

Monitoring

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Sr.Manager - IT & Systems



Objective

- Overview of Monitoring
- Importance of Information for monitoring
- Presenting information for monitoring
- How to identify information required for monitoring
- Leverage IT for effective monitoring

Management

Management is the process whereby resources are utilized in a most **Effective** and **Efficient** manner to achieve the objectives of the organization or Programme

Effectiveness
Efficiency

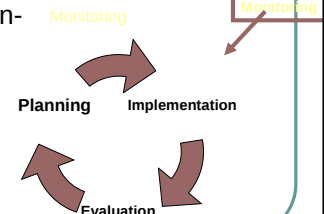
Effectiveness

Efficiency

Relationship between the results obtained and the resources utilized

Management Cycle

- Planning
- Implementation-
- Evaluation



Monitoring

- Identifying deviations from the established plan and finding quick practical solutions
- An on-going process of reviewing a program's or project activities to determine whether set standards or requirements are being met

Supervision

Supervision is the process of guiding, supporting and assisting staff to perform well in carrying out their assigned tasks

Why we should monitor

- Monitoring provides feedback of our efforts
- It helps to understand whether we are on the right track
- It helps to take necessary corrective solutions

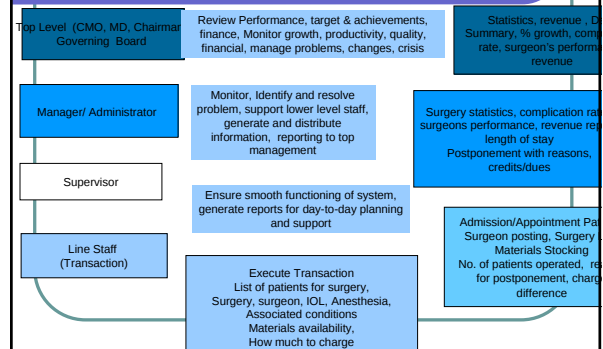
Methods of Monitoring & Supervision

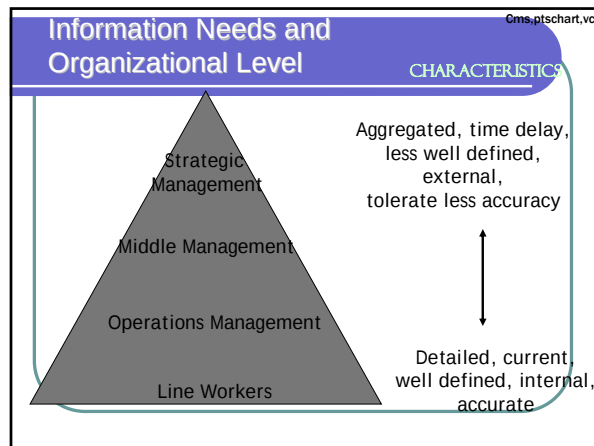
- Observation
- Communication with staff
- Communication with clients and community
- Review of records

Monitoring & Information

- Monitoring is about collecting information that will help you answer questions about your project.
- Information should be collected in a planned, organized and routine way.
- Compile the information to answer questions such as:
 - how well are we doing?
 - are we doing the right things?
 - what difference are we making?

Information Needs & Organizational Level





Management Information System

An organized method that provides timely, accurate and relevant data to managers for decision making

MIS helps to

- Identify Problems
 - Comparing with expected outcome
- Decision Making
 - to take necessary corrective solutions

Decision Areas

- Strategic- traditional surgery vs IOL
- Managerial- effectiveness & efficiency
- Operational- timings, manpower, machines

Levels of Monitoring

Patient / Beneficiary Level

- Institution
- District
- State/ Province
- National

AMECS

ARAVIND EYE HOSPITALS
& POSTGRADUATE INSTITUTE OF OPHTHALMOLOGY

13th September 2008

The Joint Director of Medical Services
Tamil Nadu

Sir,

Re: National Programme for the Control of Blindness - Cataract Operations done in Aravind Eye Hospitals under the above programme in August 2008 - Report - Sending of.

We furnish the above report for August 2008 as follows:-

	Madurai	Tirunelveli	Thiruvananthapuram	Thiruvallur	Thiruvananthapuram	Total
Free Section	1,829	724	201	893	617	4,264
Free Section	1,764	861	173	827	402	3,927
Camp	2,812	893	250	1,540	822	6,317

Yours sincerely,

Dr. S. S. Srinivasan
Manager

Director of Medical Education, Kizhappur, Chennai - 18
The Superintendent, Tamil Nadu State Blindness Control Society, (S.P. Wing,
First Floor, Rajahmundry Hospital, Rajahmundry, Chennai 600 008

District Blindness Control Society											
Madurai											
Through: The District Programme Manager											
SR:											

Derivation from Strategies and Goals

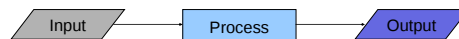
- **Eradicating needless blindness among school going children**
 - No. of Schools
 - No. of School children
 - No. of children with problem
 - No. of children received treatment

Involve teachers

No. of Teachers
No. of teachers trained
No. of children screened
No. of children identified with problem
Children confirmed with problem
Response Rate

Areas of concern for Managers

- Input
- Process
- Output
- Outcome
- Impact



Developing Indicators

Areas of concern	Indicator
Input Infrastructure Organization Equipment Staff Materials	No. of OT with full facilities No. of qualified staff No. of materials stocked
Process Examination Surgery Counseling School children screening	No. of patients examined No. of patients operated No. of patients given counseling No. of children screened No. of children have eye problem
Output People who got examined People who got operated People who received counseling School children who were examined	No. of problem cases Vs No. of pts. Examined No. patients examined by each doctor Counselor Vs No. of cases counseled , accepted Complication rate by doctor, surgical procedure Children with problem / no. of children

Inputs are the resources you put into your project to deliver its outputs.

- Infrastructure- building, water, electricity
- Organization- hierarchy, line of control, accountability and authority, policies and procedures
- Manpower
- Equipment
- Materials- drugs, disposables

Developing Indicators

Input

- No of centers with full staff in position
- No of centers with functional OT
- No of centers with uninterrupted supply of electricity

Process: It is a set of activities in which program resources are used to achieve the expected results

- Screening
- Outpatient clinics
- Vision correction
- Surgeries
- School health checkup
- Vitamin A supplementation

Developing Indicators

Process

Diagnosis

- Number of people screened
- Number of people identified with visual impairment
- Number of people found fit for surgery

Output (Immediate results obtained by the program through the execution of activities)

Treatment

- Number of people treated
- Number of people operated
- Number of patients received glasses
- Number of patients referred to basehospital

Outcome

- Number of people got vision corrected/ restored
- Number of complications/ surgeon
- Number of complications/ center
- Client satisfaction

Individual's Performance

- Number of people screened / worker
- Number of people diagnosed/ worker
- Number of people operated/ surgeon
- Number of complications/ surgeon

Equipment utilization

- No of procedures/ OT
- No of procedures/ machine
- No of patients transported/ vehicle

Quantitative Vs Qualitative

- Number of OTs vs Number of OTs with aseptic conditions
- Number of staff vs number of competent staff
- No. of people operated vs No. of people whose vision is restored
- No. of people operated vs No. of complications

Continue

MIS Indicators Quadrant

Effectiveness		
Hi	Excessive Input Poor System	Adequate Input Good System
Low	Low input Poor System	Low input Good system

Efficient

Problems in Monitoring

- Many decisions are made based on past experience and intuitions
- Inadequate data available with Partner
 - Help them to setup appropriate systems & procedures
- Getting data/reports on time
 - understand their problem and facilitate
- Incomplete or inconsistency
 - design questionnaire/FORMS to address?? How
- Too much of Data collected

Data and Information

- Abstract data has limited value
- Information is data that has been given meaning
- Data should be compared
 - With established plans
 - Longitudinal
 - Cross section
- We have done 2500 surgeries in 2007
 - against 1800 in 6 -> 40% increase
- We had 5 infection cases in 2007
 - Surgeries: 25,000 -> $5/25,000 = 0.02\%$
 - In 2006 rate 0.034%
- Monthly Perf

Presentation of data

- Calculate Percentage
- Graphs- line, bar and pie diagram

Outpatients Arrival Pattern

Aravind Eye Hospital - Madurai				
Patient Arrival Pattern Statistics From 01/03/2007 To 30/03/2007				
Time	New	Review	Total	%
06:00 A.M - 07:00 A.M	12	1023	1035	3.24
07:00 A.M - 08:00 A.M	1605	1136	2741	8.59
08:00 A.M - 09:00 A.M	1672	1655	3327	10.4
				77%
12:00 P.M - 01:00 P.M	1207	1357	2564	8.03
01:00 P.M - 02:00 P.M	719	1003	1722	5.39
02:00 P.M - 03:00 P.M	776	1513	2289	7.17
03:00 P.M - 04:00 P.M	777	1235	2012	6.30
04:00 P.M - 05:00 P.M	463	508	971	3.04
05:00 P.M - 06:00 P.M	131	112	243	0.76
After 6:00 P.M	86	21	107	0.33
Total	14444	17474	31918	

23%

Surgery Acceptance Rate

Month	Total Advised	No. of Patients Operated				Total Operated	% Acceptance
		1 Week	1 Month	3 Months	>3 Months		
JAN	2,234	1,275	168	91	116	1,650	73.86
FEB	2,538	1,470	197	123	96	1,886	74.31
MAR	3,177	1,902	182	143	128	2,355	74.13
APR	2,939	1,728	243	123	102	2,196	74.72
MAY	3,385	2,151	196	109	74	2,530	74.74
JUN	3,325	1,954	223	123	73	2,373	71.37
JUL	3,579	2,122	232	158	60	2,572	71.86
AUG	3,200	1,755	217	122	68	2,162	67.56
SEP	3,356	1,895	168	107	10	2,180	64.96
OCT	2,045	1,071	144	80	0	1,295	63.33
NOV	2,706	1,538	188	35	0	1,761	65.08
Total	32,484	18,861	2,158	1,214	727	22,960	70.68

Problem Solving – Shortage of Beds Inpatients Length of Stay

ICD_CODE	ICD DESCRIPTION	N	Pre-OP	Post-OP	Total
13.75N	PHACO WITH ACRYSOF(NATURAL)	20	1.2	1.0	2.2
13.71P	INTRA OCULAR LENS INSERTION	54	1.2	1.9	3.1
13.75	PHACO WITH ACRYSOF LENS	111	1.2	1.2	2.4
13.75P	IOL P.C (PHACO)	241	1.1	1.1	2.2
13.78	CATARACT WITH IOL (MANUAL PHACO)	405	1.3	1.2	2.5
13.75C	PHACO WITH AUROFOLDABLE	406	1.1	1.1	2.2

Utilization of Beds

AEH-Paying, Tirunelveli
Average Beds Occupied June 2005 to May 2006

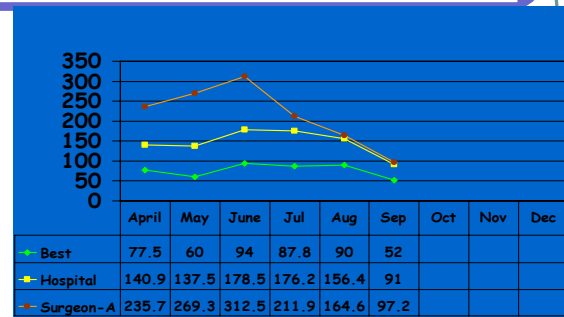
Room Type	A	B	C	ASA	ASN	SUT
Total Beds	34	40	62	2	8	2
Jun'05	78%	40%	44%	22%	18%	20%
Jul'05	73%	45%	49%	26%	24%	16%
Aug'05	68%	36%	41%	6%	6%	10%
Sep'05	69%	43%	42%	20%	22%	40%
Oct'05	53%	34%	40%	15%	16%	31%
Nov'05	64%	44%	43%	10%	28%	12%
Dec'05	67%	41%	40%	6%	21%	11%
Jan'06	59%	34%	27%	0%	19%	24%
Feb'06	77%	43%	45%	5%	21%	13%
Mar'06	77%	50%	40%	18%	31%	48%
Apr'06	70%	43%	45%	27%	23%	18%
May'06	77%	58%	58%	45%	40%	24%

Complication Analysis for QA

3. IntraOperative COMPLICATIONS

3.1 Grade and Type	Nos.	%	Score
Grade-1			
DESCEMETS STRIPPING	3	0.97	0.99
POSITIVE PRESSURE - WOUND	2	0.65	0.99
SCLERAL TUNNEL - PREMATURE ENTRY	3	0.97	0.99
Grade-2			
TRIDODIALYSIS	1	0.32	4.99
PC RENT - NO VITREOUS DISTURBANCE	3	1.61	16.99
ZONULAR DIALYSIS - NO VIT. DISTURBANCE	3	0.97	16.99
Grade-3			
FAILURE TO IMPLANT	2	0.65	20.99
PC RENT WITH VITREOUS DISTURBANCE	3	0.97	36.99
ZONULAR DIALYSIS - VIT. DISTURBANCE - YES	1	0.32	16.99
* TOTAL NO. OF CASES *	5	1.01	112.99

Complication Score Analysis



Finance Income and Expenditure Statement

Income	Month	(in %)	Cumulative	(in %)
Direct Income:				
Consulting Fee	115,280	10.1	812,880	16.33
Surgery/Dressings	446,100	39.07	3,299,475	66.28
Treatment Charges	11,425	1	62,805	1.26
Medical Service Charges	13,885	1.22	100,835	2.03
Lab Charges	1,845	0.16	18,950	0.38
Total(A)	588,535	51.54	4,294,945	86.28
Direct Expenses:				
IOL	81,893	7.17	646,183	12.98
Medicine & Surgical Consumption	22,758	1.99	75,441	1.52
Linen	1,421	0.12	14,131	0.28
Cleaning & Sanitation	8,471	0.74	33,576	0.67
Salary & Stipend	141,849	12.42	948,673	19.06
Employer's Contribution for P.F.	6,458	0.57	58,856	1.18
Electricity Charges	98,478	8.62	434,483	8.73
Repairs & Maintenance	49,456	4.33	200,488	4.03
Camp expenses	15,978	1.4	138,295	2.78
Photography	912	0.08	1,492	0.03
Printing & Stationery	14,299	1.25	38,943	0.78
Water Supply Charges	-	-	225	0
Total(A)	441,973	38.7	2,590,784	52.04

FEEDBACK

Noted leadership trainer **John E. Jones** said:

- "What gets measured gets done"
- "What gets measured and fed back gets done well"
- "What gets rewarded gets repeated."

Feedback

Feedback is information about performance that leads to action to change or maintain performance.

Feedback Importance

- Encouragement to the partner
- Helpful to provide advice
- Partners could understand themselves better
- Encourage partners to look for opportunities to share their experience

Feedback would contain

- Performance Indicators
- Targets & Achievements
- Appreciation
- Add value to their MIS
 - Graphs, Trends, %, compare

Feedback

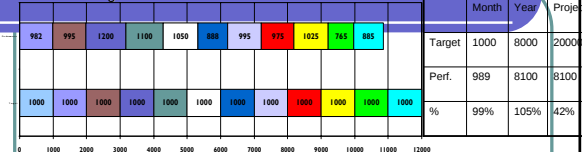
Activities & Indicators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Target	%
Outpatients															
New	620	530	600	612	742	645	500	650	800	750	512	614	7575	7500	100%
Review	350	285	420	450	612	430	375	325	545	232	541	421	4986	5000	100%
Surgeries															
ECCE-IOL	15	25	12	8	5	3	7	2	1	1	2	1	82	50	164%
Phaco	40	32	54	45	36	46	49	52	32	36	67	62	551	500	110%
Others	10	5	17	8	6	12	14	9	11	5	7	2	106	100	106%
Finance													0	5005	0%
Revenue													0	5006	0%
Expenditure													0	5007	0%

Feedback

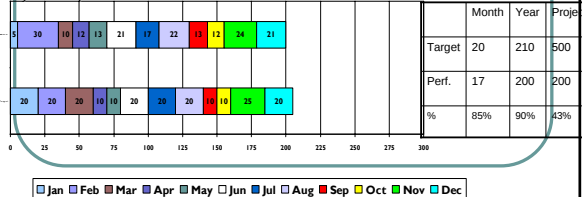
Indicators	Month Target	Performanc e	%	Annua l Target	Performanc e	%
OP	750	700	93%	8000	2212	28%
Surgery	100	98	98%	1100	218	20%
Surgery Acceptance	90%	70%	78%	90%	75%	83%
Follow-UP Rate	95%	60%	63%	95%	65%	68%
Cost Recovery	100%	90%	90%	110%	98%	89%

Using Charts

Cataract Surgeries:



Eye Camps:



Feedback Models

- Phone call
- Reports -> email/post
- Performance review meeting

Promys

Effective Monitoring

- Ensure system in place for data gathering
- Be purposeful and conducted to answer specific questions.
- Use the best available science and established protocols to collect and evaluate the data.
- Use modern information management techniques and tools.
- Apply stringent selection criteria so that a monitoring activity is only conducted if it is feasible, realistic and affordable.
- Emphasize evaluation as much as the collection of the data
- Be done in collaboration with others
- Never forget giving feedback