

DESIGN & HEALTH 6TH WORLD CONGRESS AND EXHIBITION, 2009, SINGAPORE

**ENHANCING THE HOSPITAL IMAGE
THROUGH ARCHITECTURAL DESIGN IN KOREA**

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1. INTRODUCTION

PURPOSE

- **TO BRIEF THE PRESENT SITUATION OF NATIONAL HEALTH AND HOSPITAL BUILDING IN KOREA**
- **TO ANALYZE THE DESIGN ENDEAVORS TO ENHANCE THE HOSPITAL IMAGE IN VARIOUS WAYS**
- **TO SUGGEST SOME DESIGN TASKS & DIRECTIONS FOR BETTER HOSPITAL IMAGE**
- **TO EXCHANGE IDEAS WITH THE PARTICIPANTS FROM OTHER COUNTRIES**

METHOD OF RESEARCH

- **TO COLLECT RELEVANT STATISTICS, TO SEARCH PHOTOS, DRAWINGS, PAPERS & ARTICLES ABOUT THE HOSPITAL**
- **TO REVIEW & COMPARE THE ARCHITECTURAL DESIGN ELEMENTS OF KOREAN HOSPITALS WHICH HAVE BEEN BUILT OR PLANNED FOR AROUND 15 YEARS**

MAJOR CONTENTS

- **PRESENT SITUATION OF NATIONAL HEALTH AND HOSPITAL BUILDING**
- **ARCHITECTURAL DESIGN ELEMENTS TO ENHANCE THE HOSPITAL IMAGE**
- **TASKS AND SUGGESTIONS FOR BETTER HOSPITAL IMAGE**

MAINLY REFERRED HOSPITALS

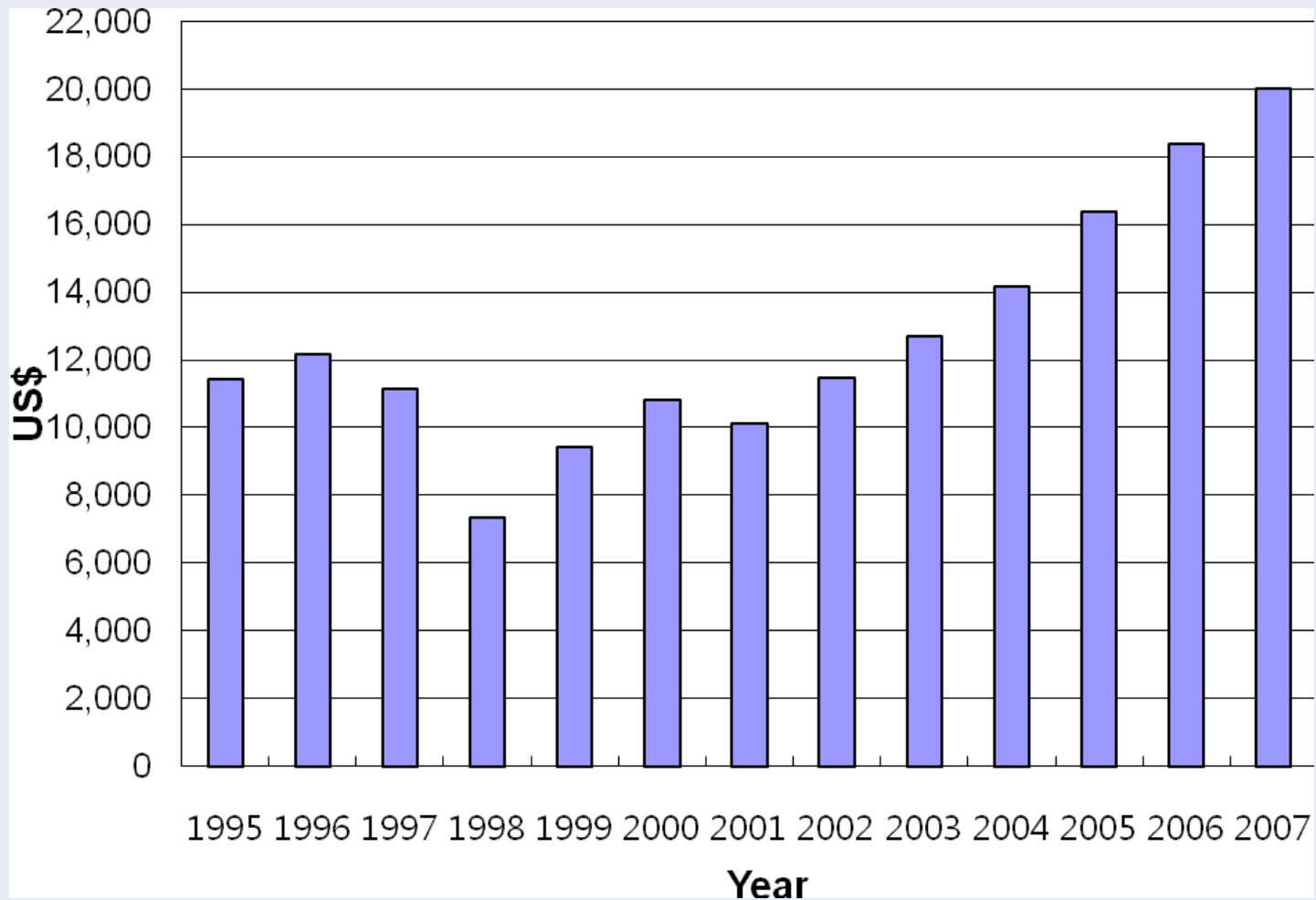
- **DANKOOK UNIVERSITY HOSPITAL(1994.4)**
- **SAMSUNG MEDICAL CENTER(1994.6)**
- **NATIONAL CANCER CENTER(2000.3)**
- **KWANGJU VETERANS HOSPITAL(2002.12)**
- **NATIONAL INSURANCE CORPORATION ILSAN HOSPITAL(2003.3)**
- **CHONNAM NATIONAL UNIVERSITY HWASUN HOSPITAL(2004.4)**
- **CHUNG-ANG UNIVERSITY HOSPITAL (2004.12)**
- **YONSEI UNIVERSITY SEVERANCE HOSPITAL(2005.5)**
- **SEOUL BUKBU GERIATRIC HOSPITAL(2006.5)**

- **BUSAN ST. MARY'S MEDICAL CENTER(2006.6)**
- **CANCER CENTER OF SAMSUNG MEDICAL CENTER (2008.1)**
- **BORAMAE MEDICAL CENTER(2008.6)**
- **PUSAN NATIONAL UNIVERSITY YANGSAN HOSPITAL(2008.11)**
- **SEOUL ASAN MEDICAL CENTER(2008.11)**
- **SEOUL ST. MARY'S HOSPITAL(2009.3)**
- **SEOUL MEDICAL CENTER(UNDER CONSTRUCTION)**
- **SEOUL NATIONAL HOSPITAL(UNDER CONSTRUCTION)**
- **CHEONAN MEDICAL CENTER(UNDER CONSTRUCTION))**

2. PRESENT SITUATION OF NATIONAL HEALTH AND HOSPITAL BUILDING

PRESENT SITUATION OF NATIONAL HEALTH

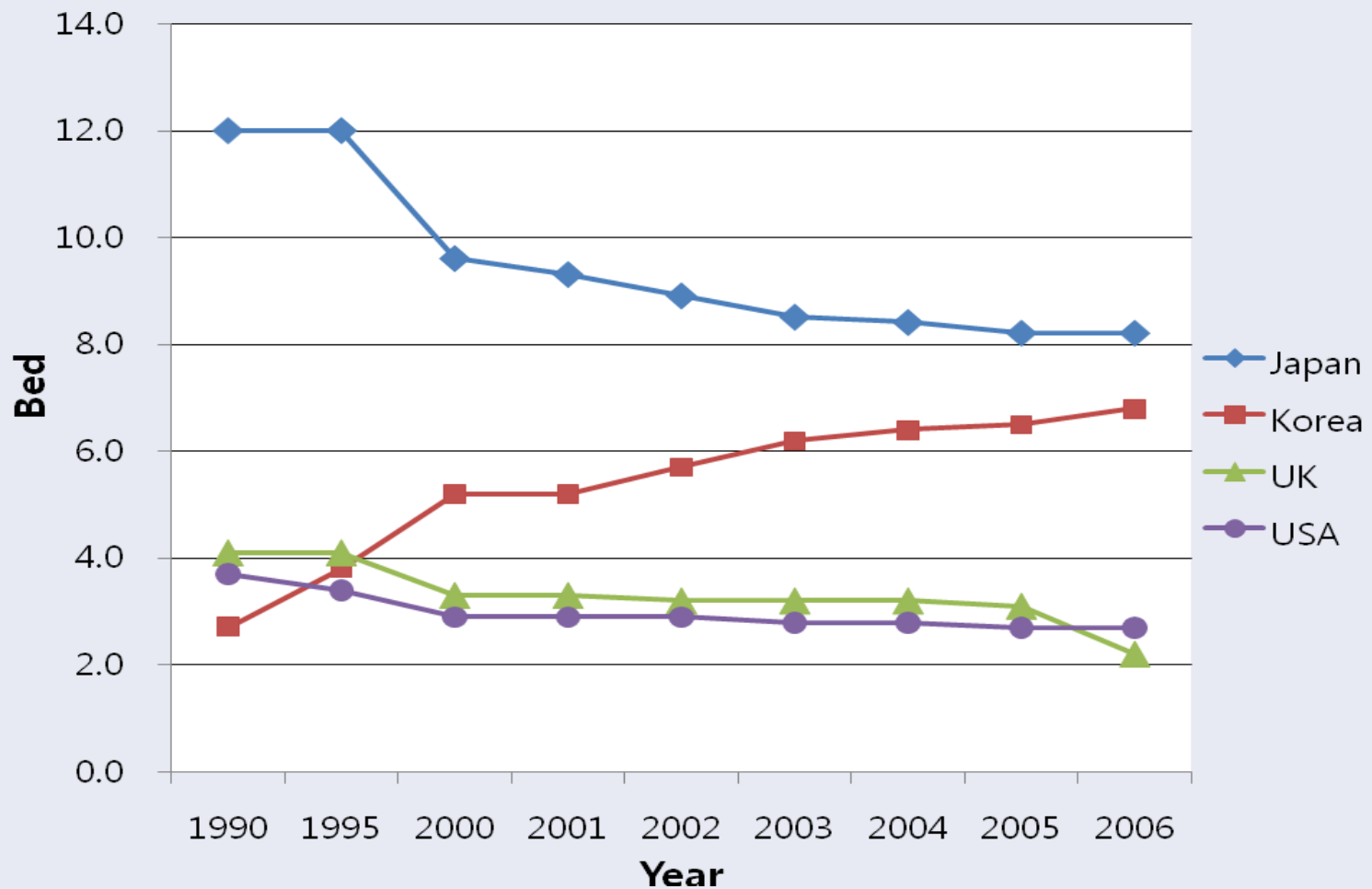
- **RAPID DEVELOPMENT OF NATIONAL ECONOMY AND INDUSTRY**
- **INTRODUCTION AND EXPANSION OF NATIONAL HEALTH INSURANCE SYSTEM SINCE 1976**
- **DEMAND OF MORE DIVERSIFIED AND HIGHER LEVEL OF MEDICAL SERVICE**
- **NEW CONSTRUCTION AND REMODELING OF MANY HOSPITAL BUILDINGS**



**PER CAPITA GNI(1995-2007) IN KOREA
(SOURCE : [HTTP://WWW.NSO.GO.KR/](http://www.nso.go.kr/))**

PRESENT SITUATION OF HOSPITAL BUILDING

- **SOMEWHAT SUFFICIENT QUANTITY IN ACUTE CARE BEDS AND SHORTAGE OF LONG-TERM CARE BEDS IN KOREA**
- **REQUIREMENTS FOR NOT ONLY QUANTITATIVE EXPANSION IN LONG-TERM CARE BUT ALSO QUALITATIVE APPROACHES FOR OVERALL HOSPITALS**



**NUMBER OF ACUTE CARE BEDS PER 1,000 PEOPLE(1990-2006)
(SOURCE : OECD HEALTH DATA 2008, JULY 2008)**

3. ARCHITECTURAL DESIGN ELEMENTS TO ENHANCE THE HOSPITAL IMAGE

VERTICAL/HORIZONTAL BUILDING FORM

- **VERTICAL CONCEPT WITH MONOTONOUS FORMS AND ACHROMATIC COLORS : TOWER ON PODIUM & MONOLITH : REGARDED AS UNSUSTAINABLE**
- **LIGHT-COURTS, HOSPITAL STREET WITH ATRIUM, AND ACCENT ELEMENTS TO ENHANCE THE HOSPITAL IMAGE**
- **HORIZONTAL CONCEPT AS A SUSTAINABLE DESIGN : NATURAL LIGHT & VENTILATION, GOOD VIEWS OF VARIOUS LANDSCAPED GARDENS BETWEEN BUILDINGS, MINIMUM ENERGY USE FOR VERTICAL TRAFFICS, AND PSYCHOLOGICALLY COMFORT THROUGH HUMAN SCALE DESIGN**



VERTICAL CONCEPT, YONSEI UNIVERSITY SEVERANCE HOSPITAL



VERTICAL CONCEPT, NATIONAL INSURANCE CORPORATION ILSAN HOSPITAL



HOSPITAL STREET, YONSEI UNIVERSITY SEVERANCE HOSPITAL



HORIZONTAL CONCEPT, CHONNAM NATIONAL UNIVERSITY Hwasun HOSPITAL



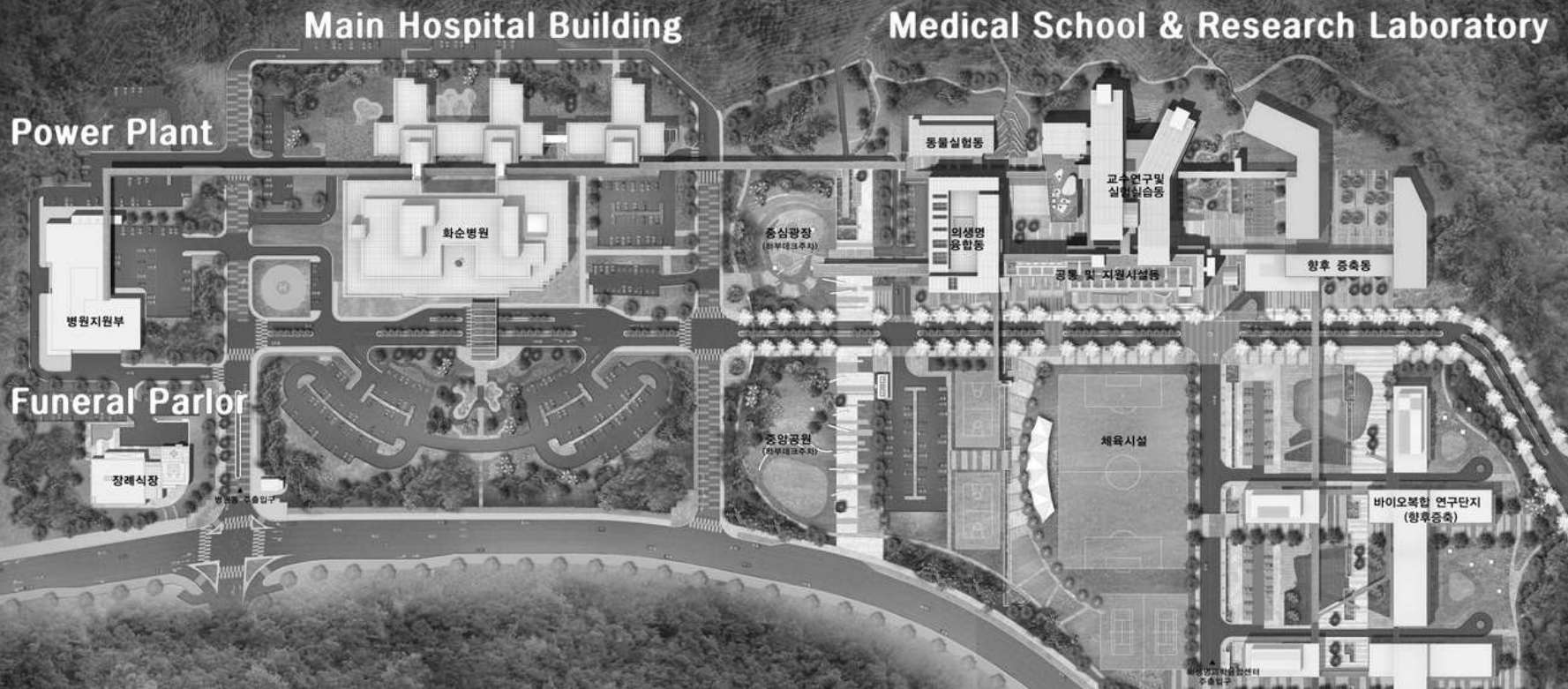
HORIZONTAL CONCEPT, CHOENAN MEDICAL CENTER



LANDSCAPED GARDEN, CHONNAM NATIONAL UNIVERSITY HWASUN HOSPITAL



ROOF GARDEN, PUSAN NATIONAL UNIVERSITY YANGSAN HOSPITAL



MASTER PLAN, CHONNAM NATIONAL UNIVERSITY Hwasun HOSPITAL

INCREASE OF SIZE AND SCALE FOR BETTER MEDICAL SERVICE

- **ENLARGEMENT OF HOSPITAL SIZE & SCALE : ESTABLISHMENT OF VARIOUS SPECIAL CLINICS AND CENTERS TO MEET HIGHER LEVEL OF PATIENTS' MEDICAL DEMAND : MORE THAN 500BED AND 50,000 m² IN MANY UNIVERSITY HOSPITALS**
- **EXTENSION OF PUBLIC SPACE FOR PATIENTS' HEALING ENVIRONMENT AND BETTER WORKING ENVIRONMENT FOR STAFFS**
- **INCREASE OF TOTAL FLOOR AREA : 40-50 m² /BED IN 80s, 100-120 m² /BED IN 2000s**



MAIN LOBBY, PUSAN NATIONAL UNIVERSITY YANGSAN HOSPITAL

WARD PLANNING FOR BETTER HOSPITAL IMAGE

- **STRICTLY RECTANGULAR SHAPE FOR FUNCTION-ORIENTED PLAN WITH DOUBLE(SINGLE) CORRIDOR, MINIMUM PUBLIC SPACE, SHORT TRAFFIC DISTANCE AND SOME ROOMS WITHOUT WINDOWS**
- **VARIOUS SHAPES SUCH AS TRIANGULAR, “W”, DOUBLE “Y”, CURVED RECTANGULAR, CROSS, ETC, WITH SPACIOUS PUBLIC AREA. ROLE OF LANDMARK**
- **IMPROVEMENT OF NURSING UNIT DESIGN : MAXIMUM 5 BEDS A ROOM WITH OWN TOILET TO CONSIDER THE HOSPITAL IMAGE. WARD DINING ROOM IS PLANNED FOR INPATIENTS' CONVENIENCE AND USED FOR MULTIPURPOSE ACTIVITIES**



Kwangju Veterans Hospital



Seoul Bukbu Geriatric Hospital



Chung-Ang University Hospital



Chonnam National University
Hwasun Hospital



Boramae Medical Center



Seoul Medical Center
(under construction)



Busan St. Mary's Medical Center



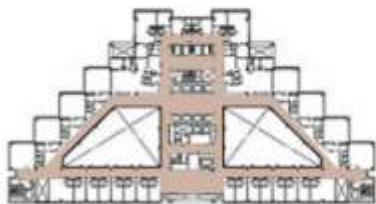
Dankook University Hospital



Seoul National Hospital
(under construction)



Yonsei University Severance Hospital



Samsung Medical Center



National Cancer Center



Pusan National University
Yangsan Hospital



National Insurance Corporation
Ilsan Hospital



Cancer Center
of Samsung Medical Center

VARIOUS SHAPES OF WARD PLAN

PURSUIT OF HIGHER STANDARD INTERIOR

- **UPGRADE OF INTERIOR DESIGN THROUGH DYNAMIC AND COMFORTABLE ATMOSPHERE : LIGHT-COURT, INNER GARDEN, ATRIUM, HOSPITAL STREET, ARTWORKS, CURVED WALLS, AND FINISH MATERIALS**
- **INTRODUCTION OF VARIOUS COLORS TO THE ALL EXPOSED SURFACES FOR PATIENTS' PLEASANT AND PSYCHOLOGICAL REPOSE**
- **COLOR THERAPY EFFECTS : STABILITY OF EMOTION & REDUCTION OF STRESS FOR THE PATIENTS AND IMPROVEMENT OF STAFFS' PERFORMANCES THROUGH PLEASANT WORKING ENVIRONMENT DESIGN**



INTERIOR DESIGN, YONSEI UNIVERSITY SEVERANCE HOSPITAL



ELEVATOR HALL PUSAN UNIVERSITY YANGSAN CHILDREN HOSPITAL



NURSES' STATION, PUSAN UNIVERSITY YANGSAN HOSPITAL

EXPANSION OF CONVENIENT SPACE

- **CONVENIENT SPACE TO ENHANCE THE PATIENTS' SERVICE AND MAKE SOME PROFITS FOR HOSPITAL MANAGEMENT: CAFÉ, RESTAURANTS, SNACK CORNER, BANK, FLOWER SHOP, BAKERY, BARBERSHOP, BEAUTY SALON, BOOKSHOP, TRAVEL AGENCY, POST OFFICE, GALLERY, SHOES REPAIR SHOP, INSURANCE OFFICE, AND 24 HOURS CONVENIENT STORE**
- **HOSPITAL CAFÉ : PLACES FOR RELAXATION & MEETING AND COFFEE ODOR TO SOOTHE THE UNIQUE & UNPLEASANT FRAGRANCE OF HOSPITAL**



CAFÉ, SEOUL ST. MARY'S HOSPITAL



RESTAURANT, SEOUL ASAN MEDICAL CENTER

4. TASKS AND SUGGESTIONS FOR BETTER HOSPITAL IMAGE

- **RECONSIDERATION OF HORIZONTAL CONCEPT HOSPITAL TO ENHANCE THE SUSTAINABLE IMAGE**
- **SCALE-DOWN OF WARD & REDUCTION OF MULTI-BED ROOMS TO ENHANCE THE PATIENT-FOCUSED IMAGE**
- **REINFORCEMENT OF SAFETY, SECURITY, PATIENTS' PRIVACY & HYGIENE TO RAISE THE FUNDAMENTAL IMAGE**
- **EMPHASIS ON SALUTOGENIC APPROACHES TO THE DESIGN OF PHYSICAL ENVIRONMENT IN ADDITION TO PATHOGENIC ENDEAVORS**

5. CONCLUSION

- **STILL MOSTLY VERTICAL CONCEPT, BUT SOME ATTEMPTS OF HORIZONTAL CONCEPT WITH SUSTAINABLE IMAGE IN HOSPITAL OVERALL FORM**
- **EXPANSION OF SIZE & SCALE FOR BETTER SERVICES. VARIOUS SHAPES & IMPROVED BED-ROOM CONDITIONS IN WARD TO ENHANCE THE SERVICEABLE & BETTER IMAGE OF HOSPITALS**
- **UPGRADED INTERIOR DESIGN THROUGH DYNAMIC & COMFORTABLE ATMOSPHERE, FINISH MATERIALS, AND COLOR PROGRAMS TO ENHANCE THE ORGANIZATION IMAGE.**
- **SUGGESTIONS ABOUT TASKS AND DIRECTIONS**

THANK YOU

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