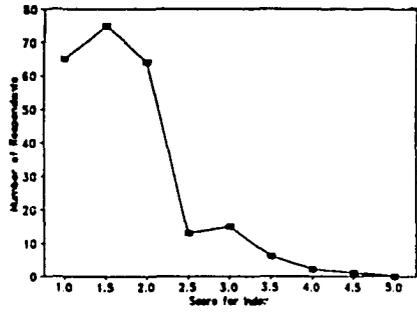


Figure A19. Unit Conflict

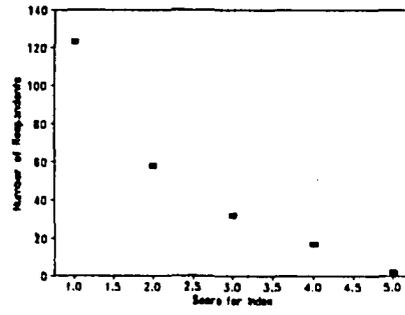


Figure A20. Conflict Resolution: Ignore It

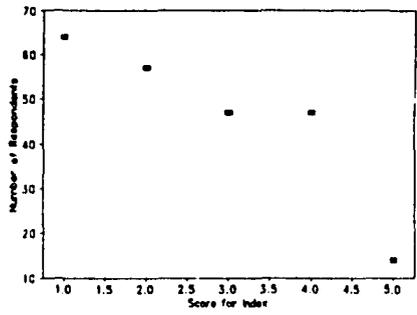


Figure A21. Conflict Resolution: Smooth Over

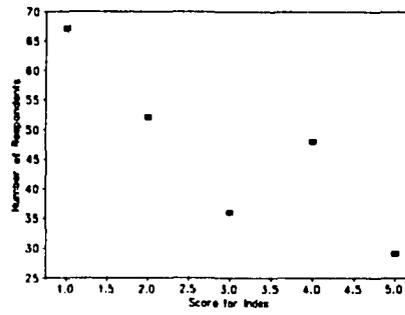


Figure A22. Conflict Resolution: Confront Openly

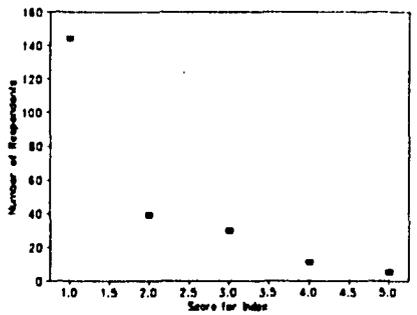


Figure A23. Conflict Resolution: Seek Outside Help

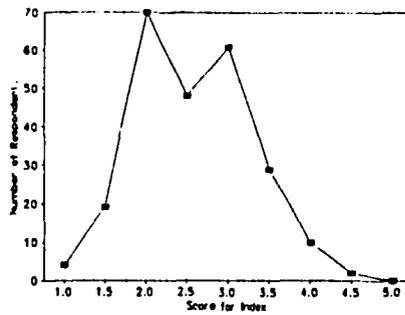


Figure A24. Satisfaction with Unit Support

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The Cono Sur PRICOR II Project
Subagreement 87/11/3300 to
U.S.A.I.D. Coop. Agrmnt. DPE-5920-A-00-5056

PERU COUNTRY STUDY

Final Report - 1990 National Assessment

MANAGEMENT ASSESSMENT OF PRIMARY HEALTH CARE SERVICES IN THE PERU MINISTRY OF HEALTH

Part B

Basic Tabulations

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Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

	-----Puno-----					-----Caja-----					-----Cusco-----							
	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5
Demographic/Socioeconomic Data																		
1	Mother's age					2% 32% 24% 20% 23%	11% 38% 23% 18% 9%					7% 23% 38% 18% 13%						
2	Education level					14% 26% 24% 19% 17%	21% 28% 19% 14% 18%					14% 22% 21% 25% 18%						
3	Number children					22% 23% 21% 12% 23%	27% 25% 18% 14% 16%					27% 18% 23% 13% 19%						
4	Younger than 5yr					51% 38% 8% 2% 3%	37% 44% 16% 2% 2%					37% 49% 14% 0% 0%						
5	# children desired					29% 42% 24% 4% 2%	8% 55% 22% 3% 11%					5% 58% 30% 7% 1%						
6	Want more children					8% 14% 79%	3% 25% 72%					0% 23% 78%						
8	Sex child (femenine)					47%	41%					46%						
Environmental Characteristics																		
9	Has water/drainage					13% 47% 0% 40% 0%	22% 59% 0% 39% 0%					38% 40% 0% 22% 0%						
10	Has stove/hot-plate					37% 63%	37% 63%					33% 68%						
11	Has latrine					77% 23%	67% 33%					68% 32%						
12	Has refrigerator					95% 5%	93% 8%					92% 8%						
Health Services Access																		
13	Use HC or HP more					88% 12%	98% 3%					91% 9%						
14	Avg. waiting time					70% 23% 7%	78% 18% 3%					72% 21% 7%						
15	Access/professional					12% 47% 41%	11% 44% 45%					10% 53% 38%						
16	Time/nearest hosp					18% 54% 28%	9% 25% 66%					24% 32% 44%						
17	Time/nearest HC					59% 31% 9%	58% 36% 7%					64% 19% 17%						
18	Time/nearest post					43% 24% 34%	32% 23% 45%					72% 15% 13%						
19	Price HC consult					20% 46% 34%	15% 39% 46%					8% 3% 89%						

Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno	Caja	Madre	LimaE	Moque	Lamb	Cusco
	120	120	75	105	120	135	120

Coverage

Lastest Diarrhea Treatment at HC/PC

30	Received ORT	56	70	61	75	44	69	67
31	Received IV fluids	2	0	0	3	0	2	1
32	Received antibiotics	25	30	13	41	26	33	31
33	Received antidiarrheal agents	38	22	42	43	19	33	29
34	Received other treatment	18	14	3	8	10	13	7

Facilities Used During Latest Diarrhea

35	Taken to HC or HP	66	57	37	72	53	71	69
36	Taken to hospital	8	3	15	7	5	5	4
37	Taken to IPSS	0	3	8	3	1	3	0
38	Taken to doctor	4	10	6	5	2	16	2
39	Taken to pharmacist	4	6	6	4	0	7	7
40	Taken to local healer	7	4	4	0	1	6	1
41	Taken to community OR unit	2	0	0	0	0	3	1
42	Treated at home	47	34	44	22	51	16	35
43	Taken to NGOs	1	4	2	0	0	0	1
44	No diarrhea							
45	Others	2	4	4	0	0	2	0

Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cusco 120
<i>Facilities Used During Latest ARI</i>							
46 Taken to HC or HP	51	43	30	70	48	53	50
47 Taken to hospital	5	8	21	6	10	3	3
48 Taken to IPSS	0	4	10	1	5	6	1
49 Taken to doctor	5	10	10	12	3	10	4
50 Taken to pharmacist	2	11	20	4	1	14	3
51 Taken to local healer	5	3	0	0	0	3	0
52 Taken to community OR unit	1	1	0	1	0	0	2
53 Treated at home	47	34	33	21	45	22	51
54 Taken to NGO	0	3	0	0	1	1	2
55 No ARI							
56 Others	4	10	0	0	2	4	1
<i>Has Child's Carnet</i>							
57 Has G&D carnet	92	83	66	87	95	85	88
<i>Growth/dev. Carnet Is Correctly Filled Out</i>							
58 Personal data correct	89	94	90	93	97	96	90
59 Vaccinations correct	94	88	98	97	98	95	93
60 Growth curve correct	58	73	61	56	60	43	77
61 Return appointment correct	74	76	71	79	75	51	73

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Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Curco 120
<i>Has Child's Vaccination Record</i>							
64 Has vaccination record	89	83	65	85	95	87	88
<i>Child's Vaccinations Correctly Recorded</i>							
65 Personal data correct	90	100	96	99	98	96	93
66 Vaccination dates filled in	94	97	98	99	98	93	98
67 Correct return date	80	94	84	92	92	83	77
<i>Child's Vaccinations Up-to-Date for Age</i>							
68 Correct # DPT for age	60	84	73	86	88	80	82
69 Correct # polio for age	61	84	80	88	91	81	82
70 Correct # measles for age	45	82	64	67	65	49	52
71 Correct # TB for age	74	75	88	91	76	87	83
<i>Time Since Last PAP Examination</i>							
72 Last PAP <1 yr ago	8	5	4	44	11	10	8
<i>Person Who Provided Care During Latest Delivery</i>							
73 Personnel in HD/HP	18	16	9	17	19	5	23
74 Personnel in hospital	13	13	35	62	60	23	36
75 Physician	3	7	0	6	2	10	2
76 Nurse mid-wife	8	2	3	27	18	13	25
77 Pharmacist	2	0	0	0	1	1	0
78 Local healer	7	2	4	1	0	2	3
79 Lay mid-wife	40	57	44	9	25	54	25
80 IPSS personnel	1	2	1	7	10	7	2

Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cusco 120
<i>Had Tetanus Vaccination</i>							
81 In last pregnancy	9	48	55	51	66	54	57
82 Received at any time	8	8	7	4	3	4	1
<i>Currently Using Contraceptive Measure</i>							
83 Presently using contraceptive	4	3	1	1	2	5	33
<i>Number of Talks by HC/PC Attended</i>							
84 Talks about diarrhea	30	28	9	16	40	23	41
85 Talks about ARI	21	15	7	7	29	8	18
86 Talks about FP	32	27	11	21	40	28	38
87 Talks about pregnancy	14	17	1	16	32	10	15
88 Talks about TB	14	8	1	10	18	7	11
89 Talks about G&D	26	18	8	14	41	14	27
90 Talks about vaccination	30	34	11	28	43	33	50
91 Talks about breastfeeding	18	19	4	29	31	22	37
92 Talks about other subjects	2	3	0	6	12	6	8
<i>Practices During Latest Diarrhea</i>							
93 Gave medicine	40	43	67	59	22	48	41
94 Changed diet	18	20	8	43	16	36	21
95 Herbal infusions	68	63	48	59	43	35	74
96 Stopped breastfeeding	18	12	10	26	14	21	25
97 Breastfed more	34	46	29	63	37	53	53
98 Gave more liquid	68	71	65	88	61	84	83
99 Gave normal food	53	58	40	51	45	54	79
100 Gave rice water	18	33	46	66	37	62	56
101 Homemade solution	20	35	23	40	31	41	23
102 ORS	28	38	33	45	18	45	41

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Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cuzco 120
<i>Practices During Latest ARI</i>							
103 Put in salt nose drops	18	10	5	20	22	16	24
104 Gave more liquids	61	49	40	76	54	64	60
105 Gave normal food	61	56	53	78	53	75	81
106 Gave cough syrup	34	59	60	62	27	66	38
107 Gave antibiotics	15	39	43	51	16	38	28
108 Gave antipyretic	65	77	78	81	44	71	82
109 Breastfed more	39	43	29	67	37	61	47
110 Stopped breastfeeding	4	9	6	14	11	6	8
<i>Diarrhea morbidity - Day Before</i>							
111 Diarrhea yesterday	21	18	19	19	13	16	17
112 With blood and mucous	32	38	7	15	18	26	15
113 Lasted 15(or +) days	14	14	14	15	23	11	5
114 Number per day-4+/day	46	62	36	57	26	58	55

Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cuzco 120
<i>ARI Morbidity - Day Before</i>							
119 ARI yesterday	27	32	16	25	21	29	29
120 ARI with cough	34	53	42	55	14	33	41
121 ARI with ear pain	10	15	0	6	8	8	7
122 ARI with sore throat	18	32	0	39	12	10	12
123 ARI with respiratory difficulty	8	28	17	47	12	34	5
124 ARI with nasal secretion	49	66	83	58	41	76	63
125 ARI with change of voice	22	32	25	26	20	28	24
<i>Malnutrition Morbidity</i>							
126 Child malnourished	14	10	9	24	9	10	21
127 Verification of status							
<i>Other Infectious Disease Morbidity</i>							
128 Had measles	2	0	3	4	0	0	2
129 Had TB	0	0	0	0	0	0	0
130 Had tetanus	0	0	0	0	0	1	1
131 Had whooping cough	3	0	0	4	0	1	5
132 Had diphtheria	0	0	0	0	0	0	0
133 Had polio	0	0	0	0	0	0	0

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Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cusco 120
Basic Knowledge							
<i>Basic Ideas about Diarrhea</i>							
134 What is diarrhea	11	9	9	11	11	10	9
135 What is dehydration	4	5	4	8	8	6	4
136 Can dehydrate	5	5	3	10	9	7	5
137 Can become malnourished	7	6	4	9	9	5	7
138 More susceptible other illnesses	5	3	4	4	7	3	2
Average	6	6	5	8	9	6	5
<i>Prevention Measures for Diarrhea</i>							
139 Cleanliness	8	7	6	12	9	10	9
140 Water	12	10	9	13	10	12	10
141 Nutrition	9	5	4	11	8	8	7
Average	10	7	6	12	9	10	9
<i>Signs to Take Child with Diarrhea to HC/HP</i>							
142 Evacuation	7	8	11	11	10	8	8
143 Thirst	5	4	5	6	3	5	4
144 Dry Mouth	7	5	5	7	4	5	5
145 Eyes	7	5	4	9	4	6	5
146 Appearance	8	4	5	9	7	6	5
147 Urine	4	2	2	6	2	3	2
148 Fever	11	8	9	12	4	10	8
149 Feces	6	4	4	7	3	6	4
150 Cry	3	4	1	8	1	4	2
151 Suspect	3	1	2	7	3	3	1
Average	6	5	5	8	4	6	4

Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cuzco 120
<i>Signs to Take Child with ARI to HC/HP</i>							
167 Respirations	4	5	6	9	7	5	8
168 Ear	3	4	2	8	2	3	3
169 Throat	5	5	2	7	3	5	3
170 Temperature	11	7	10	12	6	10	7
171 Nourishment	8	5	3	8	7	5	3
172 Appearance	9	5	4	9	7	7	6
173 Skin & lips	2	2	0	6	1	2	2
174 Consciousness	3	1	0	6	2	3	1
Average	6	4	3	8	4	5	4
<i>Ideas about Treating Common Cold</i>							
175 Fever	11	12	14	14	12	11	9
176 Cough	5	3	2	6	6	5	4
177 Food	11	9	7	13	9	8	10
178 Liquids	12	8	7	14	11	9	8
179 Nasal congestion	4	2	0	8	4	4	5
Average	9	7	6	11	8	7	7
<i>Basic Ideas about Growth and Development</i>							
180 Why go to HC	12	12	12	13	14	9	10
181 Ascending curve	5	4	2	7	11	3	6
182 Descending curve	3	4	1	7	10	3	5
183 Horizontal curve	2	3	1	5	7	2	5
Average	6	6	4	8	11	4	7

Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cuzco 120
<i>Ideas about Treating Diarrhea</i>							
152 Medicine	4	3	2	9	4	6	6
153 Liquids	13	11	12	16	15	12	10
154 Milk	11	10	12	14	11	10	10
155 Continue feeding	9	8	7	12	10	9	10
156 Small amounts	6	4	3	10	6	6	6
157 ORS	4	3	2	8	2	6	4
158 Prevents dehydration	4	6	3	12	9	8	4
Average	7	6	6	12	8	8	7
<i>Basic Ideas about ARI</i>							
159 What are ARIs	5	4	5	8	7	5	7
160 What causes ARI	3	2	2	5	4	3	3
161 Most dangerous for	6	9	7	10	8	8	7
162 Why dangerous for child	6	6	5	10	7	5	6
Average	5	5	5	8	7	5	6
<i>Preventive Measures for ARI</i>							
163 Prevent ARI: nourishment	6	4	2	11	5	7	8
164 Prevent ARI: environmental	7	6	5	9	9	7	5
165 Prevent ARI: vaccination	7	3	2	9	3	5	7
166 Prevent ARI: contact	5	3	3	6	6	4	4
Average	6	4	3	9	6	6	6

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Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cuzco 120
<i>Purpose of Vaccinations</i>							
184 Purpose of vaccines	14	14	12	15	15	13	12
<i>Doses of Vaccines to Protect</i>							
185 Dosage #/Polio	5	8	5	8	7	6	8
186 Dosage #/DPT	6	7	4	8	7	7	8
187 Dosage #/Measles	5	7	5	9	7	7	6
188 Dosage #/TB	5	5	2	7	5	6	5
189 Dosage #/Tetanus in pregnancy	1	5	4	8	8	7	6
Average	4	6	4	8	7	7	7
<i>Optimal Age of Vaccination</i>							
190 Age apply DPT	6	5	3	8	5	6	7
191 Age give Polio	5	5	3	7	6	5	6
192 Age apply Measles	4	8	5	8	7	7	4
193 Age apply TB	5	4	3	7	5	6	4
Average	5	6	4	8	6	6	5

Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cuzco 120
<i>Basic Ideas about Maternal Health</i>							
194 When pre-natal exam important	9	10	8	14	12	9	10
195 Why monitoring important	9	8	8	13	12	10	10
196 Frequency of exams thru 6 mos.	6	6	4	12	11	7	8
197 Frequency of exams in 7th mo.	3	3	1	6	3	4	3
198 Frequency of exams from 8th mo.	3	2	1	5	3	4	3
Average	6	6	4	10	8	7	7
<i>Signs during Pregnancy to Go to HC/HP</i>							
199 Hemorrhage	6	7	6	8	5	7	3
200 Fever	5	6	6	7	5	4	3
201 Leg edema	4	6	4	8	8	7	6
202 Ruptured membranes	2	5	2	7	6	4	3
203 Premature contractions	2	3	1	7	3	3	2
204 Excessive vomiting	5	6	2	6	2	3	2
205 Blurred vision	1	6	3	8	4	5	3
206 Intense headache	3	2	0	7	3	4	2
Average	4	5	3	7	5	5	3
<i>Complications after Delivery to Go to HC/HP</i>							
207 Vaginal secretion	5	6	3	4	1	2	1
208 Painful breasts	4	4	4	5	2	3	4
209 Breast engorgement	3	6	2	6	6	5	4
210 Hot breasts	3	7	2	9	8	5	3
211 Breastfeeding problems	2	4	0	8	5	4	2
212 Fever	7	4	1	7	3	3	1
213 Hemorrhage, post-partum	8	7	7	7	2	3	2
Average	5	5	3	7	4	4	2

Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cusco 120
<i>What Is PAP Test</i>							
214 What is a PAP	2	6	6	8	7	7	5
<i>Knowledge of Natural Contraceptive Methods</i>							
215 M Wodo nat PF: temperatu	0	4	2	7	4	6	4
216 M Wodo nat PF: Billings	0	0	0	12	6	5	4
217 M Wodo nat PF: ritmo	6	0	0	0	0	1	0
218 M Wodo nat PF: coitus in	1	3	4	0	0	1	0
219 M Wodo nat PF: lac mat	2	0	0	6	7	5	3
220 M Wodo nat PF: otros nat	1	0	0	1	0	0	1
221 M Wodo artif PF: anticon	4	1	1	2	3	3	2
222 M Wodo artif PF: inyecta	2	10	7	1	1	0	0
223 M Wodo artif PF: DIU	6	6	6	10	8	8	7
224 M Wodo artif PF: cond W	4	9	4	8	5	3	2
225 M Wodo artif PF: otros	1	6	3	12	8	5	8
Average	2	4	2	5	4	3	3
<i>Potential Complications with Contraception</i>							
226 Pill/CNS	2	4	1	6	3	3	2
227 Pill/GYN complications	0	6	5	2	2	2	1
228 Pill/sin complications	0	1	1	9	8	6	3
229 Pill/vascular complications	0	1	0	3	1	2	1
230 Pill/hepatic complications	0	0	0	1	1	1	0
231 Pill/weight complications	2	0	0	1	0	1	0
Average	1	2	1	4	3	3	1

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Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	% Positive/Yes						
	Puno	Caja	Madre	LimaE	Moque	Lamb	Cuzco
	120	120	75	105	120	135	120
<i>Complications of IUD Use for which Go to HC/HP</i>							
232 IUD/severe hemmorrhage	3	4	3	3	0	1	1
233 IUD/intense pain	3	3	1	7	2	4	1
234 IUD/discharge	1	2	0	6	6	2	4
235 IUD/menstruation	2	1	0	5	4	2	3
Average	2	3	1	5	3	2	2

Degree of Satisfaction

<i>Satisfaction with Access to HC/HP</i>							
236 HC close enough to home	16	12	15	15	18	16	14
237 Seen by professional	14	16	15	16	16	14	13
238 Satisfied with HC schedule	13	16	18	13	17	12	13
239 Reasonable waiting time	11	14	16	12	15	12	11
240 Fair consult cost	13	16	15	17	17	14	10
241 Fair analysis costs	5	9	11	13	9	10	6
242 Fair medicine costs	7	11	13	15	12	12	7
Average	11	13	15	14	15	13	11

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Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cuzco 120
<i>Satisfaction with Health Services Rendered</i>							
243 Received good care	13	15	17	14	17	14	15
244 Answered questions	9	10	12	12	15	12	10
245 Explained problem	10	13	15	14	16	13	12
246 Explained actions	7	8	9	10	13	11	8
247 Explained why acted	7	7	6	10	13	9	8
248 Said why should comply	8	7	7	10	13	10	9
249 Did not meet needs	9	8	11	6	11	9	8
250 Had to wait too long	3	7	6	10	9	10	8
251 Slow taking history	8	6	3	8	9	8	6
252 Found original Hx	12	16	14	16	13	15	9
253 Respected arrival turn	11	17	17	14	15	14	12
Average	9	10	11	11	13	11	10

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Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cuzco 120
<i>Satisfaction with Humaneness</i>							
254 Not interrupted/admissions	14	18	19	15	13	16	18
255 Not interrupted/triage	14	18	19	15	14	15	18
256 Not interrupted/Dr. office	14	17	19	16	14	15	17
257 Not looked down on/admissions	15	19	19	16	15	17	18
258 Not looked down on/triage	15	18	19	16	15	18	18
259 Not looked down on/Dr. office	16	18	19	18	15	18	18
260 Did not act bothered/admissions	12	18	18	15	14	15	18
261 Did not act bothered/triage	13	18	18	15	14	15	18
262 Did not act bothered/Dr. office	14	18	19	17	14	17	18
263 Not like was favor/admissions	13	16	16	13	14	15	17
264 Not like was favor/triage	14	16	17	14	14	15	17
265 Like Not las favor/Dr. office	14	16	18	17	14	17	17
266 Did not appear hurried/admissions	11	16	15	12	14	13	16
267 Did not appear hurried/triage	12	16	15	12	14	14	16
268 Did not appear hurried/Dr. office	10	16	16	15	14	15	16
269 Made feel important/admission	5	5	5	4	10	7	9
270 Made feel important/triage	5	5	5	5	10	8	9
271 Made feel important/Dr. office	6	5	8	9	11	9	9
272 Well treated/admissions	10	15	14	12	17	14	13
273 Well treated/triage	10	15	14	13	17	14	13
274 Well treated/Dr. office	11	15	15	16	17	15	14
Average	12	15	16	14	14	14	16

Management Assessment of PHC Services in the Peru MOH

CMI: Community Member Interview

Number of Mothers	Puno 120	Caja 120	Madre 75	LimaE 105	Moque 120	Lamb 135	Cuzco 120
Community Participation							
<i>Participation of Organizations</i>							
275 Mothers/ clubs in community	15	13	9	13	11	9	12
276 Vaso de Leche in community	7	1	2	11	5	6	7
277 Food kitchens in community	5	4	2	11	7	4	1
278 Health promoters in communi	4	7	6	3	2	3	2
279 Charitable institute	3	1	0	2	1	2	1
280 Religious health group	4	5	4	4	1	5	1
281 Health committees	3	1	1	4	1	0	1
282 Municipality (health)	1	6	1	4	1	2	1
283 Community OR center							
Average	5	4	3	6	4	4	3
<i>Community Health Activities</i>							
284 Latrine constructions	3	6	4	5	2	2	3
285 Health training	2	2	1	3	2	2	2
286 Water storage	5	6	4	6	4	2	5
287 Formation of OR center	1	1	0	3	2	3	1
288 Garbage elimination	1	3	3	5	3	4	2
289 Vaccination campaign	8	11	12	13	8	14	10
290 Family planning campaign	2	3	1	3	1	3	3
291 Pregnancy control	2	1	0	3	1	1	2
292 Uterine cancer campaigns	1	0	2	2	1	1	1
293 Nutrition campaigns	1	1	0	3	4	1	1
Average	3	3	3	5	3	3	3

 Management Assessment of PHC Services in the Peru MOH

JDQ: Job Design Questionnaire

Total Workers	Puno 43	Caja 35	Madre 11	LimaE 49	Moque 41	Lamb 36	Cusco 34	Average
Contextual Factors								
11 Good salary vs creativity	3.5	3.5	3.6	3.5	2.8	3.1	3.8	3.4
12 Make decisions vs people	2.8	3.3	3.6	3.4	2.9	3.0	3.2	3.2
13 Better job vs seniority	2.0	2.0	1.9	2.0	2.0	1.9	1.6	1.9
14 Financial problems vs no voice	3.2	3.2	3.4	3.2	3.4	3.3	3.3	3.3
15 Routine vs unfriendly people	3.0	2.6	2.6	2.7	2.5	2.1	2.6	2.6
16 Critical supervisor vs limitations	2.8	3.0	3.2	2.7	2.8	2.5	2.9	2.8
17 Fair supervisor vs always learning	4.1	4.0	4.4	4.1	4.0	3.8	4.1	4.1
18 Stability vs few challenges	3.1	2.4	2.9	2.9	2.5	2.6	2.6	2.7
19 No independence vs bad conditions	2.4	2.6	2.3	2.5	2.3	2.0	2.6	2.4
20 Teamwork vs using all talents	2.6	2.7	3.1	2.3	2.8	2.8	2.9	2.7
21 Little challenge vs isolation	2.5	2.5	2.6	2.4	2.2	2.4	2.3	2.4
Unit Standardization								
38 Precision of the norms	2.6	3.0	3.5	2.9	3.4	2.8	2.6	3.0
39 Performance measurement criteria	3.1	3.1	3.4	2.8	3.5	3.5	3.4	3.2
40 Organization/functions manual	2.8	3.4	3.0	3.3	3.2	3.6	3.1	3.2
41 Breaking rules in last 3 months	1.9	2.0	1.7	2.3	1.8	2.4	1.8	2.0
42 Frequency carry out norms	3.1	3.7	4.3	3.6	4.0	3.9	3.7	3.8
43 Performance objectives defined	3.0	3.7	3.4	3.2	4.0	3.8	3.6	3.5
Job Standardization								
44 Availability of manuals	2.5	3.6	4.4	3.4	3.8	4.0	3.5	3.6
45 Exactness of tasks in manual	2.8	3.4	3.3	3.5	3.6	3.5	3.0	3.3
46 Used standard procedures	3.4	3.8	4.2	3.8	3.9	4.2	4.0	3.9
47 Clarity of performance rules	3.4	3.5	3.4	3.1	3.8	4.0	3.6	3.5
48 Number workers doing same job	2.7	3.4	3.5	2.7	2.8	2.8	2.9	3.0
49 Workers able to do other jobs	2.7	3.6	3.4	3.3	3.6	3.3	3.2	3.3
50 Ease efficiently rotate jobs	3.2	3.5	3.2	3.4	3.7	3.7	3.5	3.5
51 Personnel rotation last 6 months	1.8	2.1	2.5	2.2	2.8	2.2	2.1	2.2

Management Assessment of PHC Services in the Peru MOH

JDQ: Job Design Questionnaire

Total Workers	Puno 43	Caja 35	Madre 11	LimaE 49	Moque 41	Lamb 36	Cusco 34	Average
Job Priority								
52 More time?	3.5	2.7	3.2	3.0	3.3	2.8	3.3	3.1
53 More support services?	3.9	3.0	4.3	3.7	3.8	3.1	3.4	3.6
54 More support from health system	4.2	3.8	3.9	4.0	3.8	3.5	3.4	3.8
Distribution of Unit Authority								
55 Program director influenced norms	2.6	3.1	3.0	2.7	2.9	2.6	2.9	2.8
56 Supervisor influenced norms	2.2	3.1	2.8	2.5	2.6	2.8	2.8	2.7
57 Worker influenced norms	2.0	2.7	2.1	2.4	2.4	2.0	2.2	2.3
58 Group influenced norms	2.3	2.5	2.0	2.5	2.4	2.2	2.7	2.4
59 Outsiders influenced norms	1.6	1.5	1.6	1.8	1.5	1.5	1.6	1.6
60 HC director influenced norms	2.5	3.5	2.3	3.0	2.2	3.0	2.9	2.8
61 Community influenced norms	2.2	1.7	1.4	2.1	2.1	1.6	2.0	1.9
62 Program director influenced work	3.0	3.5	3.5	3.1	3.7	3.5	3.2	3.4
63 Supervisor influenced work	2.6	3.5	3.3	2.7	3.1	3.4	3.2	3.1
64 Worker influenced work	2.3	2.3	2.4	2.3	2.7	2.5	2.4	2.4
65 Group influenced work	2.3	2.8	2.6	2.5	2.9	3.1	2.7	2.7
66 Outsiders influenced work	1.4	1.6	1.3	1.8	1.5	1.8	1.6	1.6
67 HC director influenced work	2.6	3.7	2.4	3.1	2.7	3.6	3.1	3.0
68 Community influenced work	2.0	2.0	1.6	2.1	2.2	2.1	2.2	2.0
69 Program director-evaluation	3.3	3.6	3.4	3.4	3.8	3.6	3.5	3.5
70 Supervisor influence - evaluation	2.8	3.3	2.8	3.0	3.3	3.9	3.2	3.2
71 Worker influence on evaluation	2.1	2.4	1.9	2.6	2.5	2.4	2.4	2.3
72 Group influence on evaluation	2.2	2.9	2.4	2.7	2.9	3.1	3.0	2.7
73 Outsider influence on evaluation	1.5	1.5	1.3	1.8	1.8	1.8	1.7	1.6
74 HC director influence-evaluation	2.9	3.7	3.0	3.4	2.9	3.6	3.4	3.3
75 Community influence on evaluation	1.6	1.7	1.6	2.0	2.3	2.1	1.9	1.9

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Management Assessment of PHC Services in the Peru MOH

JDQ: Job Design Questionnaire

Total Workers	Puno 43	Caja 35	Madre 11	LimaE 49	Moque 41	Lamb 36	Cusco 34	Average	
Job Authority									
76	Autonomy determining daily work	3.6	3.9	4.3	4.1	3.9	3.8	4.1	4.0
77	Autonomy quantity of work	3.4	3.5	4.1	4.0	3.9	3.7	3.9	3.8
78	Autonomy establishing work norms	3.3	3.7	4.2	3.9	3.8	3.5	3.7	3.7
79	Autonomy in exceptional situation	3.0	3.1	3.9	3.4	3.6	3.2	3.3	3.4
Job Pressure									
80	Intensity of job pressure	3.3	3.4	3.5	3.8	3.4	3.5	3.6	3.5
81	What does job demand of you?	3.7	3.5	3.9	3.4	3.6	3.9	3.7	3.7
82	How often is there too much work	3.6	3.8	4.0	4.0	3.5	4.2	3.7	3.8
Job Accountability									
83	Supervisor supports decisions	2.8	3.1	3.8	3.3	3.5	3.8	3.4	3.4
84	Supv. takes credit achievements	2.9	3.0	3.8	3.5	3.6	3.7	3.5	3.4
85	Fair evaluation criteria	2.9	3.1	3.2	2.7	3.1	3.4	2.8	3.0
86	Take blame/congratulate achievement	3.3	3.5	3.5	3.7	3.3	3.7	3.5	3.5
87	Feel responsible for work	4.5	4.3	4.0	4.5	4.5	4.5	4.4	4.4
88	Difficult to worry about work	2.3	2.7	3.3	2.9	2.1	3.1	2.5	2.7
Job Feedback									
89	Job gives clues how well doing job	3.4	3.5	3.5	3.9	3.7	3.7	3.8	3.6
90	Suggestions of fellow workers	1.7	1.7	1.4	2.1	1.7	1.6	2.1	1.8
91	Interchange opinions-supervisor	1.5	1.6	1.5	1.7	1.5	1.7	1.7	1.6
92	Discussion of evaluation criteria	1.9	2.2	2.2	2.0	2.1	2.4	2.1	2.1
93	Suggestions to improve performance	1.8	2.1	2.8	2.1	1.9	2.0	2.1	2.1
94	Met with supervisor about program	1.5	1.6	1.6	2.0	1.8	1.8	1.6	1.7
95	Supv. more critic than teacher	1.9	2.2	2.1	2.4	2.3	1.8	2.5	2.2
96	Feedback from supervisor-problems	1.7	2.3	2.7	2.3	2.5	2.1	2.3	2.3

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Management Assessment of PHC Services in the Peru MOH

JDQ: Job Design Questionnaire

Total Workers	Puno 43	Caja 35	Madre 11	LimaE 49	Moque 41	Lamb 36	Cusco 34	Average
Task Difficulty								
97 Security with job results	3.6	3.8	4.0	4.1	4.0	3.9	3.9	3.9
98 Frequency of difficult problems	1.9	1.7	1.8	2.0	1.6	1.6	2.1	1.8
99 Frequency need different methods	2.0	1.6	1.5	1.7	1.8	1.4	1.7	1.7
Incentives								
100 Compensate group for achievements	1.8	1.9	2.5	1.8	1.8	2.0	1.6	1.9
101 Recognize individual achievement	1.7	1.9	1.7	1.7	1.9	1.6	1.7	1.7
103 Group warned to improve	2.2	2.3	2.2	2.3	2.5	2.5	2.6	2.4
104 Individual warned	2.3	2.3	2.2	2.3	2.6	2.4	2.4	2.3
105 Compete to achieve work goals	2.2	2.0	2.6	2.5	2.5	1.9	2.7	2.4
106 Go against worker with poor quality	1.7	1.9	1.5	1.9	1.6	1.5	2.0	1.7
107 Go against worker exceeding others	1.7	1.8	1.7	1.8	1.6	1.3	1.5	1.6
108 Stimulate to reach highest levels	2.1	2.6	2.5	2.5	2.3	2.5	2.6	2.4
109 Recognized for good work	2.1	2.4	3.1	2.0	2.5	2.4	2.2	2.4
110 Given promotion for performance?	1.2	1.3	1.1	1.3	1.1	1.1	1.4	1.2
111 Scolded or told to improve	2.3	2.4	1.9	2.2	2.2	2.8	2.3	
112 Demoted if do not reach performance	1.1	1.1	1.2	1.1	1.0	1.0	1.1	1.1
Communications in Unit								
113 Disputes supervisor/workers	1.5	1.2	1.2	1.7	1.4	1.4	1.8	1.5
114 Disputes among workers	1.5	1.5	1.0	1.5	1.4	1.4	1.9	1.4
115 Two or more workers to resolve	1.8	2.2	1.6	2.1	1.6	1.9	2.6	2.0
116 Two or more outsiders to resolve	1.5	1.3	1.1	1.7	1.5	1.3	2.0	1.5
Unit Conflict								
117 Disagreements HC director/workers	1.6	1.7	1.0	1.7	1.9	1.5	1.6	1.6
118 Disagreements supervisor/workers	1.2	1.5	1.0	1.5	1.5	1.3	1.5	1.4
119 Disagreement among workers	1.6	1.8	1.0	1.9	1.4	1.6	2.1	1.6
120 Disagreements workers/outside	1.2	1.2	1.0	1.3	1.3	1.6	1.4	1.3
121 Personnel progress at cost of other	2.0	1.7	1.0	2.0	1.8	1.8	1.7	1.7

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Management Assessment of PHC Services in the Peru MOH

JDQ: Job Design Questionnaire

Total Workers	Puno 43	Caja 35	Madre 11	LimaE 49	Moque 41	Lamb 36	Cusco 34	Average
Methods of Unit Conflict Resolution								
122 Ignoring disagreements?	1.8	1.7	1.3	1.9	1.8	1.8	1.9	1.7
123 Smoothing over disagreements?	2.4	2.6	1.5	2.9	2.2	2.4	2.9	2.4
124 Confronting problems?	2.4	2.9	1.8	2.8	2.5	2.6	3.0	2.6
125 Intervention higher authority	1.4	1.4	1.3	2.0	1.6	1.8	2.0	1.6
Satisfaction with Unit Support Systems								
126 Have support of directors office	2.7	3.3	3.6	3.2	3.1	3.6	3.0	3.2
127 Support of administration & planning	2.0	2.5	3.2	2.5	2.6	3.2	2.4	2.6
128 Have support of management	2.0	2.5	2.5	2.4	2.6	2.9	2.5	2.5
129 Have support of logistics	2.3	2.6	2.5	2.6	2.5	2.7	2.4	2.5
130 Have training support?	1.7	2.0	2.7	2.5	2.2	2.5	1.8	2.2
131 Information/feedback support	1.6	2.2	2.5	2.4	2.3	2.3	2.0	2.2
132 Have transportation support	1.6	1.5	2.5	1.8	1.2	1.3	2.1	1.7
Job Satisfaction								
133 Satisfaction in your job	3.8	3.9	3.9	3.8	3.8	3.6	3.6	3.7
134 Satisfaction with H.C. director	3.4	3.5	3.5	3.7	3.9	3.9	3.4	3.6
135 Satisfaction with supervisor	2.9	3.3	3.0	3.2	3.4	3.4	3.1	3.3
136 Satisfaction with salary	2.0	2.1	2.0	2.2	2.1	2.1	2.2	2.0
137 Satisfaction with friendship-coop	3.4	3.5	3.4	3.7	3.7	4.0	3.5	3.7
138 Satisfaction with progress	3.4	3.6	3.5	3.7	3.7	3.7	3.4	3.5
139 Satisfaction chance to progress	2.9	2.9	3.5	3.2	2.7	3.1	2.8	3.0
140 Satisfied with status in community	3.0	3.6	3.6	3.6	3.4	3.5	3.5	3.5
141 Satisfaction with environment	2.9	3.5	3.6	3.4	3.6	3.1	3.3	3.3
142 Think about leaving this job	2.6	2.1	2.7	2.6	2.9	2.3	2.6	2.6

Management Assessment of PHC Services in the Peru MOH

JDQ: Job Design Questionnaire

Total Workers	Puno 43	Caja 35	Madre 11	LimaE 49	Moque 41	Lamb 36	Cusco 34	Average
Job Training								
143 Time training/orientation	1.6	2.3	2.5	2.5	1.7	2.2	1.6	2.1
144 Time self-training	2.5	2.3	1.8	2.3	2.2	1.8	2.3	2.2
145 Frequency of training for program	1.6	2.0	1.5	1.8	1.6	1.8	2.0	1.8
146 Most recent training	1.7	2.4	3.2	2.3	2.4	2.3	2.1	2.3
147 Hours of training in last 6 months	1.7	1.7	2.6	2.5	2.2	2.2	1.9	2.1
Job Logistics Support								
148 Lacked equipment-attention	2.8	2.2	2.2	2.3	2.5	1.9	2.9	2.4
149 Lacked materials-attention	2.7	2.1	2.5	2.3	2.6	1.9	2.9	2.4
150 Lacked medicines-attention	3.1	2.4	2.4	2.4	2.7	1.8	3.3	2.6
151 No educational material-attention	2.9	3.1	2.8	2.6	2.9	2.0	2.1	2.6
152 Lacked time-attention	1.9	2.1	2.3	2.3	2.1	2.0	2.6	2.2
153 Lacked personnel-attention	2.1	1.9	1.5	2.7	2.9	2.7	2.6	2.3
154 No attention-lacked time	1.3	1.2	1.4	1.8	1.7	1.5	1.5	1.5
155 No attention-lacked personnel	1.4	1.2	1.0	1.8	1.7	1.6	1.4	1.4
156 No attention-lacked resources	1.9	1.8	2.1	2.0	1.8	1.5	1.9	1.9
157 Difficulty transporting patients	3.3	2.4	1.9	3.5	2.7	2.7	2.7	2.7
158 Difficulty transporting for program	2.8	2.3	1.9	3.2	3.0	2.4	2.1	2.5
159 Environment available for program	2.2	2.8	3.1	3.0	2.9	2.8	3.0	2.8
Perceived Unit Performance								
160 Performance objectives achieved	3.3	3.8	3.8	3.9	4.1	3.6	4.3	3.8
161 Comparison quantity of work	2.8	3.3	3.2	3.5	3.3	3.3	3.1	3.2
162 Comparison quality of work	3.0	3.3	3.3	3.5	3.3	3.2	3.2	3.2
163 New ideas in establishment	2.8	3.1	3.2	3.1	3.2	2.8	2.9	3.0
164 Comparison excellent work	2.9	3.1	3.3	3.3	3.0	3.0	3.2	3.1
165 Comparison achieved goals	2.9	3.1	3.4	3.3	3.2	3.0	3.1	3.2
166 Comparison efficiency of activities	2.7	3.2	3.4	3.3	3.4	3.2	3.2	3.2
167 Comparison personnel morale	3.2	3.3	3.7	3.7	3.4	3.2	3.2	3.4

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Management Assessment of PHC Services in the Peru MOH

JDQ: Job Design Questionnaire

Total Workers	Puno 43	Caja 35	Madre 11	LimaE 49	Moque 41	Lamb 36	Cusco 34	Average
Averages of Indices								
UNIT STANDARDIZATION	2.7	3.2	3.2	3.0	3.3	3.3	3.0	3.1
JOB STANDARDIZATION	3.0	3.6	3.8	3.4	3.8	3.9	3.5	3.6
WORK INTERCHANGEABILITY	2.6	3.2	3.2	2.9	3.2	3.0	2.9	3.0
JOB PRIORITY	3.9	3.2	3.8	3.6	3.6	3.1	3.3	3.5
DISTRIBUTION OF UNIT AUTHORITY	2.3	2.7	2.3	2.6	2.6	2.7	2.6	2.5
JOB AUTHORITYBAJO	3.3	3.6	4.1	3.9	3.8	3.5	3.8	3.7
JOB PRESSURE	3.5	3.6	3.8	3.7	3.5	3.9	3.7	3.7
JOB ACCOUNTABILITY	3.1	3.3	3.6	3.4	3.3	3.7	3.3	3.4
JOB FEEDBACK	1.9	2.2	2.2	2.3	2.2	2.1	2.3	2.2
TASK DIFFICULTY	2.5	2.4	2.5	2.6	2.5	2.3	2.6	2.5
INCENTIVES	1.8	2.0	2.1	1.9	2.0	1.9	2.1	2.0
COMMUNICATIONS IN UNIT	1.6	1.6	1.2	1.7	1.5	1.5	2.0	1.6
UNIT CONFLICT	1.5	1.6	1.0	1.7	1.6	1.6	1.7	1.5
METHODS OF UNIT CONFLICT RESOLUTION	2.0	2.1	1.4	2.4	2.0	2.1	2.4	2.1
SATISFACTION WITH UNIT SUPPORT SYSTEMS	2.0	2.4	2.8	2.5	2.4	2.6	2.3	2.4
JOB SATISFACTION	3.0	3.2	3.4	3.3	3.2	3.3	3.1	3.2
JOB TRAINING	1.8	2.2	2.3	2.3	2.0	2.1	2.0	2.1
JOB LOGISTICS SUPPORT	2.4	2.1	2.1	2.5	2.5	2.1	2.4	2.3
PERCEIVED UNIT PERFORMANCE	2.9	3.3	3.4	3.4	3.4	3.2	3.3	3.3

Management Assessment of PHC Services in the Peru MOH

DFW: Unit Design/Function Worksheet

Total Workers	Puno 8	Caja 8	Madre 5	LimaE 8	Moque 8	Lamb 9	Cuzco 8
RELATIONSHIP WITH THE PMOH							
Coordination							
1 With hospital	3.6	2.8	3.5	3.8	2.9	2.8	3.1
2 With UDES	3.6	3.6	3.3	3.8	3.2	4.0	4.5
3 With UDES	2.0	2.6	3.8	2.9	4.1	2.6	2.6
4 With nivel central	1.1	1.6	1.5	1.8	1.4	1.2	1.0
Average	2.6	2.7	3.0	3.0	2.9	2.6	2.8
Formalization of the Relationship							
6 Relationship discussed	3.0	2.5	2.8	2.8	3.4	2.9	3.5
7 Relationship written	2.5	1.9	2.5	2.5	2.9	2.0	2.8
8 Standard norms, procedure	2.4	2.5	2.2	2.4	3.1	2.6	2.5
9 Formal channels followed	3.3	2.6	2.8	3.1	4.0	3.4	2.9
Average	2.8	2.4	2.6	2.7	3.3	2.7	2.9
Consensus/Conflict							
18 Agreement on priorities							
19 Agreement how to do work							
20 Agreement on roles							
21 UDES impedes functions	3.1	2.5	2.2	3.0	2.1	2.6	1.8
22 Disputes persons/UTES	2.1	1.1	1.7	2.3	2.0	1.8	1.8
Average	2.6	1.8	1.9	2.6	2.1	2.2	1.8

Management Assessment of PHC Services in the Peru MOH

DFW: Unit Design/Function Worksheet

Total Workers	Puno 8	Caja 8	Madre 5	LimaE 8	Moque 8	Lamb 9	Cuzco 8
Conflict Resolution							
23 Not giving importance	3.3	2.6	1.7	2.1	2.3	1.8	3.1
24 Smoothing things over	2.3	2.8	1.8	2.6	1.8	2.9	2.9
25 Openly discussing them	2.0	2.0	1.5	1.7	2.9	3.4	2.8
26 Mediation by higher up	1.3	1.5	1.0	1.4	1.4	2.1	2.3
Average	2.2	2.2	1.5	2.0	2.1	2.5	2.8
Influence Between Your Establishment and the UTES							
27 On UTES activities	2.6	2.0	3.2	2.6	2.9	2.4	2.1
28 UTES on your activities	2.8	2.4	4.2	2.6	4.0	3.1	3.1
29 Yours on UTES program	3.5	1.9	2.2	2.1	2.9	2.7	2.6
30 UTES on your program	2.8	2.3	3.7	2.8	3.4	3.4	2.9
Average	2.9	2.1	3.3	2.5	3.3	2.9	2.7
Effectiveness of the Relationships							
31 UTES met responsibility	2.9	2.6	2.8	2.4	3.4	3.4	3.1
32 Estab. met responsibility	4.0	3.8	4.0	3.6	4.3	3.4	4.3
33 Relationship productive	3.0	3.4	3.3	3.0	3.8	3.4	3.6
34 Worth trouble invested	3.5	3.4	3.8	2.9	3.8	3.6	4.1
35 Satisfied with relationship	2.9	2.9	3.3	2.6	3.5	3.7	3.3
36 Equality of give & take	2.0	2.1	2.5	2.4	2.0	2.6	2.0
Average	3.0	3.0	3.3	2.8	3.4	3.4	3.4

Management Assessment of PHC Services in the Peru MOH

DFW: Unit Design/Function Worksheet

Total Workers	Puno 8	Caja 8	Madre 5	LimaE 8	Moque 8	Lamb 9	Cuzco 8
RELATIONSHIP WITH THE COMMUNITY							
Coordination with the Community							
37 With local healers	2.0	2.9	1.8	2.4	3.1	2.0	2.0
38 With health committees	2.5	2.0	1.7	3.4	2.4	2.6	2.5
39 With health promoters	2.5	3.9	3.3	2.8	3.9	2.9	3.6
40 With schools	2.9	3.3	3.0	4.0	4.1	4.1	4.0
41 With parish church	2.0	3.0	1.7	2.5	1.6	2.2	2.0
42 With other institutions	2.3	3.1	1.5	3.9	3.3	3.0	2.8
43 With informal community	3.1	2.9	2.0	3.5	2.9	2.2	2.9
44 With other community grp	3.8	3.0	1.3	3.6	3.3	2.4	3.4
Average	2.6	3.0	2.0	3.3	3.1	2.7	2.9
Formalization (Normalization) of the Relationship with the Community							
45 Relationship discussed	3.5	3.1	2.0	3.1	3.6	3.0	2.8
46 Relationship written	2.9	2.8	1.3	3.0	2.5	2.7	2.6
47 Norms to coordinate	3.1	2.9	1.7	2.8	2.5	2.9	2.8
48 Communication channels	3.4	3.3	2.8	3.3	3.4	3.3	3.4
Average	3.2	3.0	2.0	3.0	3.0	3.0	2.9

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Management Assessment of PHC Services in the Peru MOH

DFW: Unit Design/Function Worksheet

Total Workers	Puno 8	Caja 8	Madre 5	LimaE 8	Moque 8	Lamb 9	Cuzco 8
Communication with the community							
49 By letter							
50 By interview							
51 By phone							
52 In meeting							
53 Initiated by personnel							
54 Frequency contacted grps							
55 Difficulty understanding							
56 Difficulty contacting grps							
Average							
Consensus/Conflict with the Community							
57 Agreement in priorities							
58 Agreement service deliver							
59 Agreement role definition							
60 Community impedes work							
61 Exist disagreements							
Average							
Conflict Resolution with the Community							
62 Not giving importance	2.4	4.3	2.3	1.0	2.3	2.4	2.0
63 Smoothing things over	2.0	4.7	2.0	1.0	2.6	2.1	2.8
64 Openly discussing them	2.3	3.7	2.3	1.0	2.1	2.0	4.3
65 Mediation by higher up	1.3	1.0	1.0	1.0	1.5	1.3	1.8
Average							
	2.0	3.4	1.9	1.0	2.1	2.0	2.8

Management Assessment of PHC Services in the Peru MOH

DFW: Unit Design/Function Worksheet

	Puno	Caja	Madre	LimaE	Moque	Lamb	Cuzco
Total Workers	8	8	5	8	8	9	8
Influence between your Establishment and the Community							
66 Estab. on community acti	2.9	3.4	3.0	3.0	3.8	4.0	3.5
67 Community on Estab.	2.8	2.8	2.3	2.6	3.9	2.6	2.5
68 Estab. on grps performan	2.8	2.8	2.3	2.9	3.5	3.4	2.8
69 Grps on your performance	3.1	2.5	2.3	2.6	2.9	2.6	2.6
Average	2.9	2.8	2.5	2.8	3.5	3.2	2.8
Effectiveness of the Relationships with the Community							
70 Community met responsab.	3.0	2.5	2.8	3.5	3.0	3.0	2.5
71 Estab met responsibility	3.6	3.5	3.8	3.8	4.0	3.7	3.9
72 Relationship productive	3.5	3.6	3.3	3.8	3.8	3.8	3.0
73 Time is justified	4.3	3.8	3.8	4.1	3.9	4.0	3.5
74 Satisfied with relation	3.3	3.5	3.3	4.0	3.6	3.8	3.6
75 Equality of give & take	2.0	2.1	2.3	3.1	1.8	2.2	1.9
Average	3.3	3.2	3.3	3.7	3.3	3.4	3.1

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Management Assessment of PHC Services in the Peru MOH

OSC: On-site Observation Checklist
OSC-CED: On-site Observation of ORT Program

Number of Establishments	Puno 10	Caja 7	Madre 4	Lima 11	Moque 9	Lamb 9	Cusco 11
Availability of Facilities							
1 Storage area for ORS	14	14	20	13	20	10	16
2 Letrine for patients	11	14	0	12	14	7	12
3 Desk for personnel	10	2	20	2	6	5	10
4 Designated place for unit	8	17	20	13	11	10	12
5 Satisfactory environment	4	8	20	11	11	7	10
6 Drinkable water in area	12	8	5	15	11	17	15
7 Sink to wash material	9	14	5	17	8	13	15
8 Enough light	18	17	15	15	20	12	17
Average	11	12	13	12	13	10	13
Availability of Equipment							
9 Equipment to boil water	7	17	20	12	20	18	16
10 1 liter containers	18	17	17	20	17	20	20
11 Scales to weigh	14	14	15	8	20	2	15
12 Thermometer	12	8	15	8	13	10	12
13 Watch to take pulse	18	20	15	6	11	5	15
14 Benches for 5 pts.	2	8	5	13	4	5	5
Average	12	14	15	11	14	10	14
Availability of Supplies							
15 Manual for staff use	4	5	20	15	13	10	11
16 ORS packets for 5 pts.	20	17	20	17	15	17	17
17 Drinking glasses/ ORS	18	17	15	20	15	20	10
18 Teaspoons to administer	16	17	20	20	15	20	15
19 Measuring spoons	14	5	15	16	13	15	15
20 Registers for 5 pts.	4	14	20	13	17	15	12
21 Case of not having ORS	10	8	15	2	11	10	5
22 Pens, pencils, folders	8	20	20	11	13	12	15
23 other drugs on hand	6	11	10	4	6	12	10
Average	11	13	17	13	13	15	12
Preparedness							
<i>Care-associated</i>							
24 Boiled cold water ready	14	11	15	20	15	17	15
25 ORS packets ready	20	14	20	20	15	20	20
26 Personnel assigned	14	17	15	8	8	12	14
27 Worker present in unit	10	11	15	17	11	12	10
28 ORS materials ready	14	8	10	17	17	17	17
29 cared for >20 pts.	0	0	0	0	0	0	0
Average	12	10	13	14	11	13	13
<i>Promotion/Education-associated</i>							
30 Dehydration posters	6	14	15	4	11	10	12
31 ORS preparation posters	10	11	10	4	11	10	15
32 Posters homemade soln	12	11	15	6	11	10	17
33 Breastfeeding posters	2	2	0	6	4	0	12
34 Educational pamphlets	10	2	10	15	13	15	5
Average	8	8	10	7	10	9	12

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OSC-CED: On-site Observation of ORT Program

Number of Establishments	Puno	Caja	Madre	LimaE	Moque	Lamb	Cusco
	10	7	4	11	9	9	11
Conservation of Records							
<i>Patient Record</i>							
35 Filing system	12	15	10	15	16	14	9
36 Forms utilized	9	17	6	12	16	16	3
37 Forms completed	13	15	7	13	16	15	8
Average	11	16	8	13	16	15	7
<i>Daily Register</i>							
45 Forms utilized	9	17	5	7	16	16	8
46 Forms completed	10	16	11	12	17	15	15
Average	10	17	8	10	17	16	12
<i>Monthly Register</i>							
56 Form utilized	18	20	20	15	19	16	17
57 Forms completed	17	17	16	18	18	16	17
Average	18	19	18	17	19	16	17

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Management Assessment of PHC Services in the Peru MOH

OSC-CRE: On-site Observation of Growth & Development Program

	Puno	Caja	Madre	Lima	Moque	Lamb	Cusco
Number of Establishments	10	6	3	8	9	6	9
Availability of Facilities							
1 Desk for personnel	10	16	13	8	13	10	17
2 Area assigned for consult	12	16	13	11	15	10	11
3 Satisfactory environment	13	13	6	11	13	6	17
4 Sink in area or close-by	10	10	13	14	4	13	11
5 Enough light	18	20	20	20	20	16	20
Average	13	15	13	13	13	11	15
Availability of Equipment							
6 Stretcher for exam	11	10	13	17	14	16	20
7 Pediatric scales	18	20	13	20	20	8	20
8 Stand-up scales	12	20	6	11	17	13	17
9 Oral thermometer	12	6	13	8	6	13	11
10 Rectal thermometer	14	6	6	17	13	3	11
11 Watch available	16	20	20	8	11	20	18
12 Infant measurer	10	11	13	10	4	13	11
13 Height measurer	14	16	20	0	17	16	20
14 Tape measure, centimeter	20	16	20	20	20	16	20
15 Stethoscope	10	3	13	5	13	10	2
16 Flashlight	4	3	6	2	2	10	0
17 Hammer	0	0	0	2	2	5	0
Average	12	11	12	10	12	12	13
Availability of Supplies							
18 Psychomotor develop	9	6	13	2	10	13	14
19 Denver Test booklet	6	10	0	8	11	10	8
20 G&D manual	4	3	13	2	4	3	10
21 Control notebook	16	10	20	17	8	16	20
22 G&D ID cards	18	20	20	11	20	16	20
23 Pencils, pens, folders	10	20	20	11	11	13	17
24 Tongue depressors	16	3	6	14	11	13	5
25 Alcohol	12	20	20	17	13	20	20
26 Cotton	14	20	20	14	17	20	20
27 Registration sheets	14	16	20	10	13	16	11
28 Soap	14	6	20	11	11	13	14
29 Towel	12	3	13	8	11	10	11
Average	12	11	15	10	12	14	14
Preparedness							
<i>Care-associated Preparedness</i>							
30 Personnel for service	20	20	6	17	20	13	20
31 Personnel giving care	20	20	6	20	20	13	14
32 Materials ready for use	16	16	20	17	17	13	17
33 Presently >10 patients	4	3	6	2	0	3	2
Average	15	15	10	14	14	11	13

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OSC-CRE On-site Observation of Growth & Development Program

Number of Establishments	Puno	Caja	Madre	LimaE	Moque	Lamb	Cusco
	10	6	3	8	9	6	9
<i>Promotion/Education-associated Preparedness</i>							
34 Breastfeeding posters	4	3	6	5	4	3	8
35 Immunization posters	20	10	13	17	13	10	11
36 Diarrhea posters	14	13	13	11	11	10	11
37 ARI posters	8	6	13	11	4	10	11
38 Growth curve posters	10	6	13	2	6	6	14
39 Child nutrition posters	6	3	13	5	4	3	5
40 Educational pamphlets	12	0	0	5	4	10	2
Average	11	6	10	8	7	7	9

Conservation of Records

<i>Patient Record</i>							
41 Filing system	11	12	17	14	18	15	16
42 Forms utilized	11	12	11	7	19	12	10
43 Forms completed	12	17	18	13	16	16	12
Average	11	14	15	11	18	14	13
<i>Daily Register</i>							
51 Forms utilized	15	13	10	5	17	11	8
52 Forms completed	14	14	15	11	17	12	14
Average	15	14	13	8	17	12	11
<i>Monthly Register</i>							
62 Form used	10	15	8	7	18	10	17
63 Form completed	15	15	13	13	18	12	15
Average	13	15	11	10	18	11	16

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Management Assessment of PHC Services in the Peru MOH

OSC-ARI: On-site Observation of ARI Program

Number of Establishments	Puno	Caja	Madre	Lima	Moque	Tamb	Cusco
	10	7	5	10	9	8	11
Availability of Facilities							
1 Desk for personnel	17	2	20	2	4	2	12
2 Adequate light	17	20	16	17	20	12	17
Average	12	11	18	10	12	7	15
Availability of Equipment							
3 Oral thermometer	12	8	16	14	11	7	12
4 Rectal thermometer	12	5	8	8	13	5	7
5 Scales	15	14	12	8	20	5	15
6 Watch	15	20	16	8	13	7	13
Average	14	12	13	10	14	6	12
Availability of Supplies							
7 Program manual	10	8	16	14	17	12	10
8 Control, followup notebook	12	2	4	20	6	12	15
9 Cotrimoxazol in pharmacy	12	5	4	11	15	20	12
10 Aspirin in pharmacy	1	0	0	11	13	12	7
11 Benzatine Penicillin	12	14	4	20	20	17	15
12 Distilled water pharmacy	8	11	12	20	20	7	2
13 Disposable syringes phar	15	5	12	8	6	15	7
14 Clinical histories	10	8	4	2	17	2	5
15 Registration forms	7	20	16	5	17	2	7
16 Pens, pencils, folders	10	17	16	8	15	2	12
17 Tongue depressors	7	5	12	11	13	7	15
Average	9	9	9	12	14	10	10
Preparedness							
<i>Care-associated Preparedness</i>							
18 Personnel for service	1	2	1	1	1	1	17
19 Personnel giving care	15	17	16	20	11	12	13
20 Materials ready for use	7	5	8	17	15	17	17
Average	13	14	13	18	13	14	16

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OSC-ARI: On-site Observation of ARI Program

Number of Establishments	Puno 10	Caja 7	Madre 5	LimaE 10	Moque 9	Lamb 8	Cusco 11
<i>Promotion/Education-associated Preparedness</i>							
21 Breastfeeding posters	2	0	0	5	6	0	10
22 Immunization posters	17	5	4	8	13	5	10
23 Diarrhea posters	12	8	16	14	13	7	17
24 ARI posters	12	8	20	11	13	17	12
25 ARI Tx flow chart	10	5	12	8	11	10	10
26 Growth curve posters	7	0	4	5	4	2	10
27 Child nutrition posters	2	0	8	5	0	0	7
28 Educational pamphlets	2	2	4	2	4	5	2
Average	8	4	9	7	8	6	10

Conservation of Records

<i>Patient Record</i>							
29 Filing system	11	15	11	18	18	7	10
30 Forms utilized	10	16	12	10	15	5	4
31 Forms completed	14	15	11	10	11	9	12
Average	12	15	11	13	15	7	9
<i>Daily Register</i>							
39 Forms utilized	3	16	10	7	18	5	6
40 Forms completed	13	15	16	13	15	6	15
Average	8	16	13	10	17	6	11
<i>Monthly Register</i>							
50 Forms used	16	20	20	10	20	13	17
51 Forms completed	15	17	16	11	19	10	19
Average	16	19	18	11	20	12	18

BY

Management Assessment of PHC Services in the Peru MOH

OSC-EPI: On-site Observation of EPI Program

Number of Establishments	Puno 10	Caja 8	Madre 5	Lima 11	Moque 9	Lamb 9	Cusco 11
Availability of Facilities							
1 Area designated for care	15	17	16	17	11	15	10
2 Satisfactory environment	11	12	16	15	14	13	17
3 Enough light	17	20	20	20	20	17	17
4 Desk for personnel	13	12	16	15	11	13	12
Average	14	15	17	17	14	15	14
Availability of Equipment							
5 Refrigerator for vaccines	12	14	15	18	20	20	20
6 Refrigerator in shade	14	20	20	20	20	13	20
7 Refrig 15cm from wall	8	20	20	13	20	13	20
8 Refrigerator horizontal	14	20	20	16	20	20	20
9 Ice packs in freezer	11	20	20	16	20	20	18
10 Water bottles free space	4	17	6	13	16	12	7
11 Packs 2.5-5cm from walls	1	11	20	12	20	6	5
12 Vaccines on trays	2	14	20	10	20	8	14
13 Division 1&2 of vaccines	3	12	13	10	8	6	14
14 Thermometer in refrig	10	17	20	20	20	20	20
15 Thermometer central zone	13	17	10	20	20	11	20
16 Temperature range 0-8c	8	20	13	16	20	17	17
17 Record of temperature	5	14	13	13	13	13	17
18 Have cold boxes	16	20	20	20	20	20	17
19 Sufficient # ice packs	10	16	15	15	20	20	20
20 Vaccines no touch ice	12	16	13	15	0	20	15
21 When ice packs replaced	10	13	13	6	20	20	13
22 Have auxiliary cold box	5	15	8	20	10	20	13
23 No contact vaccines/ice	0	14	10	13	10	20	12
24 When packs last replaced	0	14	13	10	10	13	16
Average	8	16	15	15	16	16	16

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OSC-EPI: On-site Observation of EPI Program

Number of Establishments	Puno 10	Caja 8	Madre 5	LimaE 11	Moque 9	Lamb 9	Cusco 11
Availability of Supplies							
25 Pens, pencils, folders	6	17	20	15	14	15	20
26 EPI manual	8	7	8	2	13	11	14
27 Syringes/1cc users +3	17	17	16	17	20	20	20
28 Syringes/2-3cc users +3	20	17	12	15	20	15	20
29 Syringes/5-10cc users +3	4	2	16	12	5	6	10
30 Needles/22-23G users+3	13	15	16	10	14	17	20
31 Needles/20-25G users+3	13	15	16	12	14	15	17
32 Vaccine/Polio users +3	15	17	12	15	17	15	15
33 Vaccine/DPT users +3	13	20	8	15	14	15	15
34 Vaccine/BCG users +3	13	15	12	14	14	15	17
35 Vaccine/Measles users+3	15	12	12	15	17	13	17
36 Vaccine/Tetanus users+3	6	17	12	15	17	11	12
37 Measles solvent users+3	15	17	12	15	17	15	20
38 BCG solvent users +3	15	15	12	14	14	17	20
39 ID cards	20	15	20	15	20	20	20
40 Daily registers users+3	20	17	16	15	20	17	10
41 Monthly register user+3	17	20	20	17	20	17	17
42 File for users +3ar	4	5	0	17	20	11	5
43 Cotton users +3	15	20	20	15	20	17	20
44 Alcohol users +3	8	20	20	15	17	17	20
45 Soap users +3	15	12	20	12	17	15	17
46 Sterile water users+3	2	5	20	7	8	17	12
47 File for users +3	4	15	16	12	11	15	17
48 Soapy water users +3	15	5	16	10	14	17	15
Average	12	14	15	13	16	15	16
Preparedness							
<i>Care-associated Preparedness</i>							
49 Personnel for service	20	20	20	17	20	15	20
50 Personnel giving care	20	20	20	17	20	15	20
51 Materials ready for use	15	17	16	10	17	17	20
Average	18	19	19	15	19	16	20
<i>Promotion/Education-associated Preparedness</i>							
52 Breastfeeding posters	4	2	8	7	11	2	7
53 Immunization posters	17	10	8	12	11	15	15
54 Diarrhea posters	13	15	16	10	8	15	12
55 ARI posters	6	5	16	10	5	6	10
56 Growth curve posters	11	2	8	5	8	2	10
57 Child nutrition posters	6	5	4	5	5	6	7
58 Educational pamphlets	15	2	12	10	8	8	7
Average	10	6	10	8	8	8	10

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Management Assessment of PHC Services in the Peru MOH

OSC-EPI: On-site Observation of EPI Program

Number of Establishments	Puno 10	Caja 8	Madre 5	LimaE 11	Moque 9	Lamb 9	Cusco 11
Conservation of Records							
<i>Patient Record</i>							
59 Filing system	14	16	16	15	16	17	16
60 Forms utilized	13	18	6	15	18	15	15
61 Forms completed	14	15	18	15	15	15	14
Average	14	16	13	15	16	16	15
<i>Daily Register</i>							
69 Forms utilized	13	14	10	12	20	17	14
70 Forms completed	12	15	17	15	17	15	14
Average	13	15	14	14	19	16	14
<i>Monthly Register</i>							
80 Form used	16	20	20	16	19	20	16
81 Forms complete	15	16	18	16	20	18	15
Average	16	18	19	16	20	19	16

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OSC-PFM: On-site Observation of Family Planning & Maternal Health Programs

Number of Establishments	Puno 9	Caja 7	Madre 3	LimaE 11	Moque 9	Lamb 5	Cusco 8
Availability of Facilities							
1 Desk available	20	20	13	20	18	12	20
2 Area only for activity	8	14	13	20	17	8	20
3 Light, ventilation	14	20	13	16	20	12	20
4 Drinkable water in area	8	8	13	10	20	16	16
5 Enough seats for mothers	14	17	13	12	11	8	12
Average	13	16	13	16	17	11	18
Availability of Equipment							
6 Gynecological exam table	16	17	13	18	17	16	20
7 Bench for examiner	2	2	6	16	6	4	16
8 Small step stool	14	11	13	18	12	8	16
9 Instrument cabinet	11	5	0	20	7	8	20
10 Rotating instrument table	7	5	6	18	7	16	16
11 Goose-neck floor lamp	7	8	3	18	17	14	16
12 Sterilizer in estab.	8	11	0	15	20	12	20
13 Flashlight with battery	8	8	13	7	8	14	8
14 Biaruricular stethoscopel4	11	11	20	13	12	16	16
15 Sphygmanometer	11	11	13	18	15	20	12
16 Thermometer	11	8	6	14	8	8	8
17 Watch/clock, secondhand	12	20	13	10	13	16	16
18 Scales in estab.	17	17	13	18	20	20	18
19 Large Graves speculum, 1	8	17	13	16	20	16	14
20 Medium Graves speculum, 4	8	14	13	16	20	16	16
21 Small Graves speculum, 1	14	15	6	12	17	8	16
22 Forceps Tirbala de Pozzi	8	8	0	7	15	0	12
23 Bozeman hemostats, 2	5	11	6	10	15	0	12
24 Sims hystrometer, 2	8	5	6	3	10	4	16
25 Large tweezers, 1	8	17	0	14	6	12	12
26 Stainless steel trays	8	14	0	10	15	12	16
27 Metal instrument box	8	17	0	12	20	16	12
28 Surgical steel drums, 2	0	8	0	10	8	4	12
29 Mayo scissors, 1	11	17	6	16	20	12	16
30 Tape measure	11	11	13	16	15	20	18
31 Pinard fetalscope	20	14	13	16	20	20	20
32 Sink with running water	2	8	6	16	2	16	12
33 Metal cup for syringes	8	11	0	12	10	16	20
34 Ayres spatulas/similar	2	14	6	16	15	8	8
35 Examining gown	5	0	0	3	7	4	0
36 Hand towels	11	8	13	18	15	16	12
37 Three chairs	5	8	6	9	5	16	8
38 Wastebasket, foot-operate	5	5	6	12	10	16	12
39 Folding screen	8	8	13	12	7	20	8
Average	9	11	7	14	13	12	14

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Management Assessment of PHC Services in the Peru MOH

OSC-PFM: On-site Observation of Family Planning & Maternal Health Programs

Number of Establishments	Puno 9	Caja 7	Madre 3	Lima 11	Moque 9	Lamb 5	Cusco 8
Availability of Supplies							
40 Family planning manual	11	14	6	14	17	12	20
41 Cervical/Breast manual	2	0	6	1	5	0	16
42 Activities schedule	8	3	20	4	15	12	16
43 Cotton or gauze balls	11	11	13	20	12	16	16
44 Q-tips or similar item	0	5	0	10	0	8	8
45 Microscope slides	5	11	6	18	15	16	16
46 Surgical gloves, 12 pair	5	5	0	7	0	4	4
47 Liquid soap	11	11	6	5	7	20	12
48 Iodine alcohol	20	11	13	16	10	20	16
49 PAP fixating agent	5	11	0	18	10	8	8
50 Sterile water	11	14	0	9	5	8	16
51 Antiseptic solutions	5	5	13	14	12	12	12
52 Normal saline solution	2	0	0	0	5	8	8
53 Sheets, 2	11	8	6	10	5	16	8
54 Disinfecting soap	17	2	6	12	12	20	16
55 Hand brush	5	8	0	5	5	12	8
56 Pencils, pens, folders	14	17	20	9	12	16	16
57 Prescription pads	14	17	13	14	17	20	16
58 Calendars	17	11	0	16	12	20	20
59 Control cards	8	5	0	7	5	16	16
60 FP register	14	14	13	14	10	16	20
61 MH register	14	5	13	10	10	16	20
62 Cancer control registers	0	0	0	12	7	0	16
Average	9	8	7	11	9	13	14
Preparedness							
<i>Care-associated Preparedness</i>							
63 Personnel for service	14	20	13	18	15	16	16
64 Personnel giving care	17	17	13	18	17	12	20
65 Supplies ready for use	11	11	6	18	17	8	16
Average	14	16	11	18	16	12	17
<i>Education/Promotion-associated Preparedness</i>							
66 Posters on hand	8	5	20	14	10	12	20
67 Pamphlets	8	5	6	5	7	4	12
68 Internal publications	2	2	6	9	2	0	12
69 Flip charts on hand	0	0	6	1	2	4	16
70 Breastfeeding posters	2	0	6	3	5	4	12
Average	4	2	9	6	5	5	14
Conservation of Records							
<i>Patient Record</i>							
71 Filing system	13	16	11	18	18	16	17
72 Forms utilized	8	11	20	10	12	17	11
73 Forms completed	16	13	13	12	15	10	15
Average	12	13	15	13	15	14	14

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OSC-PFM: On-site Observation of Family Planning & Maternal Health Programs

Number of Establishments	Puno	Caja	Madre	LimaE	Moque	Lamb	Cusco
	9	7	3	11	9	5	8
<i>Daily Register Family Planning</i>							
81 Forms utilized	10	15	13	10	12	17	15
82 Forms complete	15	13	12	12	14	13	15
Average	13	14	13	11	13	15	15
<i>Daily Register Maternal Health</i>							
92 Forms utilized	11	11	1	7	10	11	18
93 Forms completed	12	9	15	12	15	8	20
Average	12	10	9	10	13	10	19
<i>Daily Register Cervical/Breast Cancer Prevention</i>							
103 Forms utilized	0	6	0	10	7	4	13
104 Forms completed	5	15	0	11	15	8	13
Average	3	11	0	11	11	6	13
<i>Monthly Register</i>							
114 Forms utilized	11	20	0	16	18	17	18
115 Forms completed	13	14	0	14	18	15	19
Average	12	17	0	15	18	16	19

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JKE: Job Knowledge Examination

JKE-CED: Basic Knowledge of ORT Program

UDES Puno **Number of Workers** 21
H. C. 1 2 2 2 2 3 3 3 3 3 4 4 4 6 6 6 7 8 8 9 9
Grade 14 12 9 10 13 8 13 6 6 14 12 14 13 11 9 12 15 12 11 12 11

UDES Average: 11

UDES Caja **Number of Workers** 12
H. C. 1 1 2 2 2 3 6 7 7 8 8 9
Grade 12 13 16 12 11 8 18 14 10 18 11 12

UDES Average: 13

UDES Madre **Number of Workers** 3
H. C. 5 7 7
Grade 9 10 12

UDES Average: 10

UDES LimaE **Number of Workers** 18
H. C. 1 1 2 2 2 3 4 5 5 6 6 6 7 7 8 8 8
Grade 15 18 13 14 7 16 16 11 15 15 16 15 16 7 12 14 11 14

UDES Average: 14

UDES Moque **Number of Workers** 19
H. C. 1 1 1 2 2 2 3 4 4 4 6 6 6 7 8 8 9 9 9
Grade 16 13 16 11 10 12 11 13 12 13 13 12 15 14 8 15 15 8 12

UDES Average: 13

UDES Lamb **Number of Workers** 15
H. C. 2 3 3 4 4 4 5 5 6 7 8 8 9 9 10
Grade 17 13 12 11 12 12 17 12 15 8 11 11 12 12 14

UDES Average: 13

UDES Cusco **Number of Workers** 14
H. C. 1 2 3 4 4 4 5 5 5 6 6 7 7 8
Grade 15 15 13 6 14 15 17 16 11 10 13 14 11 9

UDES Average: 13

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Management Assessment of PHC Services in the Peru MOH

JKE-CED: Basic Knowledge of ORT Program

Item & Percentage		Item & Percentage			
1	Has diarrhea when	70%	24	Place for skin fold check	81%
2	What should do	90%	25	Dx problem history case a	26%
3	Rehydration salts	67%	26	Conduct to follow case a	58%
4	What should do to child	80%	27	Dx problem history case b	74%
5	Best way to prevent	76%	28	conduct to follow case b	47%
6	Use Plan A	63%	29	Dx problem history case c	47%
7	Use Plan C	71%	30	conduct to follow case c	50%
8	Use Plan B	63%	31	Dx problem history case d	6%
9	Oral solution	76%	32	conduct to follow case d	19%
10	Educational messages	58%	33	Dx problem history case e	44%
11	Not job of worker	84%	34	conduct to follow case e	31%
12	Incorrect actions	65%	35	Order of attention	63%
13	Is not contraindication	39%	36	Less worrisome case	30%
14	Dehydration implies	84%	37	Case a worse than case c	78%
15	Nutrition with diarrhea	63%	38	Case a worse than case b	49%
16	Dx degree of dehydration	17%	39	Case d worse than case b	66%
17	Home solution preparation	66%	40	Case e worse than case b	71%
18	Prevention messages	56%	41	Case d worse than case e	60%
19	During therapy	33%	42	Case d evaluated before b	52%
20	Plan A indication	31%	43	Case b antibiotics	75%
21	Home treatment	90%	44	DR. & case d before case e	61%
22	Evaluation of fontanel	70%	45	Case e requires ORT	51%
23	Evaluating degree -skin	79%			

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Management Assessment of PHC Services in the Peru MOH

JKE-CRE: Basic Knowledge of Growth & Development Program

UDES Puno **Number of Workers** 21
H.C. 1 1 2 2 2 2 3 3 3 3 3 4 4 4 6 6 6 7 8 8 9
Grade 8 13 7 9 10 8 6 11 5 6 11 5 11 10 12 12 11 10 10 13 6

UDES Average: 9

UDES Caja **Number of Workers** 8
H.C. 1 1 1 2 2 3 6 9
Grade 7 7 10 6 10 9 10 12

UDES Average: 9

UDES Madre **Number of Workers** 2
H.C. 3 5
Grade 15 13

UDES Average: 14

UDES LimaE **Number of Workers** 6
H.C. 1 2 2 3 4 4
Grade 5 7 11 10 6 9

UDES Average: 8

UDES Moque **Number of Workers** 14
H.C. 1 2 2 2 3 4 4 4 6 6 7 8 9 9
Grade 13 11 -- 12 14 10 7 16 14 10 16 13 11 13

UDES Average: 12

UDES Lamb **Number of Workers** 7
H.C. 3 4 5 5 8 9 10
Grade 8 8 15 11 7 11 15

UDES Average: 11

UDES Cusco **Number of Workers** 11
H.C. 1 2 2 3 4 4 5 5 7 7 8
Grade 15 15 15 11 8 9 12 12 10 9 10

UDES Average: 11

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JKE-CRE: Basic Knowledge of Growth & Development Program

Item & Percentage		Item & Percentage	
1	Understand growth to be 67%	17	Correct answer-newborn 76%
2	Speed of growth 64%	18	Foreskin exercises newborn 3%
3	Red color in growth chart 78%	19	Cranial/thoracic circumference 58%
4	Horizontal growth curve 66%	20	Brachial perimeter, correct 31%
5	Child of 3 months 76%	21	Definition of Moro reflex 76%
6	Definition of breast-feed 75%	22	Application Denver Test 52%
7	Definition pre-schooler 42%	23	First tooth 61%
8	Weight gain first 6 mos 49%	24	Growth-rpta correct 28%
9	Weight gain 2nd semestre 39%	25	Education message G&D 93%
10	Growth first year 64%	26	Nutrition younger than 1 72%
11	Average growth 1-4 33%	27	Dx problema historia cas 245
12	Ortolani maneuver newborn 70%	28	Conduct to follow case a 49%
13	Age of sphincter control 43%	29	Dx problema historia ca-1 9%
14	Age front fontanel closes 39%	30	Conduct to follow case b 18%
15	Age post. fontanel close 25%	31	Dx problema historia ca-2 75%
16	Correct answer-strabismus 49%	32	Conduct to follow case c 48%

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JKE-IRAs Basic Knowledge of ARI Program

UDES Puno Number of Workers 23
 H.C. 1 2 2 2 2 2 3 3 3 3 3 4 4 4 6 6 7 7 8 8 8 9 9
 Grade15 8 10 8 11 8 7 3 15 4 15 9 10 10 7 15 9 12 7 15 17 13 10

UDES Average: 10

UDES Caja Number of Workers 7
 H.C. 1 1 2 2 3 6 9
 Grade14 14 16 11 8 17 18

UDES Average: 14

UDES Madre Number of Workers 4
 H.C. 1 3 5 7
 Grade17 5 8 10

UDES Average: 10

UDES LimaE Number of Workers 18
 H.C. 1 3 3 4 4 5 5 7 7 7 7 8 8 8 2 2 6 6
 Grade14 17 9 9 3 18 17 18 4 10 9 11 7 14 13 14 13 10

UDES Average: 12

UDES Moque Number of Workers 17
 H.C. 1 1 2 2 3 4 4 4 6 6 6 7 8 8 9 9 9
 Grade17 18 16 5 4 13 18 8 14 17 12 14 8 15 7 16 14

UDES Average: 13

UDES Lamb Number of Workers 14
 H.C. 4 4 4 5 5 6 7 7 8 8 9 9 10 10
 Grade12 11 16 16 8 14 5 7 18 7 11 13 14 18

UDES Average: 12

UDES Cusco Number of Workers 12
 H.C. 1 2 3 4 4 5 5 5 6 7 7 8
 Grade12 15 9 7 16 10 16 9 10 6 8 10

UDES Average: 11

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JKE-ARI: Basic Knowledge of ARI Program

Item & Percentage		Item & Percentage	
1 Definition of ARI	88%	20 Management ARI Plan C	80%
2 Conditions increasing ARI	21%	21 Green rhinorrhea indica	39%
3 Presenting symptoms	79%	22 Necessary to evaluate	63%
4 Distinguishing slight ARI	75%	23 Primary cause mortality <5	60%
5 Distinguishing severe ARI	57%	24 Niño tiene estridor cuan	33%
6 Associated signs-gravity	37%	25 Case a signs for Tx	45%
7 Priority groups to see	53%	26 Case a Tx choice	60%
8 Recognize retraction by	54%	27 Case b signs for Tx	37%
9 Use treatment Plan A	76%	28 Case b Tx choice	54%
10 Use treatment Plan B	64%	29 Case c signs for Tx	34%
11 Use treatment Plan C	68%	30 Case c Tx choice	59%
12 Indications Plan A	71%	31 Order of attention	45%
13 Indications Plan B	73%	32 Case less worrisome	49%
14 Pt. management Plan C	44%	33 Case a more severe than b	55%
15 Mild ARI is:	56%	34 Case a more severe than c	53%
16 Moderate ARI is:	26%	35 Case b more severe than c	78%
17 Severe ARI is:	56%	36 Case a more urgent than b	52%
18 Prevention measures	60%	37 Case b more antibiotics c	76%
19 Plan B treatment	73%		

JKE-PAI: Basic Knowledge of EPI Program

UDES Puno Number of Workers 23
 C. S. 1 1 1 2 2 2 2 2 3 3 3 3 4 4 4 6 7 7 8 8 8 9 9
 Nota 8 11 8 7 8 10 7 13 4 19 6 9 7 11 14 15 13 11 10 15 12 9 8

Promedio UDES: 10

UDES Caja Number of Workers 14
 C. S. 1 1 2 2 3 3 4 6 7 7 8 8 9 9
 Nota 9 15 8 15 14 15 5 18 7 14 11 15 13 10

Promedio UDES: 12

UDES Madre Number of Workers 7
 C. S. 1 2 3 5 7 7 7
 Nota 5 9 17 9 14 15 15

Promedio UDES: 12

UDES LimaE Number of Workers 14
 C. S. 1 1 2 2 3 3 4 5 5 6 7 7 8 8
 Nota 9 15 7 10 10 11 6 16 7 12 9 14 12 10

Promedio UDES: 11

UDES Moque Number of Workers 21
 C. S. 1 1 2 2 2 3 3 3 4 4 4 6 6 6 6 7 8 8 9 9 9
 Nota 15 16 14 13 14 9 10 16 13 14 13 16 15 16 15 17 10 14 13 15 17

Promedio UDES: 14

UDES Lamb Number of Workers 17
 C. S. 2 3 3 4 4 5 5 5 6 7 7 8 8 9 9 10 10
 Nota 12 9 14 16 9 13 18 16 15 7 10 11 11 19 14 15 17

Promedio UDES: 14

UDES Cusco Number of Workers 12
 C. S. 1 2 3 4 4 5 5 6 6 7 7 8
 Nota 17 15 13 15 18 13 15 7 9 14 15 17

Promedio UDES: 14

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JKE-PAI: Basic Knowledge of EPI Program

Item and Percentage

1	Vaccine contraindication	58%
2	Correct statement	58%
3	Duration of immunity	44%
4	Use after reconstitution/M	76%
5	Correct answer/measles	79%
6	Not a reaction/measles	59%
7	Correct scheme/vaccine	74%
8	Verification state/DPT	42%
9	Administration of/DPT	90%
10	Correct answer/DPT	71%
11	Correct answer/vaccines	75%
12	Correct answer/polio	89%
13	Correct answer/BCG	72%
14	Route & dosage/BCG	68%
15	Specific reactions/BCG	77%

Item and Percentage

16	Not contraindication/BCG	43%
17	When child protected	55%
18	Purpose of application/BCG	51%
19	Purpose in pregnant pt./AT	33%
20	Correct answer/AT	69%
21	Route & dosage/AT	72%
22	Who given to/AT	30%
23	Contraindication/AT	54%
24	What is the cold chain	66%
25	Incorrect about refrigerator	58%
26	Position of vaccines/refrig	68%
27	Management of case A	60%
28	Management of case B	10%
29	Management of case C	53%
30	Management of case D	54%

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Management Assessment of PHC Services in the Peru MOH

JKE-PF: Basic Knowledge of Family Planning Program

UDES Puno Number of Workers 19
H.C. 1 2 2 2 2 2 3 3 3 3 3 4 4 4 6 7 8 8 9
Grade 14 7 9 6 7 10 3 9 2 3 9 7 11 8 16 8 7 10 11

UDES Average: 8

UDES Caja Number of Workers 8
H.C. 1 2 2 4 6 7 7 9
Grade 14 10 2 11 7 6 5 11

UDES Average: 8

UDES LimaE Number of Workers 16
H.C. 1 1 1 1 3 3 4 5 7 7 7 8 8 8 2 6
Grade 11 5 5 6 12 16 12 14 7 8 8 8 11 13 14 15

UDES Average: 10

UDES Moque Number of Workers 8
H.C. 1 3 4 6 7 8 9 9
Grade 8 14 13 9 13 16 11 7

UDES Average: 11

UDES Lamb Number of Workers 7
H.C. 2 3 4 4 7 7 8
Grade 11 8 8 6 9 9 11

UDES Average: 9

UDES Cusco Number of Workers 7
H.C. 1 2 3 4 4 5 7
Grade 8 12 8 14 9 11 10

UDES Average: 10

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JKE-PF: Basic Knowledge of Family Planning Program

Item & Percentage		Item & Percentage	
1	Oral contraceptives 34%	19	Reproductive risk evaluation 42%
2	Contraceptive education 52%	20	FP method efficiency 38%
3	Discontinuing use 68%	21	Age, varices and FP 77%
4	Billings method 77%	22	Age, parity, significant other 42%
5	Natural methods 51%	23	When importante to take BP 74%
6	Cervical mucous character 86%	24	Male participation -method 20%
7	Chemical method use 88%	25	Most importante data in case 11%
8	Affirming lost IUD 11%	26	FP method case a 51%
9	Correct use Lippe's IUD 32%	27	Most importante data -case1 12%
10	IUD complications 66%	28	FP method case b 29%
11	Affirming correct use 34%	29	Most importante data -case2 37%
12	Condom use indications 34%	30	FP method case c 31%
13	Correct ure of sponge 23%	31	Most importante data -case-3 42%
14	Correct use injectables 46%	32	FP method case d 49%
15	Injectable use-age 78%	33	Most importante data -case4 12%
16	Correct PAP statements 34%	34	FP method case 8%
17	Trichomonas detection 49%	35	Most importante data -case-5 40%
18	FP patient followup 82%	36	FP method case f 60%

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JKE-SM: Basic Knowledge of Maternal Health Program

UDES Puno Number of Workers 18
 H.C. 1 2 2 2 2 3 3 3 3 3 4 4 4 6 7 8 8 9
 Grade 15 12 7 9 9 7 12 4 7 11 13 13 13 11 9 12 11 13

UDES Average: 10

UDES Caja Number of Workers 6
 H.C. 1 2 2 4 6 9
 Grade 13 13 10 12 13 10

UDES Average: 12

UDES LimaE Number of Workers 15
 H.C. 1 1 1 3 3 4 5 7 7 7 8 8 8 2 6
 Grade 15 14 12 14 16 14 13 13 13 13 9 15 14 2 2

UDES Average: 12

UDES Moque Number of Workers 8
 H.C. 1 2 3 4 6 7 9 9
 Grade 12 11 14 14 15 16 14 13

UDES Average: 14

UDES Lamb Number of Workers 5
 H.C. 2 3 4 4 8
 Grade 18 11 15 7 17

UDES Average: 14

UDES Cusco Number of Workers 5
 H.C. 2 3 4 5 7
 Grade 15 14 18 16 15

UDES Average: 13

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JKE-SM: Basic Knowledge of Maternal Health Program

Item & Percentage		Item & Percentage	
1 Dx Trophoblastic	70%	22 Age obstetrical risk	14%
2 Dx severe toxemia	70%	23 No risk to pregnant woman	74%
3 Signs normal pregnancy	68%	24 Eclampsia most frequent in	86%
4 Dx Mastitis	5%	25 Request routine analysis	79%
5 Probable Teratógeno	16%	26 Signs for deciding case a	33%
6 Tetanus vaccination	42%	27 Patient management case a	63%
7 Suspects Placenta Previa	89%	28 Signs for deciding case b	33%
8 Dx Incomplete Abortion	61%	29 Patient management case b	39%
9 Immediate post-partum	72%	30 Signs for deciding case c	18%
10 Ripped canal	51%	31 Patient management case c	30%
11 Neonatal depression	70%	32 Signs for deciding case d	7%
12 Leucorrhea and actions	70%	33 Patient management case d	40%
13 No vaginal examination	82%	34 Signs for deciding case e	33%
14 Not done passage placenta	58%	35 Patient management case e	40%
15 Do not send to hospital	75%	36 Signs for deciding case f	39%
16 Cervical Incompetence	42%	37 Patient management case f	46%
17 Severe hypoxia and Apgar	77%	38 Case a greater risk than b	68%
18 Drugs slow uterine growth	89%	39 Case b greater risk than c	53%
19 Drugs bone growth	49%	40 Case c greater risk than d	49%
20 Conduct Severe Toxemia	72%	41 Case c greater risk than e	47%
21 1st semester complication	81%	42 Case d greater risk than a	70%

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CSX: Care/Counselling Simulation Exercise (SIMULEX)

CSX-CED: SIMULEX for ORT Program

Total of Workers	Puno 16	Caja 10	Madre 3	Lima 13	Moque 18	Lamb 9	Cusco 10
History							
1 Frequency	19	15	20	17	16	19	18
2 Vomiting	13	7	11	15	12	14	10
3 Urine	10	6	11	7	10	11	6
4 Thirst	3	6	6	7	9	8	4
5 Blood & mucous in stool	12	14	6	13	13	17	17
6 Duration of diarrhea	18	15	13	15	16	18	16
7 Other problems	12	10	13	8	11	7	6
8 Home treatment	8	11	13	11	15	10	11
Average	12	11	12	12	13	13	11
Physical Examination							
9 General status	7	7	6	11	13	7	13
10 Eyes	18	16	20	18	16	20	14
11 Mouth and tongue	17	19	20	18	17	16	18
12 Respiration	7	4	0	6	6	10	2
13 Skin	20	15	15	17	17	17	15
14 Pulse	10	4	0	4	5	7	4
15 Fontanel	16	15	13	17	12	19	15
16 Capillary filling	0	0	0	4	0	8	0
17 Weight	12	13	6	7	11	9	10
18 Nutritional status	6	4	2	4	5	8	10
19 Temperature	13	6	6	17	16	12	14
20 Abdomen	10	2	0	6	6	14	0
Average	11	9	7	11	10	12	10
Diagnosis							
21 Dehydration Dx	17	12	15	18	17	17	16
22 Conditions determining Dx	18	12	17	14	17	17	15
23 Dx other problems	11	12	6	7	14	13	10
Average	15	12	13	13	16	16	14
Treatment Strategy							
24 Rehydration strategy	18	14	17	17	18	19	18
25 Estrategia tx antiobiotico	15	14	4	12	14	12	10
26 Other drugs strategy	17	12	20	13	14	14	15
27 Other Tx strategy	17	16	6	11	16	7	10
Average	17	14	12	13	16	13	13

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CSX-CED: SIMULEX for ORT Program

Total of Workers	Puno	Caja	Madre	Lima	Moque	Lamb	Cusco
	16	10	3	13	18	9	10
Treatment Technique (Plan B)							
<i>Preparation of ORS</i>							
28 Discard old solution	11	10	10	15	10	10	16
29 Wash hands soap & water	4	6	0	6	5	10	4
30 Uses washed utensils	11	8	20	20	14	16	17
31 Check ORS expiration date	0	4	0	10	4	7	2
32 Checks condition of ORS	2	8	0	10	10	7	5
33 Uses boil/clean cold water	20	19	20	19	18	20	17
34 Measures 1 liter	20	20	20	20	20	20	20
35 Empties all salts in water	20	20	16	20	19	20	19
36 Mix until dissolves	19	19	20	20	20	20	20
37 Maintains ORS covered	7	7	0	13	15	5	14
38 Gives ORS room temperature	17	18	20	20	17	14	16
Average	12	13	11	16	14	14	14
<i>Administration of ORS</i>							
39 Actively involves mother	16	12	16	13	17	20	12
40 Encourages mother to give	15	14	13	17	15	12	11
41 Estimates amt. to give child	20	20	10	6	19	18	20
42 Gives with spoon	19	18	20	20	18	20	18
43 Gives with spoon	18	13	16	18	19	15	11
44 Observes for problems	13	8	20	9	12	14	12
45 Charts amt. given & status	8	5	3	10	13	8	9
46 Evaluates signs & symptoms	15	12	10	14	12	17	12
47 Evaluates amt. given, 4-6hrs	8	5	5	0	16	12	12
48 Checks child 4-6hrs. later							
49 Continue Tx at home							
50 Suspends Tx when rehydrated							
Average	15	11	12	15	15	15	12
<i>Tx Problems</i>							
51 Stops 10 minutes if vomits	15	12	16	19	17	18	17
52 Small amounts frequently	14	12	20	18	18	18	13
53 Tolerates, resume as before	7	10	13	18	16	14	14
54 No use of antiemetics	11	9	16	13	13	10	14
55 Plan C if keeps vomiting	15	4	0	14	16	14	10
56 Tell mom to give more often	1	8	20	18	12	14	12
57 Mom not able-direct support	8	3	10	10	13	10	8
58 Child same 4-6hrs-continue							
59 Child worse 4-6hrs. Plan c							
Average	13	8	14	16	15	14	13

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Management Assessment of PHC Services in the Peru MOH

CSX-CED: SIMULEX for ORT Program

Total of Workers	Puno 16	Caja 10	Madre 3	LimaE 13	Moque 18	Lamb 9	Cusco 10
Promotion/Education Content							
<i>Case-specific Content Plan B</i>							
60 No antibiotics, etc.	10	12	20	15	10	12	17
61 More liquids than usual	15	12	6	17	18	11	15
62 Continue breastfeeding	15	14	10	20	20	18	15
63 Liquids in case of vomiting	5	16	20	19	14	17	13
64 Give easily digested foods	12	11	6	13	18	14	10
65 Feed every 3-4 hrs.	9	8	13	13	13	15	6
66 Explain Tx and reasons	15	12	13	13	15	13	12
67 Diarrhea continues-to Dr.	15	18	13	13	17	17	11
Average	13	13	13	15	16	15	12
<i>Preparation and Use of ORS</i>							
68 Explains ORS lasts 24 hr	18	16	6	15	18	11	17
69 Do not boil ORS	8	4	0	13	11	6	10
70 Higher ORS or homemade soln	6	4	13	7	9	3	2
71 Explain preparation of ORS	13	12	20	15	17	18	16
72 Explain administration of	11	13	13	14	17	18	18
73 ORS not for diarrhea	8	1	13	6	12	15	7
74 Evaluate child often	6	10	13	9	3	13	11
75 Offer ORS frequently	10	4	20	13	15	14	11
76 Give ORS for home Tx	15	13	20	17	18	14	18
Average	11	9	13	12	14	12	12
<i>Signs of Dehydration</i>							
77 When to go to health center	9	7	13	11	10	16	9
78 Evacuates more often	3	4	6	12	12	14	7
79 Thirstier than usual	6	4	6	6	7	12	2
80 Check for dry mouth	8	4	6	13	8	17	6
81 Sunken eyes-no tears	8	6	6	10	7	15	7
82 Pale or listless	1	1	0	4	8	8	8
83 Urinates less	6	2	6	3	7	13	4
84 Has high fever	8	0	0	8	8	11	10
85 Evacuates with blood&mucous	6	2	0	4	8	11	11
86 Gives diarrhea info	6	6	0	8	10	15	4
Average	6	4	4	8	9	13	7
<i>Prevention Measures for Diarrhea</i>							
87 Personal-domestic hygiene	16	15	13	12	16	15	17
88 Teach food preparations	15	11	13	11	16	17	15
89 Use boiled/cleaned water	18	14	6	12	20	20	14
90 Breastfeeding &/or weaning	6	8	13	17	18	16	14
91 Measles vaccine	3	2	0	7	7	10	8
Average	14	10	9	12	15	16	14

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Management Assessment of PHC Services in the Peru MOH

CSX-CED: SIMULEX for ORT Program

Total of Workers	Puno 16	Caja 10	Madre 3	LimaE 13	Moque 18	Lamb 9	Cusco 10
Promotion/Education Strategy							
92 Explain every step	13	11	16	12	14	16	14
93 Requires mother to do it	9	4	11	6	12	16	9
94 Praises when done correctly	6	0	0	6	10	16	1
95 Asks if has questions	10	4	1	5	11	12	5
96 Asks to repeat own words	5	1	5	3	10	8	5
97 Asks if has any doubts	8	3	1	8	10	10	2
98 Uses simple language	14	16	18	14	13	17	18
99 Explains appropriate detail	13	14	18	14	12	15	15
Average	10	7	9	9	12	14	9
Affect							
100 Greets mother &/or child	15	19	20	19	20	18	16
101 Introduces self	1	0	0	4	0	6	5
102 Careses child	6	2	6	7	3	7	5
Average	8	7	9	10	8	10	9
Attitudes							
103 Bored/interested	15	15	20	17	14	17	18
104 Irritable/friendly	15	16	20	18	13	18	18
105 Arrogant/confident	11	13	15	17	12	16	16
106 Arrogant/respectful	15	15	15	15	11	17	16
Average	14	15	18	17	13	17	17
Satisfaction with Service Delivery							
107 Care seemed to be good	12	14	16	15	12	17	17
108 Answered questions	11	14	11	15	11	16	14
109 Clearly explains problem	10	11	11	14	10	17	16
110 Told exactly what doing	10	12	11	11	10	16	12
111 Told why did procedure	9	10	11	11	11	13	13
112 Said why should comply	11	9	13	11	12	16	11
Average	11	12	12	13	11	16	14
Satisfaction with the Treatment							
113 Did not interrupt me	18	19	20	17	20	17	20
114 Did not look down on me	20	20	20	20	20	17	20
115 Did not appear bothered	20	19	20	19	20	20	20
116 Not acted like did me favor	19	19	20	20	18	20	20
117 Did not appear hurried	15	16	20	18	17	17	20
118 Made me feel important	6	2	5	5	9	13	8
Average	16	16	18	16	18	17	18

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CSX-CRE: SIMULEX for Growth & Development Program

Total of Workers	Puno 17	Caja 8	Madre 2	LimaE 2	Moque 14	Lamb 6	Cusco 7
History							
<i>Of the Child</i>							
1 Name	17	17	20	10	18	20	20
2 Date of birth	16	17	20	10	16	16	20
3 Place of birth	8	5	20	0	11	13	14
4 Birth attendant	4	2	15	0	5	16	10
5 Type of delivery	5	2	0	0	7	20	8
6 Number of children	8	10	10	0	5	13	12
7 Condition at birth	2	2	0	0	5	16	2
8 Birth weight	6	15	20	10	9	16	8
9 Birth height	4	5	0	10	3	10	2
10 Development	4	3	10	0	2	8	5
11 Observation, child	10	0	0	0	5	8	17
12 Vaccinations	16	20	20	20	15	18	20
13 Food receives	8	16	20	20	9	18	20
Average	8	9	12	6	8	15	12
<i>Family</i>							
14 Father's name	12	17	20	10	11	16	14
15 Father's age	4	0	0	10	2	16	5
16 Father's marital status	4	2	0	0	1	10	8
17 Father's occupation	5	2	10	0	1	20	11
18 Father's educational level	0	0	0	0	0	10	5
19 Number of his dependents	0	0	10	0	0	3	5
20 Mother's name	14	17	20	10	14	20	14
21 Mother's age	6	0	0	0	7	20	8
22 Mother's marital status	4	2	0	0	2	13	8
23 Mother's occupation	4	0	0	0	4	13	8
24 Mother's educational level	0	3	0	0	4	10	11
25 Pregnancy control	0	5	0	10	2	20	5
26 Pregnancy illnesses	0	2	0	0	0	16	2
27 Family pathology	3	3	0	0	0	20	8
28 Important observations	0	3	10	0	3	10	8
Average	6	6	7	7	9	11	8
Physical Examination							
<i>Weight Measurement up to 15 Months</i>							
29 Balance scales-diaper	18	18	20	20	16	16	20
30 Child on scales-no clothes	18	13	10	10	17	18	14
31 Move weight to kg and gr	18	18	15	20	19	16	20
32 Wait until needle stops	17	16	15	20	20	15	20
Average	18	16	15	18	18	16	19



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CSX-CRE: SIMULEX for Growth & Development Program

	Puno	Caja	Madre	Lima	Moque	Lamb	Cusco
Total of Workers	17	8	2	2	14	6	7
<i>Weight Measurement 15 Months or Older</i>							
33 Balance stand-up scales	17	12	15		18	10	20
34 Child on scales, no shoes	19	8	5		20	15	18
35 Weight with mother	13	12	10		15	15	13
36 Find wt. in kilograms	17	12	15		18	12	16
37 Wait for needle to stop	16	12	15		18	10	16
Average	16	11	12	0	18	12	17
<i>Height Measurement up to 24 Months</i>							
38 Child supine on table	18	20	20	15	17	20	20
39 Ask mother to hold head	10	12	10	5	14	20	5
40 Secure knees	14	17	10	5	17	20	17
41 Foot placement	17	18	20	5	16	16	20
Average	15	17	15	8	16	19	16
<i>Height Measurement of Preschoolers and School-age Children</i>							
42 No shoes, socks	18	11	15	20	17	5	16
43 Body placement	16	7	5	0	17	7	20
44 Measure height	15	12	20	0	17	6	20
45 Exception	10	6	10	0	14	7	15
Average	15	9	13	5	16	6	18
<i>Measurement of Cephalic Perimeter</i>							
46 Measure head	15	8	20	10	19	20	11
<i>Measure of Thoracic Perimeter</i>							
47 Tape around back	16	8	20	10	19	20	11
48 Measure on expiration	8	5	10	0	10	8	11
Average	12	7	15	5	15	14	11
<i>Measurement of Braquial Perimeter</i>							
49 Measure arm	8	10	0	0	10	10	5

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CSX-CRE: SIMULEX for Growth & Development Program

Total of Workers	Puno 17	Caja 8	Madre 2	LimaE 2	Moque 14	Lamb 6	Cusco 7
<i>Direct Physical Examination</i>							
50 Washes hands	2	3	0	5	1	3	2
51 Determines general status	6	3	15	15	5	15	20
52 Takes temperature	9	10	10	15	7	11	0
53 Examines skin	9	1	10	0	11	16	5
54 Palpates fontanel	10	13	20	0	14	20	11
55 Examines hair	14	0	15	0	11	16	8
56 Examines eyes	14	12	10	0	12	15	14
57 >3 years-visual acuity	5	4	0	0	11	5	0
58 Examines ears	10	8	20	0	16	15	5
59 Examines nose	9	8	10	0	12	16	11
60 Examines mouth	10	8	20	0	18	15	14
61 Examines pharynx	4	8	0	0	5	6	5
62 Examines neck	10	8	20	0	10	13	5
63 Examines breasts	5	8	0	0	11	6	5
64 Checks pulse & respiration	4	5	0	10	5	6	0
65 Auscultate pulmonary fields	4	8	10	10	8	8	0
66 Auscultates heart sounds	6	4	0	10	3	3	0
67 Exam ubilical cord/scar	4	6	10	10	12	6	8
68 Examines abdomen	6	4	10	10	12	16	8
69 Genitourinary examn	10	8	20	10	13	15	10
70 Observes child's posture	2	3	15	15	10	6	14
71 Examines spinal column	4	8	20	0	12	11	2
72 Examines hips	9	12	20	20	19	15	17
73 Evalua muscle tone	3	0	10	10	10	10	02
74 Examines feet	2	4	10	0	13	4	3
75 Evaluates lymph nodes	2	6	10	0	8	13	2
76 Newborn's reflexes	6	0	10	0	13	8	2
77 Pre-schooler's reflexes	2	4	5	0	10	8	0
78 Explain purpose of exam	3	10	20	5	7	15	14
79 Calculate exact age	3	2	10	10	8	10	14
80 Adjusts for prematurity	0	4	10	0	7	4	2
81 Traces Denver line	4	4	10	0	12	3	8
82 Uses material for age	6	6	10	0	10	3	11
83 Case of transfer	0	0	10	20	7	0	8
Average	6	6	11	5	10	10	7

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CSX-CRE: SIMULEX for Growth & Development Program

Total of Workers	Puno 17	Caja 8	Madre 2	Lima 2	Moque 14	Lamb 6	Cusco 7
Promotion/Education Content							
<i>Case-specific Content</i>							
84 Importance of checkups	10	13	10	20	17	18	20
85 If weight adequate for age	8	16	20	20	20	20	20
86 If height adequate for age	2	18	20	20	18	16	17
87 Nutritional status	18	18	20	20	20	13	20
88 Psychomotor development	5	8	20	0	13	10	14
89 Abnormalities	6	10	15	0	10	10	20
90 Growth graph	15	18	10	10	17	13	17
91 Give return date	18	18	20	20	17	13	20
Average	13	15	17	14	17	15	19
<i>General Content</i>							
92 Breastfeeding problems	16	7	10	20	15	16	8
93 Explain advantages	7	12	10	20	11	18	14
94 Correct nursing position	2	2	0	10	8	6	2
95 Breastfeeding hygiene	9	0	10	10	8	10	14
96 Weaning after 6 months	11	10	0	10	15	17	17
97 Gradual food introduction	12	13	20	10	18	17	20
98 Cleaning food	12	10	15	10	17	20	17
99 Importance balanced diet	12	16	20	10	17	10	20
100 Written food instructions	0	5	10	10	12	10	2
101 Importance of vaccination	1	1	1	2	1	2	20
102 Vaccination schedule	14	10	15	20	18	10	17
103 Diarrhea prevention	10	8	0	20	13	20	15
104 ARI prevention	5	2	0	10	11	18	8
105 Evacuation habits	2	0	20	5	6	11	2
106 Stimulate talking, walking	5	1	20	5	10	15	4
107 Family planning	4	7	10	10	9	13	11
108 Case of problems	8	14	10	20	10	6	17
Average	8	8	11	13	13	14	12
Documentation							
109 Completes registry	16	8	20	10	15	18	17
110 Completes G&D card	16	15	15	5	17	18	20
Average	16	12	18	8	16	18	19
<i>Measurement of Weight</i>							
111 Charts weight	20	20	20	20	20	16	20
112 Graphs weight	20	17	20	10	20	16	20
113 Connects to old weight	16	15	15	10	18	8	12
114 Fills out duplicate	7	11	10	20	11	0	17
Average	16	16	16	15	17	10	17
<i>Measurement of Height</i>							
115 Charts height	10	15	20	10	20	15	17
116 Height related to age	10	15	20	10	20	8	17
117 Connects to old height	8	12	15	10	17	4	12
Average	9	14	18	10	19	9	15

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Management Assessment of PHC Services in the Peru MOH

CSX-CRE: SIMULEX for Growth & Development Program

	Puno	Caja	Madre	Lima	Moque	Lamb	Cusco
Total of Workers	17	8	2	2	14	6	7
<i>Other Measurements</i>							
118 Chart on control sheet	12	11	10	10	11	16	18
119 Chart in Hx/what examined	10	10	0	10	12	16	18
120 Chart in Hx/Findings	8	7	10	5	10	10	15
121 Chart in Hx/Date of exam	8	7	10	5	11	13	18
Average	10	9	8	8	11	14	17
Promotion/Education Strategy							
122 Demonstrates every step	12	10	12	10	15	15	15
123 Requires mother to do it	7	9	0	5	13	13	12
124 Praises if does correctly	5	7	0	0	13	12	2
125 Asks questions	9	5	0	0	14	13	14
126 Asks to repeat in own words	5	5	5	0	0	12	11
127 Asks if has doubts	3	8	7	5	12	12	10
128 Uses simple language	16	15	17	12	16	16	18
129 Explains appropriate detail	14	16	16	17	12	15	13
Average	9	9	7	6	14	13	12
Affect							
130 Greeted mother &/or child	16	17	20	10	20	20	20
131 Introduces self	4	3	10	10	0	10	2
132 Caressed child	4	6	0	20	5	16	14
Average	8	9	10	13	8	15	12
Attitudes							
133 Bored/interested	15	16	17	15	15	15	19
134 Irritable/friendly	14	18	15	15	13	15	18
135 Nervous/confident	12	15	17	10	15	14	19
136 Arrogant/respectful	13	16	15	10	15	15	18
Average	14	16	16	13	15	15	19
Satisfaction with Service Delivery							
137 Gave good care	13	14	15	12	14	17	17
138 Answered questions	9	15	10	7	12	18	17
139 Explained problem	9	14	10	7	14	17	15
140 Explained procedures	8	12	7	10	13	15	16
141 Gave reasons for actions	6	12	7	12	12	16	17
142 Explained why should comply	6	11	11	12	10	13	13
Average	9	13	10	10	13	17	16
Satisfaction with the Treatment							
143 Did not interrupt me	18	20	20	20	19	18	20
144 Did not look down on me	17	20	20	20	19	20	20
145 Did not appear bothered	19	20	20	20	20	18	20
146 Not act like was a favor	19	20	20	15	20	18	20
147 Did not appear hurried	18	20	12	15	20	17	20
148 Made me feel important	5	3	2	12	13	7	10
Average	16	17	16	17	19	16	18

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CSX-IRA: SIMULEX for ARI Program

	Puno	Caja	Madre	LimaE	Moque	Lamb	Cusco
Total of Workers	16	5	4	8	17	5	7
History							
1 Age	17	18	11	17	18	20	20
2 Ear pain	3	8	0	11	4	2	5
3 Difficult respirations	7	0	8	16	10	17	15
4 Diffuculty drinking	11	8	10	17	7	3	15
5 Duration of illness	18	14	18	15	16	15	16
6 Nasal secretion	12	20	11	15	17	16	16
7 Cough	18	18	16	20	18	20	17
8 Fever	17	20	18	19	19	20	20
9 Problems	15	8	11	9	15	10	11
10 Home treatment	10	20	10	15	14	7	7
Average	13	13	11	15	14	13	14
Physical Examination							
11 General status	2	1	3	17	9	9	13
12 Nose & throat	15	12	18	15	16	15	19
13 Weight	11	12	5	15	16	8	5
14 Ear secretion	7	8	0	9	7	6	5
15 Respiratory rate	12	20	15	17	16	15	14
16 Retraction	7	8	5	12	10	13	11
17 Stridor	6	4	3	5	7	12	6
18 Cervical ganglions	2	0	0	2	6	6	0
19 Nasal secretion	15	12	10	15	15	17	19
20 Temperature	20	14	18	14	13	17	16
21 Nutritional status	4	6	0	4	5	3	2
Average	9	9	7	11	11	11	10
Diagnosis							
22 ARI diagnosis	18	20	15	19	16	17	20
23 Conditions determining Dx	17	14	16	19	16	18	19
24 Associated signs	16	5	6	15	18	8	16
Average	17	13	12	18	17	14	18
Treatment Strategy							
25 ARI strategy	17	18	15	17	18	18	19
26 Antibiotic strategy	15	14	13	16	18	17	16
27 Other drug strategy	19	13	13	15	18	17	17
28 Other treatment strategy	18	13	5	4	6	4	3
Average	17	15	12	16	18	17	16

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Management Assessment of PHC Services in the Peru MOH

CSX-IRA: SIMULEX for ARI Program

Total of Workers	Puno 16	Caja 5	Madre 4	LimaE 8	Moque 17	Lamb 5	Cusco 7
Promotion/Education Content							
<i>Case-specific Content of Plan A</i>							
29 Clearing nose	12	14	5	13	10	11	11
30 Liquids	17	12	15	20	18	15	15
31 Promoting eating	17	10	10	16	16	17	12
32 Temperature control	13	10	10	8	16	2	2
33 No cough syrups	11	4	7	16	15	14	14
34 When should go to HC	6	14	2	11	8	4	14
35 Aspirin	9	0	7	6	15	14	14
36 Antipyretics	11	10	12	15	12	17	18
Average	12	9	9	13	14	12	13
<i>Case-specific Content of Plan B</i>							
37 Cotrimoxazol niños 3m-4a	13	10	12	17	12	18	10
38 Penicilina benzatínica	13	12	15	15	13	16	12
39 Reevaluación-48 horas	15	10	10	17	15	18	15
Average	14	11	12	16	13	17	12
<i>General Content</i>							
40 Inmunizaciones	6	10	2	7	12	8	10
41 Lactancia materna	12	6	10	12	11	11	7
42 Nutrición apropiada	13	8	7	15	16	12	10
43 Control ambiente	8	10	10	12	12	11	11
44 Higiene persona	18	12	7	10	11	8	11
45 Preparación alimentos	9	10	10	3	11	10	11
46 Agua hervida o limpia	7	4	10	11	9	11	8
Average	9	9	8	10	12	10	10

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Management Assessment of PHC Services in the Peru MOH

CSX-IRA: SIMULEX for ARI Program

Total of Workers	Puno 16	Cuzco 5	Madre 4	LimaE 8	Moque 17	Lamb 5	Cusco 7
Promotion/Education Strategy							
47 Explain every activity	10	11	7	12	11	12	11
48 Requires mother to do it	6	6	3	5	9	7	2
49 Alabanzas hace correcto	5	1	3	5	9	7	2
50 Preguntas específicas	8	4	5	10	10	7	3
51 Repita en otras palabras	5	3	5	3	9	5	2
52 Pregunte si hay dudas	5	4	3	6	9	7	2
53 Lenguaje fácil	15	17	15	15	15	15	17
54 Explica detalle apropiad	16	12	12	14	13	11	16
Average	9	7	7	9	11	9	7
Affect							
55 Saludó a madre y/o niño	17	20	20	16	20	17	17
56 Introduce self	8	0	2	7	0	5	0
57 Acarició al niño	2	0	5	5	3	4	2
Average	9	7	9	9	8	9	6
Attitudes							
58 Interested	16	16	16	19	13	12	14
59 Amable/amistoso	15	17	16	18	14	12	15
60 Tranquilo/confiado	13	13	12	18	13	12	13
61 Respetuoso/alabrador	14	14	12	18	12	12	11
Average	15	15	14	18	13	12	13
Satisfaction with Service Delivery							
62 Care seemed good	12	13	12	15	13	13	15
63 Answered questions	10	13	10	15	14	14	15
64 Explained problems	8	10	6	14	12	12	12
65 Explained what was doing	9	11	7	10	11	11	10
66 Reasons why did things	10	9	6	11	9	9	7
67 Reasons should comply	10	9	7	11	12	7	7
Average	10	11	8	13	12	11	11
Satisfaction with the Treatment							
68 Did not interrupt me	19	19	20	18	19	19	20
69 Did not look down on me	20	20	20	20	20	20	20
70 Did not appear bothered	20	20	20	20	19	19	19
71 No acted like was favor	20	20	20	20	20	20	19
72 Did not appear hurried	18	20	20	19	17	17	17
73 Made me feel important	6	1	6	8	8	4	7
Average	17	17	18	18	17	17	17

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Management Assessment of PHC Services in the Peru MOH

CSX-PAI: SIMULEX for EPI Program

Total of Workers	Puno 15	Caja 14	Madre 7	LimaE 11	Moque 17	Lamb 11	Cusco 9
History							
1 Child's age	20	20	20	20	20	19	20
2 Asks for carne	18	20	20	20	17	20	17
3 Vaccination history	17	19	20	17	20	19	20
Average	18	20	20	19	19	19	19
Physical Examination							
4 Is child sick	14	17	15	17	12	10	12
Diagnosis							
5 Case of diarrhea	17	20	17	14	18	15	15
6 In case of cold	16	14	15	13	16	14	14
7 In case of eruptions	8	2	5	5	5	9	8
8 In case of fever	12	14	14	10	7	15	11
9 In case of malnutrition	10	4	4	7	8	9	12
10 In case of cough	17	11	14	10	9	15	14
Average	13	11	12	10	11	13	12
Vaccination Technique							
<i>Polio</i>							
12 Grabs neck of vial	16	14	11	15	20	14	14
13 Confirms name & date	5	9	4	6	8	2	6
14 Opens vial	20	20	15	14	20	17	13
15 Opens dropper package	19	20	14	13	16	17	15
16 Dropper to vial	18	15	17	16	20	17	14
17 Removes wrapper	16	18	11	14	18	18	13
18 Puts in cold box	16	17	17	19	17	12	20
19 In mother's lap	18	20	20	19	20	18	16
20 Sits older child	16	9	17	11	18	20	20
21 Removes dropper cover	20	19	20	15	20	19	18
22 Opens mouth	18	16	18	17	20	20	17
23 Gives 2-3 drops	20	20	20	20	20	20	20
24 Avoids contact	18	17	17	20	19	19	16
25 Covers dropper	16	15	20	20	17	10	20
Average	17	16	16	16	18	16	16

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Management Assessment of PHC Services in the Peru MOH

CSX-PAI: SIMULEX for EPI Program

Total of Workers	Puno 15	Caja 14	Madre 7	Lima 11	Moque 17	Lamb 11	Cusco 9
<i>DPT</i>							
27 New syringe from wrapper	20	20	20	19	20	20	18
28 Sterilized syringe	13	16	15	15	16	13	11
29 Maintains sterility	16	17	18	17	20	20	17
30 Uses new needle	20	16	17	16	18	17	16
31 Sterilized needle	15	12	10	16	16	16	15
32 Connects syringe & needle	17	15	12	18	18	17	18
33 Grabs vial by neck	17	16	14	17	20	16	18
34 Checks name & date	2	5	0	8	10	3	6
35 Slowly agitates	14	7	12	11	20	11	11
36 Homogenous solution	14	9	12	12	17	10	11
37 Checks for sediment	10	10	5	12	15	9	11
38 Discards if sediment	13	5	5	12	15	6	12
39 Removes seal	18	17	18	17	20	17	16
40 Cleans rubber	17	15	17	14	16	11	13
41 Lets evaporate	12	10	3	11	10	4	12
42 Vial in cold box	18	15	17	17	20	10	18
43 Covers cold box	12	10	15	16	17	12	17
44 Grabs vial by neck	19	17	12	16	20	17	12
45 Cleans stopper	17	16	12	13	15	15	12
46 Waits until evaporates	10	12	6	10	10	5	10
47 Injects air into vial	16	12	11	13	18	18	11
48 Extracts dose	20	20	20	19	20	20	18
49 Clears air from syringe	16	20	17	20	18	20	13
50 To cold box	19	15	15	18	20	5	17
51 Covers cold box	12	13	14	19	17	8	17
52 Positions child	20	19	20	19	19	18	20
53 Locates zone	20	20	20	20	20	17	20
54 Sopay water, sterile water	6	8	10	13	17	18	13
55 Alcohol and let dry	5	15	12	12	13	7	13
56 Introduces needle	17	19	18	20	18	20	20
57 Checks for blood	16	15	18	18	18	16	17
58 Injects 0.5cc	20	18	18	20	20	20	20
59 Withdraws needle	16	18	17	19	20	14	14
60 Discards syringe	18	15	14	17	20	18	17
61 Removes used needle	10	16	12	20	15	12	20
62 Syringe sterility	12	15	12	18	15	8	20
Average	15	14	14	16	17	14	15

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Management Assessment of PHC Services in the Peru MOH

CSX-PAI: SIMULEX for EPI Program

Total of Workers	Puno 15	Caja 14	Madre 7	Lima 11	Moque 17	Lamb 11	Cusco 9
<i>Measles</i>							
64 Syringe 1/2 or 5cc	18	20	17	18	18	20	20
65 New syringe	17	20	15	12	18	16	16
66 Sterilized syringe	17	16	17	16	20	20	20
67 Maintains sterility	19	16	17	14	18	17	20
68 Uses new needle	14	14	10	11	15	8	16
69 Needle to syringe	19	16	15	18	19	20	20
70 Grab vial by neck	18	15	11	15	19	16	18
71 Check name & expiration	5	11	0	9	9	2	5
72 Removes seal	17	18	20	16	20	18	20
73 Cleans stopper	12	11	11	17	17	11	15
74 Dries with cotton	8	7	5	16	12	5	14
75 Puts in cold box	13	15	10	19	19	10	20
76 Opens diluent	18	19	18	18	20	20	16
77 Draws up diluent	17	17	18	18	17	19	15
78 Stores syringe	14	12	11	20	18	8	16
79 Injects diluent	14	15	12	15	20	16	16
80 Gently mixes	14	13	11	14	18	16	17
81 Vial to cold box	16	12	17	17	18	9	20
82 Covers cold box	14	11	15	16	18	9	18
83 Grabs prepared vial	18	15	12	16	18	15	18
84 Cleans rubber	13	7	11	14	15	10	20
85 Injects air in vial	16	12	8	15	18	20	11
86 Extracts vaccine	20	19	18	18	20	20	18
87 Removes air	18	20	15	17	19	20	11
88 Returns to cold box	16	14	14	18	18	5	20
89 Covers cold box	12	10	14	16	18	6	17
90 Sits child in lap	20	18	15	20	18	17	17
91 Uncovers left arm	20	17	18	18	20	19	20
92 Cleans middle third	16	14	20	17	16	17	17
93 Sterile water	9	8	10	14	12	10	15
94 Grabs zone	14	15	14	14	17	13	20
95 Introduces needle	16	19	18	18	19	19	20
96 Checks for blood	16	15	11	19	17	18	15
97 Slowly injects 0.5cc	19	17	20	19	20	20	17
98 Removes syringe	17	16	20	15	20	17	16
99 Discards syringe	18	17	14	17	18	14	17
100 Discards needle: multiple	12	14	15	17	16	8	16
101 Sterile syringe	13	14	10	15	17	12	16
Average	15	15	14	16	18	14	17

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CSX-PAI: SIMULEX for EPI Program

Total of Workers	Puno 15	Caja 14	Madre 7	LimaE 11	Moque 17	Lamb 11	Cusco 9
<i>BCG</i>							
103 New 2cc syringe	20	18	20	18	19	20	20
104 Sterilized 2cc syringe	17	15	15	17	14	12	20
105 Guards sterility	19	16	14	18	20	20	16
106 Uses new needle	19	14	12	20	20	20	18
107 Sterilized needle	12	12	15	12	16	8	20
108 Guards sterility	20	14	12	17	20	20	18
109 New lcc syringe	20	18	18	18	20	20	16
110 Sterilized lcc	16	14	15	20	17	11	17
111 Keeps sterile	18	17	17	17	20	16	16
112 Uses new needle	18	15	17	18	20	18	18
113 Sterilized needle	13	14	15	17	16	12	20
114 Needle to syringe	20	17	14	20	20	20	18
115 Solvent in protector	18	8	8	12	17	12	18
116 Grabs solute vial	13	14	12	15	13	14	16
117 Opens solute vial	18	16	14	18	17	16	20
118 Puts in cold box	14	10	17	18	14	8	20
119 Grabs solvent vial	11	14	17	17	12	15	16
120 Opens solvent vial	17	16	18	17	16	17	18
121 Solvent in cold box	14	10	11	18	16	12	18
122 Draws up solvent	17	17	20	18	18	20	20
123 Adds to solute vial	15	14	14	12	20	16	20
124 Puts in cold box	16	12	17	18	20	8	18
125 Covers cold box	11	11	14	18	17	10	18
126 Draws up 0.1cc	17	15	20	18	20	20	18
127 Balances in cold box	18	12	14	17	20	7	0
128 Covers cold box	12	10	15	18	18	10	20
129 Positions newborn	20	15	18	18	20	18	20
130 Positions child	16	12	15	20	18	15	20
131 Soapy water to zone	16	11	12	17	14	16	18
132 Cleans with alcohol	9	15	10	12	13	11	15
133 Introduces needle	18	17	18	17	20	17	18
134 Parallel with skin	17	18	18	17	20	17	18
135 Injects 0.1cc	19	17	20	18	19	20	20
136 Observes for papule	15	17	18	18	16	18	20
137 Withdraws needle	20	17	18	15	20	18	18
138 Discards syringe	20	17	17	16	20	13	18
Average	16	14	16	17	18	15	18

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Management Assessment of PHC Services in the Peru MOH

CSX-PAI: SIMULEX for EPI Program

Total of Workers	Puno 15	Caja 14	Madre 7	LimaE 11	Moque 17	Lamb 11	Cusco 9
<i>Anti-Tetanus Toxoid</i>							
140 New syringe	18	13		20	19	20	20
141 Sterilized syringe	13	13		20	16	20	20
142 Guards sterility	18	16		16	18	20	20
143 Uses new needle	18	13		16	20	20	20
144 Slowly mixes	15	13		13	16	5	20
145 Checks for sediment	17	13		13	19	15	20
146 Discards if sediment	17	6		13	20	20	20
147 Confirms name & exp.	7	10		10	14	0	20
148 Slowly mix til homogenous	4	10		13	17	20	20
149 Checks for sediment	7	6		10	17	10	20
150 Discards if sediment	13	13		10	17	10	20
151 Removes seal	16	13		13	18	20	20
152 Cleans rubber	14	6		13	16	20	13
153 Waits until evaporates	5	13		13	13	10	20
154 Puts in cold box	15	6		16	18	20	20
155 Covers cold box	12	10		13	18	15	20
156 Grabs prepared vial	18	13		13	19	20	20
157 Cleans with alcohol	14	6		16	15	20	20
158 Waits until evaporates	9	13		13	14	0	13
159 Injects air	17	13		20	20	20	13
160 Extracts vaccine	18	20		20	18	20	20
161 Removes air from syringe	17	20		20	20	20	13
162 Remainder to cold box	18	20		16	18	15	20
163 Positions child	18	20		16	20	20	20
164 NOT VALID							
165 Locates zone	18	13		13	20	15	20
166 Soapy water	16	10		13	15	10	20
167 Cleans with alcohol	12	16		13	15	10	20
168 Introduces needle	18	20		13	19	20	20
169 Checks for blood	17	20		16	18	10	20
170 Injects 0.5cc	18	20		16	20	20	20
171 Withdraws syringe	16	20		13	20	20	20
172 NOT VALID							
173 Discards syringe	17	10		13	18	5	20
174 Takes off needle	12	6		13	16	5	20
175 Guards sterility	15	6		13	16	10	20
Average	15	12		14	18	15	18

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Management Assessment of PHC Services in the Peru MOH

CSX-PAI: SIMULEX for EPI Program

Total of Workers	Puno 15	Caja 14	Madre 7	Lima 11	Moque 17	Lamb 11	Cusco 9
Promotion/Education Content							
<i>Case Specific Content - Reactions and Care</i>							
176 Polio/no reactions	12	13	13	18	12	20	13
177 Polio/to HC for problems	6	6	10	13	12	13	8
178 Polio/return date diarrhea	8	13	10	10	11	14	12
179 DPT, Pol/pain in zone	15	18	20	17	18	18	17
180 DPT, Pol/fever next day	18	18	16	19	18	18	20
181 DPT, Pol/apply nothing	7	15	6	14	14	11	12
182 DPT, Pol/scratching	5	13	0	10	10	14	8
183 DPT, Pol/fever lasts	7	6	13	16	10	15	11
184 DPT, Pol/other symptoms	6	10	6	12	14	12	11
185 Mea, Pol/fever in 7-10dys	16	16	16	15	18	19	17
186 Mea, Pol/eruption in 7-10dy	6	12	13	13	11	16	18
187 Mea, Pol/no scratching area	6	10	3	8	8	10	18
188 Mea, Pol/fever lasts	7	6	13	7	11	16	11
189 Mea, Pol/other symptoms	6	8	10	9	15	12	13
190 All/local pain	12	15	10	16	18	13	17
191 All/fever in 7-10 dys	16	13	18	14	18	16	18
192 All/eruption	8	10	15	11	17	16	14
193 All/no scratching	4	11	4	10	14	14	8
194 All/apply nothing	5	13	2	13	11	12	10
195 All/fever lasts	6	5	5	10	11	14	11
196 All/other symptoms	9	7	4	12	14	13	13
Average	9	11	10	13	14	15	13
<i>General Content</i>							
197 Told mother vaccines given	15	17	17	15	16	20	20
198 Explained the reasons	14	17	14	13	15	18	12
199 Told vaccination schedule	11	5	10	18	12	13	13
200 Gave return appointment	16	20	12	19	20	20	20
Average	15	16	12	15	18	18	16
Documentation							
201 Filled out ID card	17	18	11	18	18	17	17
202 Filled out registry	12	14	12	11	15	18	15
Average	15	16	12	15	17	18	16

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Management Assessment of PHC Services in the Peru MOH

CSX-PAI: SIMULEX for EPI Program

Total of Workers	Puno 15	Caja 14	Madre 7	Lima 11	Moque 17	Lamb 11	Cusco 9
Promotion/Education Strategy							
203 Explain every step	15	14	12	12	15	14	11
204 Required mother to do it	11	6	10	5	15	5	7
205 Praised when done well	6	6	3	4	12	5	6
206 Asked questions	9	9	2	7	12	8	8
207 Asked to repeat other word		4	7	1	1	12	6
208 Told to ask about doubts	4	8	4	5	12	5	6
209 Used simple language	17	19	16	13	16	15	17
210 Explain appropriate detail	15	15	17	17	11	15	19
Average	10	11	8	7	14	9	10
Affect							
211 Greeted mother	18	20	20	16	20	14	16
212 Introduces self	6	2	2	7	1	2	0
213 Caressed child	2	2	1	4	3	1	3
Average	9	8	8	9	8	6	6
Attitudes							
214 Bored/Interested	15	18	17	16	15	14	16
215 Amable/Friendly	15	17	17	16	15	14	15
216 Nervous/Confident	14	14	13	15	14	13	13
217 Arrogant/respectful	15	15	15	16	15	13	13
Average	15	16	16	16	15	14	14
Satisfaction with Service Delivery							
218 Care seemed good	14	17	15	15	15	16	15
219 Answered questions	12	16	12	15	13	15	15
220 Clearly explains problem	12	14	12	13	12	14	13
221 Said exactly what doing	11	14	12	10	13	13	13
222 Said why did procedure	11	14	11	10	14	12	13
223 Said why should comply	11	13	10	8	10	14	14
Average	12	15	12	12	13	14	14
Satisfaction with the Treatment							
224 Did not interrupt me	18	19	17	18	20	17	18
225 Did not look down on me	20	20	17	20	20	20	18
226 Did not appear bothered	18	20	17	18	19	19	18
227 No acted like was favor	20	20	17	19	20	18	17
228 Did not appear hurried	19	18	14	18	19	18	17
229 Made me feel important	8	1	5	6	10	3	9
Average	17	16	15	17	18	16	16

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Management Assessment of PHC Services in the Peru MOH

CSX-PF: SIMULEX for Family Planning Program

Total of Workers	Puno	Caja	Madre	Lima	Moque	Lamb	Cusco
	15	7	0	10	8	4	5
History							
<i>Personal data</i>							
1	16	12		16	17	20	13
2	16	15		20	20	20	20
3	4	11		16	10	20	16
4	4	5		10	5	15	12
5	5	2		14	5	15	12
Average	9	9		15	11	18	15
<i>Family History</i>							
6	1	2		2	0	8	0
7	2	2		4	6	5	0
8	3	2		3	5	16	0
Average	2	2		3	4	10	0
<i>Physiologic History</i>							
9	4	5		12	11	15	16
10	7	8		14	13	15	16
11	2	2		7	5	6	12
12	4	5		2	4	18	6
Average	4	5		9	8	14	13
<i>Pathologic History</i>							
13	3	8		7	8	20	12
14	0	6		5	0	8	8
15	6	6		12	11	11	12
16	0	3		3	1	6	4
17	0	3		4	0	6	4
18	0	4		6	0	13	1
19	2	4		7	2	8	8
20	0	4		1	1	8	4
21	0	3		1	0	6	0
22	0	2		3	0	3	0
23	1	6		11	7	13	8
24	1	0		6	2	5	0
Average	1	4		6	3	9	5
<i>Obstetrical History</i>							
25	17	17		18	20	18	20
26	2	6		14	8	13	16
27	1	2		8	7	11	5
28	11	5		12	11	13	10
29	12	8		12	10	10	16
30	1	0		10	7	8	0
Average	7	6		12	11	12	11

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CSX-PF: SIMULEX for Family Planning Program

Total of Workers	Puno 15	Caja 7	Madre 0	Lima 10	Moque 8	Lamb 4	Cusco 5
Contraceptive History							
31 Past contraceptive use	4	17		14	11	16	12
32 Complications	1	1		6	8	13	10
33 Contraceptive abandonment	2	0		3	5	8	10
Average	2	6		8	8	12	11
Present State							
34 Date LMP	14	14		18	15	18	20
35 Present type contraceptive	5	15		13	12	10	14
36 Breastfeeding	11	10		12	7	11	8
37 Leukorrhea	8	7		6	10	5	0
Average	10	12		2	11	11	11
Physical Examination							
38 Asks pt. to urinate	1	0		8	2	13	0
39 Washes hands before exam	0	0		2	0	11	0
40 Takes BP	11	8		12	10	11	16
41 Skin	2	2		6	5	1	8
42 Breasts	8	5		14	10	16	16
43 PAP	9	8		18	18	13	12
44 Cervix	10	8		16	20	15	16
45 Vaginal exam	6	2		16	11	16	16
46 Lower extremities	7	7		8	12	15	4
Average	6	4		11	10	14	10
Diagnosis							
47 Reproductive risk Dx	8	4		9	11	18	14
48 Conditions det. risk	8	4		11	13	20	17
49 What is diagnosis	13	6		13	16	15	18
Average	10	5		11	13	18	16
Treatment Strategy							
50 Pharmacologic strategy	11	6		16	14	10	20
51 Contraceptive method	16	15		16	18	18	18
52 Indication strategy	17	11		20	18	18	20
53 Referral strategy	19	4		20	20	15	20
54 Complication strategy	14	8		14	14	20	18
55 Failure strategy	14	5		13	13	18	14
56 Condition det. strat	12	8		17	16	18	18
Average	15	8		17	16	17	18

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Management Assessment of PHC Services in the Peru MOH

CSX-PF: SIMULEX for Family Planning Program

Total of Workers	Puno 15	Caja 7	Madre 0	Lima 10	Moque 8	Lamb 4	Cusco 5
Promotion/Education Content							
<i>Pills</i>							
57 1st pill 5th day period	18	12		20	20	20	20
58 Pill daily	18	17		20	20	20	20
59 Same hour every day	17	11		8	8	15	20
60 Miss one period, continue	4	0		8	8	17	8
61 2 missed period, go to HC	6	2		6	4	15	4
62 Forget 1 pill, 2 next day	16	8		8	14	20	20
63 Effect on breastfeeding	7	5		1	4	7	8
64 Use of barrier	9	5		3	5	15	12
65 In case of problem	6	5		4	8	17	4
66 Finish 21 pills	5	11		13	17	12	13
67 Rest 7 days & start new	5	11		15	12	15	13
68 Menstruation	2	5		11	10	12	13
69 Finish 28 pills	14	8		10	12	20	20
70 Start new pack	12	8		11	12	20	20
71 Period starts	6	5		11	8	20	20
Average	10	8		10	11	16	14
<i>Dispositivos Intrauterinos (DIU)</i>							
72 Insertion time	14	14		13	14	20	20
73 Immediate protection	14	0		13	14	10	8
74 Withdraw when desire	8	8		11	5	10	4
75 Menstruation	8	0		11	10	10	16
76 Changes in menstruation	5	2		2	10	6	20
77 Bleeding	5	2		5	12	10	16
78 Pain during menstruation	8	0		10	8	3	12
79 Perforation	0	2		10	5	0	4
80 Persistent abdominal pain	6	0		4	5	0	16
81 Pelvic infection	4	2		3	2	0	8
82 Pregnancy	2	8		1	2	0	0
83 Ectopic pregnancy	0	0		2	1	0	0
Average	6	3		7	7	6	10
<i>Condom</i>							
84 Put on erect penis	17	14		4	20	20	20
85 Not broken	11	5		15	10	20	12
86 Leave space at end	10	8		15	8	20	16
87 Removal before flacid	8	11		14	15	10	16
Average	12	10		12	13	18	16
<i>Injectable Hormones</i>							
88 Time of	10	5		13	8	20	16
89 Frequency	12	10		11	17	16	16
90 Amenorrhea	8	2		10	5	13	16
91 Bleeding	8	5		7	7	6	16
Average	10	6		10	9	14	16

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Management Assessment of PHC Services in the Peru MOH

CSX-PF: SIMULEX for Family Planning Program

Total of Workers	Puno 15	Caja 7	Madre 0	Lima 10	Moque 8	Lamb 4	Cusco 5
<i>Sponge or Vaginal Tampon</i>							
92 Preparation of	3	0		7	4	3	0
93 Soak sponge	2	0		0	2	0	0
94 Squeeze out a little	1	0		1	1	0	0
95 Placement	5	0		1	8	3	0
96 When to place	2	0		1	8	6	0
97 Withdrawing	3	0		2	4	3	0
Average	3	0		2	5	3	0
<i>Chemical (Tablets, Creams)</i>							
98 Fill applicator	12	5		8	12	7	16
99 Insertion position	6	5		6	11	7	8
100 Deposit deeply	16	14		6	18	15	14
101 When to insert	17	11		15	18	15	20
102 No wash for 6 hours	7	2		8	7	7	8
103 New dose every time	10	5		10	8	12	20
Average	11	7		9	12	11	14
<i>Calender</i>							
104 Note dates for 6 mos.	3	5		7	5	12	12
105 Calculate # dys/cycle	10	7		5	8	17	16
106 First day	16	12		6	14	20	16
107 Last day	7	10		5	7	20	16
108 Calculate difference	4	1		2	4	12	12
109 When not to use	6	2		2	4	12	8
110 Fertile days	16	14		2	15	20	16
Average	9	7		4	8	16	14
<i>Billings or Mucous Method</i>							
111 Observe for 4 cycles	3	0		4	8	5	5
112 Dryness	5	0		3	5	5	15
113 Nearing ovulation	12	11		4	17	7	20
114 Thumb & index finger	13	11		4	12	15	20
115 Maximum elasticity	13	5		5	8	12	20
116 Avoid 4 days after	8	5		4	10	10	20
117 Safe days	6	1		2	11	12	15
118 When to go to HC	6	0		3	10	7	0
Average	8	4		4	10	9	14
<i>Basal Temperature</i>							
119 Daily for 6 mo.	2	1		4	7	10	3
120 Before rising & eating	8	4		3	8	15	6
121 Regular thermometer	4	2		6	4	15	6
122 Take for 3-5 minutes	2	1		5	5	10	3
123 Graph on special sheet	2	1		5	5	5	0
124 Mid-cycle drop in temp.	3	1		4	4	7	0
125 Rises afterward	4	4		4	8	10	6
126 Ovulation day	4	4		4	10	5	6
127 Begin abstinence	8	1		4	7	10	6
128 End abstinence	2	1		3	7	12	6
129 conditions affecting	1	4		3	5	6	0
130 Gives return date	2	1		6	8	2	6
131 Special instructions	0	2		3	5	7	6
Average	3	2		4	6	9	4

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Management Assessment of PHC Services in the Peru MOH

CSX-PF: SIMULEX for Family Planning Program

Total of Workers	Puno 15	Caja 7	Madre 0	LimaE 10	Moque 8	Lamb 4	Cusco 5
Promotion/Education Strategy							
132 Asks if has questions	11	9		8	10	15	11
133 Repeat in own words	7	1		3	8	7	7
134 Asks if has doubts	9	1		4	8	11	9
135 Uses simple language	15	17		12	13	15	20
136 Uses correct amt. detail	13	17		12	13	13	20
Average	11	9		8	10	12	13
Documentation							
137 Fills out control card	6	5		12	18	20	15
Affect							
138 Greets patient	18	17		15	20	20	20
139 Introduces self	2	0		6	0	10	2
Average	10	9		11	10	15	11
Attitudes							
140 Bored/interested	16	15		16	13	15	19
141 Irritable/Friendly	15	15		16	12	16	19
142 Nervous/Confident	14	15		14	12	17	19
143 Arrogant/Respectful	14	12		15	12	16	19
Average	15	14		15	12	16	19
Satisfaction with Service Delivery							
144 Gave good care	13	12		16	11	16	18
145 Answered questions	15	12		14	12	15	19
146 Explained problem	12	11		11	10	13	18
147 Explained actions	10	9		11	7	15	16
148 Explained why acted	10	10		12	6	16	16
149 Explained why comply	10	5		10	10	15	17
Average	12	10		12	9	15	17
Satisfaction with the Treatment							
150 Did not interrupt me	20	20		17	20	18	20
151 Did not look down on me	20	20		19	20	20	20
152 Did not appear bothered	20	20		20	20	20	20
153 No acted like was favor	19	20		19	20	20	20
154 Did not appeared hurried	18	15		17	20	17	20
155 Made me feel important	8	3		5	7	3	12
Average	18	16		16	18	16	19

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Management Assessment of PHC Services in the Puno MOH

CSX-SM: SIMULEX for Maternal Health Program

Total of Workers	Puno 12	Caja 5	Madre 0	Lima 8	Moque 8	Lamb 4	Cusco 4
History (First Visit)							
<i>Personal Data</i>							
1 Verifies name	18	15		16	20	20	15
2 Verifies address	14	13		12	13	20	15
3 Age	18	16		19	20	20	20
4 Education level	10	10		13	4	5	15
Average	15	14		15	14	16	16
<i>Family History</i>							
5 Congenital illnesses	2	5		10	1	6	5
6 Hereditary illnesses	1	10		8	5	3	5
7 Other illnesses	6	8		8	5	8	5
Average	5	5		6	5	5	5
<i>Pathologic History</i>							
8 Cardiovascular illnesses	3	4		2	5	15	6
9 CNS pathologies	0	5		0	0	0	0
10 Hepatopathies	3	6		0	2	8	5
11 Endocrinopathies	0	6		3	3	0	5
12 Blood dyscrasias	0	6		2	3	0	3
13 Pulmonary diseases	4	7		5	1	8	5
14 Renal diseases	4	6		2	2	3	10
15 Urinary, vaginal infection	6	7		0	2	8	11
16 Neoplasms	3	5		0	0	5	0
17 Psychiatric disorders	0	4		0	0	0	10
18 Operations	3	8		2	0	15	10
19 Noxious habits	0	5		0	0	8	5
20 Sexual transmitted diseases	2	4		0	0	0	0
21 Allergic to medicine	3	6		5	0	3	5
22 Takes medication	0	3		5	0	8	0
Average	2	5		2	1	5	5
<i>Physiologic History</i>							
23 Menarche	8	13		14	5	13	15
24 Catamenial pattern	6	13		13	7	16	20
25 Sexual relations	6	10		14	5	11	5
26 Dysmenorrhea	4	3		2	7	11	5
Average	6	10		11	6	13	11

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Management Assessment of PHC Services in the Peru MOH

CSX-SM: SIMULEX for Maternal Health Program

Total of Workers	Puno 12	Caja 5	Madre 0	Lima E 8	Moque 8	Lamb 4	Cusco 4
<i>Obstetrical History</i>							
27 # of pregnancies	16	16		20	15	20	20
28 # full-term pregnancies	6	8		12	12	20	16
29 # premature deliveries	6	8		15	6	13	10
30 # abortions	14	11		16	17	15	20
31 Last pregnancy or abortion	11	5		10	7	15	15
32 Babies birth weight	2	8		2	1	5	6
33 Complications in pregnancy	6	8		2	1	13	15
34 # living children	20	10		18	15	20	20
35 # deceased children	12	10		8	10	16	15
36 Multigravida	4	11		5	0	13	5
37 Last PAP	0	7		14	2	5	0
38 Using contraceptives	2	3		6	0	6	10
39 Nursing when empregnated	2	1		2	0	3	15
40 Pre-pregnancy BP	2	0		4	7	3	5
41 Pre-pregnancy weight	6	6		0	9	3	5
42 Anti-Tetanus Toxoid Hx	0	4		9	10	13	20
Average	7	7		9	7	11	12
<i>Present State</i>							
43 Date LMP	20	20		17	17	15	16
44 Previous consult	10	4		13	5	8	20
45 Some problem	18	15		15	16	13	20
46 Breastfeeding now	2	1		5	4	6	11
47 Delivery plans	4	3		5	6	5	10
48 Nutrition during pregnancy	14	10		7	14	6	15
49 Leukorrhoea	10	13		14	14	15	16
50 Trouble urinating	11	12		13	7	16	15
Average	11	10	0	11	10	11	15
<i>Physical Examination</i>							
51 Asks patient to urinate	0	0		2	2	5	5
52 Washes hands	0	0		4	1	5	5
53 Weight	16	15		10	15	15	20
54 Take BP	16	18		15	15	20	20
55 General status	10	14		15	5	5	15
56 Skin	6	14		1	8	10	15
57 Eyes	16	14		5	13	10	15
58 Oral mucosa	11	0		2	10	5	15
59 Breasts	16	14		17	13	15	20
60 Heart, lungs	12	12		7	4	13	10
61 Palpates abdomen	18	20		17	16	15	20
62 Measures uterine height	17	17		20	15	20	20
63 Fetal heart sounds	16	13		17	15	20	20
64 Legs & feed	16	15		14	15	18	15
65 PAP	4	12		16	5	15	10
66 Cervix	2	11		10	4	5	15
67 Vaginal exam	8	10		15	2	13	15
68 Pelvis	6	11		5	6	11	20
Average	11	12		11	9	12	15

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Management Assessment of PHC Services in the Peru MOH

CSX-SM: SIMULEX for Maternal Health Program

Total of Workers	Puno 12	Caja 5	Madre 0	Lima 8	Moque 8	Lamb 4	Cusco 4
Diagnosis							
69 What is diagnosis	16	20		18	14	20	20
70 Obstetrical risk	9	6		11	10	20	13
71 Conditions determining Dx	9	11		12	11	18	10
Average	11	12		14	12	19	14
Treatment Strategy							
72 Consult strategy	12	8		14	17	18	15
73 Referral strategy	16	11		14	17	18	20
74 Medicine strategy	16	14		18	14	18	20
75 Nutrition strategy	19	10		12	14	16	20
76 Other tests strategy	12	12		20	14	18	15
77 Anti-Tetanus vaccine	6	18		18	18	18	20
78 Emergency strategy	13	6		9	17	18	13
79 Conditions & Tx strategy	14	13		14	13	20	18
Average	14	12		15	16	18	18
Promotion/Education Content							
<i>Content in the First Prenatal Consult</i>							
80 Lab tests	9	5		20	11	17	15
81 Anti-Tetanus	2	5		8	17	15	20
82 First dosis	4	8		18	17	15	20
83 Four weeks apart	4	6		15	11	15	20
84 Nutrition	16	13		3	17	20	20
85 Medicines	7	11		8	11	20	17
86 Need for dentist	10	5		12	11	10	12
Average	7	8		12	14	16	18
<i>General Content</i>							
87 Breasts preparation	10	3		10	11	10	10
88 Breastfeeding	9	1		12	8	7	12
89 Bathing	8	5		5	12	2	10
90 Sex	0	6		2	5	7	5
91 Exercise	0	3		2	1	7	0
92 Noxious habits	3	1		2	0	10	5
Average	5	3		6	6	7	7

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Management Assessment of PHC Services in the Peru MOH

CSX-SM: SIMULEX for Maternal Health Program

Total of Workers	Puno 12	Caja 5	Madre 0	LimaE 8	Moque 8	Lamb 4	Cusco 4
Prenatal Attention							
93 Monthly visit	13	6		12	16	12	7
94 Semimonthly	15	5		11	11	15	17
95 Weekly visit	8	5		7	11	12	15
96 Weight gain	5	6		1	10	12	15
97 Pain, trimester 1	5	4		5	5	16	6
98 Bleeding, trimester 1	8	8		6	6	20	0
99 Persistent headache	4	6		3	2	20	6
100 Nausea & vomiting	8	6		1	7	20	0
101 Fever, trimester 1	2	4		1	2	6	6
102 Pain, trimester 2&3	9	5		5	5	17	10
103 Edema, trimesters 2&3	13	10		6	8	10	7
104 Dizziness, 2nd & 3rd	7	1		3	0	5	5
105 Headache, 2nd & 3rd	7	8		1	5	0	5
106 Blurred vision, 2&3	7	8		0	5	5	5
107 Chills, trimesters 2&3	4	1		0	0	0	5
108 Bleeding, 2nd & 3rd	8	8		2	11	15	5
109 No fetal movement	6	5		2	7	10	10
110 No weight gain, 2&3	4	8		0	5	10	5
111 Too rapid wt. gain	6	5		2	2	10	5
112 Persistent backpain	0	1		2	0	5	5
113 Dysuria, trimester 2&3	4	10		3	5	0	5
114 Ringing ears, 2&3	6	6		0	2	0	5
115 Fever, trimesters 2&3	3	1		2	5	7	5
116 Uterine contractions	7	6		0	2	15	0
117 When should go to center	9	11		7	12	15	5
118 Told her Dx	6	11		6	5	15	5
Average	7	6		3	6	10	6
Documentation							
119 Chart probable date in Hx	20			20	13	20	15
120 Chart obstetrical Dx in Hx	16			20	12	17	20
121 Chart instructions in Hx	13			16	11	10	20
122 Chart medicines in Hx	11	11		16	10	17	20
123 Chart return date in Hx	15	11		16	12	20	20
124 Note probable date on card	1	6		14	10	10	15
125 Note gestational age -card	8	10		16	5	15	10
126 Note obstetrical Dx - card	1	8		15	7	15	15
127 Note return date on card	15	11		20	18	15	12
128 Medicine instruction -card	7	0		15	7	15	20
Average	13	10		17	11	15	17

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Management Assessment of PHC Services in the Peru MOH

CSX-SM: SIMULEX for Maternal Health Program

Total of Workers	Puno	Caja	Madre	Lima	Moque	Lamb	Cusco
	12	5	0	8	8	4	4
History (Follow-up Visit)							
129 Problems	18	16		15	16	16	20
130 Complying	16	13		18	11	16	20
131 Had lab tests	13	13		16	14	15	20
132 Vaccinated	3	10		16	9	13	16
133 Went to dentist	7	0		15	6	5	5
Average	11	10		16	11	13	16
History (Postpartum Visit)							
<i>Anamnesis</i>							
134 Delivery date	18	12		18	15	18	20
135 Delivery place	19	12		16	19	20	20
136 Birth attendant	18	18		15	16	18	20
137 How was delivery	17	12		11	11	16	20
138 Placenta	6	5		4	6	18	5
139 Child at birth	14	11		11	16	15	15
140 Vaginal bleeding	12	13		10	13	11	20
141 Episiotomy	6	11		10	6	5	10
142 Fever	9	4		9	9	8	10
143 Abdominal pain	10	1		7	2	8	0
144 Medicines	4	3		7	0	15	10
145 Nutrition	9	8		4	5	11	10
Average	12	9		10	10	14	13
<i>Present Postpartum State</i>							
146 Milk production	17	14		16	11	11	20
147 Loquia	18	14		20	13	13	15
148 Trouble urinating	11	6		6	5	11	16
Average	15	11		14	10	12	17
<i>Contraceptive History</i>							
149 Birth control use	3	11		8	2	8	10
150 Failure of method	3	2		5	0	10	10
Average	3	7		7	1	9	10
Physical Examination							
151 Asks pt. to urinate	1	3		7	4	10	5
152 Washes hands	2	3		5	0	5	5
153 Blood pressure	13	12		17	10	18	16
154 Verifies temperature	11	10		0	6	13	11
155 Eyes	11	5		2	13	6	15
156 Oral mucosa	7	3		0	10	6	15
157 Breasts	17	16		17	16	16	20
158 Abdomen	16	13		17	15	11	20
159 Genitals	13	13		15	14	18	20
160 Lower limbs	12	7		10	6	13	10
Average	10	9		9	9	12	14

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Management Assessment of PHC Services in the Peru MOH

CSX-SM: SIMULEX for Maternal Health Program

Total of Workers	Puno 12	Caja 5	Madre 0	LimaE 8	Moque 8	Lamb 4	Cusco 4
Diagnosis							
161 What is diagnosis	17	13		20	16	19	17
162 Conditions determining Dx	16	11		15	15	20	20
Average	17	12		18	16	20	19
Treatment Strategy							
163 Consult strategy	16	5		13	15	18	16
164 Referral strategy	20	4		14	15	18	18
165 Pharmacologic strategy	18	14		15	14	20	15
166 Nutritional strategy	19	15		12	15	13	20
167 Auxiliary tests strategy	14	8		15	13	13	10
168 Obstetrical emergency	15	6		6	13	13	15
Average	17	9		13	14	16	16
Promotion/Education Content							
169 Promote breastfeeding	15	11		15	15	20	15
170 Balanced diet	17	15		7	11	17	20
171 More liquids	4	6		5	6	10	10
172 No sex 4-6 wks.	3	3		2	2	15	10
173 Family planning	18	20		12	20	20	20
174 Hygiene	14	5		7	8	15	17
Average	12	10		8	10	16	15
Promotion/Education Strategy							
175 Asks if has questions	12	6		6	8	8	12
176 Repeat in own words	6	2		0	6	7	8
177 Asks if has doubts	6	2		2	5	10	7
178 Uses simple language	15	16		15	14	16	20
179 Uses correct amt. detail	12	15		13	12	16	20
Average	10	8		7	9	11	13
Affect							
180 Greeted mother	17	20		15	20	17	20
181 Introduces self	2	5		2	0	10	7
Average	10	13		9	10	14	14
Attitudes							
182 Bored/Interested	15	16		16	14	17	18
183 Irritable/Friendly	15	15		13	12	17	18
184 Nervous/confident	14	16		15	12	16	20
185 Arrogant/respectful	15	13		13	12	16	18
Average	15	15		14	13	17	19

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Management Assessment of PHC Services in the Peru MOH

CSX-SM: SIMULEX for Maternal Health Program

Total of Workers	Puno 12	Caja 5	Madre 0	Lima 8	Moque 8	Lamb 4	Cusco 4
Satisfaction with Service Delivery							
186 Gave good care	12	15		15	12	15	18
187 Answered questions	12	13		13	12	17	13
188 Explained diagnosis	7	14		10	9	16	11
189 Explained actions	5	11		6	7	12	12
190 Explained why acted	6	12		7	5	10	11
191 Explained why comply	8	6		8	8	15	12
Average	8	12		10	9	14	13
Satisfaction with the Treatment							
192 Did not interrupt me	19	17		17	20	17	18
193 Did not look down on me	20	20		20	20	20	20
194 Did not appear bothered	20	17		19	20	20	20
195 No acted like did me favo	20	20		19	17	18	20
196 Did not appear hurried	19	18		18	18	16	20
197 Made me feel important	6	5		5	9	8	11
Average	17	16		16	17	17	18

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Management Assessment of PHC Services in the Peru MOH

PSR: Personnel Self-Report

PSR-CED: Self-Report for ORT Program

Total of Workers	Puno 18	Caja 10	Madre 3	Lima 13	Moque 17	Lamb 13	Cusco 11
Service Delivery							
1 Dr. see pts. before triage	3.0	3.3	4.5	2.8	2.8	3.8	3.5
2 Drs. collaborate	3.0	4.0	4.0	3.8	3.8	3.5	3.5
3 Frequency check in line	3.5	3.3	3.3	3.3	3.0	4.3	3.5
4 Dehydration worse/wait	2.0	2.3	3.3	2.3	2.0	1.5	2.0
5 Secure evaluate dehydrad	4.0	4.0	4.0	4.5	4.0	4.3	4.0
7 Secure managing dehydras	3.8	4.0	4.0	4.8	4.0	4.5	4.0
8 Technician follows norm	3.8	3.5	4.0	4.3	4.0	4.5	3.8
9 Nurse follows normsm	4.0	4.3	4.0	3.8	4.5	4.5	4.3
10 Doctor follows norms	3.3	3.8	4.5	3.5	4.0	4.0	4.0
11 Makes home visits	3.0	2.3	1.5	1.3	3.8	2.8	2.8
13 Record of visits	3.3	3.3	1.5	1.8	4.5	3.8	3.8
14 Prescribe antidiarrheal	1.5	1.3	1.5	1.0	1.3	1.0	1.3
15 Prescribe antibiotics	2.0	1.5	3.0	1.3	1.8	1.5	2.0
16 Prescribe antiemetics	2.0	1.8	2.5	1.5	1.8	1.3	1.8
17 Language barrier	2.3	1.3	1.5	1.5	1.3	1.3	1.3
18 Daily average # patients	1.3	1.3	1.3	1.5	1.3	1.3	1.0
19 Think give good care	3.8	3.8	4.3	3.8	3.8	3.8	4.0
Promotion/Education							
21 Explain dehydration sign	2.0	1.5	2.5	1.0	1.5	1.3	2.0
22 Give classes/community	2.8	2.8	1.3	2.5	3.0	3.3	3.3
23 Give classes/staff	1.8	2.0	2.0	2.0	2.0	1.8	1.8
25 Secure teachiang	4.0	4.0	4.3	4.3	4.3	4.8	4.0
27 Moms interest level	3.3	3.3	4.3	3.5	3.3	3.8	2.5
30 Community participation	2.8	2.5	1.5	2.8	2.8	2.8	3.0

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Management Assessment of PHC Services in the Peru MOH

PSR-CRE: Self-Report for Growth & Development Program

Total of Workers	Puno 19	Caja 8	Madre 2	Lima 3	Moque 16	Lamb 7	Cusco 10
Service Delivery							
1 Pts. only see doctors	1.5	1.3	1.0	2.5	1.8	1.5	1.8
2 Doctors collaborate	2.8	3.8	3.0	2.5	2.5	2.0	3.0
3 Secure evaluating	4.0	4.3	5.0	4.0	3.8	4.3	3.8
5 Secure manage malnutrition	3.8	4.3	4.5	4.3	4.0	4.0	3.8
6 Makes home visits	3.0	2.5	2.5	2.3	3.5	3.3	3.3
8 Refer withing center	3.0	3.3	3.5	3.3	3.0	3.3	4.0
9 Refer to other places	2.5	1.8	3.0	1.5	2.5	3.5	2.8
10 Home visit record	2.8	4.0	1.5	2.5	4.3	3.3	4.0
11 Suggests cough syrup	1.8	1.5	1.5	2.0	1.0	2.0	2.0
12 Suggests antibiotics	1.8	1.5	1.0	1.0	1.3	1.5	1.8
13 Suggests antipyretics	2.3	2.0	3.5	2.3	2.8	3.0	2.8
14 Language barrier	2.5	1.3	1.0	1.3	1.8	1.3	1.3
15 Daily averag # patients	2.5	2.3	3.0	2.3	1.5	1.5	2.3
16 Gives quality care	3.3	3.8	3.5	3.5	3.8	4.0	3.8
Promotion/Education							
18 Explaining growth curve	4.0	4.5	5.0	4.3	4.8	4.8	4.5
19 Explain malnutrition sign	4.3	4.5	4.5	4.5	4.5	4.5	4.3
20 Explain emotional support	4.3	4.3	4.5	4.5	4.0	4.5	4.0
21 Explaining breastfeeding	4.5	4.8	5.0	4.5	4.8	5.0	4.5
22 Explaining weaning	4.3	4.5	5.0	4.0	4.5	4.8	4.3
23 Family planning messages	3.8	4.3	5.0	4.0	4.0	4.5	4.3
24 Vaccination messages	4.5	4.8	5.0	4.5	4.8	5.0	4.5
25 Gives classes/community	2.3	2.8	1.5	2.3	2.5	2.3	2.8
26 Gives classes/staff	1.3	1.8	1.5	2.3	2.0	1.3	1.8
27 Gives classes/schools	1.5	1.5	1.0	2.0	1.8	1.3	1.3
29 Secure teaching	4.0	4.3	4.5	4.0	4.3	4.5	4.0
31 Moms interest level	3.0	2.8	4.0	4.3	3.3	3.3	2.8
33 How obtains materials	1.3	2.3	2.5	2.0	3.0	1.8	1.5
34 Community participation	2.3	2.5	2.5	3.3	2.8	2.5	3.0

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PSR-IRA: Self-Report for ARI Program

Total of Workers	Puno 22	Caja 7	Madre 4	LimaE 13	Moque 16	Lamb 11	Cusco 9
Service Delivery							
1 Drs. see all patients	2.3	3.3	3.0	2.5	2.3	2.3	2.8
2 Doctors collaborate	2.8	3.8	2.3	3.5	3.8	4.3	3.5
3 ARI program exists	4.0	4.3	4.3	3.5	4.5	5.0	3.8
4 Follows PMOH flow chart	3.3	3.5	3.5	3.0	4.0	4.0	3.0
5 Evaluates those in line	3.3	4.0	3.3	2.5	3.5	4.0	2.8
6 Worsen because of delay	2.0	2.0	3.0	3.0	2.0	2.3	2.5
7 Secure of good eval	3.5	4.0	3.8	4.3	4.0	4.0	3.8
9 Technician follows norm	3.5	3.5	4.5	4.0	4.0	4.3	3.3
10 Nurse follows norms	4.0	4.3	4.5	3.0	4.5	4.5	4.0
11 Doctor follows norms	3.5	4.3	4.0	3.3	4.3	3.8	3.5
12 To nursing for follow-up	3.0	3.3	2.3	2.8	3.8	4.0	3.5
13 Makes home visit	3.0	3.0	3.0	1.5	3.8	3.0	2.3
15 Maintain record/visit	3.0	4.0	2.0	2.3	4.8	3.5	3.0
16 Prescribes cough syrup	2.0	1.3	2.5	1.8	1.5	1.3	1.8
17 Prescribes antibiotics	3.3	2.5	4.0	2.3	2.8	2.5	3.3
18 Prescribes antipyretics	3.3	3.0	3.5	3.3	3.5	3.5	2.8
19 Clinical histories	3.3	3.8	1.0	2.5	3.5	3.3	2.8
20 Frequency does new Hx	1.8	1.3	1.0	1.5	1.8	1.5	1.5
21 No time/complete register	1.8	1.3	1.8	2.3	2.0	2.0	2.0
22 Registers available	2.5	2.0	3.8	1.5	4.0	3.0	2.0
23 Language barrier	2.3	2.0	1.8	1.0	2.0	1.0	1.3
24 Referral forms available	1.3	2.5	2.5	1.3	2.3	2.3	1.0
25 Daily average # pts.	1.0	1.5	1.0	1.3	1.3	1.5	1.5
26 Gives quality care	3.8	3.8	3.8	4.0	3.8	3.5	4.0
Promotion/Education							
28 Explaining signs&symptom	4.0	4.5	4.8	4.5	4.5	4.0	3.8
29 Gives classes/community	2.8	3.3	2.8	2.0	3.0	2.8	3.0
30 Gives classes/staff	1.5	2.0	2.3	1.8	2.0	2.0	2.0
32 Secure teaching	3.8	4.3	3.8	4.5	4.5	4.3	3.8
34 Moms interest level	3.0	2.8	3.5	3.3	3.5	3.5	2.5
37 Community participation	2.5	2.5	2.3	3.0	3.0	2.3	2.8

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Management Assessment of PHC Services in the Peru MOH

PSR-PAI: Self-Report for EPI Program

	Puno 22	Caja 14	Madre 7	LimaE 13	Moque 18	Lamb 14	Cusco 11
Total of Workers							
Service Delivery							
1 Is there EPI program	4.5	4.9	4.7	4.9	5.0	4.8	4.7
2 Refrigerator problems	3.6	2.7	3.4	2.0	2.4	2.4	1.9
3 Generator problems	3.0	2.6	3.5	2.3	1.9	3.2	2.4
4 Cold box problems	2.5	1.9	2.2	2.6	1.7	2.6	1.7
5 Thermos problems	2.9	2.1	1.6	2.5	2.3	2.7	1.4
6 Thermometer problems	2.9	1.8	1.9	2.8	2.4	2.9	1.8
7 Ice pack problems	2.7	2.0	2.0	2.6	2.4	2.9	1.6
8 Problems with BCG	2.6	2.3	3.0	3.1	2.5	2.9	2.1
10 Problems with OPV	2.1	1.9	2.3	2.7	1.9	2.9	1.5
12 Problems with DPT	2.4	2.1	2.4	3.4	2.2	2.8	1.3
14 Anti-tetanus problems	2.1	2.5	2.4	3.1	2.2	3.2	1.9
15 Why anti-tetanus problem	2.8	3.0	2.0	2.0	2.3	2.1	2.0
16 Measle vaccine problem	2.3	2.4	2.1	3.2	2.2	3.1	1.7
18 Material problems	2.5	3.0	2.7	2.8	2.3	2.8	1.6
19 Wait for group/open vial	2.8	2.5	2.7	2.8	2.3	2.8	3.2
20 Scarcity is reason waits	2.1	2.4	2.3	2.3	2.1	2.9	2.8
21 No vaccine/diarrhea	3.5	4.1	3.4	3.5	4.1	4.3	4.6
22 No vaccine/fever	2.7	3.3	2.9	1.9	3.6	1.9	3.6
23 No vaccine/low weight	2.5	2.9	3.0	2.1	2.7	2.5	3.1
24 No vaccine/has cold	3.5	4.4	4.4	3.8	3.8	4.1	4.5
25 No vaccine/rash	2.2	2.9	2.3	2.5	2.8	2.6	3.3
26 No vaccine/mom scared	2.4	3.1	2.7	2.4	2.3	3.1	3.2
27 No vaccine/no electricity	2.1	2.3	1.7	2.5	2.0	2.5	2.6
28 Has new drug literature	1.9	1.8	1.9	2.3	3.4	1.9	2.9
29 Blackout/vaccines to hosp	3.3	2.3	2.3	2.5	2.9	3.2	2.3
30 Blackout/store in thermos	2.0	2.8	2.5	2.2	3.4	2.7	3.3
31 Blackout/in refrigerator	1.7	1.8	2.6	1.6	1.5	1.9	1.5
32 Doctors collaborate	2.3	3.9	3.5	4.2	3.4	3.4	2.8
33 Technician follows norms	4.2	4.0	4.7	4.5	4.6	4.2	4.2
34 Nurse follows norms	4.5	4.4	5.0	4.7	4.8	4.3	4.7
35 Doctor follows norms	3.2	4.5	3.8	4.1	3.5	3.6	3.7
36 Makes home visits	3.3	3.6	2.6	2.8	4.6	3.1	4.0
38 Is there record of visit	3.1	3.2	2.1	2.8	4.3	3.2	4.3
39 Suggests antipyretics	3.9	3.4	4.4	4.3	3.8	4.4	3.5
40 Suggests pain medicines	2.2	2.1	2.7	2.6	1.7	3.1	2.1
41 Suggests cough syrup	2.2	1.8	1.9	1.3	1.2	1.3	1.5
42 Suggests antibiotics	1.5	1.8	2.3	1.0	1.2	1.3	1.2
43 Suggest anti-inflammatory	1.7	1.4	1.6	1.4	1.3	1.1	1.3
44 Language barrier	2.4	1.2	1.6	1.5	1.9	1.5	1.2
45 Daily average # patients	1.4	1.9	1.7	1.9	1.4	1.7	1.2
46 Thinks give good care	3.9	4.0	4.0	4.2	3.9	3.9	4.1
Promotion/Education							
48 Importance other program	4.5	3.9	3.9	4.1	4.4	4.4	4.6
49 Secure teaching/OPV	4.5	4.6	4.6	4.8	4.8	4.8	4.9
50 Secure teaching/DPT	4.4	4.6	4.7	4.8	4.8	4.8	4.8
51 Secure teaching/tetanus	4.1	4.8	4.6	4.7	4.8	4.8	4.8
52 Secure teaching/BCG	4.5	4.8	4.7	4.8	4.6	4.6	4.9
53 Teaching, measles	4.5	4.7	4.7	4.8	4.8	4.6	4.9
54 Tell about reactions	4.5	4.6	4.7	4.8	5.0	4.8	4.5
55 Gives classes/community	2.7	3.0	2.0	2.8	3.4	2.8	2.9
56 Give classes/EPI staff	2.0	2.5	1.8	2.0	2.6	1.7	2.0
57 Give classes/schools	1.5	2.2	1.2	1.8	2.1	1.5	2.0
59 Feel secure/what teach	4.0	4.5	4.0	4.6	4.4	4.7	4.2
61 Moms interest level	2.9	3.6	3.8	3.8	3.4	3.8	3.3
64 Community participation	2.5	2.9	2.4	3.0	3.1	2.5	3.4

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Management Assessment of PHC Services in the Peru MOH

PSR-PFM: Self-Report for Family Planning & Maternal Health Programs

Total of Workers	Puno 18	Caja 8	Madre 0	Lima 17	Moque 9	Lamb 7	Cusco 5
Service Delivery							
1 Frequency waits for Dr.	2.8	3.3		2.9	2.6	4.0	2.6
2 Worker/waits clinical Hx	2.4	2.0		2.5	2.2	3.2	2.8
3 Pt. told not working	2.2	2.3		1.9	2.0	2.7	2.2
4 No follow-up/no information	2.8		2.4		1.8	2.1	2.8
5 >1 delivery at time	1.8	1.9		1.4	1.3	1.0	1.8
6 Does new clinical Hx	2.6	1.4		2.1	1.3	2.5	2.2
7 No time for register	2.6	2.0		1.5	1.9	3.0	2.0
8 Pt waits/obst. emergency	1.7	1.4		1.5	1.2	2.0	1.4
9 Pt waits/general emergendy	1.4	1.4		1.7	1.2	2.2	1.6
10 Family planning/postpart	4.0	4.1		4.6	4.7	4.0	4.8
11 Makes home visits	2.8	2.8		2.5	3.9	3.0	3.0
16 No resources when premie	2.9	1.1		1.4	1.9	1.6	1.8
17 Daily average # patient	1.9	1.5		3.5	1.3	3.7	2.2
19 Thinks give good care	3.7	3.6		4.2	4.0	4.0	3.6
Promotion/Education							
21 Gives classes/community	3.1	3.3		2.9	3.2	3.0	3.6
22 Gives classes/personnel	2.2	2.9		1.9	2.0	2.4	2.6
23 Classes/lay mid-wives	1.4	1.4		1.4	1.6	1.2	1.6
27 Secure teaching	4.3	4.5		4.3	4.2	4.6	4.4
30 Community takes part	2.8	2.6		3.5	3.3	3.1	3.2
31 Coordinate/lay mid-wife	1.8	1.8		1.9	1.9	1.7	1.6
32 Assesses comprehension	3.9	3.7		3.8	4.1	3.7	3.2

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