

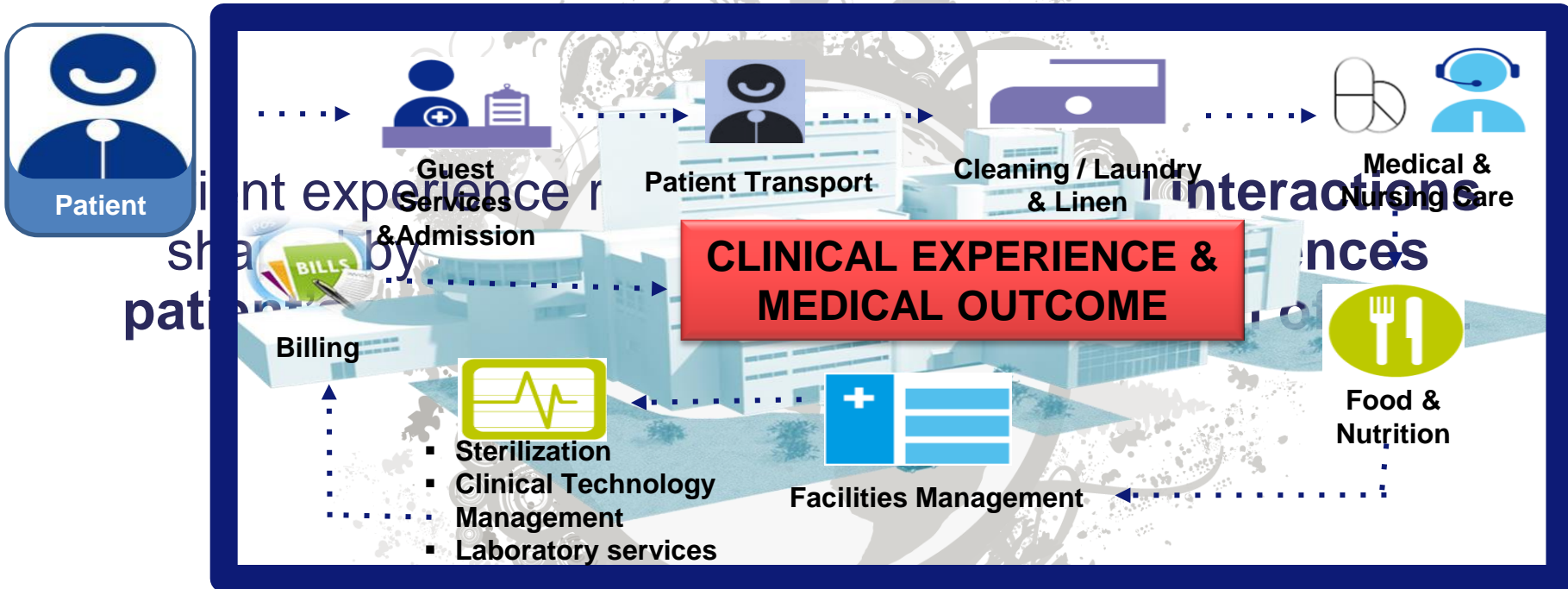
# FOOD SAFETY: From Farm To The Fork

SingHealth Congress 2016

18 August 2016

ASHU SHARMA

# PATIENT- The Core of Hospital Care



# PATIENTS EXPECTATIONS- A Growing Scenario



MINISTRY OF HEALTH  
SINGAPORE

## PATIENT SATISFACTION SURVEY

Nursing and  
Medical Care

Waiting  
Time

Value for  
Money

McKinsey & Company

## CONSUMER HEALTH INSIGHT SURVEY

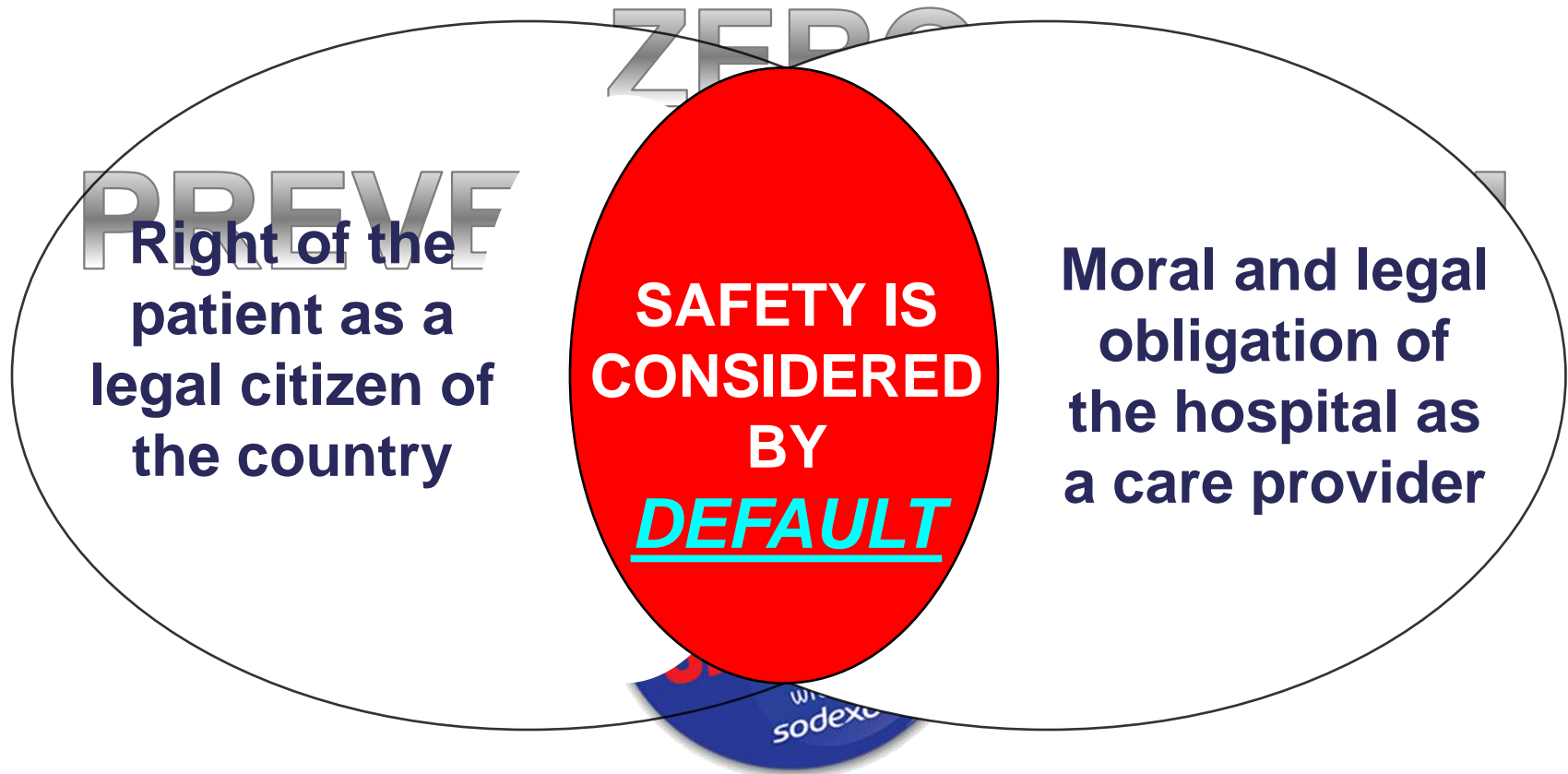
Nursing &  
Doctor  
Empathy  
(Care)

Quiet  
environment

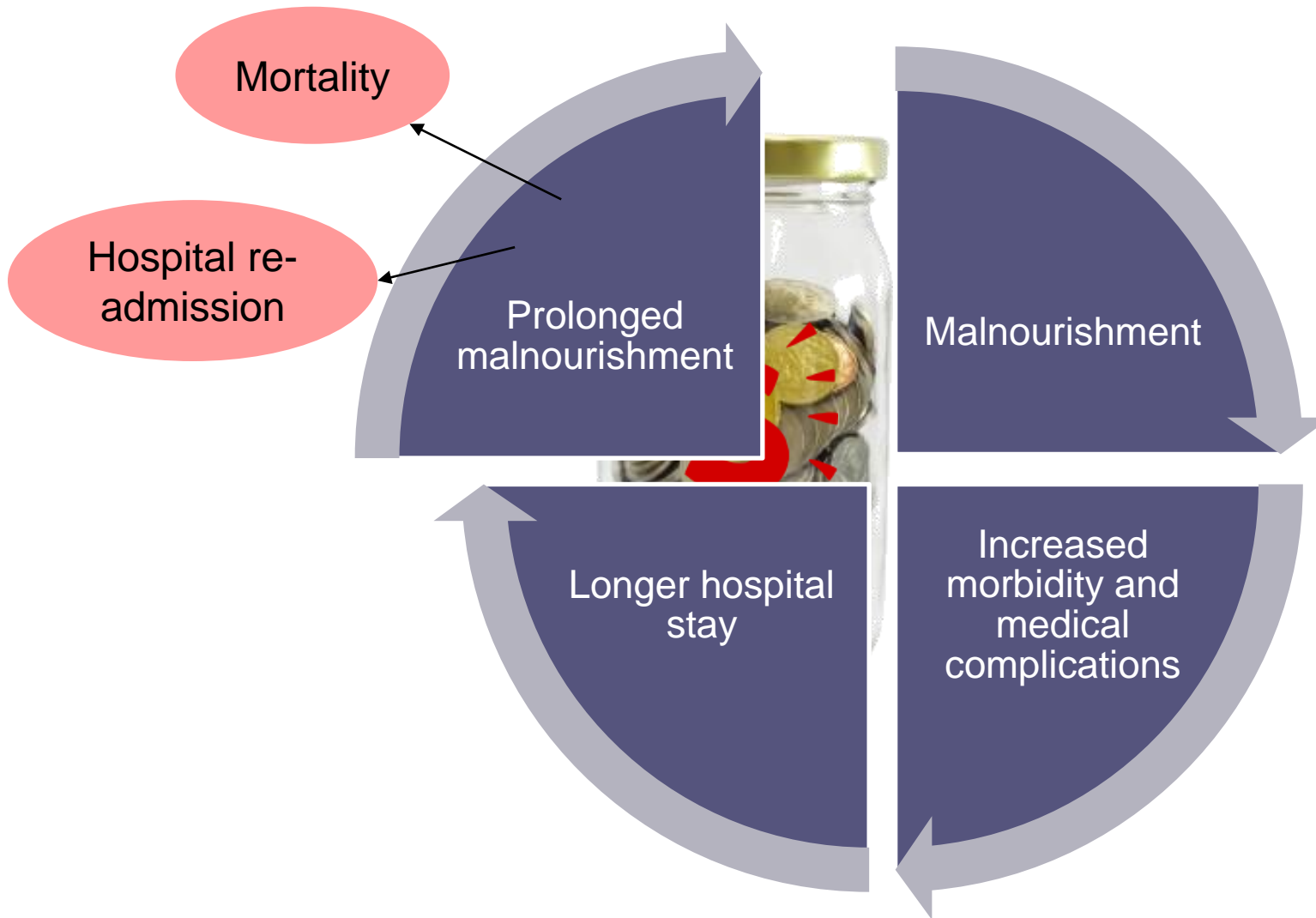
Pain  
Management

Cleanliness

# PATIENTS EXPECTATIONS- A Growing Scenario



# HOW IMPORTANT IS FOOD IN A HOSPITAL?- A Reality



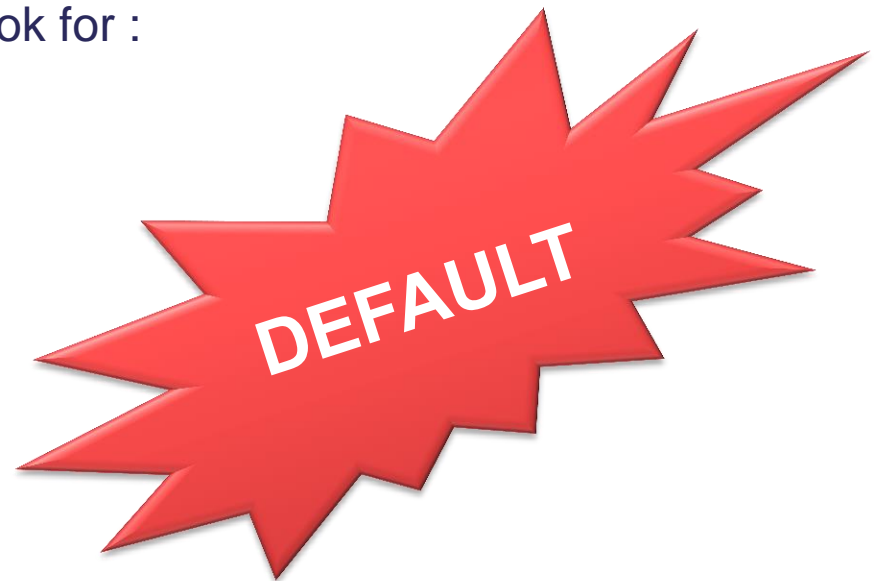
# HOSPITAL FOOD- What Do Patients Think?

**Comfort food exists but comfort medicines do not!!!**

- Familiarization with the food
- Emotional state of the patient
- Growing expectations parallel to the medical care

**THREE** aspects of food that patients look for :

- Temperature
- Appearance
- Taste



# FACTS AND FIGURES

Loss of almost **33 million** healthy lives due to compromised food safety globally (WHO, 2014)

Unsafe food can cause **200 various diseases** ranging from diarrhea to cancer.

MOH estimates that **~0.1 million** people seek medical care due to food borne outbreaks each year

# WHAT JEOPARDISES FOOD SAFETY IN A HOSPITAL?

Contaminated  
food



Serving wrong diet  
to patient



Compromised  
hygiene standards  
while serving food  
to the patient



Inappropriate/  
incomplete food  
portions



Inappropriate  
practices of food  
consumption





## **FOOD SAFETY VS MEDICAL SAFETY- A Thought to Ponder**

“As to diseases, make a habit of two things — to help, or at least, to do no harm” -**Hippocrates**



### ***THE ARGUMENT :***

A patient with an immune-compromised system is prone to adversities of food / medical safety in a parlous manner

# FOOD SAFETY- What is it?

It is a scientific disciplinary approach that ensures handling, preparation, storage and serving of the food is in a way that **PREVENTS FOOD BORNE ILLNESSES.**

It is a process that ensures safe food is delivered **AT ALL TIMES**



# CONTINUOUS QUALITY IMPROVEMENT- An Imperative Approach



# RISK MANAGEMENT

Provides framework for monitoring and guidance to ensure required levels of food safety.

Captures end-to-end processes and circumvents the risks associated.

**SAFE  
FOOD**

Meticulously manages the critical control points



# RISK MANAGEMENT STEP 1

## Identify the **HOSPITAL CLASS**

### Class 1

Provides packed food, packed drink and whole fruits

### Class 2

Provides unpacked food to patients/ staff or public

### Class 3

Prepares and provides food to six or more in-patients, day care patients, palliative care patients, children, aged care and conducts on-site or off-site catering

***In Singapore, the hospital food service could be a mix of above three classes but mostly falls in the category of Class 3***

- Food services has evolved into a full-fledged department with sub departments each managing their own processes
- Decentralized yet aligned with required standards
- Either run in-house or outsourced
- Serve cook-fresh (mostly)
- Well-developed food service team on-site



# RISK MANAGEMENT STEP 2



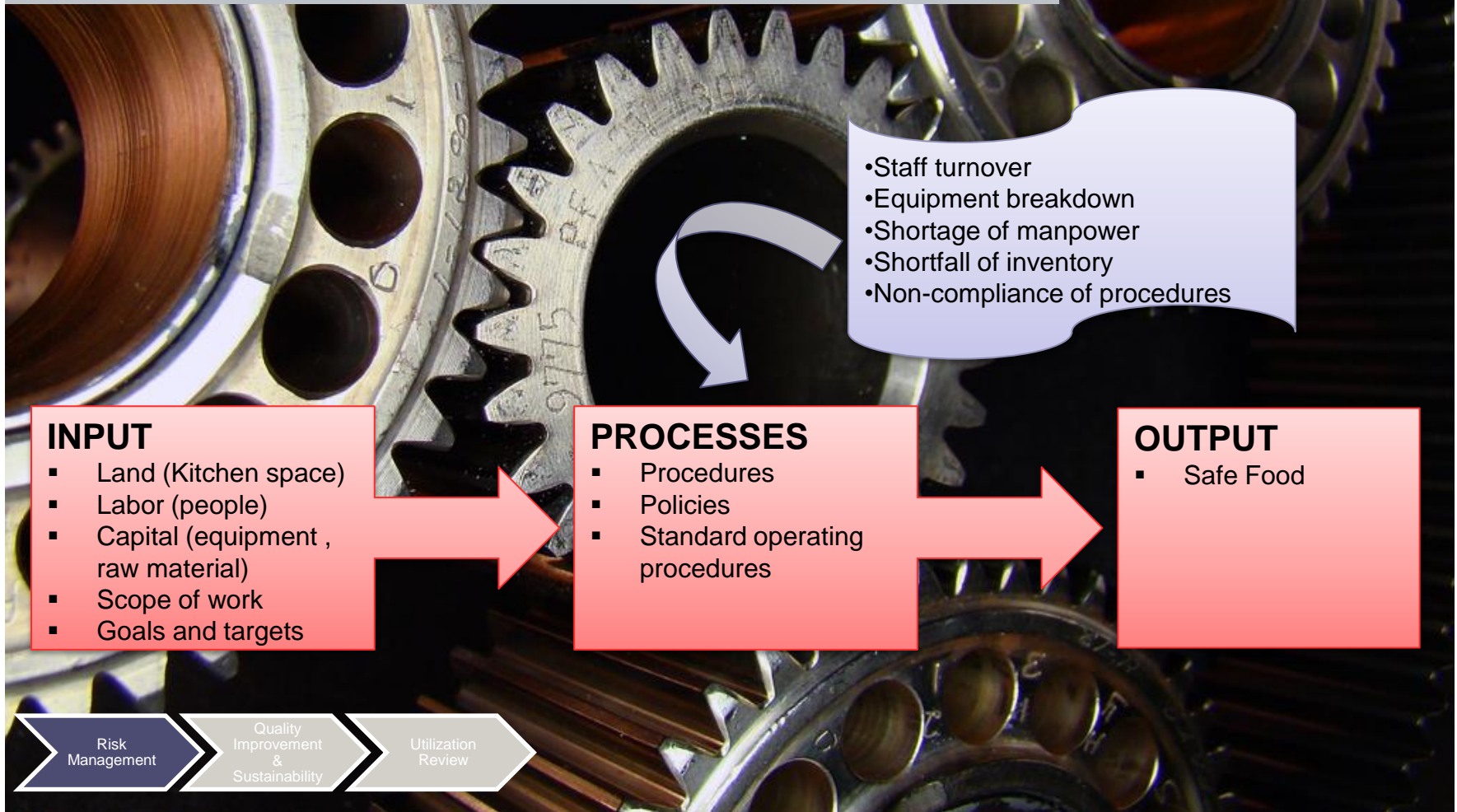
## Develop a **FOOD SAFETY PROGRAM** which should:

- be compliant with food standards and approved procedures/guidelines in implementing food safety requirements
- develop, maintain and review the food safety program
- provide for adequate design, construction ( if applicable) and maintenance of food service facilities/ equipment
- arrange for audits of the accredited food safety program in accordance with the set standards
- provide staff training
- investigate complaints and take action to remedy non-compliances



# RISK MANAGEMENT STEP 3

## Process mapping- IPO model



# RISK MANAGEMENT- Different Stop Gates



IN THE  
KITCHEN

Holding & Belting

Preparation

Purchasing

DURING  
SERVICE

Meal  
Consumption

Meal Service

Meal Ordering

Menu Planning



Risk  
Management

Quality  
Improvement  
&  
Sustainability

Utilization  
Review



# FIRST STOP GATE- Supply Chain Management



## Technology-driven Processes & Systems

- Detailed & efficient
- Consistent & configurable



## Vendor Management

- Regular audits
- Professional (ISO 9001/22k) and Ethical standards
- AVA guidelines mandatory



## Business Continuity is Crucial

- Alternate suppliers for same supplies

### ***Site level – a dedicated personnel managing purchasing***

- Fully trained to order from a well- managed and controlled system
- Conduct critical checks of goods upon reception
- Must be HSE trained
- Well-versed with processes such as product recall and product return

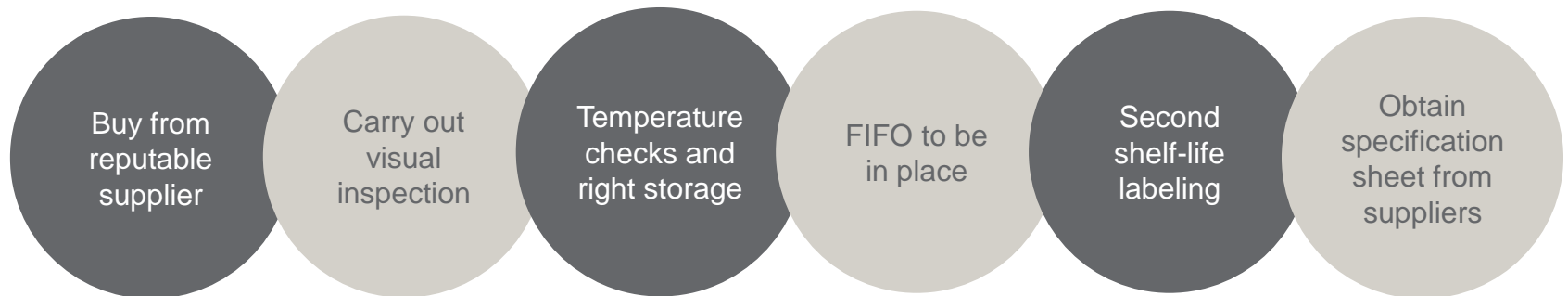


# FIRST STOP GATE- Supply Chain Management

## POTENTIAL HAZARDS TO LOOK FOR UPON RECEIVING GOODS



## RISK MITIGATION



# RISK MANAGEMENT- Different Stop Gates



IN THE  
KITCHEN

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AT  
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Risk  
Management

Quality  
Improvement  
&  
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Review

## SECOND STOP GATE- Meal Preparation



After Food is purchased, the next stop on the journey is **MEAL PREPARATION**.

During meal preparation, there are **6 CRITICAL CONTROL POINTS** where food safety may be compromised, leading to **unsafe food**.

Risk  
Management

Quality  
Improvement  
&  
Sustainability

Utilization  
Review

# SECOND STOP GATE- Meal Preparation



Freezer storage



Thawing/  
Defrosting



Chill storage



Cooking



Holding



Receiving



# RISK MANAGEMENT- Different Stop Gates



IN THE  
KITCHEN

Holding & Belting

Preparation

Purchasing

AT  
SERVICE

Meal  
Consumption

Meal Service

Meal Ordering

Menu Planning



Risk  
Management

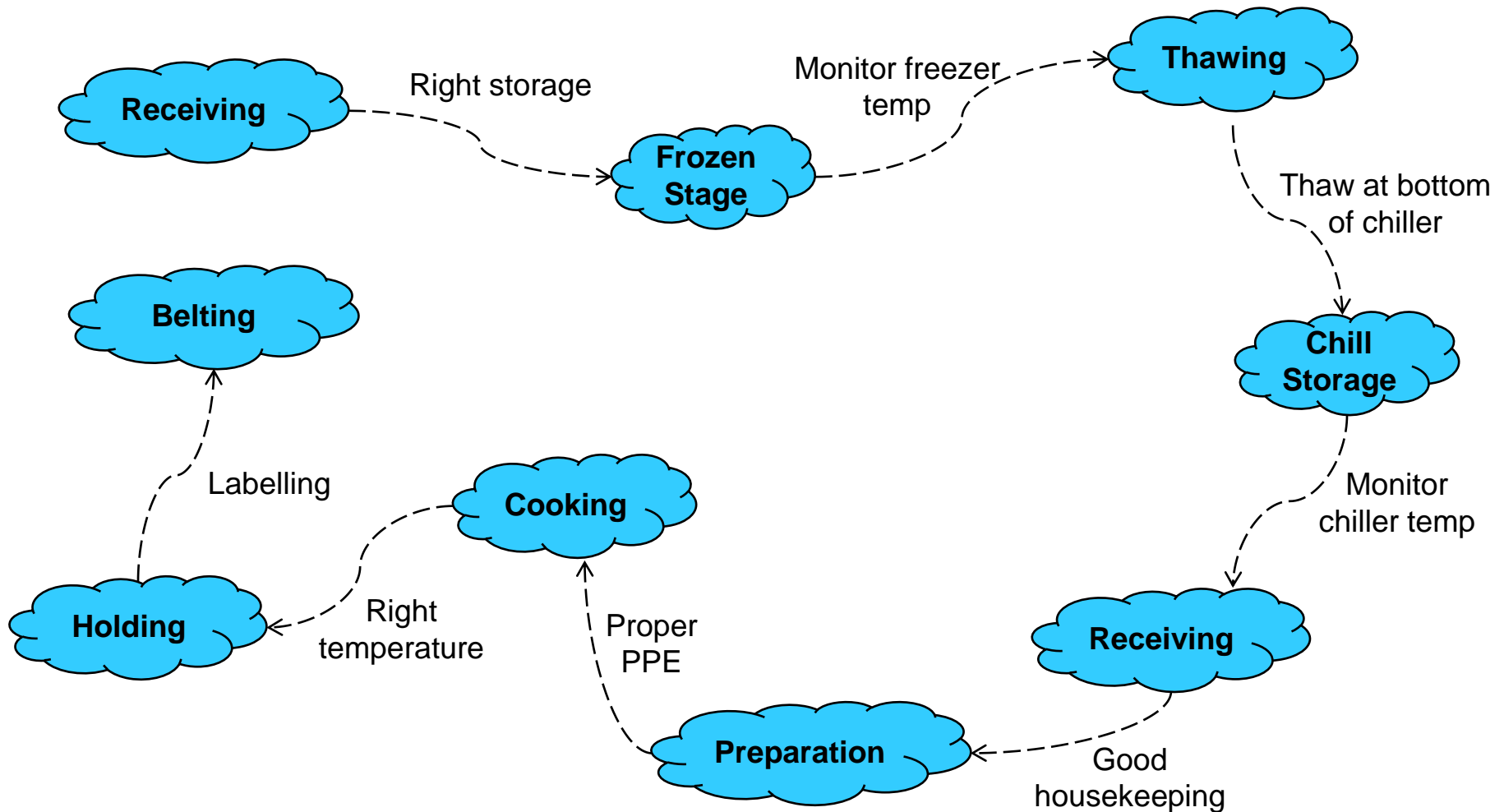
Quality  
Improvement  
&  
Sustainability

Utilization  
Review

# THIRD STOP GATE- Holding and Belting



# RISK MITIGATION PLAN IN THE KITCHEN





# RISK MANAGEMENT- Different Stop Gates



IN THE  
KITCHEN

Holding & Belting

Preparation

Purchasing

AT  
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Consumption

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Risk  
Management

Quality  
Improvement  
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Sustainability

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# FOURTH STOP GATE- Menu Planning

SUNDAY



CHOOSE ONE SET FOR EACH MEAL

BREAKFAST

LUNCH

DINNER

Hospital menu planning is a **FIRST STEP TO SAFE START** a food service program

- Menu to match with the hospital/ patient requirements
- Resource provision
- Facility to be able to produce meals
- Staff to be able to produce meals
- Follow hospital protocols
- Portion sizes
- Recipe analysis (if necessary)

HEALTHY  
**MIND** *in a*  
HEALTHY *body*

ENJOY YOUR MEAL

sodexo



Risk Management

Quality Improvement & Sustainability

Utilization Review

# RISK MANAGEMENT- Different Stop Gates



IN THE  
KITCHEN

Holding & Belting

Preparation

Purchasing

AT  
SERVICE

Meal  
Consumption

Meal Service

Meal Ordering

Menu Planning

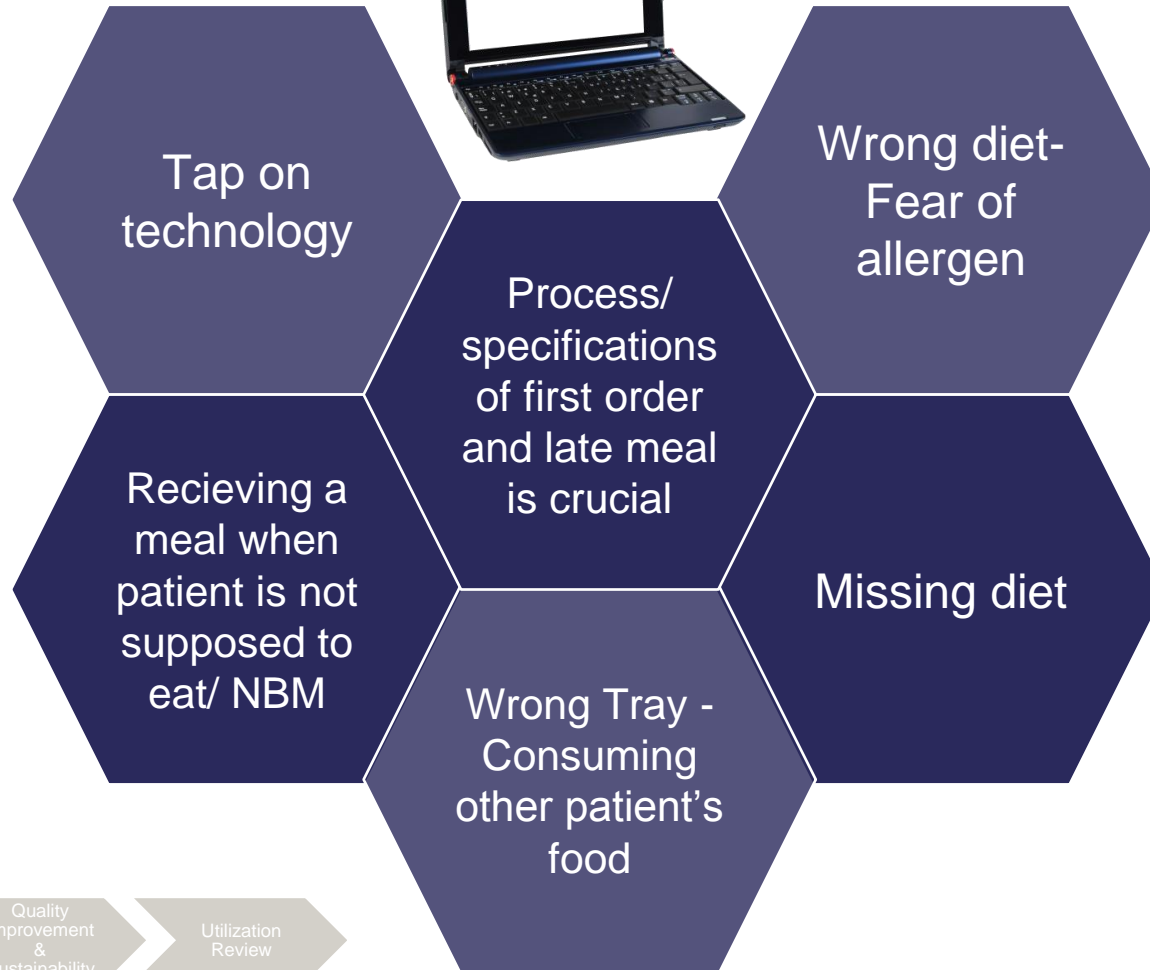


Risk  
Management

Quality  
Improvement  
&  
Sustainability

Utilization  
Review

# FIFTH STOP GATE- Meal ordering



# RISK MANAGEMENT- Different Stop Gates



IN THE  
KITCHEN

Holding & Belting

Preparation

Purchasing

AT  
SERVICE

Meal  
Consumption

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Meal Ordering

Menu Planning



Risk  
Management

Quality  
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# SIXTH STOP GATE- Meal Service



Education is the first line of defence

Segregate staff to have balanced workload

Orders must be repeated before and while serving the food

Visual communications at the nursing board/ patient's door for any specifications

Hand hygiene- A MUST

Diet card must be printed and matched with the patients identifiers

Highlighted meal specifications must trigger STAR ( Stop, think, act and review)

Check on the cleanliness of crockery before portioning food

Risk Management

Quality Improvement & Sustainability

Utilization Review

# HAND HYGIENE

## HAND HYGIENE

Hand rub at each trolley

Training & education

Covert & overt shadowing

Rewards & recognition

Working with infection control department

Reminders at each trolley

## HAND HYGIENE RESULT 2015- 2016 (INTERNAL AUDIT)



Risk Management

Quality Improvement & Sustainability

Utilization Review

# RISK MANAGEMENT- Different Stop Gates



IN THE  
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Quality  
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## SEVENTH STOP GATE- Meal Consumption

**MUST-** Within 2 hours of meal service

**MUST-** Constant reminders by staff

**MUST-** Clear trays at the stipulated times

**MUST-** Discarding the food/ labelling the food so that it is not eaten mistakenly

Risk Management

Quality Improvement & Sustainability

Utilization Review

# CONTINUOUS QUALITY IMPROVEMENT- An Imperative Approach

## 3 COMPONENTS



# QUALITY IMPROVEMENT AND SUSTAINABILITY- Overall Governance



## Food Safety Policy

- Risk minimizations for all food services operations
- Continuous information, training and supervision
- Effective procedures for food-related incidents and emergencies

## Quality Assurance Measures

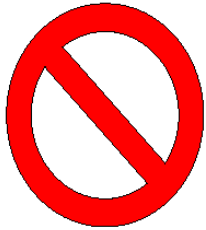
- Detailed checklists and schedule for each process, e.g. chiller temperature checklist, personal hygiene checklist, cleaning schedule, etc.



# QUALITY IMPROVEMENT AND SUSTAINABILITY- Overall Governance



# QUALITY IMPROVEMENT AND SUSTAINABILITY- Training & Competence



Do not store  
**COOKED**  
& **RAW**  
food  
together!

sodexo  
QUALITY OF LIFE SERVICES

## PERSONAL HYGIENE AND PROPER ATTIRE AT WORK



Wear hair restraints at all times



Remove all jewelry.  
Nails must be clean and well cut



Uniforms must be neat and clean



Wear proper footwear / safety shoes

PH001

sodexo  
QUALITY OF LIFE SERVICES

## TOP 10 NON NEGOTIABLE IN FOOD SAFETY

1. Taking Records (Temperature, cleaning, etc)
2. Food sampling (on daily basis, 100g weight kept for 3days)
3. Personal Hygiene (Hairnets, gloves, Aprons, safety shoes, no Jewelry)
4. Washing hands thoroughly (before dealing with food and when necessary)
5. Report if sick (sick people should not come to work)
6. Cover/label & store food properly (cooked food on top, then vegetables, then meat, then chicken)
7. Storage temperature control (chiller <4°C, Freezer >-18°C)
8. Core food temperature measurement
9. Thawing in chiller not at room temperature
10. Cooked food maintained at 63°C or above



TNN001

sodexo  
QUALITY OF LIFE SERVICES

Risk Management

Quality Improvement & Sustainability

Utilization Review

# QUALITY IMPROVEMENT AND SUSTAINABILITY- Overall Governance



## Regular medical check-up

- Pre- medical check-up and for any staff with past history of TB or any such contagious disease, follow-up shall be more regular
- Yearly medical check-up is advised
- Staff is encouraged to share if anyone in the family is sick

## Proper Personal Protective Equipment (PPE)

- All staff and visitors are required to wear PPE at all times during their work or visit to the kitchen





# QUALITY IMPROVEMENT AND SUSTAINABILITY- Overall Governance



# QUALITY IMPROVEMENT AND SUSTAINABILITY- Audits

- 3 times per year

Internal  
Audit



- 3 times per year
- Done by external auditing firm

External  
Audit



- Equipment swab
- Hand swab
- Food swab (Cooked & Ready to-eat items)

Sampling  
Analysis



Risk  
Management

Quality  
Improvement  
&  
Sustainability

Utilization  
Review

# QUALITY IMPROVEMENT AND SUSTAINABILITY- Overall Governance

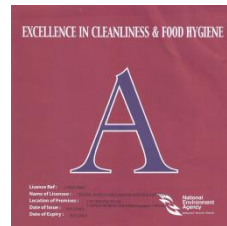


# QUALITY IMPROVEMENT AND SUSTAINABILITY- Accreditations

## International Standards



## Local Standards



# CONTINUOUS QUALITY IMPROVEMENT- An Imperative Approach

## 3 COMPONENTS



# UTILIZATION REVIEW

## Prospective

- To determine the best approach/ method to manage/ control CCP
- Ensure that things will be safe and effective
- Streamline things that may not be necessary- Go Lean

## Concurrent

- To ensure right processes are followed at all times and right result is delivered.
- The intent is to reduce errors in the ongoing system.

## Retrospective

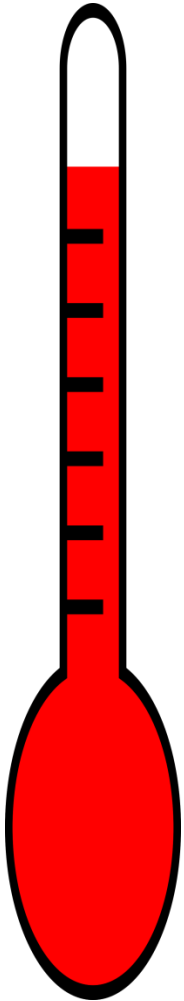
- It involves reviewing/ evaluating and learning from potential issues and lapses
- Reviewing after the service has been delivered to see the impact and identify any gaps/ scope of improvement.

Risk Management

Quality Improvement & Sustainability

Utilization Review

# WHAT IF...



## **Minor non-compliance**

- A low risk situation; overall food safety system is still effective in controlling food safety hazards
- Can be managed with a verbal warning/ counseling

## **Major non-compliance**

- One where the food safety is 'likely' to be violated and/ or may lead to the handling of unsafe or unsuitable food if no remedial action is taken
- Can be managed by verbal warning and a written feedback with an action plan

## **Critical non-compliance**

- A serious breach of safety regulation where the contravention poses an imminent risk to the safety of food intended for service
- Followed by immediate verbal warning and a written compliant/ action of plan
- The follow-up is immediate and within a short period of time.

# ***EDUCATING THE PATIENT-*** A Missing Link?



## **Crucial to educate the patient about the safety measures to be followed:**

- Timely consumption of food
- Keeping their area and surroundings clean from their personal belongings
- Keeping things like fruit basket, flowers away from the food/ eating area
- Allow clearance of meal tray
- Do not leave the food uncovered for long or while not around
- Try not to share food with other patients
- Be vigilant and know your allergies



# INNOVATIONS AND SAFETY

Should it stop us from innovations?

**NO.**

A top-down view of several people's hands reaching towards the center of a wooden table. They are holding several rectangular wooden blocks together, forming a small structure. The hands are of various skin tones and are adorned with various accessories like white wristbands, silver watches, and gold bracelets. The background is the natural grain of the wooden table.

**SAFETY FLOWS FROM END TO END.  
IT IS A SHARED RESPONSIBILITY.**



**THANK YOU.**