

DISSERTATION

On

**STREAMLINING THE RECORDING PROCESS OF FOOD
CONSUMPTION FOR F & B DEPARTMENT**

At

**Sitaram Bhartia Institute of Science & Research,
Qutub Institutional area, New Delhi**

By

Dr. RAKHI WADHWANI

PGDHM

2012-2014



**International Institute of Health Management Research
New Delhi**

DISSERTATION

At

Sitaram Bhartia Institute of Science & Research,

Qutub Institutional area, New Delhi

On

STREAMLINING THE RECORDING PROCESS OF FOOD

CONSUMPTION FOR F & B DEPARTMENT

By

Dr. RAKHI WADHWANI

Under the guidance of

Ms. ANUPAMA SHARMA

Post Graduate Diploma in Hospital and Health Management

2012-2014



International Institute of Health Management Research

New Delhi



SITARAM BHARTIA
Institute of Science & Research

B-16 Qutab Institutional Area
New Delhi 110 016 India
TEL (011) 4211 1111
FAX (011) 2653 3027
enquiries@sitarambhartia.org
www.sitarambhartia.org

The certificate is awarded to

RAKHI WADHWANI

In recognition of having successfully completed her
Internship in the department of

F & B DEPARTMENT

And has successfully completed her Project on
**STREAMLINING THE RECORDING PROCESS OF FOOD
CONSUMPTION FOR F & B DEPARTMENT**

AT

**SITARAM BHARTIA INSTITUTE OF SCIENCE &
RESEARCH, QUTUB INSTITUTIONAL AREA, NEW
DELHI**

Duration –3rd February to 3rd May, 2014

She comes across as a committed, sincere & diligent person who
has a

Strong drive & zeal for learning

We wish her all the best for future endeavors!

Saru Bhartia
Mrs. Saru Bhartia

Senior Manager [Administration & Quality]

Sitaram Bhartia Institute of Science & Research, Qutub
Institutional Area, New Delhi



TO WHOMSOEVER MAY CONCERN

This is to certify that Rakhi Wadhvani is a student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has done dissertation at Sitaram Bhartia Institute of Science & Research, Qutub Institutional area, New Delhi from February 3, 2014 to May3, 2014.

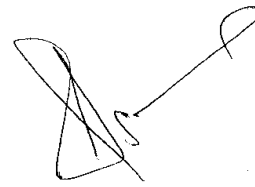
The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical. The Internship is in fulfillment of the course requirements. I wish her all success in all his future endeavors.



Dr. A. k. Agarwal

Dean, Academics and Student Affairs

IIHMR, New Delhi



Ms. Anupama Sharma

Assistant Professor

IIHMR, New Delhi

CERTIFICATE OF APPROVAL

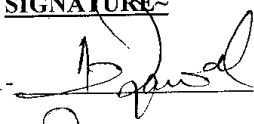

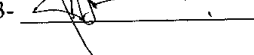
The following dissertation titled **"STREAMLINING THE RECORDING PROCESS OF FOOD CONSUMPTION FOR F & B DEPARTMENT"** at **"Sitaram Bhartia Institute of Science & Research, Qutub Institutional area, New Delhi"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

NAME~

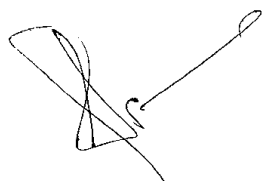
- 1- Prof. Akhilesh
- 2- Dr. Ramteke
- 3- Ms. Anubhava Sharma

SIGNATURE~

- 1- 
- 2- 
- 3- 

CERTIFICATE FROM DISSERTATION ADVISORY COMMITTEE


This is to certify that **Ms. Rakhi Wadhvani** a graduate student of the **Post- Graduate Diploma in Health and Hospital Management** has worked under our guidance and supervision. She is submitting this dissertation titled **“STREAMLINING THE RECORDING PROCESS OF FOOD CONSUMPTION FOR F & B DEPARTMENT”** at **“Sitaram Bhartia Institute of Science & Research, Qutub Institutional area, New Delhi”** in partial fulfillment of the requirements for the award of the **Post- Graduate Diploma in Health and Hospital Management**. This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.



Ms. Anupama Sharma,

Assistant Professor

IIHMR, New Delhi



Mrs. Saru Bhartia,

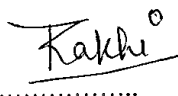
Senior Manager [Administration & Quality]

Sitaram Bhartia Institute of Science & Research

**INTERNATION INSTITUTE OF HEALTH MANAGEMENT
RESEARCH, NEW DELHI**

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **STREAMLINING THE RECORDING
PROCESS OF FOOD CONSUMPTION FOR F & B DEPARTMENT IN SBISR**
submitted by RAKHI WADHWANI, Enrollment No. PG/072/2012 under the
supervision of ~~Ms. Anubama Sharma~~ for award of Postgraduate Diploma in Hospital and
Health Management of the Institute carried out during the period from 3rd February to
3rd May 2014 embodies my original work and has not formed the basis for the award of
any degree, diploma associate ship, fellowship, titles in this or any other Institute or
other similar institution of higher learning.




.....
SIGNATURE


FEEDBACK FORM

- ❖ Name of the Student: RAKHI WADHWANI
- ❖ Dissertation Organization: Sitaram Bharti Institute of Science and Research, Hauz Khas.
- ❖ Area of Dissertation: F&B Department
- ❖ Project Title: Streamlining the Recording process of Food Consumption of F&B Department in SBISR
- ❖ Attendance: Full
- ❖ Objectives achieved:
 - i) Understanding of the tools and processes of Quality Deptt.
 - ii) Using these prospects in improvement of Operational depth.
- ❖ Deliverables:

Handling the F&B deptt for streamlining the recording process of food consumption; major project in hand.
- ❖ Strengths:
 - Understands the activity(s) from all prospects for better solutions
 - Keen and determined at work.
- ❖ Suggestions for Improvement:

Keep Learning and hence, improving.


MEGHA DHILLON
- ❖ Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation)


Sasi Bhastia
- ❖ Date: 9th May, 2014
- ❖ Place: Delhi



EXECUTIVE SUMMARY

- **Introduction:** A food & beverages service involves preparation of food and allotment of service personnel to provide quality service with a goal of complete customer satisfaction. The scope of the department is to provide properly framed balanced diet to patients, hospital staff, visitor's cafeteria under safe and hygiene conditions. So for effective and efficient management of F & B department it is utmost necessary to get the base line data of food consumption of the hospital.
- **Objectives:** A food & beverages service department works in close conjunction with the department of Dietetics & Nutrition for proper & timely execution of patient diet orders. Providing food which is prepared hygienically under the umbrella of good manufacturing practices in consideration with the client need and keeping in mind his goal and serving it in a warm ambience is the prime objective of hospital food & beverages department. The purpose of the study was to get informative and detailed picture of the Food and Beverage department, collecting baseline data and to systemize the process of food consumption in Sitaram Bhartia Institute of Science & Research.
- **Methods:** Data regarding the food consumption was collected through the New Formats designed to get the food consumption data in 4 main categories i.e. IN-PATIENTS, STAFF CAFETERIA, COFFEE SHOP AND OFFICIAL EVENTS. PDSA for the respective category was ran to test the feasibility of the sheets deployed for getting the credible baseline data of food consumption. Also to know whether there is further need of improvisation or not! So as to get the total food consumption of the hospital.

- **Results:** Through this project the baseline data was successfully collected with the help and support of staff. It was found that on an average 18 - 19 Bed Tea, 21 Breakfast, 19 Mid-Morning Meal, 22 Lunches, 17 Evening snacks, 21 Dinner are served. In staff cafeteria maximum food consumption is at Lunch time as compared to breakfast & dinner time. An average of Rs. 4873 is monetary value of per day food consumption. In coffee shop chocolate pastry, Idli, Vada & Breadpakora are consumed in higher quantities than other items. In month of April 2014 total 14 Official Events happened out of which 10 were in house and 5 were sponsored.
- **Conclusion:** Hospital food & beverages services play an important role in patient recovery and well-being. Food service quality can also influence patients' satisfaction with their overall hospital experience. Access to a safe and healthy variety of food is a fundamental human right. This project is very helpful for streamlining the F & B department by getting the appropriate baseline data of food consumption in Sitaram Bhartia Institute of Research Sciences. The inventory levels and other aspects of the F & B department can be managed later on with the help of this baseline data. This will result in efficient as well as effective F & B department management. In systemizing the process of recording food consumption it was realized that that further improvisation is need i.e. use of DIET MANAGEMENT SOFTWARE. This software enables the staff to record the consumption in HIS which ultimately help staff to work efficiently & also to management for important decision making as this will make the process mistake proof.

ACKNOWLEDGEMENTS

This study is an accomplishment due to the timely help, guidance and consent support of several people. The investigator owes a deep sense of gratitude towards all those who have contributed to successful completion of this endeavor.

I am grateful to Mr. Abhishek Bhartia, Director and Mrs. Saru Bhartia, Senior Manager - Quality and Administration, Sitaram Bhartia Institute of Science & Research, Qutub Institutional area, New Delhi for allowing to do the dissertation in this hospital under their able guidance, direction and encouragement.

I offer my gratitude and respect to MS. Megha Dhingra, Senior Executive – Quality & Training, for constant support guidance and encouragement as Mentor who guided at every step of this project.

I also offer my gratitude and respect to all the staff members of Quality Department and F & B Department for their constant support and guidance.

My sincere thanks to all the staff members of Sitaram Bhartia Institute of Research Sciences for their kind cooperation in providing the needed information and help for the study.

I am also grateful to Dr. Ashok K. Agarwal, Dean, IIHMR, New Delhi, for giving us an opportunity to take up this study at Sitaram Bhartia Institute of Research Sciences and for his constant guidance and encouragement.

I my gratitude and respect to Ms. Anupama, Associate Professor, IIHMR, New Delhi, for his constant guidance and support in completion of this study.

TABLE OF CONTENT

S. No	Contents	Page No.
1	Executive Summary	x & xi
2	List of Charts	Xiv
3	Abbreviations	Xv
4	Organization Profile	xvi & xvii
5	Internship Report	xvi - xx
6	Introduction	1&2
7	Aim of the Study	3
8	Specific Objectives	3
9	Rationale	4
10	Review Of Literature	5-6
11	Methodology	7
12	Process & Analysis	8-11
13	Study Findings	12-29
14	Recommendation	30-32
15	Discussion	33
16	Conclusion	34-38
17	Instrumentation	39-43
18	Bibliography	44
19	Annexure	45-95

LIST OF CHARTS

Table No	Description	Page No
1	I.P.D Food consumption –Bed Tea & Breakfast	19
2	I.P.D Food consumption – Mid Morning Meal & Lunch	20
3	I.P.D Food consumption –Evening Tea & Snacks	21
4	I.P.D Food consumption – Soup & Dinner	22
5	I.P.D Food consumption – Bed Time Milk & Extra Order	23
6	Official Events Food consumption & COFFEE Shop Bakery Items Food Consumption	24
7	Coffee Shop Food consumption – Beverages & Kitchen Items	25
8	Staff Cafeteria Food consumption- Breakfast & Lunch	26
9	Staff Cafeteria Food consumption- Lunch Veg. Coupons & Dinner	27
10	Official Events Food consumption – Dinner Veg. Coupons & Tea Consumption	28
10	Official Events Food consumption – Dinner Veg. Coupons & Tea Consumption	28
11	Total Monetary Value of per day Food Consumption at Staff Cafeteria	29

LIST OF ABBREVIATIONS

- **SRBIR** – Sitaram Bhartia Institute of Research
- **F & B** – Food and Beverages
- **I.P.D.** – In Patient Department
- **O.P.D.** – Out Patient Department
- **PDSA**– Plan Do Study Act
- **DMS** - Diet Management Software
- **C.M.E.** – Continuous Medical Education
- **F.P.** – Function Prospectus

PART 1 – INTERNSHIP REPORT

ORGANIZATION PROFILE

Sitaram Bhartia Institute of Science and Research is a paradigm – a human institution put together, being constantly improved and honed into maturity by a team of professionals committed to excellence in health care. From its roots in epidemiological research, today Sitaram Bhartia functions as a multi-specialty hospital and research center.

Core Purpose

- To serve society as a well-spring of excellence in healthcare delivery, research and education.

Core Values

- Putting the interest of the patient first
- Treating others as you would want to be treated yourself
- Continuous learning and improvement
- Institution building

Envisioned Future

We will be a prolific medical center that will be known for its commitment to practicing evidence-based medicine and providing world-class care. We will have well established research programs that will focus on gaining a better understanding of the health care needs in our communities and developing practical solutions for addressing those needs. We will be seen as pioneers who will have successfully taken up those health care challenges that may otherwise have remained poorly addressed. We will have

collaborative arrangements with leading institutions from around the world and be in the forefront of providing training to health professionals. Donor agencies and individual philanthropists will recognize our work by generously supporting our initiatives. We will be widely acknowledged as an institution that serves as a symbol of excellence in our society. ^[1]

DIRECTOR'S MESSAGE

Sitaram Bhartia Institute of Science and Research was founded with a spirit of serving society through research. With our focus on health we have evolved into an organization that combines medical research with excellence in patient care. Our research focuses on collecting health-related information, translating evidence-based guidelines in clinical practice, developing cost-effective interventions for improving care, investigating factors influencing disease development, and analyzing medical literature for developing clinical guidelines.

Our medical care services strive to deliver care as per internationally accepted evidence-based guidelines. This often translates to a structured approach in which teams of health care professionals work together to comprehensively address needs of patients and their families. Outcomes measurement is also increasingly used to continuously monitor and improve the quality of our care. In all our activities we maintain a commitment to integrity that has often led our patients to comment that we provide care that they can trust. We hope that your experience with us will be similar and look forward to associating with you.

-Abhishek Bhartia

QUALITY DEPARTMENT

The internship was carried out at QUALITY DEPARTMENT of Sitaram Bhartia Hospital, Qutub Institutional Area, New Delhi. The Department is headed by Mrs. Saru Bhartia, Senior Manager Administration & Quality. Quality at Sitaram Bhartia Institute of Science and Research is an effort to provide patient-centered care. Sitaram Bhartia is inclined towards improving processes to ensure ease of workflow for staff. The department aims at increasing the level of transparency so that our patients can make informed healthcare decisions. Sitaram Bhartia follows improvement principles of Institute of Healthcare Improvement, Cambridge, USA. The methodologies adapted by Sitaram Bhartia are as follows-

#	Type of tool	#	Name of tool
A	Root cause analysis	1	Ishikawa diagram
		2	5Ws diagram
B	Project charter	1	Define aim statement
		2	Identify measures and change ideas
C	Idea generation	1	Brainstorming
		2	Snorkel session
		3	Driver diagram
		4	Tree diagram
D	PDSA cycles	1	Data collection
		2	Develop a change
		3	Test a change
		4	Implement a change

E	Lean tools	1	5-S methodology
		2	Value stream mapping
		3	Time observation study
		4	Spaghetti diagram using standard work sheet
F	Analysis of outcomes	1	Control charts
		2	Run charts
		3	Pareto diagram
G	Project management methodology and tools	1	Gantt chart
		2	Questionnaire development

Function of the department are-

1. Identification of current process and subsequent improvement
2. Identification of outcomes and processes
3. Identification and implementation of change ideas for improvement
4. Creating Standard operating procedures for increasing efficiency in workflow
5. Providing training for continuous quality improvement
6. Conducting regular process and documentation audits
7. Taking patient feedback and involving operational department for improvement
8. Analyzing data and developing best practices
9. Monthly review meeting with department heads to discuss the monthly performance.

KEY LEARNINGS ~

➤ In the Induction period I learned about various **quality tools** like PDSA, RCA, and Tree Diagram etc. **Charts learned** are Pareto, - Chart, C Chart, S Bar, X Bar chart etc

❖ Software learned ~

➤ Microsoft Visio, Gant Chart, Various functions in Microsoft Xcel and chart runner etc.

❖ I also learned how to make **project charter** which includes detailed & systemized report of the project done.

❖ Along with my project on streamlining the F & B Department workflow I was also involved in the running project on NPS – NET PROMOTER SCORE. In this the quality team visit the patients and take the feedback [personally with the help of score card having ratings from zero to five where zero is very bad experience and five represents excellent experience. Based on the score received for the hospital clinical as well as supportive services we probe for suggestions for improvement in which we come to know about various improvement areas which was forwarded through official report mail to Senior Management and HODs of respective department. How they came to know about the Sitaram Bhartia Institute If Research Sciences is also asked. The feedback taken is then comprised as daily report and sent to senior management and updated on website of the patients who has given the consent for the same.]

❖ Today's healthcare environment has sprung up as costlier, demanding and competitive. With every passing time, the organization is trying to develop strategies and its goals how to beat its competitors and be the number one in the market. So the quality department is working hard to improve the hospital functioning to manage if effectively as well as efficiently.

PART – II ~ DISSERTATION REPORT

INTRODUCTION

Effective hospital management is the crux of success in the ever changing and dynamic world of today. Today world is realizing the importance of F & B management in hospitals. It is an established fact that the patient outcome is a result of efficient and appropriate management of medical, nursing and allied care along with provision of good hygienic food, clean linen, safe environment, congenial atmosphere and good interpersonal relationship.

India is the developing country and even the health industry in India is growing rapidly. To be in the competition with the international hospitals Indian hospitals must have increased its standards in all the major areas. Out of these F &B has turned out to be a recognized support service which not only ensures prevention and containment of hospital infection but also contributes to widen the image of the hospital in the eyes of public. Profit is the result of solid planning, sound management and careful decision making. It has never been tougher to build and sustain a successful food and beverage business than it is today. Food and beverage department face an array of increasingly complex issues and questions—and the manner in which they choose to respond will shape the future of the department for many years to come.

A food & beverages service involves preparation of food and allotment of service personnel to provide quality service with a goal of complete customer satisfaction. The scope of the department is to provide properly framed balanced diet to patients, hospital staff, visitor's cafeteria under safe and hygiene conditions. This

department works in close conjunction with the department of Dietetics & Nutrition for proper & timely execution of patient diet orders. Providing food which is prepared hygienically under the umbrella of good manufacturing practices in consideration with the client need and keeping in mind his goal and serving it in a warm ambience is the prime objective of hospital food & beverages department.^[7]

Streamlining the F & B department is must for that we need the food consumption data through this project which can ultimately be linked to the inventory management in future as it is necessary to be the cost effective. To collect the base line data for management of F & B department it is necessary to know the total food consumption of the hospital. The data related to F & B department use to be collected but not in a systematic way. So designing of proper format and system is needed so as to get the appropriate baseline data. New Formats are designed to get the food consumption data in 4 main categories i.e. IN-PATIENTS, STAFF CAFETERIA, COFFEE SHOP AND OFFICIAL EVENTS. New excel sheets are made to get the data in respective categories.

AIM & OBJECTIVE

AIM OF THE STUDY ~

- To systemizing the process of recording food consumption for F & B department of Sitaram Bhartia Institute of Research Science.

SPECIFIC OBJECTIVE ~

- To design a system for recording the food consumption in F & B department of Sitaram Bhartia Institute of Research Science.
- To systemize the process of recording of food consumption in F & B department of Sitaram Bhartia Institute of Research Science.
- To collect the data for daily food consumption in IPD, through the tracker sheet named **“IPD Daily Consumption sheet”**.
- To collect the data for extra orders given by in-patients (with meal or as random orders), through the tracker sheet named **“IPD - Extra order Food Consumption sheet”** (apart from 8 served meals).
- To collect the data for food consumption in Staff Cafeteria, through the tracker sheet named **“Staff Cafeteria - Food Consumption sheet”**.
- To collect the data of food consumption in Official Events, through the tracker sheet named **“Official Events - Food Consumption Sheet”**.
- To collect the data for food consumption in coffee shop, through the tracker sheet **Coffee Shop – Food Consumption Sheet**.

RATIONALE

F & B department is important to manage as it is directly linked to the level of patient satisfaction. Baseline data is must to manage the department. In Sitaram Bhartia Institute of Research Sciences the food consumption data was recorded but not in systemize format. So there was no baseline data. Streamlining the F & B department is must for that we need the food consumption data through this project which can ultimately be linked to the inventory management in future as it is necessary for being cost effective. To collect the base line data for management of F& B department it is necessary to know the total food consumption of the hospital.

This project is very helpful for streamlining the F & B department by getting the appropriate baseline data of food consumption in Sitaram Bhartia Institute of Research Sciences. The inventory levels can be managed. To be a profit making organization it is utmost necessary to manage the inventory effective as well as efficiently. This can only be managed if we know the total food consumption of the hospital. Food is supplied into 5 main categories i.e. to IN-PATIENTS, STAFF CAFETERIA, COFFEE SHOP, CME/PARY AND OFFICIAL ORDERS. To get the appropriate data of all these 5 categorize systematic formats in excel are prepared and responsibility to fill these are assigned to particular personnel. Once we get the baseline data of total food consumption in the hospital we can improvise in many ways for making F & B Management effective as well as efficient. This data can also be useful for inventory management. Thus it is very necessary to collect credible food consumption data.

LITERATURE REVIEW

A) The study on “**Future Skills Requirementsof the Food and BeverageSector**” was done by Expert Group ON Future Skill Need in November 2009 to review current and future skills demand and supply for the food and beverage sector and to identify the current and future key drivers of change. The methodology for this report included three main phases, namely: Phase 1 Secondary Research and identification of Drivers-of-change; Phase2 Primary Research and Consultations; and Phase 3 Conclusions, Recommendations and Reporting. The result of the study was that six key drivers-of-change in the sector were identified i.e. consumer trends; health andwellness; sustainability and ethical concerns; policy; consolidation of retailers; and technology.Companies need to become more aware of what is currently being provided by the third levelinstitutions and development agencies and to engage with, and participate in, these courses, initiatives and programs.^[3]

B) The study titled “Hospital foodservice directors identify the important aspects when implementing room service in hospital foodservice” was conducted by Zafirah Mohd at Nor Iowa State University Ames, Iowa in 2010. A mixed methods design was used which included an in-depth interview with a key informant (an expert) was conducted to collect detailed and rich data about room service implementation. The findings propose the need for a deeper understanding of the room service concept to assist foodservice directors in their decision-making process. Aspects which appear to have great impact on patient satisfaction, such as better meal delivery service and meal quality, must be emphasized and studied. Availability of hospitable employees and a variety of menu

choices that meet patients' preferences are crucial components needed for room service. As hospitals consider expanded services, the potential for cost saving and quality control possible in a room service system may sufficiently offset capital investment costs and this also will be expected to benefit DNRS to introduce room service that fit the operational characteristics of a particular hospital.^[4]

C) Morten Freil, Michael Allerup Nielsen, Camilla Biltz, Rikke Gut, Bent Egberg Mikkelsen and Thomas Almdal conducted a study on **Reorganization of a hospital catering system increases food intake in patients with inadequate intake in 2006** with the objective - To study whether a reorganization of a hospital catering system enabling patients to choose their evening meal individually, in combination with an increase in the energy density of the food, increases the energy and protein intake of the patients. A conclusion of the study was Reorganization of a hospital catering system can increase energy and protein intake and reduce waste substantially.^[5]

D) Eur J Clin Nutr. 1998 Dec conducted study on **Validation of a self-administered form for recording food intake in hospital patients** at Rikshospitalet, Oslo with the objective of Validation a self-administered form used by patients to record their food intake and compare the recorded data with the observed intake. Conclusion of the study was that for most patients, the self-administered form adapted to the hospital menu appears to have acceptable validity, but for some patients it was unacceptable, mainly owing to food items being omitted and not because of incorrect estimate of amounts of food.^[6]

METHODOLOGY

- **Study Area:**

- Sitaram Bhartia Institute of Research Sciences, Qutub Institutional area, New Delhi

- **Study Duration:**

- Three months ~ 3rd February – 3rd May 2014

- **Study Design:**

- Descriptive Cross Sectional study

- **Study Population:**

- Total food consumed in 4 categories i.e. I.P.D., Official Events, Staff Cafeteria and Coffee Shop.
- All the data of 1 month i.e. ~ from 1st April to 30th April 2014 is collected.

- **Data Collection Tool& Techniques:**

- Primary data were collected by the Food Consumption Sheet for I.P.D., Official Events, Staff Cafeteria and Coffee Shop. Secondary data were collected from the various journals, manual of food and beverages manual of the hospital and websites.

PROCESS & ANALYSIS

Streamlining the F & B department is must for that we need the food consumption data through this project which can ultimately be linked to the inventory management in future as it is necessary to be the cost effective. To collect the base line data for management of F & B department it is necessary to know the total food consumption of the hospital. Food is supplied into 5 main categories i.e. to **IN-PATIENTS, STAFF CAFETERIA, COFFEE SHOP and OFFICIAL EVENTS**. So for getting the appropriate data of all these 4 categorize systematic formats in excel are prepared and responsibility to fill these are assigned to particular personnel. Following were the steps taken-

1) **For I.P.D-**

- A. The Dietician was assigned to fill the I.P.D. – Food Consumption Sheet shift wise daily (i.e. morning and evening shift). The total diets served for the eight meals were recorded in the I.P.D. Food Consumption Sheet. The eight meals served were – Bed Tea, BREAKFAST, Mid Morning Meal, Lunch, Evening tea & Snacks, Soup, Dinner, Bed time Milk. To get the I.P.D consumption data new excel sheet was designed i.e. **‘I.P.D. – Food Consumption Sheet’**. So a **PDSA- I.P.D Food Consumption Ramp1 Cycle1** was run **“To test the credibility of the ‘Food Consumption Data’ of I.P.D. by evaluating the process of recording the data.”** (ANNEXURE – 1~ A - I)

❖ **ANALYSIS –**

- This sheet was analyzed and it was found that –

- Total 8 meals use to be served in I.P.D. per day (categorized into bed tea, breakfast, mid morning meal, lunch, evening snacks, soup, dinner, bed time).
- Further bifurcation of every meal into normal, soft, diabetic and liquid diet).
- This provides us with an overview of meals consumed in a day, related to occupancy.
- Extra orders were not taken into account while recording the number of diets served to the patients.

B. So next cycle conducted was **PDSA for Random Orders Ramp1 Cycle2** “To test the credibility of the ‘IPD - Extra order Food Consumption sheet’ by evaluating the process of recording the data.” The Dietician was assigned the responsibility of filling the **I.P.D. Extra Order – Food Consumption Sheet** on daily basis with the help of DIET SLIPS made by her while taking rounds (two times a day) and MIS for random orders. (ANNEXURE –1~ J & K)

ANALYSIS –

- With the ‘**IPD - Extra order Food Consumption sheet**’ extra orders placed by the patients apart from the eight meals served were tracked successfully.
- The highest random orders placed were of coconut water, tea and fruits.

2) **For Staff Cafeteria** – The F & B Manager was assigned with the responsibility of filling the ‘**Staff Cafeteria – Food Consumption Sheet**’ on the basis of coupons collected by the Service Department Supervisor for the sale of food. There are two coupons used for the meal in staff cafeteria i.e. yellow and Pink. **Yellow coupon** is used to get any one thing out of complete meal e.g. either chapattis or vegetable etc and **Pink coupon** for complete meal. At 3pm daily the service supervisor count the total coupons collected category wise (i.e. yellow and pink) and this record is reported to F & B

manager. On basis of this record the F & B manager fills the Staff Cafeteria – Food Consumption Sheet daily.(ANNEXURE – 2~A & B)

ANALYSIS –

- The food consumption record at staff cafeteria was recorded through **Staff Cafeteria – Food Consumption Sheet.**
- Generally maximum coupons are collected at lunch time.
- Yellow coupons are collected in more number than pink coupon.
- Food is also served to 8 Doctor as complimentary meal.
- Food is also served as compensatory meal to the staff members doing extra duty.
- There is a need of an improvised process for collection of coupons to make it mistake proof, so as to get the more appropriate data.

- 3) **For Coffee Shop** - Coffee Shop sales recordis maintained through MIS. So the Food Consumption data is maintained through **Software – Coffee Shop.** The PDSA was ran ‘to test the credibility of the data obtained through the software and rule out whether there is any need of improvisation in this or not’. (ANNEXURE -3 A & B)

ANALYSIS –

- The software maintains the records of daily issued, daily sales and items left out.

- The expiry date of the items is also there in the software which prevents sale of expired material.
 - The amount of food wasted is also recorded in the software like how much each item is wasted on daily basis e.g. 5 Idlis, 4 Samosa etc.
 - The Food consumption data at coffee shop is maintained properly with the help of **Coffee Shop – Software** which needs no further improvisation.
- 4) **For Official Events** – The F & B Manager was assigned with the responsibility of filling the **“Official Events – Food Consumption Sheet”** with the help of **“Function Prospectus”** and **“Official Entertainment”** Slip prepared by Event Coordinator as per the event. This consist of date of the event, No. of PAX, Menu served, name of the organizer and whether it is in- house or sponsored. (ANNEXURE – 4 A& B)

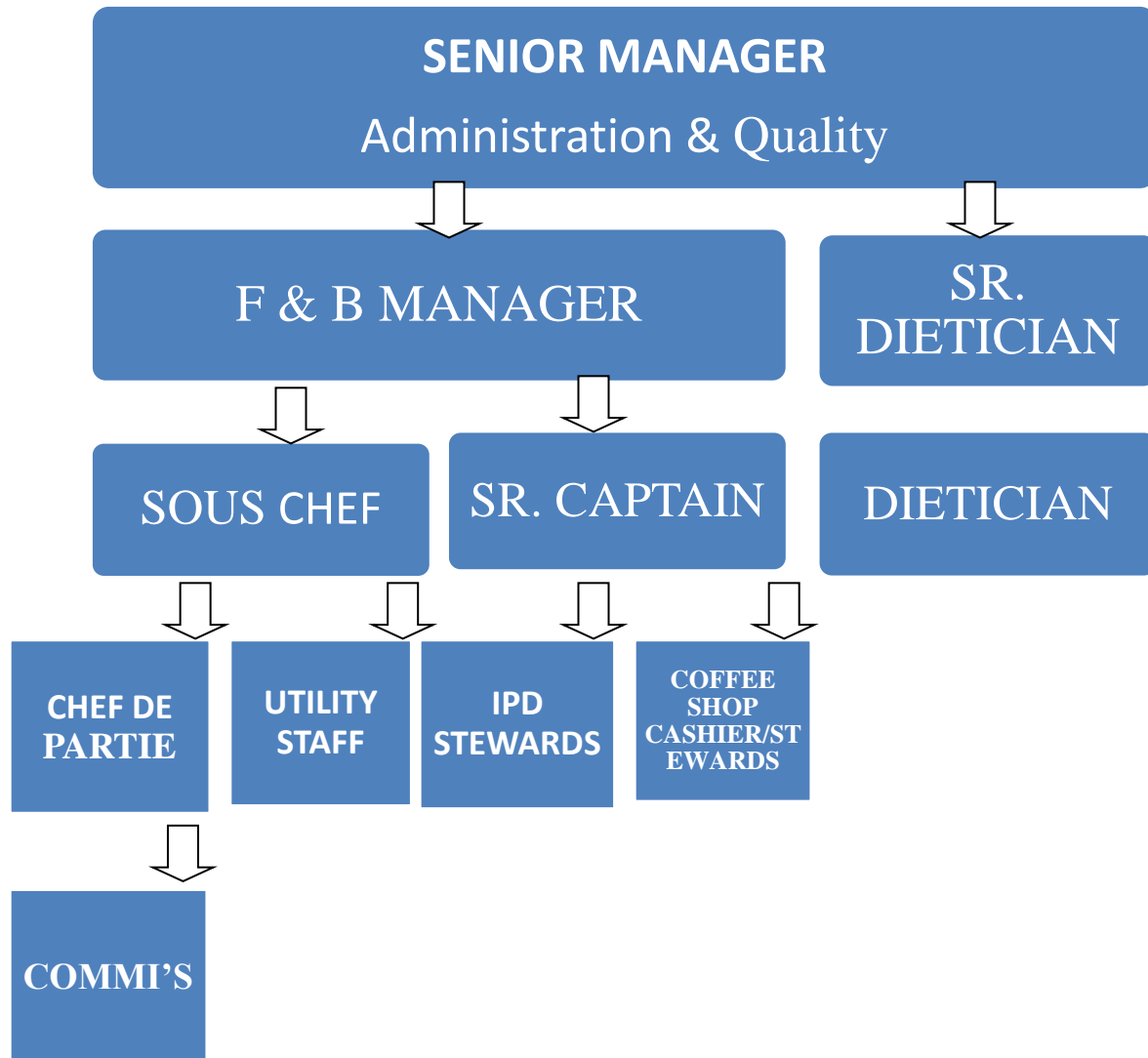
ANALYSIS –

- The ‘Official Events – Food Consumption Sheet’ provided the records of food consumption at CME, Workshops, Farewell and Meetings.
- The data of food consumption was recorded successfully with through ‘Official Events – Food Consumption Sheet’.

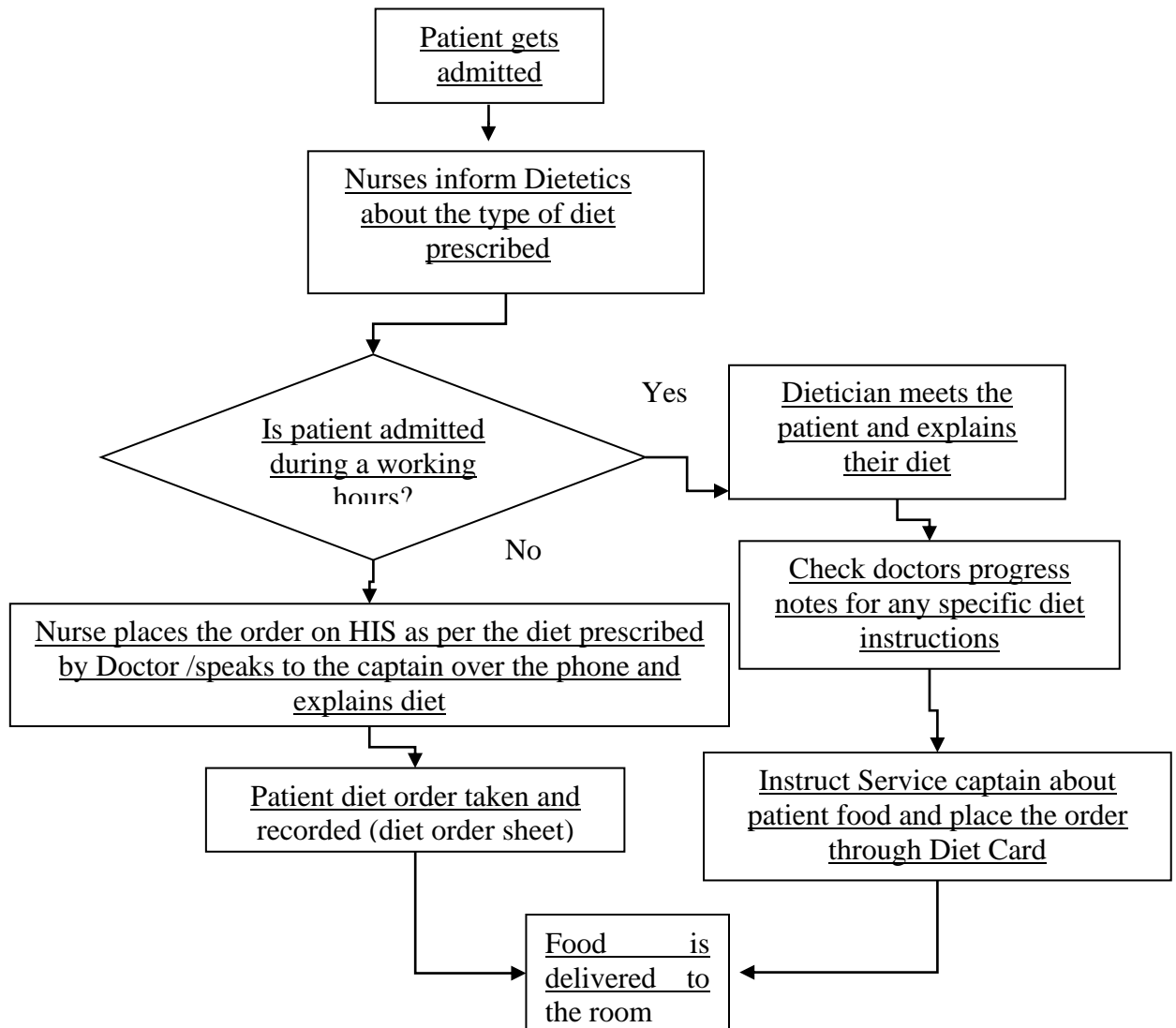
STUDY FINDINGS

**OVERVIEW OF FOOD SERVICE DEPARTMENT IN SITARAM BHARTIA
INSTITUTE OF RESEARCH SCIENCES**

ORGANOGRAM



WORK FLOW PROCESS OF FOOD & BEVERAGE DEPARTMENT AT
SITARAM BHARTIA INSTITUTE OF RESEARCH SCIENCES



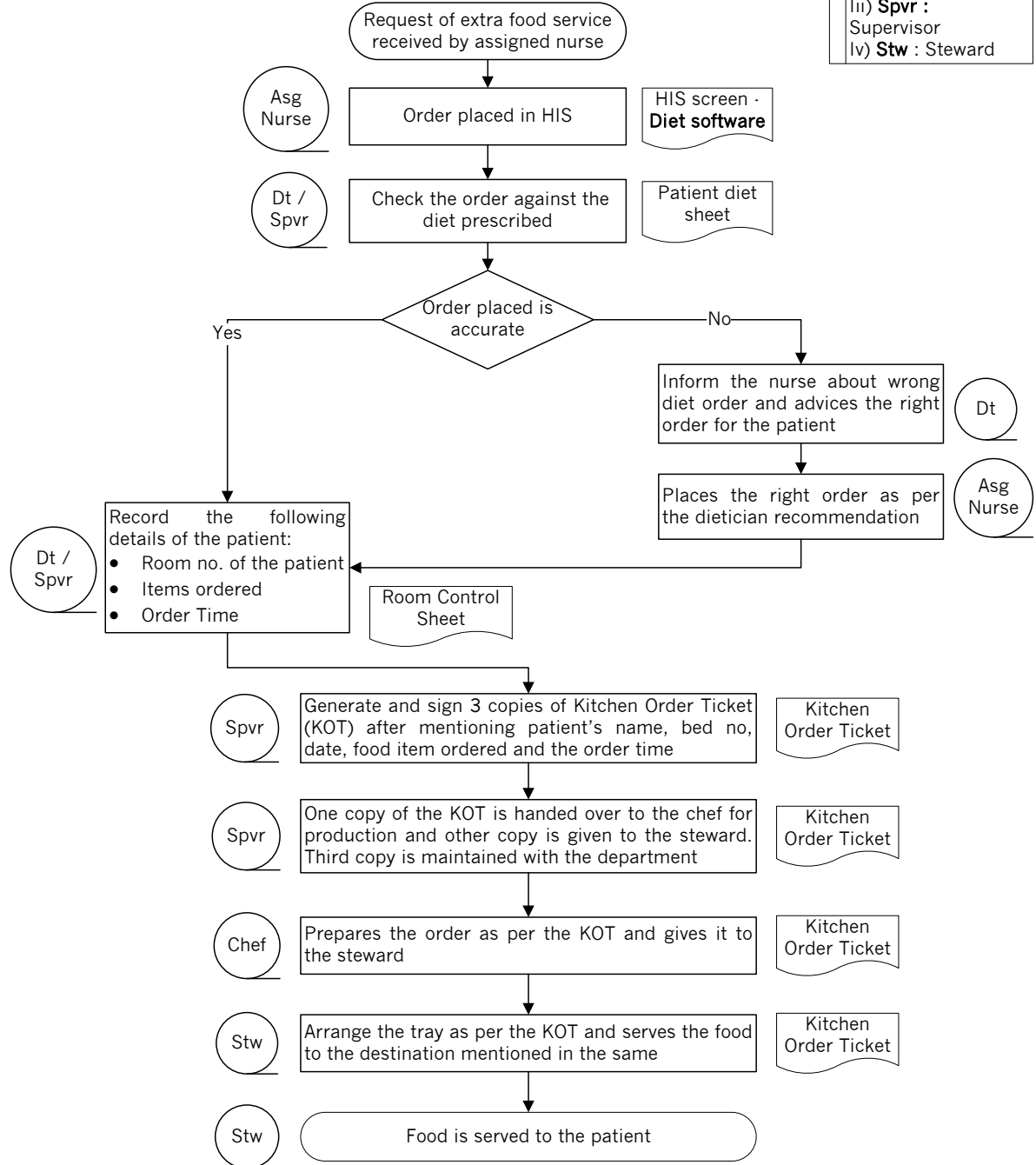
EXTRA FOOD ORDERS OF PATIENTS IN INPATIENT WARDS

Definition of Extra orders:

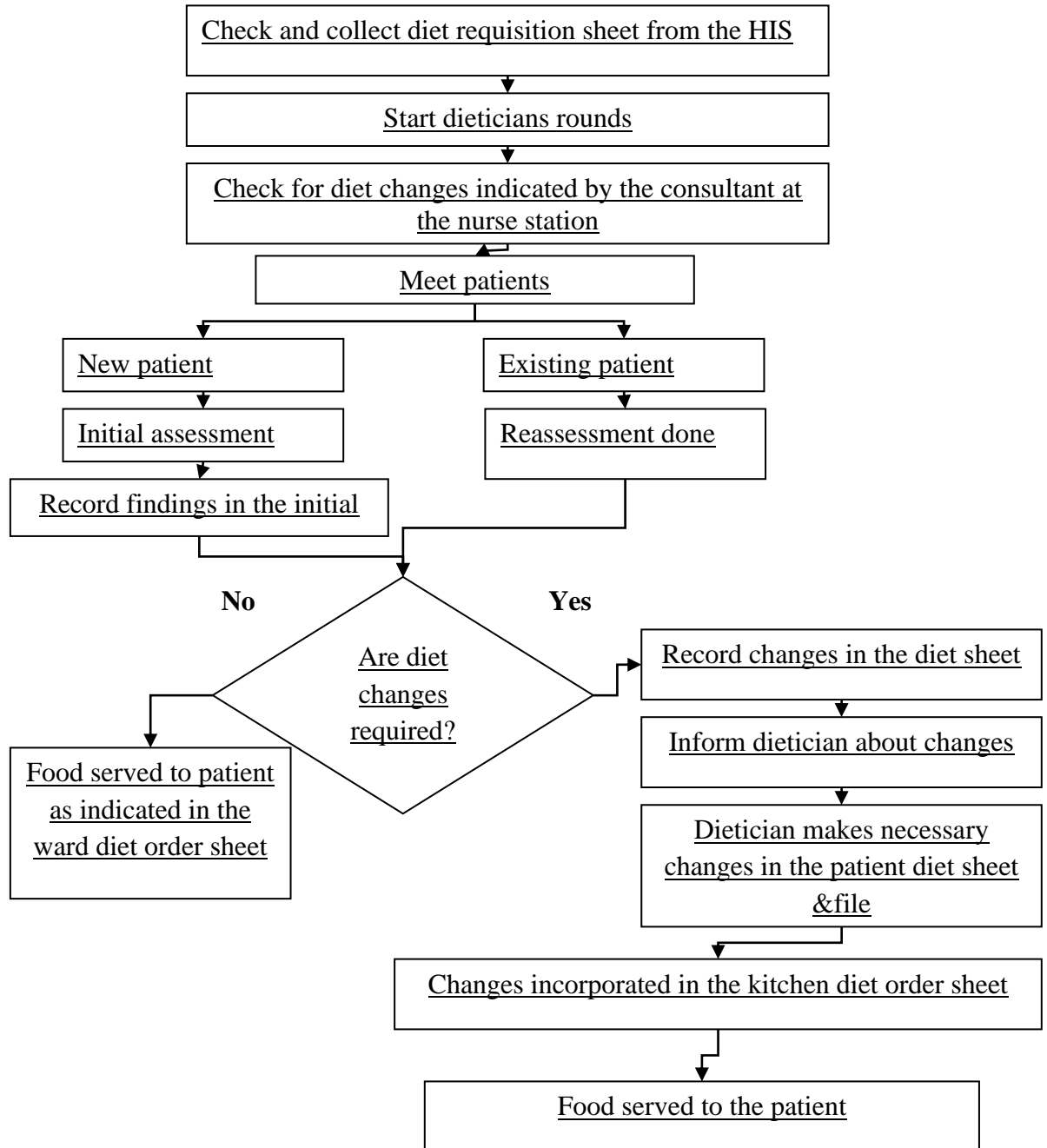
- Patient demands for an extra food item beside 8 food service
- Diet changed by doctor in between service time
- Patient admitted beyond meal timings

Abbreviations:

- i) **Asg nurse** : Assigned nurse
- li) **Dt** : Dietician
- lii) **Spvr** : Supervisor
- lv) **Stw** : Steward



DIET SERVICE OVERVIEW



TYPES OF DIET SERVICE:

❖ There are two types of inpatient diet service:

1. Liquid Diet Service
2. Solid Diet service
3. Soft Diet Services

1. Liquid Diet Service:

- a. Is provided to the patients who are unable to take solids following a surgery, in labour or according to the patient's clinical condition.
- b. Patients are served liquids 2nd hourly. There are 9 feeds given throughout the day starting 6am to 10pm unless specified otherwise. Liquid service can be a clear liquid or full liquid.
- c. A liquid diet service chart is maintained in the feed section which consists of the patient's name, room number, type of liquid at that particular time and any special needs (diabetic, renal, RT feed etc).
- d. The steward / captain ensure that the liquid diets are served second hourly or as specified in the case of tube feeds.
- e. Liquid Diet Service Timings:

❖ 6 am, 8 am, 10 am, 12 noon, 2 pm, 4 pm, 6 pm, 8 pm, and 10 pm

2. Solid Diet Service

- a. Is provided for the patients who can consume solids. These are again based on patients' clinical and physiological conditions.
- b. Solid Diet Service is as per Patient fixed meal timings:

3. Soft Diet Services -

- a. Is provided to the patients who are unable to take solids according to their physiological and medical condition.
- b. Soft diet is served to the patients on the fixed meal timings.
- c. It is also provided to the patient who can eat normal diet but still wish to consume the soft diet.

❖ Menu Planning (Function of Dietetics)

- d. Seasonal menus are planned. These are made to accommodate seasonal vegetable changes. In addition weekly menus are planned for staff and visitors so that vegetable and ration procurement is predetermined. Cyclic menus are planned in advance to accommodate various nutritional requirements of patients and is given to the cooks in advance.

❖ 8 Meals will be served to patients throughout day. The timings will be as follows-

- Bed Tea 0600 hrs -0630hrs
- Breakfast 0730 hrs –0830hrs
- Mid-day Drink 1030 hrs – 1130 hrs
- Lunch 1230 hrs – 1400 hrs
- Tea with Snacks 1600 hrs – 1630 hrs
- Evening Soup 1800 hrs – 1900 hrs
- Dinner 1930 hrs –2100hrs
- After Dinner 2100 hrs – 2130 hrs

❖ **PATIENTS A-LA-CARTE ORDERS**

- The patient may order in addition to the 8 meals provided. No charge for the same is being levied on patient at present. The order is supposed to come via the dietician or can be placed directly with the Order taker in absence of the dietician which shall be approved eventually.

❖ **PHC SERVICE / DIABETES PROGRAM**

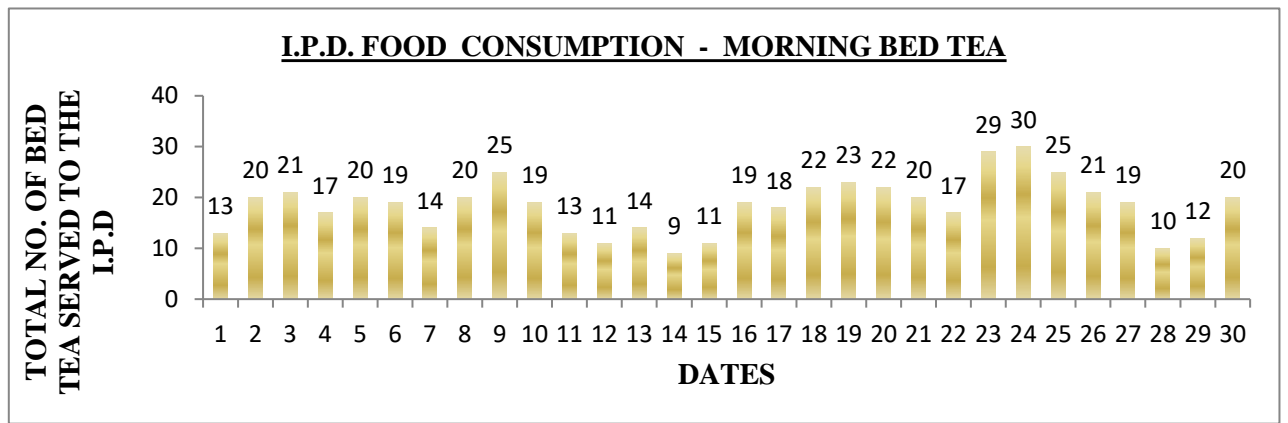
- Healthy and nutritious breakfast is served for the person who comes for the Executive Health Checkup.

RESULTS OBTAINED THROUGH NEW DESIGNED SHEETS ARE AS

FOLLOWS –

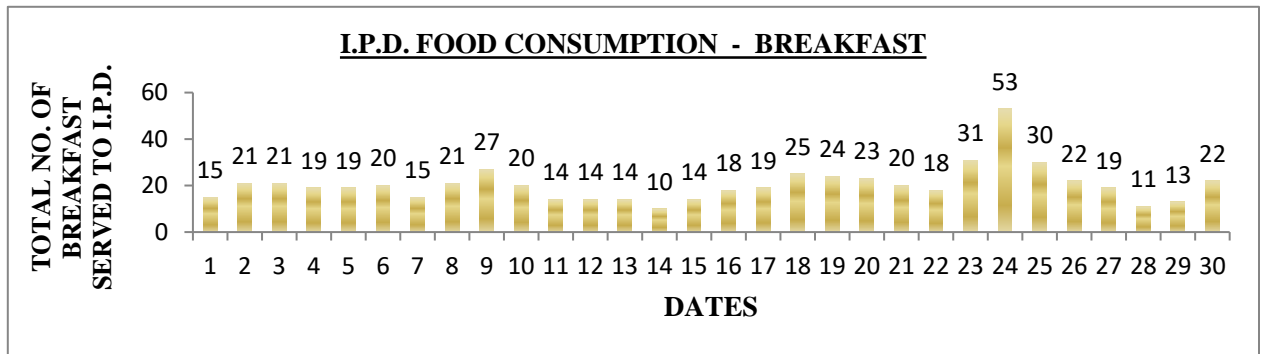
1 - I.P.D. Food ConsumptionResults–

Chart – 1 - I.P.D. Food Consumption during Morning Bed Tea



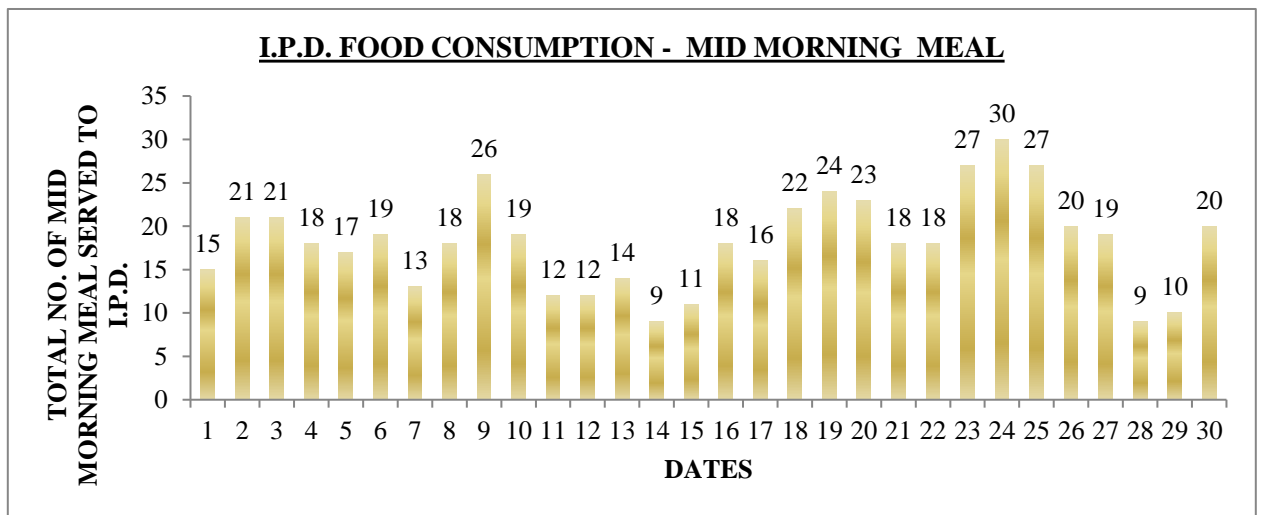
ANALYSIS – On an average 18 - 19 Bed Tea were served to the I.P.D. in the month of April 2014.

Chart – 2 - I.P.D. Food Consumption during Breakfast



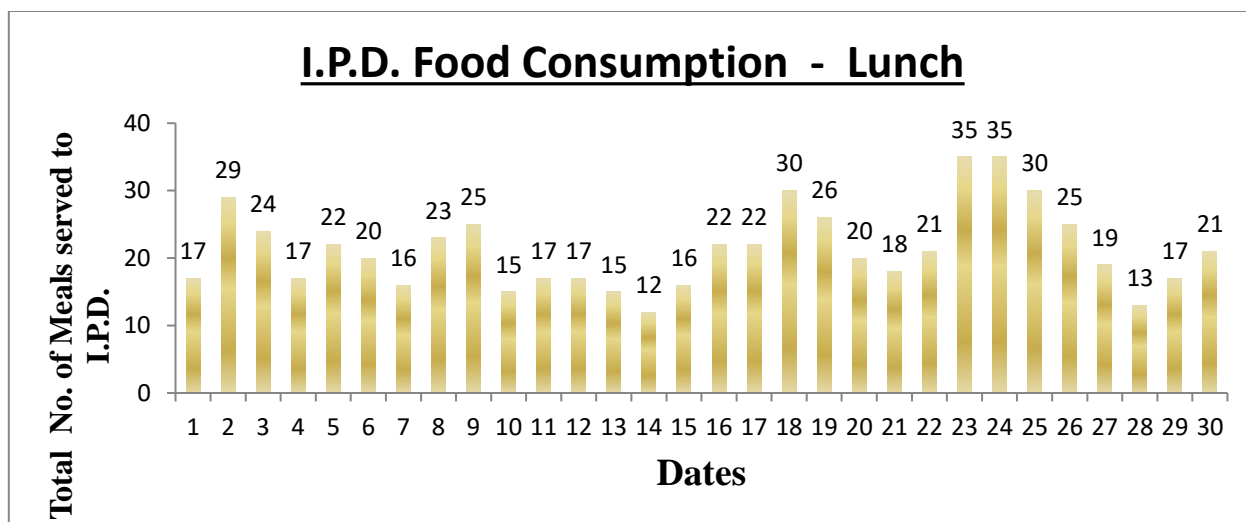
ANALYSIS – On average 20 – 21 Breakfast were consumed in I.P.D in the month of April 2014.

CHART - 3 – I.P.D. Food Consumption served to I.P.D. During Mid Morning



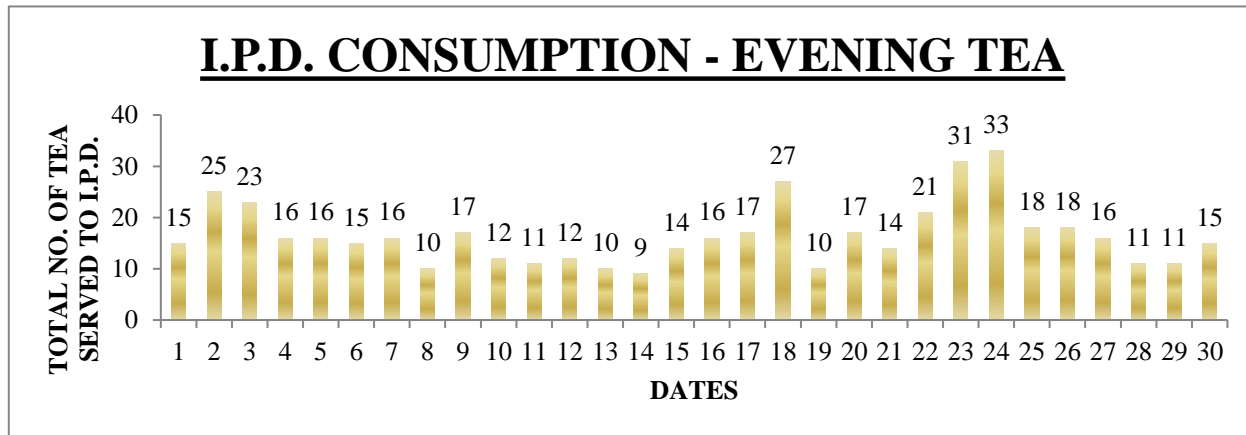
ANALYSIS – On an average 18 – 19 Mid Morning Meal were served to the I.P.D. in the month of April 2014.

Chart – 4- I.P.D. Food Consumption served to I.P.D. During Lunch



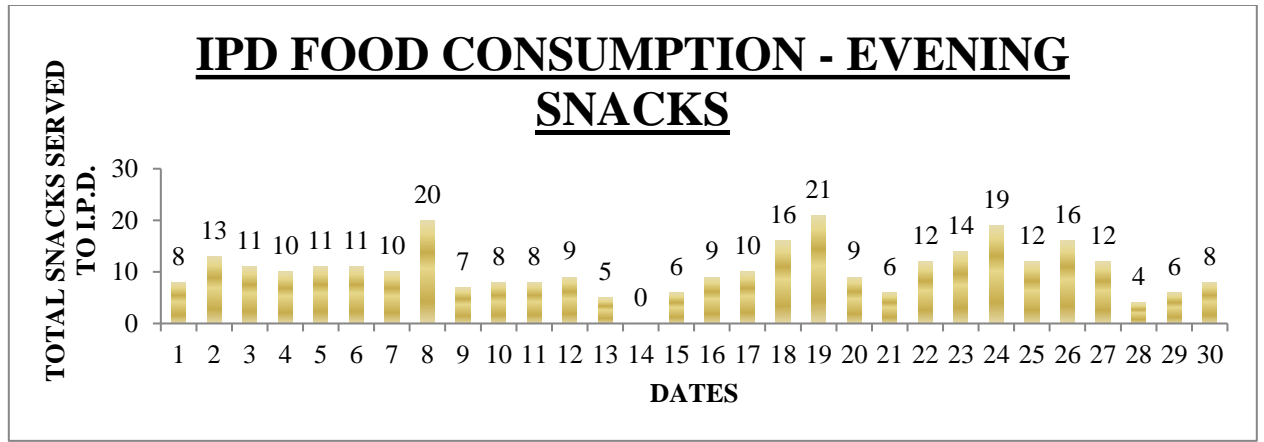
ANALYSIS – On an average 21 -22 Lunches were served to the I.P.D. in the month of April 2014

Chart – 5 I.P.D. Food Consumption served to I.P.D. During Evening Tea



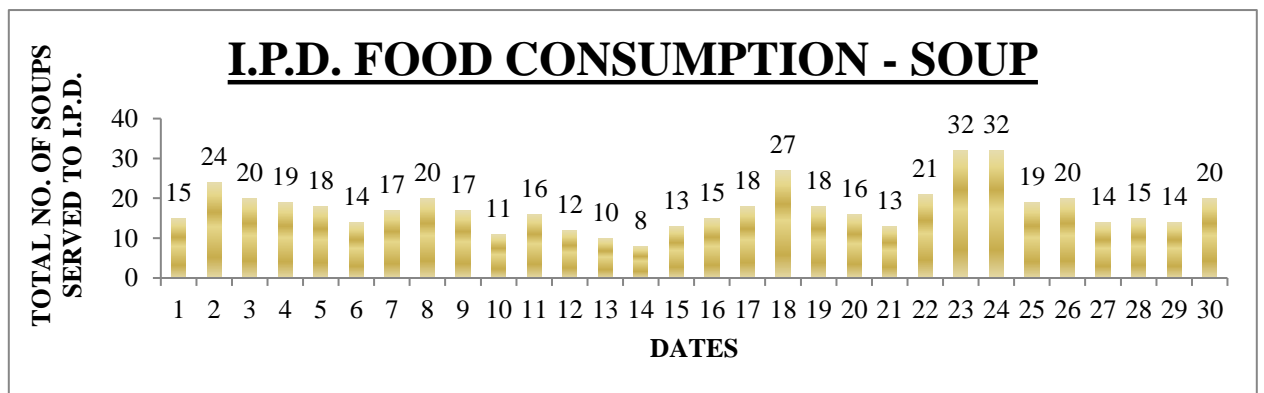
ANALYSIS – On an average 16 – 17 Evening Tea were served to the I.P.D. in the month of April 2014.

Chart – 6 I.P.D. Food Consumption served to I.P.D. During Evening Snacks



ANALYSIS – On an average 10 -11 Snacks were served to the I.P.D. in the month of April 2014.

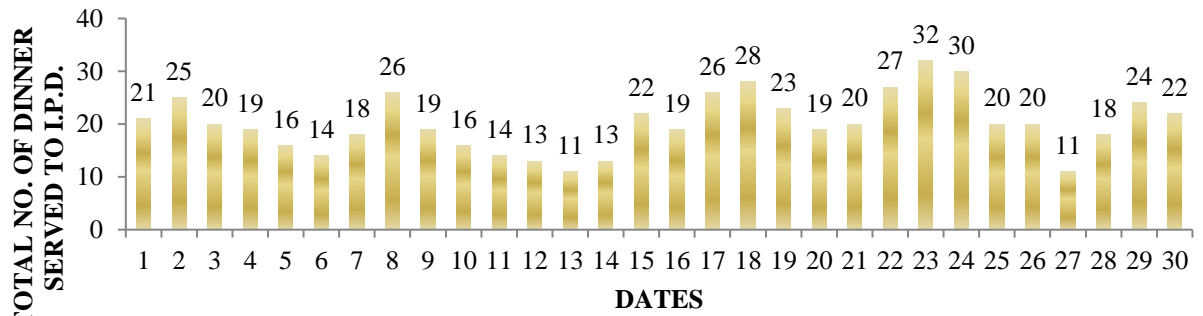
Chart – 7 I.P.D. Food Consumption of Soup served to I.P.D. in evening



ANALYSIS – On an average 17-18 Soups were served to the I.P.D. in the month of April 2014.

Chart – 8 I.P.D. Food Consumption served to I.P.D. During Dinner

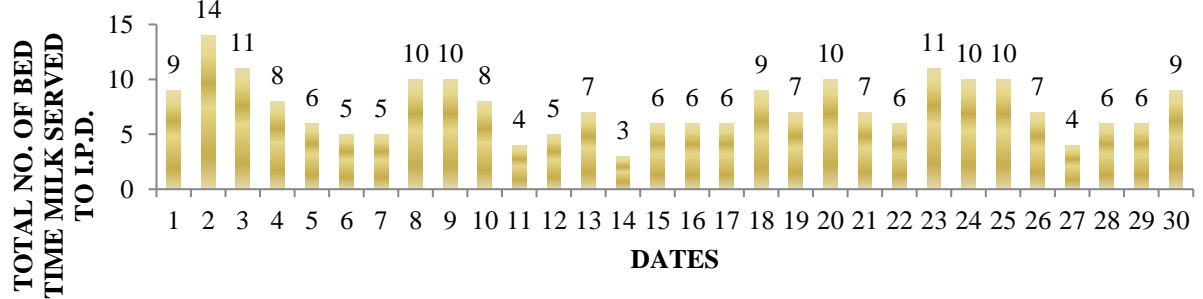
I.P.D. FOOD CONSUMPTION - DINNER



ANALYSIS – On an average 20-21 Dinner were served to the I.P.D. in the month of April 2014.

Chart – 9 I.P.D. Food Consumption served to I.P.D. During Bed Time

I.P.D. CONSUMPTION - BEDTIME MILK

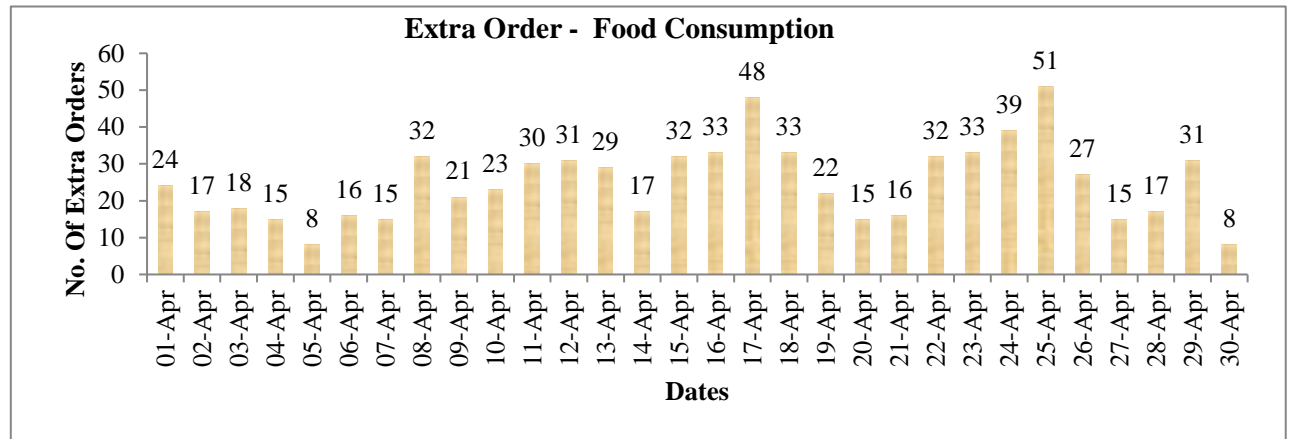


ANALYSIS – On an average 7-8 Bed Time Milk were served to the I.P.D. in the month of April 2014

CHART – 10 ~ I.P.D. EXTRA ORDER FOOD CONSUMPTION -

The data of extra order places by the in-patients are recorded. The Extra Oder list has total 65 items out which the orders are placed. The data is recorded by the Dietician. (Annexure - 3)

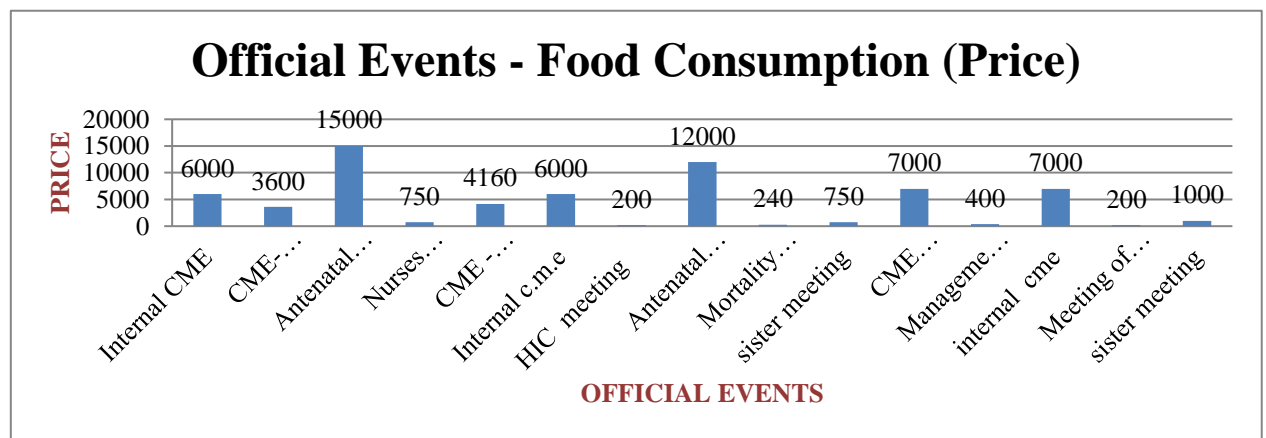
Result found is –



ANALYSIS – 24 – 25 extra orders are consumed per day on an average in month of April 2014.

2- OFFICIAL EVENTS FOOD CONSUMPTION RESULTS~

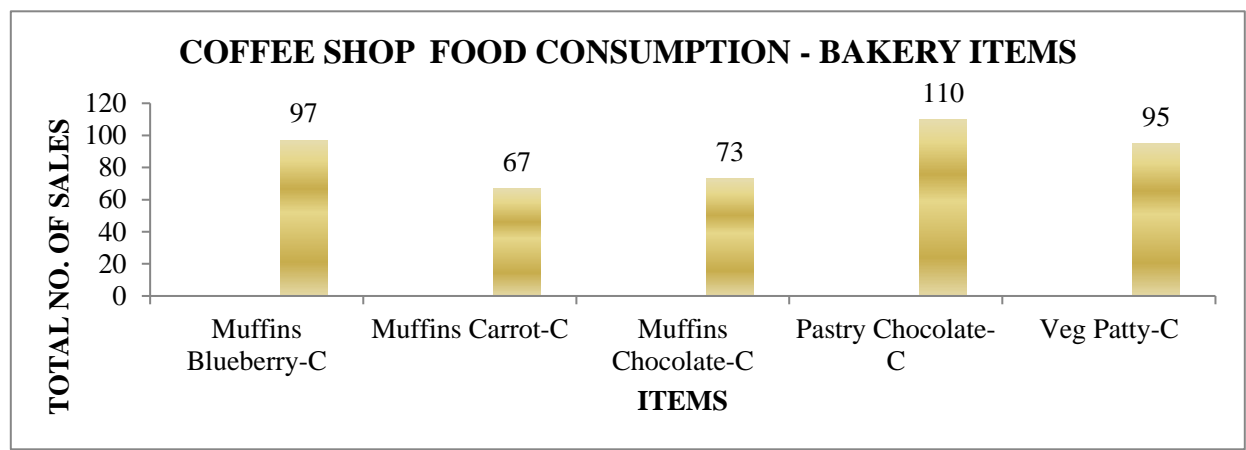
CHART – 11 Official Events~ Food Consumption



ANALYSIS – Official event food consumption includes the consumption occurred in C.M.E, Farewell, Workshops and Official events/meetings. Total 15 official events were there in month of Aril 2014 out which 10 were IN- House and 5 were sponsored.

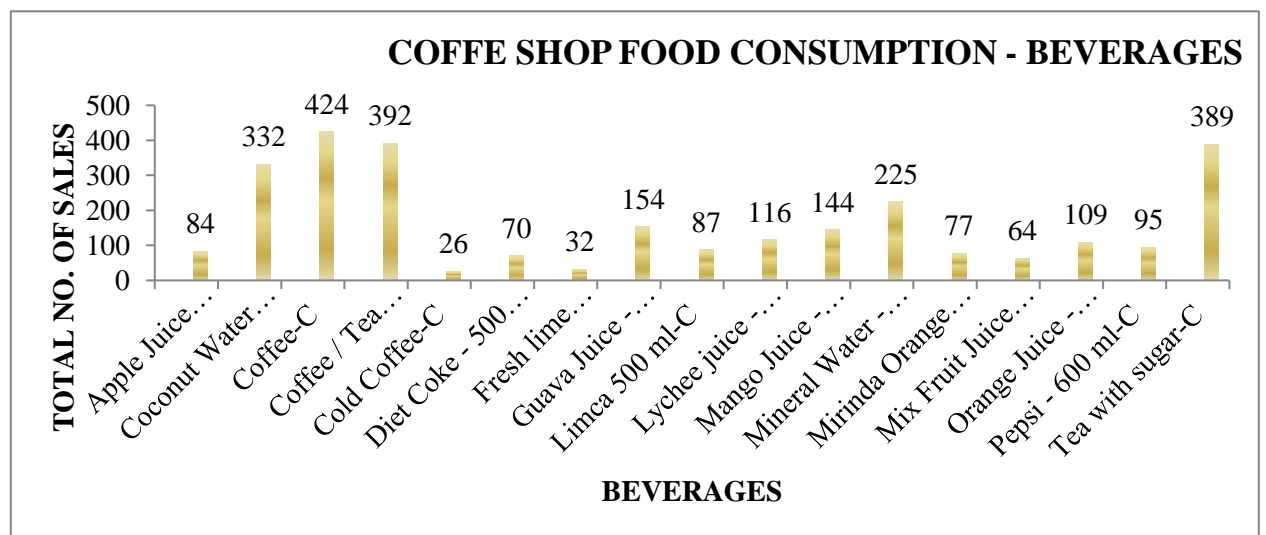
3- COFFEE SHOP FOOD CONSUMPTION RESULTS ~

CHART – 12 – Coffee Shop Food Consumption of Bakery Items



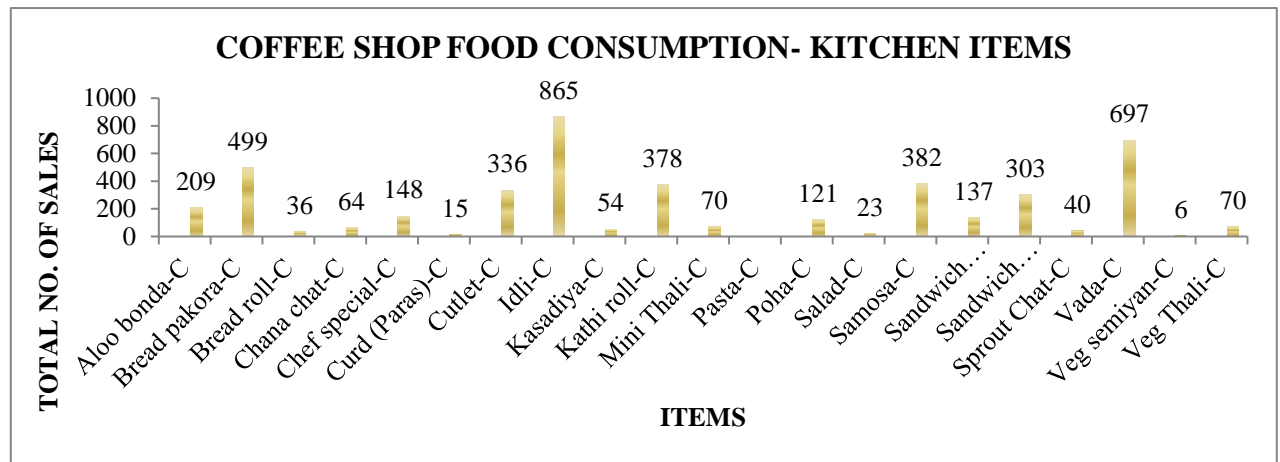
ANALYSIS – Chocolate pastries were consumed highest amongst all bakery items.

Chart – 13 - Coffee Shop Food Consumption of Beverages



ANALYSIS – Tea, Coffee were consumed maximum in the month of April. Coconut water was consumed in higher amounts out of total beverages at coffee shop.

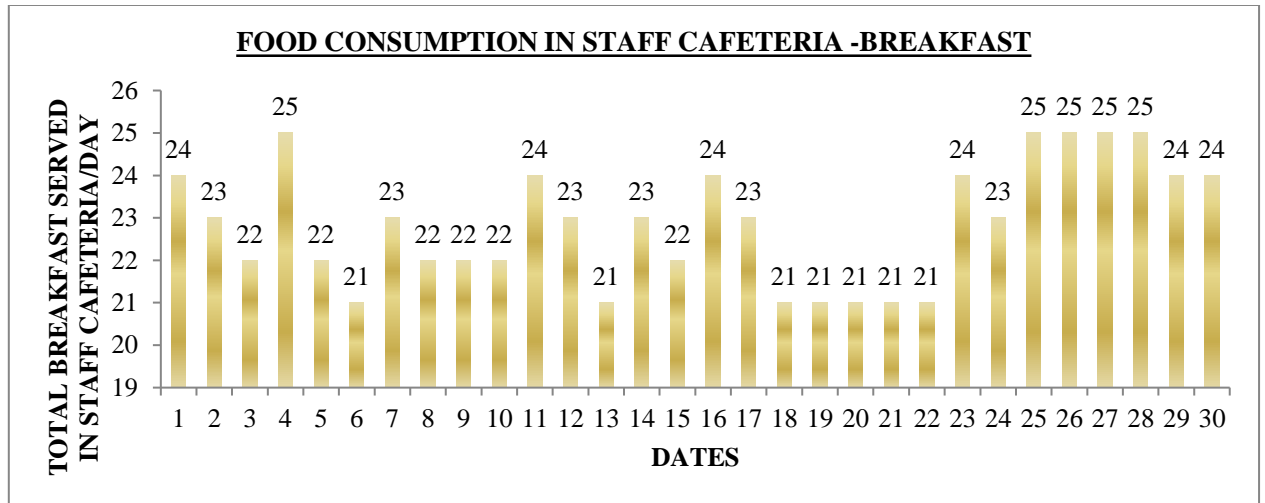
Chart – 14 - Coffee Shop Food Consumption of Kitchen Produced Items



ANALYSIS- Idli, Vada and breadpakora were consumed maximum in coffee shop.

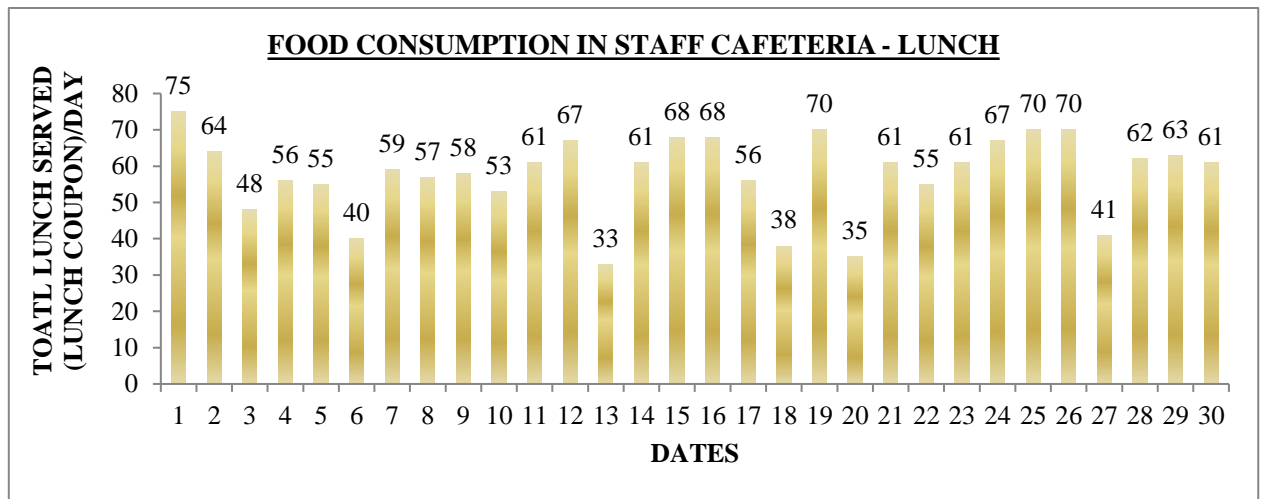
4- STAFF CAFETERIA FOOD CONSUMPTION RESULT~

Chart – 14 – Food Consumption in Staff Cafeteria - BREAKFAST



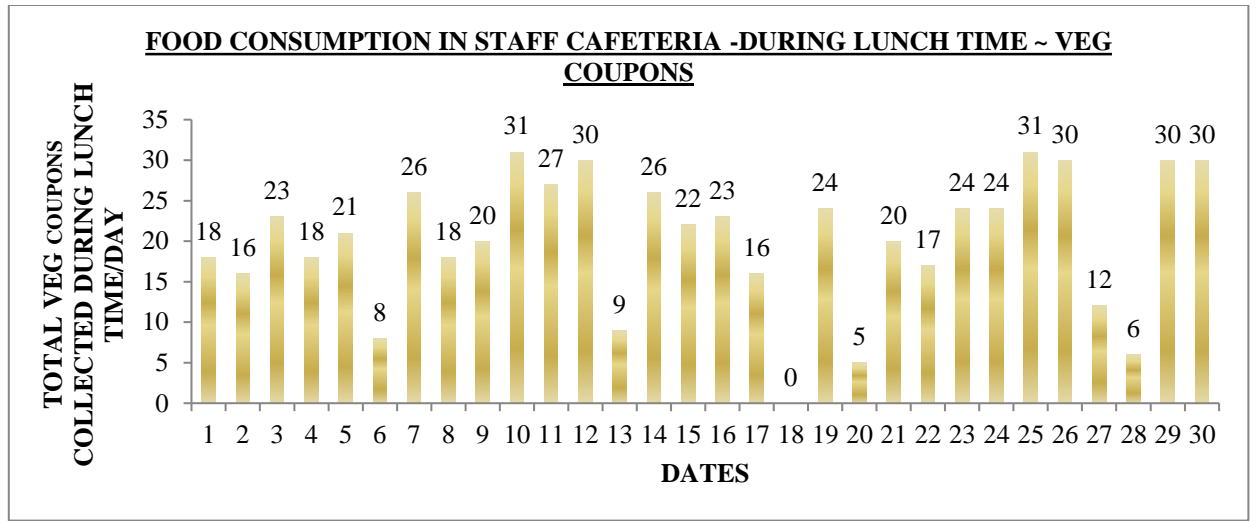
ANALYSIS - 22-23 breakfasts were consumed on average in month of April 2014.

Chart – 15 – Food Consumption in Staff Cafeteria - LUNCH



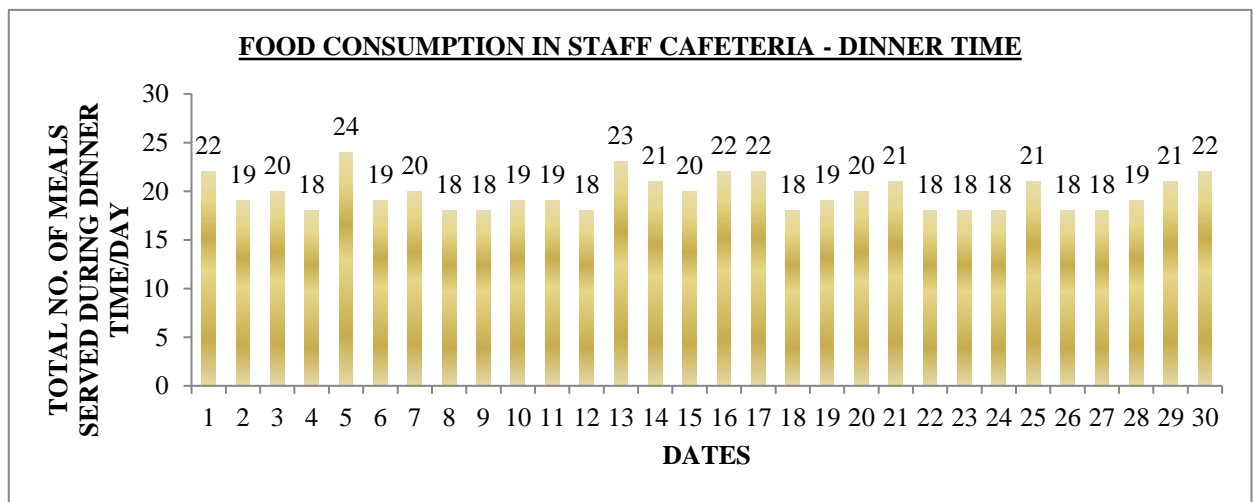
ANALYSIS – 57-58 lunches were consumed on average in month of April 2014.

Chart – 16 – Food Consumption in Staff Cafeteria – LUNCH ~ VEG COUPONS



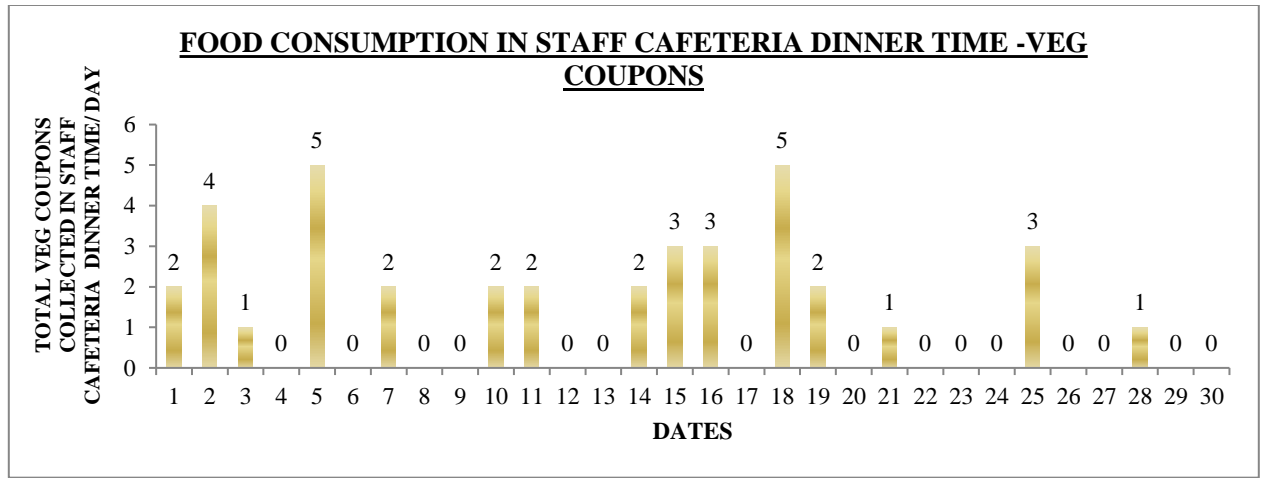
ANALYSIS- 20-21 breakfasts were consumed on average in month of April 2014.

Chart – 17 – Food Consumption in Staff Cafeteria – DINNER



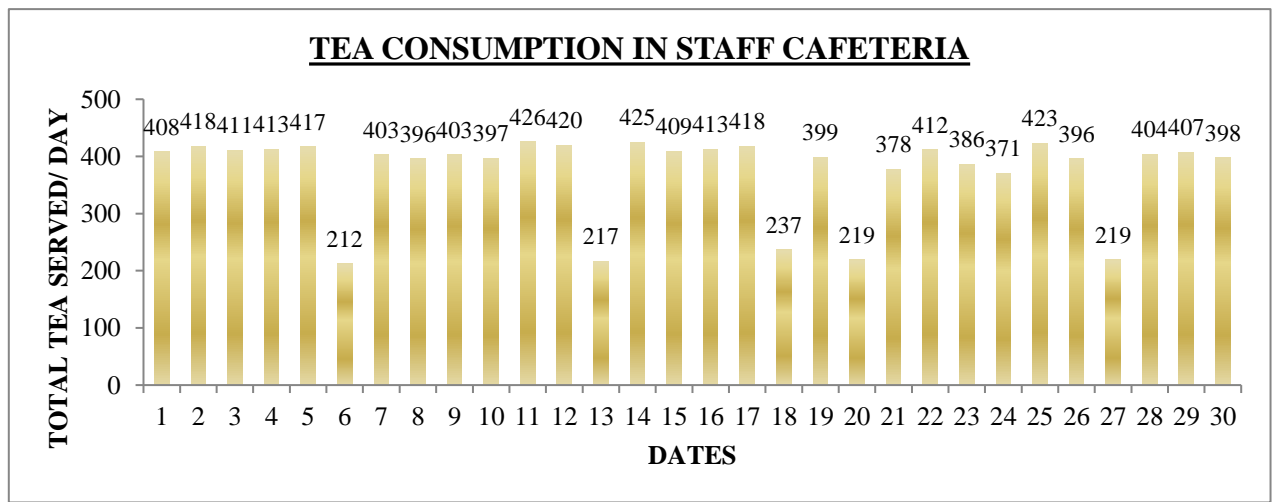
ANALYSIS- 19-20 dinner meals were consumed on average in month of April 2014.

Chart – 18 – Food Consumption in Staff Cafeteria –DINNER TIME – VEG COUPONS



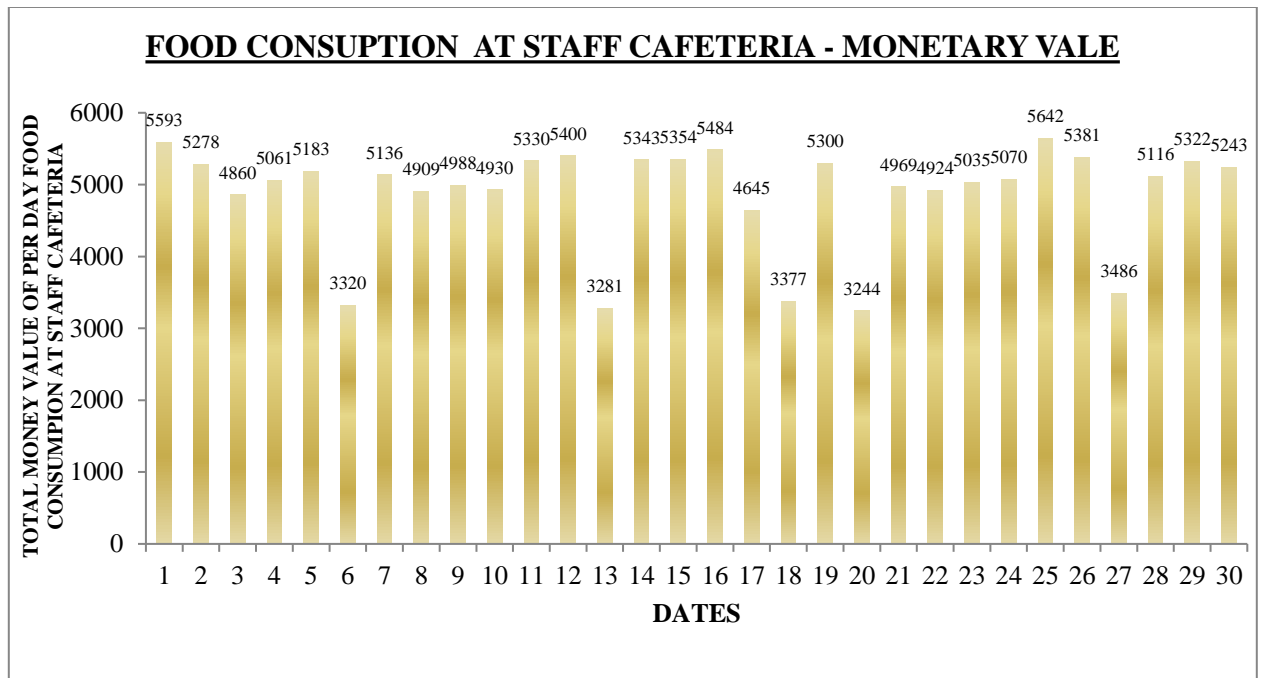
ANALYSIS-2-3veg coupons are received during dinner time in staff cafeteria on average in month of April 2014.

Chart – 19 – Food Consumption in Staff Cafeteria – TEA



ANALYSIS-375 Cups of Tea were consumed on average in month of April 2014.

Chart – 20 – Food Consumption in Staff Cafeteria – TOTAL MONETARY VALUE PER DAY



ANALYSIS-Rs. 4873 was the monetary value of per day consumption at staff cafeteria on average in month of April 2014.

RECOMMENDATIONS

❖ **DIET MANAGEMENT SOFTWARE** -Diet Software is needed which should be linked to the MIS so as to maintain the Food consumption records more systematically.

❖ **Functioning through Diet Management Software-**

- The Dietician will plan diet of each and every patient in the system instead of making several diet sheets manually at the time of taking the round of IN – PATIENT DEPARTMENT.
- Forecasting of the food consumption for the meals to be served in next 12hrs is done by the dietician in the system which will help the food production team for doing preparations. The actual meal will be prepared according to the forecasting as well as the current occupancy of beds. (to avoid the wastage due to sudden discharges or admissions)
- Diet software will also prove mistake proofing mechanism as nobody can enter food which will be against the patient condition e.g. juice will not be registered in the system for the patient who is diabetic.
- No food item will be served to the patient unless and until it is mentioned in software and approved by the dietician till 7pm. After that the Staff nurse will enter the random order in the system according to the patients need but for random orders a sage list of items are prepared which can be given to patients which will too be mistake proofed according to the restrictions based on patients medical condition.
- The Diet Management software also record the food consumption in staff cafeteria, official events and this can be linked to the coffee shop software in later stages.

- On the basis of the diet planned in the diet management software the consumption records can be taken out easily which will set the basis for inventory procurement hence the inventory can be easily managed.
- This will also be used to know the previous diet records of the patients.
- Accounts management of the F & B department will become easier to get whether we are making profits or going in losses. Thus enabling the F & B department to be cost effective.

ADVANTAGES OF DIETARY MANAGEMENT SOFTWARE –

The implementation of software will result in following benefits –

- Data entered through system will disseminate the data to all the authorized personnel of the hospital to see and take decisions accordingly.
- The systemized data entered in MIS is also useful for management in decision making.
- Data managed through this software will be helpful for dietician as it's much convenient to make diet slips in software and plan diet for the patients accordingly as compared to manually recording each and everything.
- The records obtained from the DIET management software will give us the difference between the actual consumption and needed.
- The records obtained through DMS will be appropriate which can be used to standardize all the process in F & B Department.
- Automation of the process production summary etc will be generated which will help the production department in preparing food etc.
- Process of Diet planning for the patient will be improvised.

- Mistaking proofing will also be there in diet planning of the patient e.g. nobody can give mango juice to diabetic patients.
- Dietician and Doctors can also see the patient's diet records to manage his diet.
- This will also support the service department to provide food in to the patients.
- Procurement of the inventory will also get regularized.
- Inventory will be effectively well as efficiently being managed.
- This will also lead to cost reduction of price incurred in printing many diet slip notepad for different categories of patients i.e. normal and diabetic.
- It will also help to track the waste of food items and the raw materials.
- Pilferage may also get reduces (if there).

OTHER RECOMMENDATIONS ~

- Menu should be revised as some patients ask for different cuisines of food.
- Diet slips should be made through software instead of making them manually.
- Drop down list should be made of the item which is served as extra orders as per the patients demand (apart from the eight meals served) instead of manually typing and entering the item in system which leads to spelling errors etc.
- No order should be served to the patient without the dietician consent to avoid the reactions due to the diet.
- Production of the food should be according to the production summary received through the MIS to avoid the short fall or waste of food.
- More improvisation is needed for the collection of staff coupons and maintaining the records of same.

DISCUSSION

This study was based on understanding the F & B department and designing the new formats to record the credible data of food consumption in the SITARAM BHARTIA INSTITUTE OF RESEARCH SCIENCE. To streamline the F & B department it is utmost necessary to get the baseline data. So the appropriate baseline data of food consumption is necessary to maintain the department. This data can be used further to manage the inventory, process etc in the F & B DEPARTMENT. This all will result in efficiently as well as effective management of the F & B department. Other studies mentioned in ROL done on different topics in the F & B department but ultimately the aim of all these are to improve the F & B department management for the betterment of the hospital. Like study conducted on **“Future Skills Requirements of the Food and Beverage Sector”** done by Expert Group ON Future Skill Need found that there are six key drivers-of-change in the sector were identified i.e. consumer trends; health and wellness; sustainability and ethical concerns; policy; consolidation of retailers; and technology. “Hospital foodservice directors identify the important aspects when implementing room service in hospital foodservice” was conducted by Zafirah Mohd at Nor Iowa State University Ames, Iowa found that the hospitals consider expanded services as the potential for cost saving and quality control possible in a room service system may sufficiently offset capital investment costs and this also will be expected to benefit DNRS to introduce room service that fit the operational characteristics of a particular hospital etc. Thus all these studies conclude that better management of F& B department is necessary for

the development of the hospital for which the baseline data is necessary. Like this study

CONCLUSION

The baseline data in the Sitaram Bhartia Hospital was maintained manually that too not systematically. By designing we get the appropriate food consumption data of the hospital. While doing this it was discovered if the hospital move step ahead by working on DMS than this will add stars to the F & B department management. The comparison between the manual system of maintaining records and through DMS is mentioned below ~

	MANNUAL - SYSTEM	DMS - SYSTEM
1	The dietician plans the records two times in a day, making records in the Diet Slips manual and KOT's were used to record the food to be prepared apart from the day menu.	The dietician will plan the diet in the DMS clicking on the options present in the system which contains all the options related to type of diet to be served, restrictions, patients special orders etc.
2	According to the Diet Slips and KOT's prepared by the dietician the chef prepare the food.	Based on the data fed in system by dietician the kitchen production department will obtain the production summary on basis of which they prepare food also by cross checking with the latest changes due to admissions and discharged through the software.
3	The food prepared on the manual records is served to the rooms by the service department of the	The print of computerized diet tickets will be generated for each specified room no. according to which the food will be served to respective rooms.

	kitchen tagging those manually made diet slips.	
4	This process needs several notepads for planning the diet as well as place to store the records of past 3-4 years.	This will cut down the cost of printing diet planning notepads as diet tickets will be obtained through system which needs the bar code printer though it's a onetime investment but it will save space and money in long run. Also the place will become free which was used to store those notepads.
5	The records of food consumption in above mentioned 4 categories are use to be recorded manually.	The records of total food consumption of the hospital will easily be generated through this software. Also many other records can easily be generated through this.
6	The raw materials were procured on basis of chef's assumption for the requirement and not on actual consumption need.	The raw material will be procured on the basis of actual consumption pattern of the hospital based on the actual food served. LEADING TO BETTER INVENTORY MANGEMENT.
7	The records obtained from the manual system can be changed or misinterpreted etc can lead to several errors.	The data entered in the DMS cannot be distorted, changed or misinterpreted.
8	The system leads to food wastage which was not recorded.	Wastage records can also be seen through the system and also the root cause of the wastage can be traced much easily.

9	Pilferage (if any) cannot be ruled out through manual entry system.	Pilferage (if any) of the raw material etc can easily be ruled out.
10	These records are usefully but not as credible as obtained through DMS for management to take any important decisions.	These records are appropriate and credible for management for decision making.
11	Error can happen while serving food to patient which any specific medical condition though this system.	Mistake Proofing is set in this system as for specific medical condition particular food items will not get entered in the system, So no errors will happen with allergic and restricted diet patients.

Note~ It's always necessary to get the baseline data to further improving the department. So the new formats were designed to get the consumption I.P.D, STAFF CAFETERIA, COFFEE SHOP AND OFFICIAL EVENTS. The data was obtained with the help and support of the staff. By designing the new format for getting the appropriate food consumption it was realized that it can be further improvised by using DMS. So the work is in progress in the hospital to work on DMS. By using DMS both the management and the staff will get benefitted. Hence the DMS should be implemented so that F & B department can effectively as well efficiently manage. Thus this process of collecting the baseline data of food consumption was helpful in taking the F & B department to a better level.

SNAPSHOTS OF DIET MANAGEMENT SOFTWARE~

[illegible][illegible]

SNAPSHOTS OF MANNUAL DIET PLANNING & RECORDING SYSTEM~

SITARAM BHARTIA
Institute of Science & Research

QUALITY ASSURANCE & FOOD TASTING RECORD SHEET

Date: 2/5/14. Day: Friday

	Food Tasted	By whom	Trolley Responsible	No. of diets	Time out	Clearance	Time in
Bed tea	✓	Pradeep	Pradeep	19	5:30	6:10	6:30
Breakfast	✓	Pradeep	Pradeep	19	7:30	8:10	8:30
Mid Morning	✓	Pradeep	Pradeep	20	9:30	10:10	10:30
Lunch	✓	Pradeep	Pradeep	20	12:30	1:10	1:55

Name of Dietician: Pradeep
Sign:

	Food Tasted	By whom	Trolley Responsible	No. of diets	Time out	Clearance	Time in
Snacks	✓	Pradeep	Pradeep	18	3:30	4:10	4:30
Soup	✓	Pradeep	Pradeep	20	5:30	6:10	6:30
Dinner	✓	Pradeep	Pradeep	20	7:30	8:10	8:30
Bed time	✓	Pradeep	Pradeep	11	9:30	10:10	10:30

Name of Dietician: Pradeep
Sign:

Remarks:

SITARAM BHARTIA
Institute of Science & Research

PATIENT DIET CARD 966 LR-3

LUNCH / DINNER

DIET	ROOM NO.
NAME: Pradeep	202B
DATE: 2/5/14	

RICE	✓
KHICHI	✓
DAL	✓
PANEER	✓
LIGHT VEG	✓
VEG	✓
ROTI	✓
CURD	✓
SALAD	✓
DESSERT	✓
SPECIAL	

Signature of Dietician / Supervisor

SITARAM BHARTIA
Institute of Science & Research

PATIENT DIET CARD

BREAKFAST

DIET	ROOM NO.
NAME: Pradeep	202B
DATE: 2/5/14	

RICE	✓
KHICHI	✓
DAL	✓
PANEER	✓
LIGHT VEG	✓
VEG	✓
ROTI	✓
CURD	✓
SALAD	✓
DESSERT	✓
SPECIAL	

Signature of Dietician / Supervisor

SITARAM BHARTIA
Institute of Science & Research

PATIENT DIET CARD

BREAKFAST

DIET	ROOM NO.
NAME: Pradeep	202B
DATE: 2/5/14	

RICE	✓
KHICHI	✓
DAL	✓
PANEER	✓
LIGHT VEG	✓
VEG	✓
ROTI	✓
CURD	✓
SALAD	✓
DESSERT	✓
SPECIAL	

Signature of Dietician / Supervisor

SITARAM BHARTIA
Institute of Science & Research

KOT

No. 8551 Date: 30/4/14

S. No.	Particulars	Rate	Total
1	Mix Veg Soup		
2	Black Dal		

This is not a bill.

Sign. of Supervisor Sign. of Customer


INSTRUMENTATION

New Excel sheets were designed for 4 main categories. Below are the sheets designed ~

1. For recording I.P.D Food consumption – One sheet for each meal (total 8 meals)


Patient Business																															
Metric 1B: Forecast Accuracy Breakfast										Mont h: April'14					Responsibility :Sr. Dietician					Metric 1B: Forecast Accuracy Breakfast											
	Parti cular s	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Menu Days																														
Patie nt Meal Brea kfast - Plan	Norm al Diet		8	9	11	11	12	10	12	10	9	5	10	9	6	4	7	8	13												
	Soft Diet	5	3	6	5	6	5	2	3	6	6	5	3	3	5	5	8	6	9												
	Diabe tic Diet	1	6	5	4	4	3	1	1	4	3	2	1	1	1	2	0	2	1												
	Liqui d Diet	1	1	2	1	2	1	1	3	3	1	0	1	2	1	2	1	2	2												
	Total		18	22	21	23	21	14	19	23	9	12	15	15	13	13	16	18	25	0	0	0	0	0	0	0	0	0	0	0	0
Actu al Patie nt Brea k Fast Sale s	Norm al Diet	7	10	11	11	14	12	10	11	12	9	9	7	10	5	5	12	11													
	Soft Diet	3	7	4	3	3	3	2	7	10	8	3	6	1	1	6	4	5													
	Diabe tic Diet	3	4	6	4	2	4	2	1	4	3	2	0	1	3	2	1	1													
	Liqui d Diet	2	0	0	1	0	1	1	2	1	0	0	1	2	1	1	1	2													
	Total	15	21	21	19	19	20	15	21	27	20	14	14	14	10	14	18	19	0	0	0	0	0	0	0	0	0	0	0	0	0

- 2 **A) For recording Official Events Food consumption** –Mentioned below are Function prospectus, official order - official entertainment slip and Official Event Food Consumption Sheet (in excel) were used.

 SITARAM BHARTIA Institute of Science & Research care you can trust™		Serial No.
		<u>FUNCTION PROSPECTUS</u>
Name:		Date:
Address:		F.P. No.:
Contact Person:	Phone No.:	Invoice No.:
Function Date:	Function Starts at:	Minimum Guarantee:
Day:	Function Ends at:	Maximum Expected:
Venue:	Food Pick Up at:	Advance Amt. Recd.:
Event:	Rate per Person:	Balance Due:
EVENT LISTING		
FOOD & BEVERAGE		ADDITIONAL SERVICE
		Remarks:
Total Expected Billing(in words) _____ _____		
Prepared By	Passed By	Received By

2 B) OFFICIAL ORDER - OFFICIAL ENTERTAINMENT SLIP –

- This was used to get the Official Events – Food Consumption Records to be filled by event coordinator which is submitted to F & B manager so as to record the official events food consumption and instruct kitchen to prepare food accordingly.

 SITARAM BHARTIA Institute of Science & Research <small>care you can trust™</small>	Serial No.-	
FOOD & BEVERAGES OFFICIAL ENTERTAINMENT SLIP		
DATE: TIME: No. OF PAX:		
ITEMS	AMOUNT	Ps.
	Rs.	
TOTAL		
SIGNATURE: NAME:..... OFFICIAL ENTERTAINED: NAME OF COMPANY:		

2 C) OFFICIAL ORDERS – FOOD CONSUMPTION SHEET

- This sheet was made by F & B Manager on the basis of Official entertainment slips.

<u>OFFICIAL ENTERTAINMENT SLIP ORDERS</u>								
Date	Official Entertained	Co-coordinator	Venue	Menu	PAX	Rate	Amount	Remarks Paid /In-House
04/01/2014	Dr. Bhargava	Mr. Sunil	Office	Coffee	1	20	20	In-House
04/03/2014	Dr. Bhargava	Mr. Sunil	Office	Coffee	1	20	20	In-House
04/03/2014	Mrs. Saru Bhartia	Mr. Tara	Office	Tomato Soup	1	25	25	In-House
04/04/2014	Mrs. Saru Bhartia	Mr. Tara	office	idli /vada	2	55	110	In-House
04/05/2014	Mrs. Saru Bhartia	Mr. Tara	office	Tomato Soup	1	25	25	In-House
						Total =	200	

3 For recording staff Food consumption –

➤ This sheet was made by the F & B manager to record the food consumption in Staff Cafeteria.

STAFF SALE FOR THE MONTH OF MARCH-14

DATE	BREAKFAST						LUNCH					LUNCH - Veg Coupon			DINNER						DINNER - Veg Coupon			TEA						TOTAL	
	QTY			RATE	AMOUNT	QTY			RATE	AMOUNT	QTY			RATE	AMOUNT	QTY	RATE	AMOUNT	QTY			RATE	AMOUNT								
	Coupon	Compl.	F & B			Coupon	Compl.	F & B			Coupon	Compl.	F & B						Coupon	Compl.	F & B			Coupon	Compl.	F & B					
1	2	9	13	24	25	600	28	4	25	57	25	1425	16	6	96	2	10	10	22	25	550		6	0	37	312	12	361	6	2166	4837
2		8	13	21	25	525	5	2	25	32	25	800	1	6	6		10	10	20	25	500		6	0		200		200	6	1200	3031
3	2	8	13	23	25	575	30	9	25	64	25	1600	20	6	120	6	10	10	26	25	650		6	0	99	312	12	423	6	2553	5483
4	2	8	13	23	25	575	28	3	25	56	25	1400	10	6	60	2	10	10	22	25	550	2	6	12	90	312	12	414	6	2448	5081
5	2	8	13	23	25	575	38	3	25	66	25	1650	25	6	150	4	10	10	24	25	600	5	6	0	103	312	12	427	6	2566	5567
6	1	8	13	22	25	550	24	5	25	54	25	1350	25	6	150	5	8	10	23	25	575	2	6	12	83	312	12	407	6	2447	5079
7	3	8	13	24	25	600	25	8	25	58	25	1450	27	6	162	3	8	10	21	25	525	2	6	12	108	312	12	432	6	2599	5341
8	4	8	13	25	25	625	46	5	25	76	25	1900	22	6	132	3	8	10	21	25	525	2	6	12	86	312	12	410	6	2466	5654
9	0	8	13	21	25	525	7	4	25	36	25	900	10	6	60	3	8	10	21	25	525	2	6	12	11	200	11	216	6	1266	3288
10	2	8	13	23	25	575	7	6	25	58	25	1450	25	6	150	2	8	10	20	25	500	1	6	6	97	312	12	422	6	2552	5207

BIBLIOGRAPHY

1. Sitaram Bhartia Institute of Science & Research, Qutub Institutional Area, New Delhi.
Available site : <http://www.sitarambhartia.org/>
2. S.K. Joshi; Quality Management in Hospital; published in 2009
3. Expert Group ON Future Skill Need;“**Future Skills Requirements of the Food and Beverage Sector**”; November 2009.
4. Zafirah Mohd; title - “Hospital foodservice directors identify the important aspects when implementing room service in hospital foodservice” was conducted by at Nor Iowa State University Ames, Iowa in 2010.
5. Morten Freil, Michael Allerup Nielsen, Camilla Biltz, Rikke Gut, Bent Egberg Mikkelsen and Thomas Almdal conducted a study on **Reorganization of a hospital catering system increases food intake in patients with inadequate intake in 2006.**
6. Eur J Clin Nutr. 1998 Dec conducted study on **Validation of a self-administered form for recording food intake in hospital patients** at Rikshospitalet, Oslo.
7. Dr. Vishal Kaikade did study on Food **Service Management & Its Impact on Patient Satisfaction** in Asian Heart Institute and Research Centre Mumbai in April 8 – June 7, 2013.

ANNEXURE – I (A)



Learning and Improvement Cycle – PDSA Form

Team: Mrs. Saru Bhartia (Senior Manager – Quality & Administration)

Mrs. Ruchika Jain (Dietician)

Mrs. Monika (Dietician)

Date: March 20th, 2014

Dr. Megha Dhingra (PT)

Dr. Rakhi Wadhwani (PT)

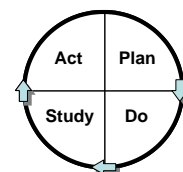
Name of test: To test the credibility of the 'Food Consumption Data' of I.P.D. by evaluating the process of recording the data.

Cycle #: Ramp 1 cycle 1

The objective of this cycle is to: ☒ Collect Data ☐ Develop a change

☐ Test a change

☐ Implement a change



PLAN

What is the objective for this cycle?

The objective is to collect the data for daily food consumption in IPD, through the tracker sheet named "IPD Daily Consumption sheet".

Note – A new "IPD Daily Consumption sheet" is introduced which consist of a comprehensive list of all the categories of diets served for I.P.D, to be filled on daily basis, by Dietician (as per the shift).

1. The data is compiled into the above sheet as per the diet slips made by dietician and orders from new admission/change due to discharge; respectively for daily consumption.

What questions do you want to answer with this PDSA cycle?

1. Whether the "IPD Daily Consumption sheet" will provide appropriate data of consumption?
2. Will assigning a person (Dietician) for filling of this sheet provide the required data for consumption?
3. What will be overall impact of "IPD Daily Consumption sheet" and maintaining the same, on the process and staff?

Predictions (for questions above based on plan):

1. Consumption data was maintained at multiple sources with no one authorized personnel. Defining the comprehensive sheet will establish a reliable source of data.
 2. Assigning the responsibility to a particular person will hold that person accountable for the same.
 3. (I) Initially, recording of daily consumption in the sheet might be missed due to certain operational reasons (unfolded as the PDSA will be carried).
- (II) There might be some discrepancies between the data recorded by dietician and the corresponding data maintained by the kitchen staff.

List of tasks required to set-up this test: Who, What, When, Where?

What Data?	Who Collect?	When collect?	Where collect?
1. Meeting Dietician to discuss the plan.	Sr. Executive- Quality	20 th March 2014	Dietician's Office, Basement
2. Explaining the Dietician, to act as per the plan and fill the "IPD Daily Consumption sheet"	Sr. Executive- Quality	20 th March 2014	Dietician's Office, Basement

Plan to collect data to answer your questions: Who, What, When, Where?

Data?	Who Collect?	When collect?	Where collect?	How to collect?
Recording of following activities: "IPD Daily Consumption sheet" by the Dietician, which includes detail of eight meals served to I.P.D. Person filling the sheet (Shift-wise)	Sr. Executive- Quality	21 th March 2014	From Dietician	Tracker sheet - IPD Daily Consumption sheet
2. Observing the process and data used to maintain the above sheet.	Sr. Executive- Quality	21 th March 2014	N.A.	N.A.

3. Collection of “IPD Daily Consumption sheet ” from Dietician	Sr. Executive- Quality	21 th March 2014	From Dietician	Tracker sheet
--	------------------------	-----------------------------	----------------	---------------

DO

What did you observe when the test was carried out?

1. On 20th March 2014 dietician didn't prepare the “IPD Daily Consumption sheet” as was planned since she asked for 1day time to understand & start working on with this format.
2. Initially there was difference in the actual number of total diets given to in-patients because the liquid diet [though recorded in sheet] was not considered to get the total number of diets served to the in patients. [But after the discussion the dietician started including liquid diets to get the total diets served meal wise.]
3. Extra orders were not taken into account while recording the number of diets served to the patients.
4. Dietician felt some difficulty in recording the exact number of diets served meal wise because of frequent change in number of patients [as patients are being admitted and discharged simultaneously]

Were there any unexpected observations?

Dietician faced difficulty in recording the exact diets prepared and number of diets actually served because of changes due to admissions and discharges of patients.

STUDY

Analyze your data and describe the results. How do the results compare with your predictions?

The consumption sheet provide with following details (Refer to Annexure-1):

- C. Total no. of meals served in I.P.D. in a day (categorized into bed tea, breakfast, mid morning meal, lunch, evening snacks, soup, dinner, bed time).
- D. Further bifurcation of every meal into normal, soft, diabetic and liquid diet).
- E. This provides us with an overview of meals consumed in a day, related to occupancy.

What did you learn from this cycle?

- Identifying & Assigning responsibility to single person helps to get appropriate & complete data.

ACT

Are you ready to implement? (Feel confident in change, have tested under different conditions and have no more questions)

☐ yes ☒ no

Plan for the next cycle (Have more questions, need to make adjustments).

- Tracking of extra orders and incorporating the same in “IPD Daily Consumption sheet”.
- Tweaking the sheet for getting the deviation from forecast to actual meal served (because of the new admission/discharges).

Describe the objective for your next cycle:

- The objective is to collect the data for daily food consumption in IPD, through the tracker sheet named “IPD Daily Consumption sheet” including the extra orders given by patients (apart from 8 served meals).

ANNEXURE – I (B)

Patient Business

Metric 1A: Forecast Accuracy Morning Bed Tea

Month: April'14

Responsibility : Sr. Dietician

	Particulars	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Menu Days																														
Patient Meal Breakfast -Plan	Morning Bed Tea	15	16	21	21	21	20	15	20	21	18	12	17	14	13	12	15	15	25	25	18	19	18	26	30	30	21	20	13	20	22
	Total	15	16	21	21	21	20	15	20	21	18	12	17	14	13	12	15	15	25	25	18	19	18	26	30	30	21	20	13	20	22
Actual Patient Break Fast Sales	Morning Bed Tea	13	20	21	17	20	19	14	20	25	19	13	11	14	9	11	19	18	22	23	22	20	17	29	30	25	21	19	10	12	20
	Total	13	20	21	17	20	19	14	20	25	19	13	11	14	9	11	19	18	22	23	22	20	17	29	30	25	21	19	10	12	20

ANNEXURE – I (C)

Patient Business																																	
Metric 1B: Forecast Accuracy Breakfast																		DO NOT EDIT THESE CELLS															
	Month: April'14							Responsibility :Sr. Dietician										Metric 1B: Forecast Accuracy Breakfast															
	Particulars	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	Menu Days																																
Patient Meal Breakfast -Plan	Normal Diet	10	8	9	11	11	12	10	12	10	9	5	10	9	6	4	7	8	13	15	10	10	10	15	15	15	12	15	10	10	11		
	Soft Diet	5	3	6	5	6	5	2	3	6	6	5	3	3	5	5	8	6	9	8	5	4	4	8	8	6	8	3	2	5	8		
	Diabetic Diet	1	6	5	4	4	3	1	1	4	3	2	1	1	1	2	0	2	1	1	3	4	3	3	6	4	2	2	1	1	3		
	Liquid Diet	1	1	2	1	2	1	1	3	3	1	0	1	2	1	2	1	2	2	4	2	1	1	2	1	2	0	0	0	2	0		
	Total		18	22	21	23	21	14	19	23	19	12	15	15	13	13	16	18	25	28	20	19	18	28	30	27	22	20	13	18	22		
Actual Patient Break Fast Sales	Normal Diet	7	10	11	11	14	12	10	11	12	9	9	7	10	5	5	12	11	15	14	13	9	9	16	30	16	14	15	8	6	11		
	Soft Diet	3	7	4	3	3	3	2	7	10	8	3	6	1	1	6	4	5	6	8	6	7	4	8	15	9	6	1	2	6	7		
	Diabetic Diet	3	4	6	4	2	4	2	1	4	3	2	0	1	3	2	1	1	1	2	4	4	3	5	6	4	2	2	1	0	2		
	Liquid Diet	2	0	0	1	0	1	1	2	1	0	0	1	2	1	1	1	2	3	0	0	0	2	2	2	1	0	1	0	1	2		
	Total	15	21	21	19	19	20	15	21	27	20	14	14	14	10	14	18	19	25	24	23	20	18	31	53	30	22	19	11	13	22		

ANNEXURE – I (D)

Patient Business

Metric 1C: Forecast Accuracy Mid Morning Meal

Month: April'14

Responsibility :Sr. Dietician

DO NOT
EDIT
THESE
CELLS

	Particulars	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Menu Days																														
Patient Meal Breakfast -Plan	Normal Diet	15	9	15	18	18	18	15	18	15	16	12	14	14	13	10	16	14	20	27	13	15	15	25	25	27	20	18	12	18	20
	Soft Diet																														
	Diabetic Diet	1	6	5	4	5	3	1	2	4	3	2	1	1	1	2	0	2	1	1	3	4	3	3	6	4	2	2	1	1	3
	Liquid Diet																														
	Total		15	20	22	23	21	16	20	19	19	14	15	15	14	12	16	16	21	28	16	19	18	28	31	31	22	20	13	19	23
Actual Patient Break Fast Sales	Normal Diet	12	17	15	14	15	16	11	16	22	17	10	12	13	7	9	16	15	21	22	19	12	14	22	24	24	17	17	8	10	18
	Soft Diet																														
	Diabetic Diet	3	4	6	4	2	3	2	2	4	2	2	0	1	2	2	2	1	1	2	4	6	4	5	6	3	3	2	1	0	2
	Liquid Diet																														
	Total	15	21	21	18	17	19	13	18	26	19	12	12	14	9	11	18	16	22	24	23	18	18	27	30	27	20	19	9	10	20

ANNEXURE – I (E)

Patient Business

Metric 1D: Forecast Accuracy Lunch

Month: April'14

Responsibility :Sr. Dietician

DO NOT
EDIT
THESE
CELLS

	Particulars	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Menu Days																														
Patient Meal Lunch - Plan	Normal Diet	11	8	10	12	11	12	11	14	12	10	6	10	10	7	6	8	9	12	15	10	10	11	15	15	15	12	15	12	12	13
	Soft Diet	5	3	7	6	8	5	3	3	6	6	6	4	3	6	6	6	6	10	9	5	4	4	9	8	8	8	3	3	5	8
	Diabetic Diet	1	6	5	4	4	3	2	1	4	3	2	1	0	1	2	1	2	1	1	3	5	3	3	6	5	2	2	1	1	3
	Liquid Diet	1	1	0	0	0	0	1	2	2	0	0	0	1	1	1	0	1	2	2	2	1	0	0	1	1	0	0	0	0	0
	Total	18	18	22	22	23	20	17	20	24	19	14	15	14	15	15	15	18	25	27	20	20	18	27	30	29	22	20	16	18	24
Actual Patient Lunch Sales	Normal Diet	7	15	11	9	14	13	10	11	11	9	10	12	10	6	7	12	13	18	16	10	10	11	17	18	16	21	15	8	9	9
	Soft Diet	4	7	6	4	4	2	2	5	9	4	3	5	3	3	8	5	4	9	8	5	4	6	11	7	10	2	1	2	4	8
	Diabetic Diet	4	7	7	4	4	4	3	2	4	2	4	0	1	3	1	2	1	1	2	5	3	3	6	6	3	2	2	3	1	3
	Liquid Diet	2	0	0	0	0	1	1	5	1	0	0	0	1	0	0	3	4	2	0	0	1	1	1	4	1	0	1	0	3	1
	Total	17	29	24	17	22	20	16	23	25	15	17	17	15	12	16	22	22	30	26	20	18	21	35	35	30	25	19	13	17	21

ANNEXURE – I (F)

Patient Business

Metric 1E: Forecast Accuracy Snacks

Month
:

April'14

Responsibility :Sr. Dietician

DO NOT
EDIT
THESE
CELLS

	Particulars	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Menu Days																														
Patient Meal Snacks - Plan	Tea	17	24	23	17	19	17	10	8	20	14	14	13	12	10	14	16	18	28	11	17	13	19	28	34	24	23	17	13	15	18
	Snacks	8	12	12	10	11	12	15	20	9	8	9	9	6	5	6	10	12	17	22	9	6	10	15	18	12	17	12	8	8	9
	Total	25	36	35	27	30	29	25	28	29	22	23	22	18	15	20	26	30	45	33	26	19	29	43	52	36	40	29	21	23	27
Actual Patient Snack Sales	Tea	15	25	23	16	16	15	16	10	17	12	11	12	10	9	14	16	17	27	10	17	14	21	31	33	18	18	16	11	11	15
	Snacks	8	13	11	10	11	11	10	20	7	8	8	9	5	0	6	9	10	16	21	9	6	12	14	19	12	16	12	4	6	8
	Total	23	38	34	26	27	26	26	30	24	20	19	21	15	9	20	25	27	43	31	26	20	33	45	52	30	34	28	15	17	23

ANNEXURE – I (G)

Patient Business

Metric 1F: **Forecast Accuracy
Of Soup**

Month: April'14

Responsibility :Sr. Dietician

DO NOT EDIT
THESE CELLS

	Particular s	Month - April 17																Month - May 17													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Menu Days																														
Patient Meal Soup - Plan	Soup	18	24	23	17	19	16	19	22	20	14	12	13	12	9	15	18	19	28	22	17	14	20	28	34	24	24	15	15	16	21
	Total	18	24	23	17	19	16	19	22	20	14	12	13	12	9	15	18	19	28	22	17	14	20	28	34	24	24	15	15	16	21
Actual Patient Soup Sales	Soup	15	24	20	19	18	14	17	20	17	11	16	12	10	8	13	15	18	27	18	16	13	21	32	32	19	20	14	15	14	20
	Diabetic Diet																														
	Total	15	24	20	19	18	14	17	20	17	11	16	12	10	8	13	15	18	27	18	16	13	21	32	32	19	20	14	15	14	20

ANNEXURE – I (H)

Patient Business

Metric 1G: **Forecast Accuracy Dinner**

Month: April'14

Responsibility :Sr. Dietician

DO NOT
EDIT THESE
CELLS

Metric 1B: Forecast Accuracy Breakfast

	Particulars	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Menu Days																														
Patient Meal Dinner -Plan	Normal Diet	8	13	12	11	11	11	12	12	9	6	8	8	6	4	7	10	14	16	12	10	7	10	14	16	12	17	10	9	9	12
	Soft Diet	5	6	6	5	5	3	4	5	7	5	4	5	5	3	8	5	5	8	6	4	4	7	12	9	8	3	2	6	8	10
	Diabetic Diet	4	6	5	4	3	3	2	3	4	2	1	0	1	2	0	2	1	1	3	4	3	2	6	5	2	2	2	2	3	3
	Liquid Diet	1	1	0	2	0	1	3	3	1	1	0	2	1	1	2	3	3	3	2	1	3	3	1	2	1	0	0	1	1	2
	Total	18	26	23	22	19	18	21	23	21	14	13	15	13	10	17	20	23	28	23	19	17	22	33	32	23	22	14	18	21	27
Actual Patient Dinner Sales	Normal Diet	8	12	11	11	8	9	10	12	8	9	7	8	5	3	11	6	14	15	12	9	11	17	14	17	12	16	8	8	8	9
	Soft Diet	4	5	5	3	4	1	5	5	7	5	4	3	4	4	6	6	7	8	8	4	1	3	11	4	6	1	2	4	10	10
	Diabetic Diet	7	7	4	4	3	3	1	5	3	2	1	1	1	2	1	2	1	2	2	6	4	4	6	5	2	3	1	3	3	2
	Liquid Diet	2	1	0	1	1	1	2	4	1	0	2	1	1	4	4	5	4	3	1	0	4	3	1	4	0	0	0	3	3	1
	Total	21	25	20	19	16	14	18	26	19	16	14	13	11	13	22	19	26	28	23	19	20	27	32	30	20	20	11	18	24	22

ANNEXURE – I (I)

Patient Business

Metric 1H: **Forecast**

Accuracy Bed Time

Milk

Month
:

April'14

Responsibility :Sr. Dietician

DO
NOT
EDIT
THESE
CELLS

DATE	Particulars	April 14																	responsibility													St. Deuchan													CELLS												
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30																										
		Menu Days																																																							
Patient Meal Breakfast - Plan	Bed Time Milk	9	14	11	9	7	5	5	10	10	8	5	6	8	3	6	7	6	10	7	10	7	10	11	13	10	8	6	8	8																											
	Total	9	14	11	9	7	5	5	10	10	8	5	6	8	3	6	7	6	10	7	10	7	10	11	13	10	8	6	8	8																											
Actual Patient Break Fast Sales	Bed Time Milk	9	14	11	8	6	5	5	10	10	8	4	5	7	3	6	6	6	9	7	10	7	6	11	10	10	7	4	6	6																											
	Total	9	14	11	8	6	5	5	10	10	8	4	5	7	3	6	6	6	9	7	10	7	6	11	10	10	7	4	6	6																											

ANNEXURE – 1 (J)



Learning and Improvement Cycle – PDSA Form

Team: Mrs. Saru Bhartia (Senior Manager – Quality & Administration)

Mrs. Ruchika Jain (Dietician)

Date: March 29th, 2014

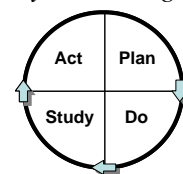
Dr. Megha Dhingra (PT)

Dr. Rakhi Wadhwani (PT)

Name of test: To test the credibility of the “IPD - Extra order Food Consumption sheet” by evaluating the process of recording the data.

Cycle #: Ramp 1 cycle 2

The objective of this cycle is to: ☒ Collect Data ☐ Develop a change
☐ Test a change ☐ Implement a change



PLAN

What is the objective for this cycle?

To collect the data for extra orders given by in-patients (with meal or as random orders), through the tracker sheet named “IPD - Extra order Food Consumption sheet” (apart from 8 served meals).

Note –

- A new “IPD - Extra order Food Consumption sheet” is introduced which consist of a comprehensive list of the items served as extra orders to in-patients as per demand (with meal & random orders) to be filled on daily basis, by Dietician.
- The data for extra orders is compiled into the above sheet as per the diet slips made by dietician to be served along with meal and orders from HIS.

What questions do you want to answer with this PDSA cycle?

- Whether the “IPD - Extra order Food Consumption sheet” will provide appropriate data of consumption?
- Will assigning a person (Dietician) for filling of this sheet provide the required data for consumption?
- What will be overall impact of “IPD - Extra order Food Consumption sheet” and maintaining the same, on the process and staff?

Predictions (for questions above based on plan):

- This comprehensive sheet might be “one stop” source for extra orders given by the patients, since random orders are entered by nurses and others are noted in diet slips prepared by dietician.
- Assigning the responsibility to a particular person will hold that person accountable for the same.
- Recording of some extra order consumption in the “IPD - Extra order Food Consumption sheet” might be missed initially due to certain operational issues.

List of tasks required to set-up this test: Who, What, When, Where?

What Data?	Who Collect?	When collect?	Where collect?
Meeting Dietician to discuss the plan.	Sr. Executive-Quality	27 th March 2014	Dietician's Office, Basement
Explaining the Dietician, to act as per the plan and fill the “IPD - Extra order Food Consumption sheet”	Sr. Executive-Quality	27 th March 2014	Dietician's Office, Basement

Plan to collect data to answer your questions: Who, What, When, Where?

Data?	Who Collect?	When collect?	Where collect?	How to collect?
i) Collection of “IPD - Extra order Food Consumption sheet” from dietician. ii) Recording the no. of extra orders from the above sheet. iii) Randomly matching the same with the diet slips made by dietician.	Sr. Executive-Quality	29 th March 2014	From Dietician	Tracker sheet - “IPD - Extra order Food Consumption sheet”
Observing the process and data used to maintain the above sheet.	Sr. Executive-Quality	29 th March 2014	N.A.	N.A.

DO***What did you observe when the test was carried out?***

- Initially there was an issue with the list of items to be recorded as extra orders, aftermath the list was tweaked with additions and deletions of some items as per the observation of dietician.
- Now a consolidate list of items is prepared and used to record the extra orders on daily basis.
- The data for 29th March 2014 was not received on the planned day (i.e. on 30th MARCH 2014), since it was Sunday. It was received on 31st March 2014 as on Sundays Dietician (was not on duty). Therefore collective data of 29th & 30th March 2014 was received on 31st March 2014 (Monday). After

that the data is being received daily.

- Extra orders are manually entered in the system by the nurses, this leads to many spelling errors leading to difficulty in understanding.
- Fruits & soup served with meal to some patients as per their demand were not mentioned as extra orders in the records.

Were there any unexpected observations?

Only one order was with meal and rests were random orders. Later when cross checked from the diet slips it was observed that fruits, soup etc. served with meal was not recorded as extra order in “IPD - Extra order Food Consumption sheet” by the dietician.

STUDY

Analyze your data and describe the results. How do the results compare with your predictions?

- The “IPD - Extra order Food Consumption sheet” provide with following details (Refer to Annexure-1):
- Only one extra order was made with Breakfast and no extra order was made with any other meal.
- Total 26 random orders were made in a day on 29th March 2014.
- The highest extra orders placed were of coconut water, tea and fruits.

What did you learn from this cycle?

Designing proper format and assigning the responsibility to one person for recording the data gives us the appropriate data.

ACT

Are you ready to implement? (Feel confident in change, have tested under different conditions and have no more questions)

☐ yes ☒ no

Plan for the next cycle (Have more questions, need to make adjustments).

communicate with the EDP for making the drop down list of all the items served as extra orders to the in-patients in order to have comprehensive data from HIS.

include fruits & soup served along with meal in extra order sheet.

Describe the objective for your next cycle:

To test the feasibility of entering the extra orders in the system by the nurses through drop down list (containing all the items served as extra orders) to get the appropriate data of extra orders.

ANNEXURE 1 (K)

[illegible]

EXTRA ORDER FOOD CONSUMPTION SHEET

Month~ Apr-14

Responsibility-

Dietician

Note: B: Breakfast, L: Lunch, D:Dinner, RO: Random orders

[illegible]

EXTRA ORDER FOOD CONSUMPTION SHEET	
------------------------------------	--

Month~	Apr-14	Responsibility-	Dietician
--------	--------	-----------------	-----------

Month~	Apr-14	Responsibility-	Dietician
--------	--------	-----------------	-----------

Month~	Apr-14	Responsibility-	Dietician
--------	--------	-----------------	-----------

Note: B: Breakfast, L: Lunch, D: Dinner, RO: Random orders

		1-Apr			2-Apr			3-Apr			4-Apr			5-Apr			6-Apr			7-Apr			8-Apr			9-Apr			10-Apr			11-Apr			12-Apr			13-Apr			14-Apr			15-Apr		
#	Item	B	L	D	R	B	L	D	R	B	L	D	R	B	L	D	R	B	L	D	R	B	L	D	R	B	L	D	R	B	L	D	R	B	L	D	R	B	L	D	R					
	Tomato Soup																																													
56																																														
57	Upma				1	1							1																																	
	Vada Sambhar																																													
58																																														
59	Veg Daliya																																													
60	Veg of the day																																													
61	Veg Pullao																																													
62	Veg. Khichdi																																													
63	Veg. Sandwich				1				3	1		2					1	2		3		3	2		1		3		3		3		3		2		2		2		2		2			
64	Vermi cili																																													
65	Wheatflakes																																													
#	TOTAL	24			17			18			15			8			16			15			32			21			23			30			31			29			17			32		

Month~

Note: B: Br

[illegible]

Month~																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Note: B: Br																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		16-Apr				17-Apr				18-Apr				19-Apr				20-Apr				21-Apr				22-Apr				23-Apr				24-Apr				25-Apr				26-Apr				27-Apr				28-Apr				29-Apr				30-Apr																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
#	Item	B	L	D	R	O	B	L	D	R	O	B	L	D	R	O	B	L	D	R	O	B	L	D	R	O	B	L	D	R	O	B	L	D	R	O	B	L	D	R	O	B	L	D	R	O	B	L	D	R	O																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
56	Tomato Soup																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

ANNEXURE 2 (A) - FOOD CONSUMPTION IN STAFF CAFETERIA



SITARAM BHARTIA
Institute of Science & Research

care you can trust™

Learning and Improvement Cycle – PDSA Form

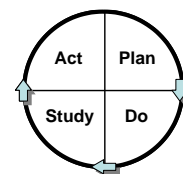
Team: Mrs. Saru Bhartia (Senior Manager – Quality & Administration)
Mr. Praveen Kumar (F & B Manager)
Dr. Megha Dhingra (PT)
Dr. Rakhi Wadhvani (PT)

Date: April 1st, 2014

Name of test: To test the credibility of the ‘Food Consumption Data’ of Staff Cafeteria by evaluating the process of recording the data.

Cycle #: Ramp 1 cycle 1

The objective of this cycle is to: ☒ Collect Data ☐ Develop a change
☐ Test a change ☐ Implement a change



PLAN

What is the objective for this cycle?

The objective is to collect the data for daily food consumption in IPD, through the tracker sheet named “Staff Cafeteria - Daily Food Consumption sheet”.

Note –

- A new “Staff Cafeteria - Daily Food Consumption sheet” is introduced which is to be filled by the F & B Manager on daily basis recording the data of total meal served in the staff cafeteria in 4 main category i.e. Breakfast, Lunch, Dinner and Tea.
- The data is compiled into the above sheet as per the total number of coupons received (both lunch & veg. coupon) by service supervisor in the kitchen and complimentary meal served to the eight (fixed) doctors, the staff who is doing extra duty & kitchen staff.

What questions do you want to answer with this PDSA cycle?

- Whether the “Staff Cafeteria - Daily Food Consumption sheet” will provide appropriate data of consumption?
- Will assigning a person (F & B Manager) for filling of this sheet provide the required data for consumption?
- What will be overall impact of “Staff Cafeteria - Daily Food Consumption sheet” and maintaining the same, on the process and staff?

Predictions (for questions above based on plan):

- Consumption data was maintained by the kitchen staff which doesn’t include all necessary components, with no one authorized personnel. Defining the comprehensive sheet will establish a reliable source of data.
- Assigning the responsibility to a particular person will hold that person accountable for the same.
- (I) initially, recording of daily consumption in the sheet might be missed due to certain operational reasons (unfolded as the PDSA will be carried).
- (II) There might be some discrepancies between the total number of coupons recorded by F & B manager and actual meals served.

List of tasks required to set-up this test: Who, What, When, Where?

What Data?	Who Collect?	When collect?	Where collect?
1. Meeting F & B Manager to discuss the plan.	Sr. Executive- Quality	29 th March 2014	F & B Manager's Office, Ground Floor
2. Explaining the F & B Manager, to act as per the plan and fill the "IPD Daily Consumption sheet".	Sr. Executive- Quality	29 th March 2014	F & B Manager's Office, Ground Floor

Plan to collect data to answer your questions: Who, What, When, Where?

Data?	Who Collect?	When collect?	Where collect?	How to collect?
1. Recording of following activities: "Staff Cafeteria - Daily Food Consumption sheet" filled by the F & B Manager, which includes detail of total lunch & veg coupons received, total tea served and complimentary meals served to eight doctors & F - B Staff.	Sr. Executive- Quality	1 st April 2014	From F & B Manager	Tracker sheet - "Staff Cafeteria - Daily Food Consumption sheet"
2. Observing the process and data used to maintain the above sheet.	Sr. Executive- Quality	1 st April 2014	N.A.	N.A.
3. Collection of "Staff Cafeteria - Daily Food Consumption sheet" from F & B Manager	Sr. Executive- Quality	1 st April 2014	From F & B Manager	Tracker sheet

DO

What did you observe when the test was carried out?

- The Staff Cafeteria – Food Consumption Sheet is filled by F & B Manager on the basis of the records given him by the Service Team Supervisor.
- The Sheet gives food consumption data as per the total lunch & veg coupons collected meal wise (i.e. breakfast,

lunch and dinner).

- The sheet also contained the records of total complimentary meals served to eight doctors, staff doing extra duty and the kitchen staff.
- Total tea served is also recorded in three categories i.e. total tea served on basis of coupon, complimentary and total tea served to the doctors.

Were there any unexpected observations?

There were no records kept of pending coupons. These will be received later but the food has been served. Staff requests the F & B staff to give food but they will submit the coupon later as they didn't have it at that time.

STUDY

Analyze your data and describe the results. How do the results compare with your predictions?

The consumption sheet provide with following details (Refer to Annexure-1):

- 312 teas are served in full day.
- During lunch time maximum meal is served as compared from breakfast or dinner.
- There is no mistake proofing step involved in keeping the records of total coupons received and the actual meal served.
- Eight complimentary meals are served in breakfast and dinner but not I lunch.

What did you learn from this cycle?

- Identifying & Assigning responsibility to single person helps to get appropriate & complete data.
- Standardizing the process is must to make it mistake proof.

ACT

Are you ready to implement? (Feel confident in change, have tested under different conditions and have no more questions)

☐yes ☒no

Plan for the next cycle (Have more questions, need to make adjustments).

- Designing a mistake proofing step for getting the actual data of total coupons received and actual meals served.
- Tracking the number of pending coupons.

Describe the objective for your next cycle:

- The objective is to collect the credible data of total coupons received through the tracker sheet named "IPD Daily Consumption sheet" including the pending coupons to know the actual meals served hence getting the records of actual food consumption in staff cafeteria.

ANNEXURE 2 (B) - FOOD CONSUMPTION IN STAFF CAFETERIA

STAFF SALE FOR THE MONTH OF APRIL-14																															
DA TE	BREAKFAST						LUNCH						LUNCH - Veg Coupon			DINNER						DINNER - Veg Coupon			TEA						TOT AL
	QTY				RA TE	AMO UNT	QTY				RA TE	AMO UNT	QTY				RA TE	AMO UNT	Q TY	RA TE	AMO UNT	QTY				RA TE	AMO UNT				
	Cou pon	Co mpl.	F & B	To tal			Cou pon	Co mpl.	F & B	To tal			Cou pon	Co mpl.	F & B	To tal						Cou pon	Co mpl.	F & B	To tal			Cou pon	Co ml	Doc tor	
1	2	9	13	24	25	600	34	16	25	75	25	1875	18	6	108	4	8	10	22	25	550	2	6	12	84	31 2	12	40 8	6	2448	5593
2	2	8	13	23	25	575	39		25	64	25	1600	16	6	96	1	8	10	19	25	475	4	6	24	94	31 2	12	41 8	6	2508	5278
3	1	8	13	22	25	550	20	3	25	48	25	1200	23	6	138	2	8	10	20	25	500	1	6	6	87	31 2	12	41 1	6	2466	4860
4	4	8	13	25	25	625	26	5	25	56	25	1400	18	6	108	0	8	10	18	25	450	0	6	0	89	31 2	12	3	6	2478	5061
5	1	8	13	22	25	550	25	5	25	55	25	1375	21	6	126	6	8	10	24	25	600	5	6	30	93	31 2	12	7	6	2502	5183
6	0	8	13	21	25	525	10	5	25	40	25	1000	8	6	48	1	8	10	19	25	475	0	6	0	12	20 0	0	2	6	1272	3320
7	2	8	13	23	25	575	31	3	25	59	25	1475	26	6	156	2	8	10	20	25	500	2	6	12	79	31 2	12	3	6	2418	5136
8	1	8	13	22	25	550	26	6	25	57	25	1425	18	6	108	0	8	10	18	25	450	0	6	0	72	31 2	12	39 6	6	2376	4909
9	1	8	13	22	25	550	31	2	25	58	25	1450	20	6	120	0	8	10	18	25	450	0	6	0	79	31 2	12	40 3	6	2418	4988
10	1	8	13	22	25	550	27	1	25	53	25	1325	31	6	186	1	8	10	19	25	475	2	6	12	73	31 2	12	39 7	6	2382	4930
11	3	8	13	24	25	600	32	4	25	61	25	1525	27	6	162	1	8	10	19	25	475	2	6	12	102	31 2	12	42 6	6	2556	5330
12	2	8	13	23	25	575	42	0	25	67	25	1675	30	6	180	0	8	10	18	25	450	0	6	0	96	31 2	12	42 0	6	2520	5400
13	0	8	13	21	25	525	5	3	25	33	25	825	9	6	54	5	8	10	23	25	575	0	6	0	17	20 0	0	21 7	6	1302	3281
14	2	8	13	23	25	575	27	9	25	61	25	1525	26	6	156	3	8	10	21	25	525	2	6	12	101	31 2	12	42 5	6	2550	5343
15	1	8	13	22	25	550	40	3	25	68	25	1700	22	6	132	2	8	10	20	25	500	3	6	18	85	31 2	12	40 9	6	2454	5354
16	3	8	13	24	25	600	40	3	25	68	25	1700	23	6	138	4	8	10	22	25	550	3	6	18	89	31 2	12	41 3	6	2478	5484
17	2	8	13	23	25	575	20	11	25	56	25	1400	16	6	96	4	8	10	22	3	66	0	6	0	94	31 2	12	41 8	6	2508	4645
18	0	8	13	21	25	525	6	7	25	38	25	950	0	6	0	0	8	10	18	25	450	5	6	30	25	20 0	12	23 7	6	1422	3377
19	0	8	13	21	25	525	32	13	25	70	25	1750	24	6	144	1	8	10	19	25	475	2	6	12	75	31 2	12	39 9	6	2394	5300
20	0	8	13	21	25	525	7	3	25	35	25	875	5	6	30	2	8	10	20	25	500	0	6	0	19	20 0	0	21 9	6	1314	3244
21	0	8	13	21	25	525	32	4	25	61	25	1525	20	6	120	3	8	10	21	25	525	1	6	6	54	31 2	12	37 8	6	2268	4969
22	0	8	13	21	25	525	24	6	25	55	25	1375	17	6	102	0	8	10	18	25	450	0	6	0	88	31 2	12	41 2	6	2472	4924
23	3	8	13	24	25	600	30	6	25	61	25	1525	24	6	144	0	8	10	18	25	450	0	6	0	62	31 2	12	38 6	6	2316	5035
24	2	8	13	23	25	575	31	11	25	67	25	1675	24	6	144	0	8	10	18	25	450	0	6	0	47	31 2	12	37 1	6	2226	5070
25	4	8	13	25	25	625	36	9	25	70	25	1750	31	6	186	3	8	10	21	25	525	3	6	18	99	31 2	12	42 3	6	2538	5642
26	4	8	13	25	25	625	36	9	25	70	25	1750	30	6	180	0	8	10	18	25	450	0	6	0	72	31 2	12	39 6	6	2376	5381
27	4	8	13	25	25	625	5	11	25	41	25	1025	12	6	72	0	8	10	18	25	450	0	6	0	19	20 0	0	21 9	6	1314	3486
28	4	8	13	25	25	625	28	9	25	62	25	1550	6	6	36	1	8	10	19	25	475	1	6	6	80	31 2	12	40 4	6	2424	5116
29	3	8	13	24	25	600	33	5	25	63	25	1575	30	6	180	3	8	10	21	25	525	0	6	0	83	31 2	12	40 7	6	2442	5322
30	3	8	13	24	25	600	29	7	25	61	25	1525	30	6	180	4	8	10	22	25	550	0	6	0	74	31 2	12	39 8	6	2388	5243
																													5		

ANNEXURE- 3 (A) FOOD CONSUMPTION AT COFFEE SHOP



Learning and Improvement Cycle – PDSA Form

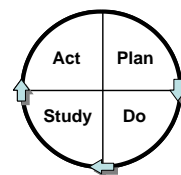
Team: Mrs. Saru Bhartia (Senior Manager – Quality & Administration)
Mr. Praveen Kumar (F & B Manager)
Mr. Viranda (Coffee Shop In charge)
Dr. Megha Dhingra (PT)
Dr. Rakhi Wadhvani (PT)

Date: April 1st, 2014

Name of test: To test the credibility of the ‘Food Consumption Data’ of Coffee Shop by evaluating the process of recording the data through MIS.

Cycle #: Ramp 1 cycle 1

The objective of this cycle is to: ☒ Collect Data ☐ Develop a change
☐ Test a change ☐ Implement a change



PLAN

What is the objective for this cycle?

The objective is to collect the data for daily food consumption in Coffee Shop, through the software namely Coffee Shop Software -

Note –

- A Coffee Shop Software is used which consist of a comprehensive list of all the sales report of the items sold in Coffee shop. The data is entered in the software by the coffee shop in charge (as per the shift).
- The data is entered in the system as per the sale of the items. The date of making and accordingly expiry date of the item is also there in the software.
- Daily opening and the closing stock records are also maintained through the software. There is separate login id in the software for each in-charge (shift wise) to record the sales in the software.

What questions do you want to answer with this PDSA cycle?

- Whether the “Coffee Shop Daily Consumption sheet” will provide appropriate data of consumption?
- Is there any need of further improvisation in the software and the process?
- Is the staff properly recording the sales & wastage and reporting the same to the F & B department?

Predictions (for questions above based on plan):

- Consumption data maintained in the coffee shop software might be a reliable source of data.
- There might be need of planning the process for deciding the quantity of each food item to be prepared for the consumption of the day (according to the consumption pattern) to avoid the wastage.
- Recording of daily consumption in the software might be missed due to certain operational reasons (unfolded as the PDSA will be carried) and assigning the responsibility to a particular person will hold that person accountable for the same.

List of tasks required to set-up this test: Who, What, When, Where?

What Data?	Who Collect?	When collect?	Where collect?
➤ Meeting F & B Manager and the coffee shop in-charge to discuss the plan.	Sr. Executive-Quality	31 st March 2014	F & B Manager's Office
➤ Explaining the F & B Manager and the coffee shop in-charge, to act as per the plan and fill the "Coffee Shop Software daily sales sheet".	Sr. Executive-Quality	31 st March 2014	F & B Manager's Office

Plan to collect data to answer your questions: Who, What, When, Where?

Data?	Who Collect?	When collect?	Where collect?	How to collect?
<ul style="list-style-type: none"> ➤ Recording of following activities: ➤ "Coffee Shop Daily Sales" by the Coffee shop in-charge, through the software which includes detail of all the items issued, sold and left out in the coffee shop. ➤ Person filling the sheet (Shift-wise) 	Sr. Executive-Quality	1 st April 2014	Coffee Shop In-charge	Coffee shop Daily sales report, from HIS.
➤ Observing the process of recording the consumption.	Sr. Executive-Quality	1 st April 2014	N.A.	N.A.
➤ Collection of "Coffee Shop Daily Consumption sheet" from HIS	Sr. Executive-Quality	1 st April 2014	N.A.	N.A.

DO

What did you observe when the test was carried out?

- On the 1st April the Coffee shop consumption was recorded in the system by the Coffee Shop IN-Charge shift wise through their respective login Id's.
- Through software it can be traced out the total no. of each item issued, sold and left back in the coffee shop.
- It also shows the expiry date of each item so as to make it mistake proof (from selling the expired item).
- The software also shows the sale done by each in-charge shift wise as well as collective data of full day consumption can also be traced.

Were there any unexpected observations?

Every day in morning the food items are issued to the coffee shop. Quantity of each item to be prepared is decided according to the chef's assumptions and on the basis of consumption pattern thus leading to wastage/shortage of

some items.

STUDY

Analyze your data and describe the results. How do the results compare with your predictions?

The consumption sheet provide with following details (Refer to Annexure-1):

- Amongst the beverage tea/coffee, coconut water and apple juice are sold in higher amount than others.
- Idli, Vada, bread roll and cutlets are sold in higher amount than others.
- Muffin and veg patty are sold maximum amongst bakery items.

What did you learn from this cycle?

- Standardizing the process leads to efficient workflow and appropriate data is also obtained.
- Identifying & Assigning responsibility to single person helps to get appropriate & complete data.

ACT

Are you ready to implement? (Feel confident in change, have tested under different conditions and have no more questions)

☐yes ☒no

Plan for the next cycle (Have more questions, need to make adjustments).

- Systemizing the process of deciding the quantity of each item to be prepared each morning for the full consumption in coffee shop.

Describe the objective for your next cycle:

- The objective is to collect the data for daily food consumption in IPD, through the Coffee shop software so as to set the consumption pattern according to which quantity of each food items will be prepared daily to avoid wastage or shortage.

ANNEXURE – 3(B)

Coffee Shop Sale Details from -01/04/2014 to 30/04/2014

S. N o.	Item Name		M R P	Op eni ng	Receiving	C. Sh op	C. Sh op
<u>Bakery</u>							
1	Muffins Blueberry-C		45.00	2	100	97	4365
2	Muffins Carrot-C		45.00	1	75	67	3015
3	Muffins Chocolate-C		45.00		90	73	3285
4	Pastry Chocolate-C		50.00	1	110	110	5500
5	Veg Patty-C		35.00		95	95	3325
					Sale of Bakery items		19490
<u>Beverage</u>							
6	Apple Juice (200 ml) (Tropicana)-C		18.00	44	209	84	1512
7	Coconut Water (TENDO)-C		30.00	217	756	332	9960
8	Coffee-C		20.00	45120		424	8480
9	Coffee / Tea without sugar-C		20.00	7974		392	7840
10	Cold Coffee-C		30.00		28	26	780
11	Diet Coke - 500 ml-C		30.00	21	72	70	2100
12	Fresh lime water-C		25.00		46	32	800
13	Guava Juice - 200 ml (Tropicana)-C		20.00	34	208	154	3080
14	Limca 500 ml-C		34.00	24	96	87	2958
15	Lychee juice - 200 ml (Tropicana)-C		20.00	6	210	116	2320
16	Mango Juice - 200 ml (Tropicana)-C		18.00	64	209	144	2592
17	Mineral Water - 1 ltr.-C		18.00	59	312	225	4050
18	Mirinda Orange 600 ml-C		30.00	26	84	77	2310
19	Mix Fruit Juice - 200 ml (Tropicana)-C		20.00		210	64	1280
20	Orange Juice - 200 ml (Tropicana)-C		0.00	8	210	109	2180
21	Pepsi - 600 ml-C		30.00	20	96	95	2850
22	Tea with sugar-C		15.00	40616		389	5835
					Sale of Beverage items		60927
<u>Kitchen Product</u>							
23	Aloo bonda-C		20.00		239	209	4180
24	Bread pakora-C		15.00		531	499	7485
25	Bread roll-C		15.00		36	36	540
26	Chana chat-C		40.		75	64	256

			00						0
27	Chef special-C		70.00	5		166	148	10360	
28	Curd (Paras)-C		10.00			21	15	150	
29	Cutlet-C		25.00			441	336	8400	
30	Idli-C		27.50			980	865	23788	
31	Kasadiya-C		15.00			56	54	810	
32	Kathi roll-C		25.00	8		390	378	9450	
33	Mini Thali-C		70.00			73	70	4900	
34	Pasta-C		40.00	-5					
35	Poha-C		45.00			140	121	5445	
36	Salad-C		40.00			25	23	920	
37	Samosa-C		15.00	18		395	382	5730	
38	Sandwich Cheese-C		60.00			139	137	8220	
39	Sandwich Veg-C		55.00			332	303	16665	
40	Sprout Chat-C		40.00			47	40	1600	
41	Vada-C		27.50			843	697	19168	
42	Veg semiyan-C		45.00			9	6	270	
43	Veg Thali-C		100.00			70	70	7000	
					Sale of Kitchen Product items			137640	
			Total Sale (Rs)					218057	
Date	01/05/2014	4:29:05 PM			Sitaram Bhartia Institute of Science & Research, B-16, Qutab Institutional Area, New Delhi - 110016. TEL. (011) 42111111. FAX (011) 26533027				

ANNEXURE – 4 (A) FOOD CONSUMPTION OF OFFICIAL EVENTS



Learning and Improvement Cycle – PDSA Form

Team: Mrs. Saru Bhartia (Senior Manager – Quality & Administration)

Mr. Praveen Kumar (F & B Manager)

Mr. Sunil (Executive)

Date: March 27th, 2014

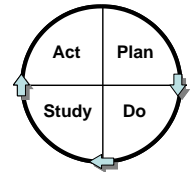
Dr. Megha Dhingra (PT)

Dr. Rakhi Wadhwani (PT)

Name of test: To test the credibility of the 'Food Consumption Data' of OFFICIAL EVENTS by evaluating the process of recording the data.

Cycle #: Ramp 2 cycle 1

The objective of this cycle is to: ☒ Collect Data ☐ Develop a change
☐ Test a change ☐ Implement a change



PLAN

What is the objective for this cycle?

The objective is to collect the data for food consumption in official events, through the tracker sheet named "Official Event - Food Consumption sheet".

Note –

- A new "Official Event - Food Consumption sheet" is introduced which consist of a comprehensive list of all the items served for CME, no. of plates served plus extra (if needed) and type of meal package.
- This data is compiled via 'Function Prospectus' requested through CME Coordinator. These details 'FP' is forwarded to F&B manager who compiles "Official Event - Food Consumption sheet"
- This is to be filled by Official Event coordinator.

What questions do you want to answer with this PDSA cycle?

- Whether the “Official Event - Food Consumption sheet” will provide appropriate data of food consumption?
- Will assigning a person Event Coordinator for filling of this sheet provide the required data for consumption?
- What will be overall impact of “Official Event - Food Consumption sheet” and maintaining the same, on the process and staff?

Predictions (for questions above based on plan):

Consumption data was maintained at multiple sources with no one authorized personnel. Defining the comprehensive sheet will establish a reliable source of data.

Assigning the responsibility to a particular person will hold that person accountable for the same.

(I) Initially, recording of particular items served for Official Event in the sheet might be missed due to certain operational reasons (unfolded as the PDSA will be carried).

(II) There might be some discrepancies between the data recorded by Official Event Coordinator and the corresponding data maintained by the F&B Manager.

(III) There might be some variation in no. of people for whom food is prepared and the actual no. of consumers (attendees of Event).

List of tasks required to set-up this test: Who, What, When, Where?

What Data?	Who Collect?	When collect?	Where collect?
Meeting F&B manager & Event Coordinator to discuss the plan.	Megha Dhingra & Rakhi Wadhwani	25 th March 2014	F&B manager office, ground floor
Explaining the F&B manager & Event Coordinator to act as per the plan and fill the “Official Event - Food Consumption sheet”.	Megha Dhingra & Rakhi Wadhwani	25 th March 2014	F&B manager office, ground floor

Plan to collect data to answer your questions: Who, What, When, Where?

Data?	Who Collect?	When collect?	Where collect?	How to collect?
Recording of following activities: “Official Event - Food Consumption sheet”filled by F&B manager, which includes detail of menu served to Official Event, package of meal and no. of people catered ‘FP’ sent for the proposed CME or not.	Sr. Executive- Quality	27 th March 2014	From F&B manager &Official Event Coordinator	Tracker sheet - “Official Event - Food Consumption sheet”
Observing the process and data used to maintain the above sheet.	Sr. Executive- Quality	27 th March 2014	N.A.	N.A.

DO

What did you observe when the test was carried out?

- ‘FP’ was not made (one day prior to the Official Event) by the Event coordinator
- So the coordinator was asked to make the same and forward it to the F&B manger.
- “Official Event - Food Consumption sheet”was forwarded the same day (though the F&B manager was reminded twice about the same).

Were there any unexpected observations?

Menu for the internal event was not known to the coordinator. He got to know about it after asking F&B manager to fill the food & beverage – Menu, part in the ‘FP’ form.

STUDY

Analyze your data and describe the results. How do the results compare with your predictions?

- The consumption sheet provide with following details (Refer to Annexure-1):
- The total no. of plates served was 35 on 27th March 2014 which was the maximum expected number so there was no discrepancy in no. of plates served and no. of expected attendees.
- It was an unpaid CME since it was organized in house.
- The meal package was regular (Rs. 200) which included Nimbu Pani, yellow dal tadka, mix veg, rice, parantha and green salad.
- Regular package of in-house CME usually include the meal menu of the day.

The 'FP' sheet provide the following details -

- Minimum no. of plates which will be served to CME and maximum expected.
- Food & beverage to be served.
- Date and time of CME.
- Whether it is sponsored or unsponsored CME.

What did you learn from this cycle?

Identifying & Assigning responsibility to single person helps to get appropriate & complete data.

ACT

Are you ready to implement? (Feel confident in change, have tested under different conditions and have no more questions)

☒ yes ☐ no

Plan for the next cycle(Have more questions, need to make adjustments).

To record the attendance of Official Event along with 'FP' to get the appropriate data regarding food consumption of CME.

Describe the objective for your next cycle:

To track the number of attendees in order to link it with the number of plates served.

ANNEXURE – 4 (B) - FUNCTIONS - MEETINGS - CME'S

Date	Function	Organizer	Venue	Menu	Pax	Rate	Amount	Remarks Paid /In-House
04/03/2014	Internal CME	Mr. Sunil	Audi	Rajma, Aloo Gobhi, Rice, Parantha, Salad, Nimbu Pani	30	200	6000	In-house
04/04/2014	CME- webcast on SSTI	Mr. Sunil	Diabetic Centre	Hot & Sour Soup, Kimchi Salad, Veg Manchurian, Veg sweet n sour, chilli paneer, fried rice, hakka noodles, fruit custard	12	300	3600	Sponsered - Astra Zeneca
04/05/2014	Antenatal Workshop	Mrs. Vandana	Audi	Tomato Soup, dal vada, idli -sambhar, mint chutney, Cut Fruits	42		15000	Sponsored
04/07/2014	Nurses training	Mrs. Ravitha	Audi	Tea & bread pakora	25	30	750	In-house
04/09/2014	CME - Diabetes	Dr. Lata	Diabetic Centre	Mocktail, Russian salad, sprout sald, pasta in red sauce, cottage cheese mourney, stuffed jacket potato, garlic bread, rasmalai	13	320	4160	Sponsored
04/10/2014	Internal C.M.E.	Mr. Sunil	Audi	rose lemon, moong sabuit dal veg kofta matar pulav parantha salad	30	200	6000	In-house
04/11/2014	HIC meeting	Dr. Lata	Drc	Tea/Coffee & Biscuits	10	20	200	In-house
04/12/2014	Antenatal Workshop	Mrs. Vandana	Audi	Pasta, soute veg, garlic bread, salted , lassi, fresh fruit	40	300	12000	Sponsored
14/4/2014	Mortality Committee Meeting	Mr. Tara	Diabetic Centre	veg sandwich soup	6	40	240	In-house
							0	
14/4/2014	Mrs. Ravitha	audi	Audi	Tea & croquettes	25	30	750	In-house
							0	
17/4/2014	CME INTERNAL	Mr. Sunil	Audi	Rajma, Mix Veg, Rice, Green Salad, Parantha, Lemon water	35	200	7000	In-house
19/4/2014	Management Committee Meeting	Mr. Tara	Office	Tea/Coffee, Canapies, S/W	5	80	400	In-house
24/4/2014	internal CME	Mr. Sunil	Audi	Rajma, Mix Veg, Rice, Green Salad	35	200	7000	In-house
				Parantha, Lemon water			0	
27/4/2014	Meeting of Dr alok sarin	self	diabetic	tea +biscuit	10	20	200	Paid
28/4/2014	sister meeting	sis kavita	Audi	tea sandwich	20	50		In house
						TOTAL	63300	
