

SUSTAINABILITY REPORT 2020

CARING WITH INNOVATIONS



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President's Message



Bangkok Dusit Medical Services PLC operates comprehensive healthcare services including private hospitals and other healthcare-related businesses in Thailand and abroad.

Becoming the leader in healthcare excellence accredited under international standards as an innovative organization is our vision.

Our talented professionals are committed to create value and ensure utmost customer satisfaction according to the corporate governance and sustainability development covering the society, community and environment.

Striving toward sustainable development, BDMS focuses on sustainability risk assessment in healthcare businesses in the present and future, particularly organizational management during the COVID-19. BDMS appoints the Boards of Executives at the organizational level to drive sustainability. In recognition of this commitment, BDMS was listed on Thailand Sustainability Investment (THSI) and selected as a member of the SET THSI Index (SETTHSI) by the Stock Exchange of Thailand.

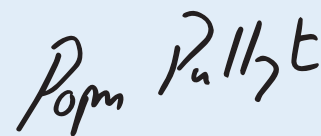
Economically, BDMS currently operates 49 hospitals and other businesses related to healthcare with more than 30,000 employees in total. The patient capacity is approximately 8,600 beds and 30,500 outpatients per day. In reverence of the service quality management, BDMS hospitals were accredited under both local and international standards such as Joint Commission International (JCI), Commission on Accreditation of Medical, Transport Systems (CAMTS) and Hospital Accreditation (HA). Moreover, according to the Personal Data Protection Act (B.E. 2562) 2019, the Company ensures its readiness to achieve Smart Hospital in collaboration with the leading innovative organizations and Startup companies worldwide.

For environment perspective, BDMS organizes training in line with the “BDMS Earth Healthcare” and appoints

the Environment of Care Committee (ECC) to launch environmental initiatives in the subsidiaries to maximize resource consumption and ensure participation in a campaign that helps reduce climate change called Care the Bear held by the Stock Exchange of Thailand.

For society and communities, BDMS fosters initiatives supporting the healthcare services to those vulnerable and underprivileged as well as training for the good health and wellbeing of the communities. Besides, BDMS launches commercial initiatives for the customers to engage in helping society through corporate businesses. With regards to human capital development, BDMS provides the training to develop both clinical and non-clinical employees on occupational health and safety using online methods in line with the social distancing principles. The Company appoints the Environment of Care Committee (ECC) to be the representatives of all employees in promoting good health and safety.

Lastly, BDMS determines to develop and expand sustainable operations worldwide. This could not have been possible without the help of all stakeholders, including shareholders, medical professionals, employees, customers and all relevant parties, for their support and collaboration to bring about the sustainable growth of the Company with the society.



Miss Poramaporn Prasarttong-Osoth, M.D.
President

BDMS Business Overview

Vision



Bangkok Dusit Medical Services Public Company Limited's vision is to become a leading tertiary healthcare service provider in Thailand. With the determination to treat the patients with high international standards together with cutting-edge medical technology, BDMS builds a team of ethical and efficient medical personnel to provide safe and successful treatment to all patients.



<https://www.bdms.co.th>

About BDMS

Bangkok Dusit Medical Services Public Company Limited has been listing on The Stock Exchange of Thailand under the symbol “BDMS” and is regarded as a healthcare service provider including private hospitals and other healthcare - related businesses in Thailand and abroad. BDMS headquarter is located at 2 Soi Soonvijai 7, New Phetchaburi Road, Bang Kapi, Bangkok 10310 Thailand.

Currently, BDMS manages 49 hospitals in Thailand and Cambodia and operates one-stop healthcare services certified by international quality standards. The services are inclusive of preventive healthcare, treatment and rehabilitation programs for both Thai and foreign customers.

BDMS has established the BDMS Centers of Excellence of the subsidiary hospitals to enhance the efficiency of the medical services in all aspects. The Hospital integrated the patient care management from world-class leading medical institutions into the current model while setting the guidelines following BDMS international standards. The Centers of Excellence is a collaborative network in the regions where the tertiary hospitals (Hub) receive severe cases which exceed the capability of the subsidiary hospitals (Spoke). This model can ensure the utmost and mutual benefits on the resources and medical personnel management.

Besides, BDMS operates other healthcare-related businesses such as medical laboratory, manufacturing of medicine and saline, pharmacy and medical supply store.

BDMS Network



Bangkok Hospital

Medical Hub of Asia Pacific, Moving towards Smart Healthcare



Samitivej Hospital

Thailand's leading hospital in comprehensive medical care, cutting-edge technology and supportive infrastructure.



BNH Hospital

Your Trustworthy Lifetime Healthcare Companion



Phyathai Hospital

Becomes a leader who creates a good health for the potential of patient well-being



Paolo Hospital

Thailand's leading hospital in providing the best treatment experience to the patients with outstanding results and innovation



Royal Bangkok Hospital

A hospital group providing healthcare services in Thailand and abroad



BDMS Wellness Clinic

Emphasizing preventive care, rehabilitation and promoting a long, healthy and fulfilling life



Chiva Transitional Care Hospital

A care facility specializes in rehabilitation services for post-operative and elderly patients



Healthcare-related Businesses

Manufacturing and distribution of saline, medicine and medical supplies as well as medical laboratories, air ambulance and other services

See further details of BDMS Businesses at <https://investor.bangkokhospital.com> and the BDMS Annual Report at <https://investor.bangkokhospital.com/th/downloads/annual-report>

BDMS Private Hospital Groups

Bangkok Hospital



Over the past 48 years, BDMS has been honored to be Thailand’s leader in healthcare services. BDMS private hospitals are trusted by Thai and foreign customers who visit for diagnosis, treatment and rehabilitation. Currently, the Bangkok Hospital group consists of 25 hospitals as follows:

- Bangkok Hospital
- Bangkok Heart Hospital
- Bangkok Cancer Hospital Wattanosoth
- Chiva Transitional Care Hospital
- Bangkok International Hospital
- Bangkok Hospital Hua Hin
- Bangkok Hospital Sanamchan
- Bangkok Hospital Phetchaburi
- Bangkok Hospital Muangraj
- Bangkok Hospital Pattaya
- Bangkok Hospital Rayong
- Bangkok Hospital Chantaburi
- Bangkok Hospital Trat
- Bangkok Hospital Chiang Mai
- Bangkok Hospital Ratchasima
- Bangkok Hospital Pakchong
- Bangkok Hospital Udon
- Bangkok Hospital Phitsanulok
- Bangkok Hospital Khon Kaen
- Bangkok Hospital Chiang Rai
- Bangkok Hospital Phuket
- Bangkok Siroj Hospital
- Bangkok Hospital Hatyai
- Bangkok Hospital Samui
- Bangkok Hospital Surat

Samitivej Hospital



Samitivej Hospital Group are a leading private hospital group in Thailand and South East Asia; its history dates back to 1979 when the first Samitivej Hospital was founded. The main office is currently located at Samitivej Sukhumvit Hospital, Sukhumvit Soi 49, Bangkok. As of now, the Samitivej group has a total of 6 hospitals:

- Samitivej Sukhumvit Hospital
- Samitivej Srinakarin Hospital
- Samitivej Sriracha Hospital
- Samitivej Thonburi Hospital
- Samitivej Chonburi Hospital
- Samitivej Chinatown Hospital

BHN Hospital



BNH is the first and oldest private hospital in Thailand, founded by the collective spirit of expatriates working in the country. With approval from H.M. King Chulalongkorn at the near end of his reign, H.M. King Chulalongkorn kindly provided supporting funds to establish the Nursing Home in 1898, marking the first establishment of the international private hospital in Thailand.

Phyathai Hospital



Phyathai Hospital was established in 1976 and currently consists of 5 hospitals with distinguished and specialized services.

- Phyathai 1 Hospital
- Phyathai 2 Hospital
- Phyathai 3 Hospital
- Phyathai Sriracha Hospital
- Phyathai Nawamin Hospital

BDMS Private Hospital Groups

Paolo Hospital



Paolo Hospital was established in 1970 and currently consists of 6 hospitals with distinguished and specialized services.

- Paolo Hospital Phaholyothin
- Paolo Hospital Samutprakarn
- Paolo Hospital Chochechai 4
- Paolo Hospital Rangsit
- Paolo Hospital Kaset
- Paolo Hospital Phrapradaeng

Local hospital

Currently consists of 4 hospitals

- Thephakon Hospital
- Sri Rayong Hospital
- Jomtien Hospital
- Dibuk Hospital

Royal Hospital



Currently consists of 2 hospitals

- Royal Angkor Pisith
- Royal Phnom Penh Hospital

BDMS Wellness Clinic



BDMS Wellness Clinic provides healthcare services emphasizing preventive care, rehabilitation and promoting a long, healthy and fulfilling life with the help of world-class medical specialists and advanced medical technology. The list of clinics are as follows:



BDMS Wellness Clinic

Regenerative Wellness Clinic



Regenerative and preventive care starting from diet, exercise and lifestyle using technology where full-body check-up is performed to detect markers for disease and provide immediate prevention.

Musculoskeletal and Rehabilitation Clinic



Restoration of physical fitness, therapy and post-operative rehabilitation.

Brain Wellness Clinic



Prevent brain abnormalities with advanced screening technology and blood test to identify markers for Alzheimer's and Parkinson's diseases at an early stage.

Preventive Cardiology Clinic



Proactive prevention on heart diseases by customized test kit designed by advanced technology and specialists to determine an efficient diet, lifestyle and exercise.

Digestive Wellness Clinic



Detect abnormalities and reduce the risk for gastrointestinal and liver disease with a comprehensive genetic screening program to identify its biomarkers.

Dental Wellness Clinic



Design your personalized smile and naturally enhance your beauty with advanced laser technology and a digital program "The Perfect Smile" operated by a team of specialized dentists from American Board of Cosmetic Dentistry.

Fertility Wellness Clinic



A consultancy service for married couples who are interested in fertility treatment, preimplantation genetic test, egg freezing or In Vitro Fertilization (IVF).

Women Wellness Clinic



Specialized and comprehensive healthcare services for women of all ages from medical check-up, lifestyle, diet, exercise, to family planning, pregnancy care and menopause.

Aesthetic Wellness Clinic



Specialized clinic devoted to rejuvenating your skin and body with innovative technology and procedure together with customized products.

Hair Wellness Clinic



Personalized hair and scalp treatment programs.

See further details of BDMS Wellness Clinic at <https://www.bdmswellness.com>

Integrated Care Center

BDMS operates Integrated Care Center and Integrated Patient Units – IPUs to facilitate patients and customers covering Outpatient Department, Inpatient Department and Clinical Care Department in the following centers and clinics:



Heart



Cancer



Bone & Spine



Brain&Neurology



Trauma



Health Check-up



Surgery



Dental Care



Mother & Child



Geriatric



(GI, Liver & Gallbladder)



International Medical Services



Internal Medicine



Recovery & Rehabilitation



Aesthetic & Anti-aging



Male Wellness



Female Wellness



Child Wellness



Chest & Respiratory System



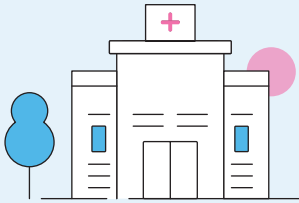
Eye & ENT



Others

(The list of BDMS centers and clinics may differ depending on the BDMS subsidiary hospitals.)

Centers of Excellence: CoE



BDMS Centers of Excellence (BDMS CoE) strives to deliver healthcare services with the highest international standards based on Joint Commission International (JCI) criteria in collaboration with leading global healthcare institutions. The principles of BDMS CoE emphasize patient care, training and continuous human resources development with leading hospitals worldwide. BDMS CoE specializes in:



Heart



Orthopedics



Trauma



Neuroscience



Cancer



Transitional Care Hospital



In affiliation with BDMS, Chiva Transitional Care Hospital was established with an objective to rehabilitate the patients after critical illness and ensure more stability before returning home. The hospital fosters to enhance the quality of life with physical and mental patient care using various physical therapy equipment while charging only reasonable fees. With continuous care and quick rehabilitation, the patients can reduce their visits to the hospital, return home and resume normal life quicker. The services are focused on the restoration of physical fitness, post-operative rehabilitation and therapy, such as after knee and hip arthroplasty, elderly patients needing rehabilitation programs and patients with cerebrovascular accident (CVA), by geriatric medical specialists, nurses and physical therapist. The hospital's highlights are as follows:



Medical Specialists

Board-certified physicians in Internal Medicine and Geriatric Medicine



Intensive Rehabilitation Programs

Intensive and continuous rehabilitation programs run by the rehabilitation medical team and physical therapists who provide physical and/or occupational therapy according to the patient's ability



Recreational Activities

Recreational activities along with occupational therapy can rehabilitate the patients' body and mind, helping them and their families to relax and prepare to resume normal lives



Home-like Environment

Conveniently enjoy the private time with family in the private rooms evoking a sense of safety and a home-like environment for the patients



Discharge Planning

Guiding the caregivers on how to look after the patients to ensure a successful transition to return home



Case Management Nurse

Enhancing the continuity of treatment from the rehabilitation at the hospital to planning patient care before returning home to follow-up after hospital discharge

BDMS Financial Performance Summary

Description	Unit	Data Collection Period			
		2017	2018	2019	2020
Number of Hospitals	Hospitals	45	46	48	49
Total Assets	Baht	122,626,691,514	133,498,750,936	133,661,737,019	136,050,251,243
Total Liabilities	Baht	56,755,577,246	60,060,678,617	46,480,113,870	44,587,551,883
Total Equity	Baht	65,871,114,268	73,438,072,319	87,181,623,149	91,462,699,360
Total Revenues	Baht	75,719,470,561	78,362,601,612	91,402,136,673	71,491,580,937
Total Operating Income*	Baht	72,772,056,772	78,288,254,198	83,773,836,160	69,057,135,111
Total Operating Expense	Baht	62,463,088,281	66,499,927,027	71,723,285,485	60,532,078,612
Total Employee Related Expenses - Salaries & Benefits	Baht	17,232,067,904	18,766,889,888	20,704,037,868	16,896,237,619
Human Capital Return on Investment - HCROI**	-	1.77	1.63	1.95	1.66

Remark

* Total Operating Income = hospital revenue + from sales of goods + other income

** Calculated by HCROI = Total Revenues – (Total Operating Expense - Total Employee Related Expenses) / Total Employee Related Expenses

BDMS Value Chain

BDMS Value Chain Process



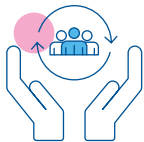
Screening

Patient screening is an effective way to determine the hospital's capability considering existing resources and prioritize emergency patients.



Admission

The admission process consists of patient management and hospital services - outpatient registration, inpatient admission according to the criteria and prioritizing healthcare needs for inpatients. The process also includes communication of ward guidelines, treatment and a hospital fee to the patients and their families.



Continuity of Care

BDMS ensures the continuity of care by certified doctors, nurses and other medical specialists throughout the service process such as emergency assistance, inpatient admission, diagnosis, treatment, outpatient treatment and other services deemed appropriate to the patients.



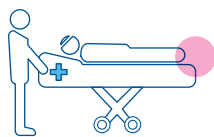
Discharge, Referral, and Follow-Up

BDMS collaborates with medical personnel and external sectors on referral or completion of treatment depending on the patient's conditions. The treatment summary must be presented to the patients at the end of treatment. Moreover, health monitoring guidelines must be well communicated to the patients, while maintaining complex medical records for the related medical personnel in case of treatment for outpatients. The hospital must also inform the guidelines for continuous patient care to the patients and families as necessary as well as manage and follow up patients who refuse medical advice or flee from the hospital.



Transfer of Patients

Transfer of patients must be safe and align with the acceptance and capability of the receiving hospitals that will continue the treatment. The patient data must also be systematically recorded.



Transportation

Patient transportation must comply with the quality and safety standards as stated in the rules and regulations of patient transportation.

Business Member and Association

BDMS becomes a member of business associations and organizations as a healthcare service provider and a company listed on The Stock Exchange of Thailand. Examples of the business associations are The Stock Exchange of Thailand, The Securities and Exchange Commission, The Thai Institute of Directors Association (IOD) and The Private Hospital Association and Medical Association of Thailand.

Awards



Outstanding Company Performance Awards

BDMS was granted the “Outstanding Company Performance Awards” for listed companies with market capitalization over THB 100,000 million category from SET Awards 2020 organized held by the Stock Exchange of Thailand and Money and Banking Magazine. This awards reflected the Company’s excellent performance in each business considering the business performance, good corporate governance and compliance to SET regulations regarding information disclosure and quality of the financial report.



Thailand Sustainability Investment (THSI) 2020

BDMS was nominated and added to SET’s list of Thailand Sustainability Investment (THSI) 2020 awards, reflecting the Company’s good corporate governance, integrated innovation for business and society, environmental responsibilities, human resources development, and responsibilities towards the community and society.



Thailand Corporate Excellence Awards 2020

BDMS was awarded the Thailand Corporate Excellence Awards 2020 in Product/Service Excellence for a company with a market capitalization of more than THB 10,000 million year category held by the Thailand Management Association (TMA) in collaboration with the Sasin Graduate Institute of Business Administration at Chulalongkorn University.



Global Health And Travel Awards 2020

BDMS won Global Health and Travel Awards 2020 :

- Watanosoth Cancer Hospital was awarded the Oncology (Medical) Service Provider of the Year in Asia Pacific
- Samitivej Sukhumvit Hospital was awarded the “Best Hospital of the Year in Thailand”
- BDMS Wellness Clinic was awarded
 - “Integrated Health and Wellness Service Provider of the Year in Asia Pacific”
 - “Regenerative Clinic of the Year Asia Pacific”
 - “Dental Clinic of the Year Asia Pacific”



Best Public Company of the year 2020 - Service

BDMS received the Best Public Company of the year 2020 - Service award from Money and Banking Magazine. Thereby it reflects the Company listed in SET with outstanding performance and excellence in business management.



Best IR in Healthcare Sector – South East Asia 2020

BDMS was awarded the Best IR in Healthcare Sector – South East Asia 2020 awards. The nominees are determined by the buy and sell-side analysts as well as portfolio managers in Thailand, Indonesia, Malaysia, Singapore and the Philippines.

See further details of BDMS Awards in the BDMS Annual Report 2020 at <https://investor.bangkokhospital.com/storage/downloads/corporate-governance/20190717-bdms-ism-policy-en.pdf>



BDMS Corporate Governance

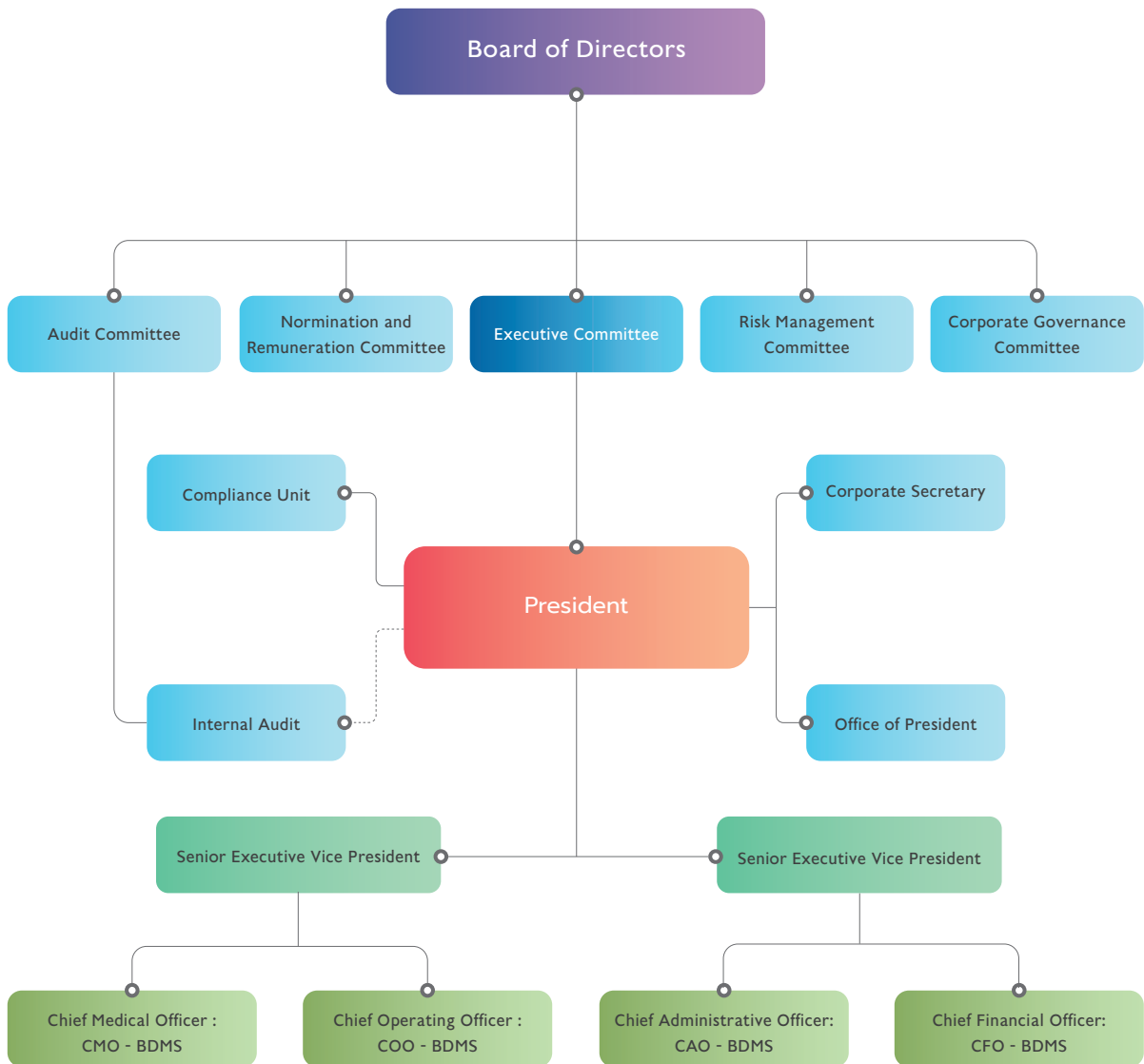
Corporate Governance

As a leading one-stop healthcare service provider, BDMS is aware of the importance of conducting business on the basis of good corporate governance and a Code of Conduct widely accepted at both the local and international levels. In the future, the Company will apply the concept of risk management throughout the value chain and supply chain to further ensure the trust of all stakeholders. With an ethical and high-potential leader, BDMS will adhere to business ethics, conduct business with transparency and consider all risks that could occur during all business activities.

The BDMS corporate governance structure consists of the Board of Directors and 5 subcommittees: Executive Committee, Risk Management Committee, Audit Committee, Nomination and Compensation Committee, and Corporate Governance Committee. Their responsibilities are to set effective and verifiable policies, internal control measures and guidelines in accordance with international standards, while ensuring compliance with policies and constant performance evaluation.

The President is responsible for ensuring that operations and corporate governance comply with the company's internal control measures and corporate governance guidelines. In addition, the President is in charge of communicating the policy and assigning the operational and corporate governance guidelines to senior executives, who will then communicate them to other executives and employees at all levels.

Corporate Structure



See further details of the Corporate Governance Structure, BDMS Corporate Governance and Performance in the BDMS Annual Report 2020 at <https://investor.bangkokhospital.com/en/downloads/annual-report>

Corporate BDMS Committee

The President approves the establishment of the Corporate BDMS Committee which is responsible for putting into effect and aligning corporate policy and management, as well as reporting performance to the President, Subcommittees and the Board of Directors respectively.

Enterprise Risk Management Committee

Manages corporate risks to the appetite level.

Standardization & Compliance Committee

Sets guidelines in accordance with the hospital's quality standards.

Sustainability Development Committee

Develops strategy for sustainability by integrating technology and innovation.

See further details of the structure and responsibilities of the Corporate BDMS Committee.



BDMS Code of Conduct

Employee Code of Conduct

The vision and mission of BDMS is to become an excellent healthcare facility accredited under international quality standards. The Company strives to be a leader in healthcare service provision with high-potential employees to provide the utmost benefits and satisfaction to customers and ensure stable corporate growth.

Consequently, BDMS Corporate Governance has been established on a foundation of sustainability, medical ethics and responsibility toward society, the community and the environment. The related policies are transparent and the reporting channels are readily available for anyone who has inquiries or complaints about policy violations.

Corporate Governance and Economic Policies / Guidelines



Code of Conduct and Whistleblower Policy



Information Disclosure Policy



Fraud Prevention and Anti-corruption Policy



Corporate Governance Policy



Non-Infringement of Intellectual Property and Copyrights Policy



Risk Management Policy



Supervision of Inside Information Usage Policy



IT Security Policy



Tax Policy

Environmental Policy / Guideline



BDMS Earth Healthcare

Social Policy / Guideline



Human Rights Policy

See further details of policies and regulations related to the business Code of Con-duct at <https://investor.bangkokhospital.com/en/corporate-governance> and in the BDMS Annual Report at <https://investor.bangkokhospital.com/en/downloads/annual-report>

Employee Policies Training

The corporate Human Resources Department is responsible for training on Employee Policies for executives and corporate at all levels. With an objective to create a corporate culture for good governance, the training emphasizes the environment, corporate governance and oversight of inside information usage. Managers and department heads must attend mandatory training covering good corporate governance for management, while all employees must join the Employee Policies training. The course outline consists of the following policies:

Fraud Prevention and Anti-corruption Policy

Guidelines on Human Rights Policy

Supervision of Inside Information Usage Policy and Corporate Information Disclosure Policy

Non-infringement of intellectual Property Rights Policy and Copyrights to comply with regulations related to intellectual property or copyrights

Employee Policies Online



BDMS employees and members of the public who are interested in Employee Policies can visit our YouTube channel.

See further details at
<https://www.youtube.com/watch?v=vvbAq6Xtn0A&t=3s>



Discipline and Code of Conduct

The BDMS Code of discipline and business ethics is a recommended practice and guideline for all employees. The violation, avoidance, defiance or negligence of corporate regulations, rules, measures and orders from management and employees at the management or professional level may, irrespective of the order, result in one or multiple disciplinary actions depending on management discretion. These could involve a verbal or written warning, unpaid suspension (no more than seven days), withholding of bonus, suspension of increment and termination of employment.



Medical Ethics

Medical Ethics

All BDMS employees must treat patients based on medical ethics.

Beneficence

Ensure the best interests of the patients

Non-maleficence

Ensure no harm to the patients

Autonomy

Patients reserve the right to know their medical status and retain control over the choice of treatment as appropriate

Justice

Ensure fairness in all diagnoses and treatments

Dignity

Treat doctors, nurses and patients with respect

Truthfulness & Honesty

Truthfully disclose medical status and its severity after considering all aspects, e.g. mental condition

Medical & Dental Staff Bylaws

The Medical Affairs Office ensures that the doctors and dentists of BDMS subsidiaries comply with Medical Council Regulations on Medical Ethics Preservation, B.E. 2549 (2006) and the BDMS Code of Conduct by enforcing the BDMS Medical and Dental Staff Bylaws.

The regulations state all related and necessary details, e.g. qualification and type of Medical Affairs Office member; appointment and extension; clinical service; appointment and responsibility of the Committee; inspection and performance evaluation of doctors and dentists; data confidentiality; and behavior. The BDMS Code of Behavior is as follows:

BDMS-Code of Conduct

Appropriate Behavior

- Respect patient rights and confidentiality
- Comply with BDMS Bylaws
- Maintain best treatment standards according to the situations and circumstances
- Be polite, empathetic, honest and respect others
- Cooperate and encourage teamwork

Inappropriate Behavior / Precaution

- Inappropriate speech or behaviors; or any degrading comments regarding patients and their families; doctors, nurses, hospital personnel and the hospital
- Criticizing hospital personnel, institutions or other organizations in front of the customers or other personnel
- Throwing instruments, charts or other items
- Sexual harassment and other forms of harassment including threats of litigation
- Inappropriate comments written in medical records regarding the hospital or the quality of treatment provided by other personnel

BDMS monitors the efficacy of medical ethics and doctors' behavior through online reports and complaints. In case of a breach of medical ethics, fact finding will determine the consequences, whether it is a verbal warning, probation or termination of employment as respectively referred to in the BDMS Bylaws.

Medical Ethics and Code of Behavior Training for Doctors and Dentists

The hospital is responsible for providing mandatory training for doctors to ensure communication and understanding of good practices and other details as stated in the BDMS Bylaws via the BDMS MSO Training and AMPOS applications. Training is also held within the hospital and at annual events such as the MAO Network. The course outline includes BDMS Bylaws, Code of Behavior and Doctor Communication.

BDMS Bylaws

Code of Behavior

Doctor Communication

In 2020, all doctors (100%) were required to attend Medical Ethics and Code of Behavior Training through online channels. This was intended to enhance the effectiveness of the tracking system and ensure 100% acknowledgment of BDMS Bylaws as well as the BDMS Code of Behavior.

Reporting Channels

The central Human Resources Management and Human Resources departments of BDMS subsidiaries have established contact channels for stakeholders. Any stakeholder can send a letter or e-mail their inquiries or concerns to the related personnel who continuously monitor reports and follow up cases. The reporting channels are also published in the Code of Conduct and the Whistleblower Policy.

Ethics Reporting Channel



Post

Send letters to:

Central Human Resources Department
 Bangkok Dusit Medical Services Public Co., Ltd.
 2 Soi Soonvijai 7, New Phetchaburi Rd.
 Bang Kapi, Bangkok 10310 Thailand



Social Media

Monitored by the Hospital



Internal channels

e.g. AMPOS, PeopleSoft or online incident reporting system

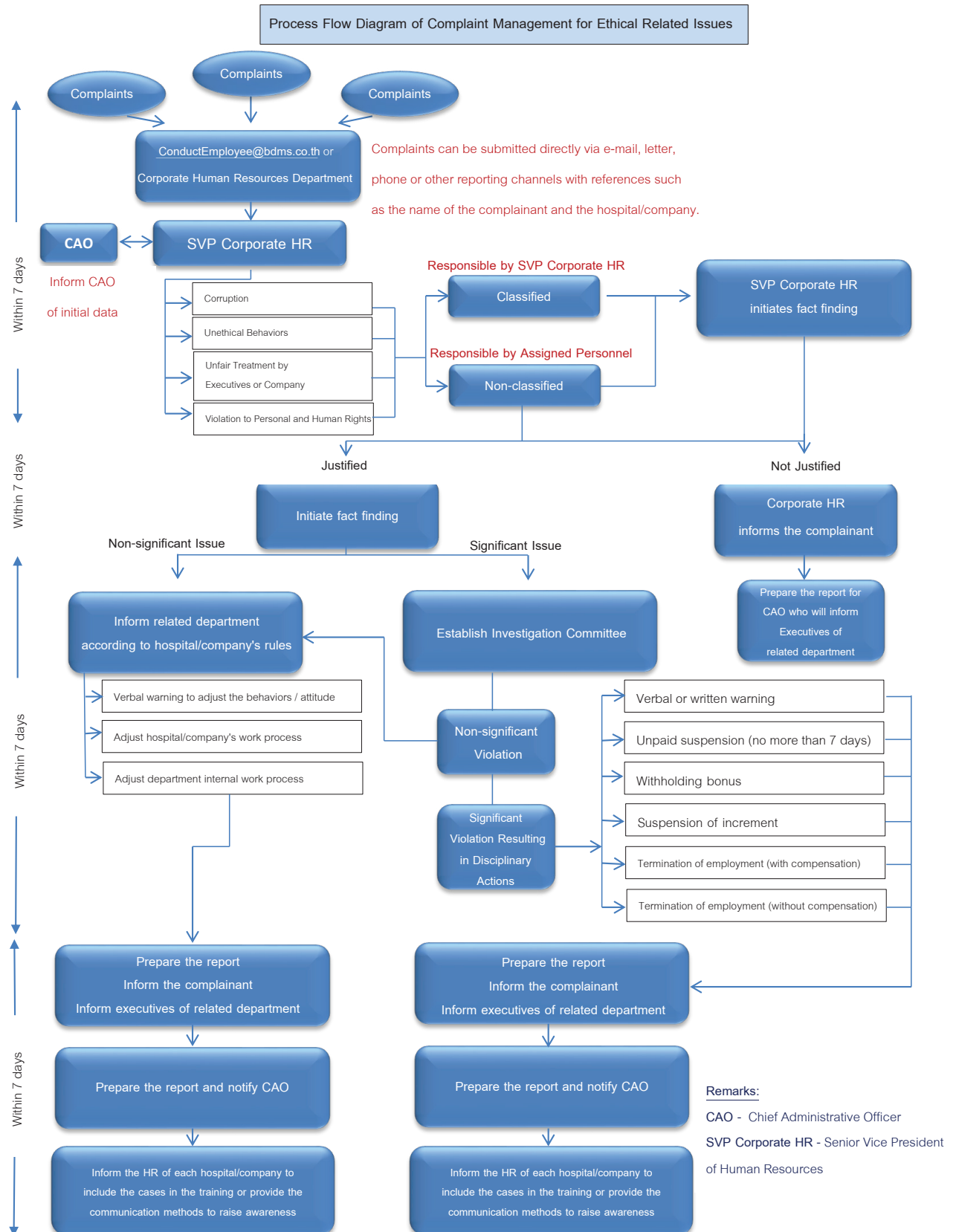


E-mail

Depending on the type of report

Type of Report	Responsible Personnel	E-mail
Violation of Code of Conduct for Employees	Highest-ranking officer in Central Human Resources Management	ConductEmployee@bdms.co.th
Violation of Code of Conduct for Executives	<ul style="list-style-type: none"> Chairman, or Chairman of the Audit Committee, or Company Secretary 	ConductDirector@bdms.co.th
Violation of Medical Professional Conduct and Ethics	<ul style="list-style-type: none"> Chief Operating Officer, or Chief of Medical Affairs, or Chief of Doctors 	ConductDoctor@bdms.co.th
Accounting Anomalies	Chairman of the Audit Committee	ConductAudit@bdms.co.th
Issues Related to Corporate Reputation and Image	President	Conduct@bdms.co.th

Procedure of Ethics-related Task Management



Examples of Ethics-related Tasks

Set up corporate reporting channels through the incident reporting system or social media. The Hospital Ethics Committee’s responsibilities toward the reporting channels are as follows:

- **Monitor and follow up performance related to the corporate ethics of all employees**
- **Review and revise ethical issues related to medical treatment**
- **Foster learning about ethics and encourage good behavior**
- **Call a bi-monthly meeting or other meetings if urgent**
- **Report performance to the Quality Management Committee**

In case of a policy breach, an investigation will be carried out within the department and the occurrence will then be reported to the Ethics Committee for evaluation. If a person is found guilty, the Human Resources Department will issue a written warning, which will be taken into consideration during the annual performance review. Disciplinary actions are determined based on the intent to commit wrongdoing, whether it is wilful or reckless misconduct, the consequences of the misconduct, severity, repetition and offering of second chance.

One year ago all reported disciplinary actions were investigated, rectified and reported on the online incident reporting system for further investigation with related personnel or the Ethics Committee. Thereafter, the results will be documented for the Human Resources Department to review with the Committee. The employees will then be called to make statements. If found guilty, the employees will be informed of the wrongdoing and the disciplinary actions.

Performance of BDMS Ethics Management

8 cases concerning BDMS ethics guidelines were reported	100% of cases concerning BDMS ethics guidelines were investigated and rectified
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Risk and Crisis Management

Risk Management

BDMS risk management is set following the corporate Risk Management Policy. The Policy comprises risk identification and assessment, guideline establishment and integrated management throughout all business operations. The risk management performance is reported to the Risk Management Committee quarterly. In addition, any emerging risks related to the medical service business in line with global trends, population structure and technologies are assessed.

BDMS Risk Management Policy

BDMS values the importance of risk management and believes that it can achieve corporate objectives and targets regarding the business performance, operations and stakeholders' trust. The Risk Management Policy consists of the following details:

The business operations must comply with the risk appetite, which must be considered before making decisions.

All employees are responsible for the risk management in the operations.

The process, guidelines and risk management measures must comply with international quality standards.

The risks must be identified, analyzed, evaluated, ranked, managed and monitored following the procedure.

The high-level risks must be reported to the Risk Management Committee, Board of Executives and Board of Directors.

(See further details for Risk Management Policy at <https://investor.bangkokhospital.com/storage/downloads/corporate-governance/20180417-bdms-cg-risk-management-en.pdf>)

Enterprise Risk Management Steering Committee

BDMS appoints the Enterprise Risk Management Steering Committee , comprising the representatives from all related departments with Chief Administrative Officer as the President. The Committee is independent of the business operations and has responsibilities as follows:

- | | | |
|--|---|--|
| <p>1. Determine and identify
the risks according to the risk domain, considering both internal and external factors</p> | <p>2. Evaluate and rank
the risk likelihood to establish efficient management measures</p> | <p>3. Establish and disseminate
the guideline, policy and strategy to all employees to reduce the occurrence and impact</p> |
| <p>4. Set guidelines to monitor, follow up and evaluate
risks and apply the internal control system as appropriate</p> | <p>5. Integrate the risk management
into critical tasks</p> | <p>6. Arrange a quarterly meeting
or as appropriate</p> |
| <p>7. Report the quarter plan and performance to the Risk Management Committee
and policy working group</p> | | |



Risk Management Procedure

BDMS sets the risk assessment and analysis procedure for clinical and critical tasks considering its likelihood and severity to determine the risk appetite and ranks the importance before making decisions that may impact the organization. The risk management procedure is as follows:

I. Risk Identification The department head and the committee responsible for critical systems are assigned to review the vital working process using the occurrence or incidence in the passing year, statistical indicators and experience from the externals to determine the potential impact. The Committees are listed as follows:

Committee of Pharmacotherapy and Blood Transfusion	Committee of Disease Prevention and Control in Hospital	Committee of Safety Occupational Health and Environment
Committee of Patient in Anesthesiology and Surgery	Committee of Medical Records Standards	Committee of Medical Information
Committee of Critical Care Standards	Committee of Disease-Specific Care	Committee of Quality Development and Clinical Safety

2. Risk Analysis



- **Impact on the organization** consists of likelihood, frequency or probability
- **Impact on the related sectors** such as

Patient & Staff Safety

Strategic & Operational

Financial

Reputation

Compliance to Laws & Regulations

- **Risk Scoring or Risk Prioritization** are considered from the probability and the impact to establish the risk assessment matrix.

Consequence	Likelihood				
	1	2	3	4	5
	Rare	Unlikely	Possible	Likely	Almost certain
5 Catastrophic	5 Moderate	10 High	15 Extream	20 Extream	25 Extream
4 Major	4 Moderate	8 High	12 High	16 Extream	20 Extream
3 Moderate	3 Low	6 Moderate	9 High	12 High	15 Extream
2 Mild	2 Low	4 Moderate	6 Moderate	8 Moderate	10 Moderate
1 Negligible	1 Low	2 Low	3 Low	4 Moderate	5 Moderate

The evaluated risks must be within the risk appetite level, such as low or moderate risk.

3. Crisis Risk Assessment

The Environment Committee is responsible for monitoring the natural hazard, technological hazards, human hazards and hazardous materials as well as reviewing the potential crisis to the hospital. The considered factors are as follows:

Probability or likelihood	Human Impact	Property Impact	
Business Impact	Preparedness	Internal & External Resources Status	Risk Relative Threat Score

4. Risk management

The risk management plan or projects are established to prevent or lessen the risk level according to its priority. The responsible personnel is appointed to report and present the plan and projects to the Boards of Executives for suggestions and supporting resources.

5. Risk Management Execution

The risk assessment plan and related policies must be disseminated and updated to related personnel. The project indicators must be quarterly reported to the supervisors or the related Committees.

6. Performance Review

The Director of Medical Quality and Innovation, as the highest executive, is responsible for monitoring and assessing the risk management performance. The project performance must be reviewed and summarized to the supervisors or related Committees accordingly.

(See further details of the risk management and factors in the BDMS annual report 2020 at <https://investor.bangkokhospital.com/en/downloads/annual-report>)

Risk Factors Analysis

Referring to the risk factor analysis in 2020, BDMS categorized the risks from the business operations with the details as follows:

Clinical Risk & Quality

Operational Risk

Human Capital Risk

Financial Risk

Technological Risk

Regulatory & Legal Risk

Hazard Risk



Example of Risk Management regarding Infection

BDMS recognizes the importance of risk assessment on business operations, especially on patient safety. The Company, therefore, ensures that all subsidiary hospitals assess and evaluate the risks to prevent and control common diseases such as upper respiratory tract infection, acute gastroenteritis, conjunctivitis and influenza. The criteria details are as follows:

Geographic Location	Community & Endemic Disease	Patient Demographics	High Risk Patient & Procedure
High Volume of Patient	Occupational Health Related Infectious Disease	New Services	High Risk Equipment or Devices
Disinfection & Sterilization	Healthcare Environmental & Facility	Food Safety	Emerging Disease Preparedness



BDMS - Occurrence Reporting

BDMS has established the occurrence reporting system for employees and related internal and external personnel in case of any risk or incidence in the operating areas. Any incidents during the business operations must be immediately reported within 18 hours after the incidence through online or regular channels for investigation and data analysis on the impact. The reporting is categorized into clinical impact as follows:

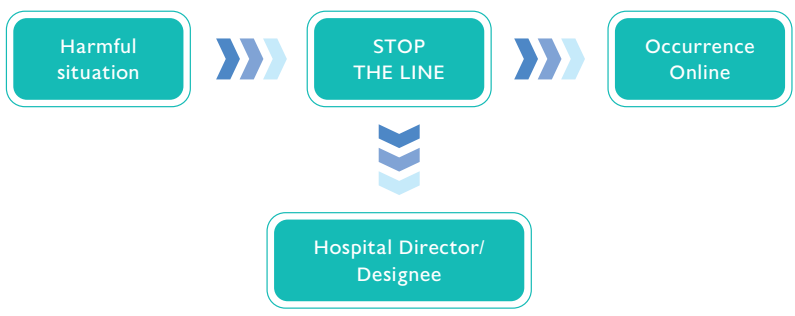
Level	Clinical Impact
0	Near miss
1	No Harm
2	Mild Adverse Event
3	Moderate Adverse Event
4	Serious Adverse Event
5	Utmost Greatest Serious Adverse Event

Different level of occurrence report results in different impact and investigation methods. The occurrence report will be monthly and quarterly presented to the executives.

STOP THE LINE

Workflow

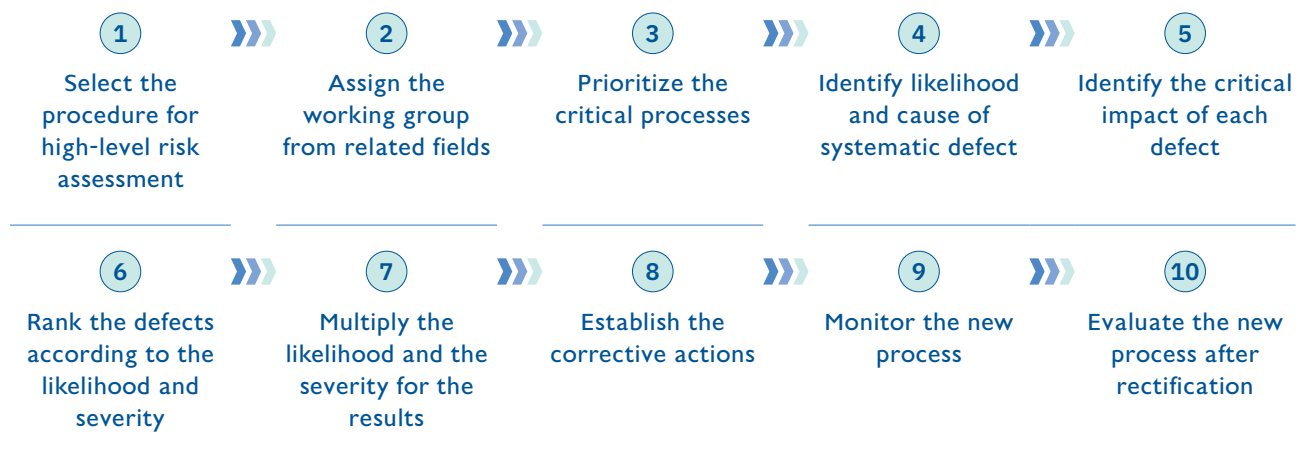
STOP THE LINE FLOW



BDMS supports the risk management culture throughout the organization and encourages all personnel participation during the operation. STOP THE LINE is established in case any personnel identifies the risks and danger, such as a verbal notification to suspend the treatment from the doctors or nurses to assess the patient safety and adapt an appropriate treatment after a risk assessment. Such occurrences must then be reported afterward. The person who raises STOP THE LINE will be supported and protected in all cases to encourage the safety culture in the organization and the patient safety.

Risk Assessment in BDMS New Product and Service Development Process

BDMS evaluates and assesses the potential risks and issues in the new product and service development process using Failure Mode and Effects Analysis (FMEA). The analysis commences from the fundamental of the process operated by the personnel in related fields. The representatives of Quality Centre are responsible for efficiently analyzing the potential defaults and impact as well as monitoring the outcome for at least 4 consecutive months. The report must be quarterly submitted to the related Committee with the following steps:



Risk Management Training



BDMS continuously organizes the training to ensure employee's understanding of risk management. In 2020, BDMS Clinical Risk & Claim Process training was held to educate on the policies, clinical risks, medical malpractice, the importance of insurance and the professional liability insurance and insurance claim policy. This aims to improve patient care and ensure the practices are aligned.

Moreover, BDMS provides the training on other risk factors by considering the risk assessment results from the occurrence report and collaborates with the related stakeholders such as:

- Clinical sympathy development training for doctors
- Annual meeting on the corporate overview of risks and patient safety
- Panel discussion for BDMS RM Executive on communication and experience exchange related to the risks

Risk Management Training for Continuous Development

BDMS determines to stabilize the fundamental of corporate risk management and constantly fosters the development of risk cultures. Consequently, BDMS will organize the risk assessment training in the following year in 3 categories following the risk assessment analysis in 2020 as follows:

Medical Personnel
Communication

Regulations

Emotional Intelligence and
Relationship Management



Emerging Risk Management

Emerging Risk	BDMS Response Plan
<p>Medical Tourism</p> <p>Medical tourism is an industry that supports economic expansion according to the National Economic and Social Development Plan of becoming a medical hub (2013-2023) which is reflecting continuous growth. However, COVID-19 and lockdown measures decrease Thailand's economic growth and create a new normal in transportation.</p> <p>As a result, healthcare operators prepare the response plan as follows:</p> <ul style="list-style-type: none"> • Collaborate between the public and private sectors to facilitate entry to the country under such high-risk circumstances while ensuring the utmost safety. • Create a flexible service process using technology and innovation such as Telehealth to ensure efficient communication between the service providers and customers. • Provide the preventive measures and build trust in the customers during the emerging disease with no vaccination. • Organize quality training covering medical and general services and cultural awareness to meet the expectation of health tourists. • Register the intellectual property in patent, petty patent or trademark to prevent the risk of imitation, especially in alternative medicine, massage and herbal medicine, which is the local identity. 	<ul style="list-style-type: none"> • Collaborate with medical partners in Thailand and abroad to build trust in the healthcare competency. • Appoint Mövenpick BDMS Wellness Resort as an Alternative State Quarantine and collaborate with the subsidiary hospitals, Ministry of Defence and Ministry of Health in establishing the guidelines and supporting the disease prevention for the companions and relatives of the patients. • Ensure compliance of the subsidiary hospitals on the Hospital State Quarantine as stated in the conditions and regulations by the government. • Establish a Medivac Center to provide comprehensive services to facilitate the patient transfer on land, water and air using BDMS or partner transportation. • Provide the interpreters covering all 49 languages for patient transfer within the country, to/from abroad and from airport-hotel-hospital. • Provide support services such as visa coordination, restaurant or stores for customers with special requirements - Halal restaurants, prayer room and accommodation for the patients' relatives. • Ensure the subsidiary hospitals comply with the quality and safety standards of Joint Commission International (JCI). • Establish a comprehensive preventive medical center, BDMS Wellness Clinic, in the center of Bangkok to ensure services accessible for all customers. Ensure the customer's sound health and mind with technology and qualified doctor's expertise in preventive healthcare by performing health checkup to identify risks of disease and support no-drug treatment such as exercise.

Emerging Risk	BDMS Response Plan
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Patient Information Privacy & Security

Healthcare facilities are required to systematically maintain the patient information and their treatment records such as private information, medicines, drug allergy or side effects from the treatment. The hospital must establish a management system and strictly store the information to prevent increasing piracy and prevent the legal risks of information leaks.



- Establish a transitional care hospital named Chiva Transitional Care for patients with more stable conditions. Patients arriving from overseas will be treated under the hospital standards with reasonable charges until the follow-up process.

- Establish specialized hospitals such as Wattanosoth Cancer Hospital, Bangkok Heart Hospital and Bangkok International Hospital for patients with arthritis and bones disease.

- Expand the BDMS Center of Excellence to accommodate the patient transfer in tourist destinations.

- Establish the Information Security Management Policy

(see further details at <https://investor.bangkokhospital.com/storage/downloads/corporate-governance/20190717-bdms-ism-policy-en.pdf>)

- Set policy and guideline for information accessibility and confidentiality.

- Support all subsidiary hospitals and companies to be certified by the information security management standards (ISO/IEC 27001: 2013).

- Include patient information security and privacy in the corporate risk assessment.

- Disseminate the knowledge and raise the awareness in the information management and patient confidentiality to the medical and other personnel.

- Appoint the Data Protection Officer to suggest and inspect the patient information following the corporate policies.

Crisis Management

BDMS sets up the guidelines and assigns responsible personnel for crisis management such as an emergency, pandemic or natural disaster according to the corporate quality and safety standards. The guidelines are to ascertain an efficient and systematic response plan to the crisis. BDMS collaborates with the stakeholders to establish the guidelines for crisis management considering both internal and external factors of the organization and prepares response plans for all scenarios.

Responsibilities in Crisis Management

Executive Committee

Review the policy and crisis management plan from the Environment of Care Committee (ECC) and Quality Management Committee (QMC) for budget approval in case of a crisis.

Joint Executive Committee - JEXCO

Organize a quarterly meeting to review the patient safety and quality management according to the current regulations and hospital's plan.

Hospital Executive Committee - HEC

HEC Review the crisis management plan from the Environment of Care Committee (ECC) and provide suggestions.

Human Resources Departments

Organize orientation and training. Maintain employee and contractor training records related to the crisis management plan.

Head of Departments

Raise awareness and follow the crisis management plan such as the establishment of guidelines, orientation and training. Follow up the training attendance of the employees in the department.

Environment of Care Committee - ECC

Support the crisis management plan covering a continuous plan development and quarter and annual crisis trend evaluation. Set out the policy and guideline and report the performance to the Environment of Care Committee (ECC) and Quality Management Committee (QMC).

Individual Staff Members & Contractors

Attend crisis management training to understand the related responsibilities and follow the guidelines. Report the occurrences to the Quality and Patient Safety Department, Safety Occupational Health and Environment Department for analysis.

Crisis Management Plan

<p>Code 1</p> <p>Infant and child abduction prevention</p>	<p>Code 2</p> <p>Natural disaster</p>	<p>Code 3</p> <p>Patient management for mass casualty incident</p>
<p>Code 4</p> <p>Power outage in hospital</p>	<p>Code 5</p> <p>Firefighting and prevention</p>	<p>Code 6</p> <p>Injury sustained by falls</p>
<p>Code 7</p> <p>Computer systems malfunction</p>	<p>Code 8</p> <p>Cardiopulmonary Resuscitation</p>	<p>Code 9</p> <p>Threats or critical crisis</p>

Risk Management Monitoring

Continuous follow-up

The Environment of Care Committee (ECC) organizes a meeting at least monthly to follow up the risk management and related factors and presents the minutes of meeting to the Quality Management Committee (QMC) for further discussion and provision of measures.

Annual Performance Review

The Quality Management Committee (QMC) reviews and approves the annual performance of the risk management, referring to the policy and guideline, occurrence report and minutes of meeting on safety, environment, occupational health and safety. Other related factors are observations from the auditors or external consultants. The performance is then presented to the Hospital Executive Committee (HEC) to determine the operational target in the following year.

Crisis Management Performance

100

of crisis management plan testing compared with the target of no less than 90%

100

of After Action Review (AAR) to follow up compared with the target of 100%

Crisis Management during COVID-19

In 2020, COVID-19 impacted the business operations of existing and upcoming BDMS registered companies. Consequently, BDMS was required to expedite the education and establish measures to counter the impact, resulting from the pandemic. BDMS determines to display its efficiency and immediate response plan to lessen the impact, assist the stakeholders and establish a recovery plan to restore normal operations as soon as possible.

BDMS Immediate Response Plan to COVID-19

BDMS evaluated the operational impact at the beginning of COVID-19 and set out preventive measures to cope with the pandemic. The financial and human resource measure was as well established to ensure an immediate response plan with the details as follow:

Preventive measures to cope with the pandemic

Appoint the Committee to encounter the pandemic and organize an online meeting to ensure social distancing, set out the guidelines on monitoring and follow-up of measure for infected patients.

Review the response plan for the emerging disease and ensure the readiness on the quantity of the medicine, negative pressure room, isolation rooms and ventilator in the subsidiary hospitals in Thailand.

Adapt a leased shipping container into a clinic to provide swab tests for patients with suspected COVID-19 or Acute Respiratory Infection (ARI). Separate the patients with suspected COVID-19 or high-risk groups.

Ensure the cleanliness of the common touchpoints such as elevator switches, stair rails, sofa and toilets. Provide hand sanitizer at the service points in the hospital.

Foster social distancing such as limiting the number of passengers on the elevator and distancing the seats in the waiting areas.

Implement Healthy Bot to deliver meals to the patient during hospital quarantine and utilize the online communication device between the patients and their relatives.

Financial Management

Deduct and combine service areas such as limiting the areas for outpatients, adjusting the service areas and closing unused areas.

Revise the doctor's schedule according to the number of patients to ensure efficiency. Maintain existing standards such as 24-hour on-call doctors in case of emergency.

Efficiently manage the manpower and leave days. Reduce part-time employees and postpone the recruitment.

Negotiate with partners such as cleaning, security, valet parking and telephone services to deduct the fee according to the reduced amount of work.

Coordinate with the government sector to defer payment following the government policy such as fee exemption for lease areas in Suvarnabhumi Airport and traffic sign.

Defer budget spending except for patient safety or to bring in more revenue.

Employee Support

Disseminate the disease preventive measures, report the news about the disease and inform the guidelines for inpatient or suspected infected patient care to all doctors and employees.

Assist the doctors and the personnel working with the patients or risk of infection by providing a complimentary swab test and personal protective equipment (PPE) during the operations. Source the accommodations to reduce the risk of infection to the family members.

Provide a discounted fee for COVID-19 insurance to doctors and personnel working with the patients or in the high-risk environment.

Daily report any symptoms or fever through the My Space application to ensure good health and immediate disease detection.

Establish a hotline number 1030 to provide consultancy services regarding COVID-19, operated by Infection Control nurses (IC).

Assign the employee of no direct contact with the patients to work from home according to the government policy to reduce the risk of infection.

Crisis Management during COVID-19

Communication

Communicate with the stakeholders through social media such as Facebook or Podcast to provide information on preventive measures of the hospitals and discuss the change to the operations to build trust in the customers and shareholders while ensuring direct information the customers.

Adaptation

Adapt the business by providing the delivery service for medicine, vaccination and a blood test to the patients at home (Bangkok Hospital Delivery). Provide consultancy services through an online platform to facilitate the patients and establish related projects such as a discount on room or diagnostic fee.

Collaboration

Collaborate with Mövenpick BDMS Wellness Resort in Alternative State Quarantine (ASQ) and become a medical hub (Alternative Hospital Quarantine: AHQ) after the government policy on opening the border.

Mitigation Plan for BDMS Stakeholders during COVID-19

BDMS evaluates and manages the mitigation plan for the internal and external stakeholders with the details as follows:

Employees

Provide sufficient masks, hand sanitizers and other personal protective equipment.

Assign the checkpoints for those with suspected COVID-19 and limit access to the hospital.

Exercise social distancing such as limiting the number of passengers on the elevator, distancing the seats in the canteen and closing the gym and children's daycare.

Establish market areas and e-commerce and deliver the medicine to the patient's houses (B+Bike) to provide extra income to the employees.

Establish training courses on financial management during COVID-19 and enable requesting of financial aid through the Human Resource Department.

Provide the psychological services for consultancy and remedy for mental health problems and stress through the Friend Clinic by calling the hotline 2244.

<p>Suppliers</p>	<p>Customers</p>	
<p>Provide the training on the preventive measures to the contractors working in the hospitals.</p>	<p>Establish projects such as 100-Baht ambulance and discount on the rental fee and diagnostic fee with special medical equipment.</p>	<p>Implement Bangkok Hospital Delivery to reduce trips to the hospital, lessen the exposure to disease and facilitate the patients, including fee exemption for leased areas in the hospital for 3 months.</p>
<p>Shareholders</p>		<p>Community & Society</p>
<p>Establish the guidelines for the annual meeting attendance by limiting the participants and setting out measures such as checkpoint.</p>	<p>Limit the seating in the meeting room to reduce touchpoints and establish a communication system and support the shareholder to provide the power of attorney for the independent director to attend the meeting.</p>	<p>Provide knowledge on disease preventive measures in the hospitals and business adaptation plan through social media. Give away the fabric masks for the police and communities in the areas. Organize training on the disease preventive measures and equipment cleaning instructions for the hotel staff in the surrounding areas.</p>

Recovery Plan after COVID-19

BDMS estimates that the turnover and customers will return to normal about 1-2 years or after the COVID-19 vaccination. The recovery plan after COVID-19 is as follows:

<p>Revise target and short-term operational plan</p>	<p>Assign and prioritize</p>	<p>Understand and analyze the new normal</p>
<p>particularly in 2020 and 2021 such as increasing the customers in insurance services, occupational medicine and primary healthcare to become the medical hub and ensure expedited services to reduce visit time at the hospital.</p>	<p>the tasks which require improvement for immediate recoveries, such as efficient manpower management, skill development to ensure the customer’s utmost satisfaction, convenience, and reduced visit time of the patients in the hospital.</p>	<p>of the emerging industries resulting from the social distance. The hospitals will utilize the technology to manage and facilitate the customers to ensure less time spent in the hospitals and promote preventive healthcare such as vaccination and health promotion which is predicted to become a popular trend in the future.</p>

Supply Chain Sustainability

As a leader in medical care and a supporter of the government's policy on transforming Thailand into a medical hub, BDMS sets a supply chain management for a safe product and service delivery to the customers. BDMS enforces a procurement policy and sustainability risk management throughout the supply chain. This is to ensure procurement process transparency following international standards and regulations related to product and service quality. As a result, BDMS is able to prevent environmental and societal risks while effectively build customer relationships.

Supply Chain Management

BDMS subsidiary company called National Healthcare Systems Co., Ltd. (N Health) and the Procurement Department of the Hospital are responsible for the procurement of medical and non-medical products and services for BDMS group businesses and other supporting businesses.



National Healthcare Systems Co., Ltd. (N Health)



With more than 50 branches all over Thailand and abroad, N Health provides medical support to the hospitals with the help of multiple specialists such as doctors, pharmacists, medical technologists, nurses, logistics specialists and innovators. N Health aims to respond to every client’s specific needs under international standards. N Health services are as follows:

Laboratory Services

Comprehensive laboratory services from primary to complex test for disease diagnosis or detection in the clinical, biomolecular, pathology, anti-aging and occupational medicine laboratory.

Sterile Processing

Comprehensive sterile processing with chemical and biological quality assessment certified by international quality standards and a barcoded inventory system for accuracy and tracking.

Linen Management

Comprehensive linen management covering laundry services and fresh linen delivery to the ward with advanced technology which helps reduce investment and linen loss.

Engineering Services

Internationally certified engineering services from management to calibration to maintenance of medical equipment and device in the hospitals, surgery centers, specialist institutions, clinics, laboratories and nursing homes.

Medical Equipment

Provider of variety of medical device and equipment to meet the different needs of each hospital, caregivers and patients such as patient bed, Automated external defibrillator (AED), medical measuring instruments and homecare medical equipment with an additional of comprehensive after-sales services.

Healthcare Supply Chain Management

A full range of healthcare supply chain management - procurement services, warehouse and inventory management and logistics management.

(See further details at <https://www.nhealth-asia.com>)

N Health - Healthcare Supply Chain Management

Procurement Services

Procurement of medicine, medical supplies, medical equipment, constructions, products and services with e-sourcing and e-procurement operated by experienced personnel trained and certified by procurement standards of the professional association.

Warehouse

A full range of warehouse services managed by information technology systems can help reduce the cost of logistics, cost of storage space and inventory cost with the easily accessible location to ensure the response to client's need in a timely manner.

Inventory Management

Inventory management service including purchasing planning, inventory control and distribution of pharmaceutical drugs, medical supplies and medical devices by teams of experienced pharmacists for hospitals to dispense medicine to customers with high-quality services consistent with patient safety goals.

Logistics Management

Internal and external logistics management of the hospitals including designing and optimizing transportation routing and delivery of medicine, medical supplies, specimens, blood products and document using an application called Mobile Transporter which enable traceability and accurate services.

N Health Supplier Products and Services



Medicine



Medical Supply



Medical Equipment



General Supply



Information Technology



Service



Construction

Remark: No changes to the type of products and services from the suppliers, structure and supply chain management to the BDMS group in 2020

Procurement Policy and Supplier Code of Conduct

N Health and the Procurement Department of the subsidiary hospitals are in charge of procurement following the procurement policy and inform all suppliers of the Supplier Code of Conduct. This aims to ensure support and collaboration with the suppliers in accordance with the sustainable procurement process throughout the supply chain.

BDMS Procurement Policy

The Procurement Policy has been established to ascertain the integrity and confidentiality in the procurement process in conformity with the regulations as well as to enhance its efficiency and quality while promoting Green Procurement. N Health and Procurement Department of the Subsidiary hospitals' responsibilities are as follows:

Supplier Selection

conducted by the Integrated Buying team comprising of N Health users, procurement officers and experts in the related products and services through competitive bidding by Value Analysis.

New Suppliers

registered on Approved Vendor List (AVL), regularly revised and updated.

Green Procurement

promote environmental conservation and ensure efficient resource consumption in the production and services.

Evaluation

use Supplier Performance Management System (SPM) to ensure the comprehensiveness of the services and reduce risks while encouraging evaluation and follow-up on the operations.



BDMS - Supplier Code of Conduct

BDMS enforces the Supplier Code of Conduct to ensure sustainable procurement process and development throughout BDMS supply chain including the code of conduct on the economy, society, environment and corporate governance with the details as follows:



Business Ethics

All suppliers shall conform to the related laws and regulations while preventing corruption, trade barriers, and conflict of interest. The suppliers shall as well maintain confidentiality and intellectual property.



Labor Practice and Human Rights

All suppliers shall conform to the labor laws concerning the employment conditions, child labor and employer of pregnant and migrant workers referring to international human rights while preventing discrimination and forced labor.



Occupational Health and Safety

All suppliers shall conform to the occupational health and safety regulations by providing a safe working environment and appropriate personal protective equipment.



Environment

All suppliers shall conform to the regulations and standards on environmental management concerning the manufacture, storage and delivery of the products and services while ensuring efficient and eco-friendly resource consumption.



Social Development Participation

For sustainability at the local and national levels, all suppliers shall encourage business operations with social responsibility, respect to local cultures, quality of life improvement and support product and service procurement from local suppliers.



Supplier Code of Conduct

To improve the sustainable procurement process and demonstrate continuous development in compliance with the Supplier Code of Conduct, all suppliers shall inform their stakeholders of BDMS Supplier Code of Conduct and establish their own Supplier Code of Conduct.

Those who violate the Supplier Code of Conduct or render effects to the BDMS Group operations shall be considered revoked from the Approved Vendor List.

(See further details of the Supplier Code of Conduct at <http://partnership.nhealth-asia.com/Home/DownloadSupplierCodeConduct>)

Contact Channels for Complaints, Reports of Wrongdoing, or Feedback on the Supplier Code of Conduct

The Supplier Code of Conduct identifies the rights of all suppliers to inquire, report wrongdoings or complain about any violation of regulations, business ethics and corporate governance policy. Please submit the reports via the following channels:

Post
 by sending letters to
the Audit Committee
(Quality Department)
 at National Healthcare
 Systems Co., Ltd.
 2301/2 New Phetburi
 Road, Bangkapi
 Sub-district, Huai Khwang
 District, Bangkok 10310

E-Mail

 NPS.Digital@
 nhealth-asia.com

Phone Number

 02-762-4000

Website

<http://nqms.nhealth-asia.com/Systems/HOME.aspx?type=CustomerFeedBack&portal=Y>

Sustainable Supply Chain Management

BDMS devises a strategy and guidelines for sustainable supply chain management with BDMS suppliers covering the Approved Vendor List and sustainability risk assessment, especially for the critical suppliers identified and included in the performance development plan to ensure sustainability throughout the supply chain.

Supply Chain Management Strategy

	Risk management and Supplier Sustainability Development	Transition to Digital Supply Chain	Effective Cost Control
Strategy	Managing supplier’s sustainability risks following the Supplier Code of Conduct and monitor the performance through assessment and collaborative projects.	Adopting the e-procurement to improve the operation’s efficiency and data analysis to maintain a competitive advantage.	Ensuring effective cost control throughout the product and service procurement of all businesses.
Key Performance Indicator	Signing acknowledgment and complying with the BDMS Supplier Code of Conduct.	Implementing Paperless PO	Presenting the performance on cost-saving of products and services.

Identifying Critical Suppliers

BDMS identifies critical suppliers considering the essentiality of products and services, supplier characteristics and spending volumes. Thereafter, BDMS will assess the risks and set further development projects to improve the capability.

Supplier Characteristic



Strategy Level

Suppliers with significant or necessary products or services required in a long-term period such as medical equipment that poses risks to the patients.



Critical Level

Suppliers with necessary and specific products and services to the patient care such as medicine and medical supplies.



Important Level

Suppliers with products and services supporting the operations of the medical personnel such as information technology and construction.

Sustainability Criteria in Supplier Evaluation

BDMS acquires products and services from new and existing suppliers registered in the Approved Vendor List (AVL). All suppliers must undergo competitive bidding and evaluation following the sustainability criteria and Supplier Code of Conduct which is continuously monitored.

Supplier Evaluation Criteria

Quality

Certified by manufacturing and related standards such as GMP, PIC/S, ISO9001, ISO13485, TIS or CE Mark

Corporate Governance

Conform to rules and regulations, ensure no disclosure without consent and implement Supplier Code of Conduct for a sustainable procurement.

Society

Comply with the labor laws and human rights as well as certified by safety standards such as ISO18001 or ISO45001.

Environment

Enforce Environmental Policy to lessen the environmental effects and certified by other environmental standards such as ISO14001 or Green Procurement.

Target and Follow-up Plan for Supplier Evaluation on Sustainability

Score above 80%

Target achieved. BDMS will follow up on the performance at least once a year.

Score between 60-80%

Evaluation results and feedback will be reported in writing to improve the operations. BDMS will follow up on the performance once a year.

Score below 60%

Evaluation results will be reported in writing. The supplier registration will be rejected for new suppliers or withdrawn for the existing suppliers.

* In 2020, BDMS evaluated only new and critical suppliers. BDMS will extend the evaluation criteria to all suppliers in 2021.

BDMS Supply Chain Management Overview 2020

5,900 suppliers

of BDMS for product and service procurement

18,727.97 million baht

A total value of all product and service procurement

440 new suppliers

were registered on the Approved Vendor List (AVL)

1,038 critical suppliers

or 17.59% of all direct suppliers

100%

of new suppliers are qualified with the sustainability criteria on quality, environment and safety

88.43%

of total procurement are from the critical suppliers

100%

of critical suppliers undergone the evaluation on sustainability criteria

33 suppliers

were identified with high sustainable risks (3.18% of all critical suppliers)

100%

of critical suppliers who were identified with high sustainable risks provided a corrective action plan

* Only N Health procurement

Collaborative Projects for Sustainable Development

Zero Downtime – Improvement on Medical Engineering



N Health joined GE Healthcare Thailand, manufacturer and distributor of medical equipment, in establishing the project called Zero Downtime to improve medical engineering, particularly in maintenance services in the hospitals, and ensure preparation for the increasing demand in test and issuance of the Fit-to-Fly health certificate for the tourists.

Zero Downtime offers the Enhancing Healthcare Imaging Service training that targets to collect more duty hours to improve the proficiency of the medical engineers in BDMS hospitals. The training enables them to analyze the data in case of malfunctions occurred in the medical equipment support team and sharpen their basic maintenance skills. The project helps reduce maintenance costs, lessens the risks to the person with low experience with the equipment, improves the downtime affecting the continuity of treatment and relieves the lack of skilled personnel. All of which is to ensure the utmost benefits to the patients.

Nowadays, N Health implements Zero Downtime to subsidiary hospitals such as Bangkok Hospital Headquarter, Bangkok Hospital Chiang Mai, Bangkok Hospital Phitsanulok and Bangkok Hospital Khonkaen.



Transform Purchase Order Process with E-Procurement

In 2020, N Health integrated the Electronic Data Interchange (EDI) system into the purchase order process, shifting the document management from SAP to the Middle Ware of the pilot suppliers. This project enables the transformation of the document management such as purchase order, invoice, quotation and price/sales catalogue to the online platform following the international standards.

E-Procurement can reduce resource consumption, especially paper, and save up to 1.89 million Baht in 2020 and 2.2 million Baht in 2019. Moreover, E-Procurement helps improve the staff’s proficiency to work on more valuable tasks than the repetitive paper works. Digital technology also enhances work efficiency in highly competitive businesses and lessens the time spent on repeated data registration due to errors from the previous document management system.

Laundry Partnership Development – Joining Hands with Suppliers for Safety in Laundry Services

In 2020, N Health in collaboration with the suppliers of laundry services, launched the Laundry Partnership Development to pass on the knowledge and provide advice and consultancy services regarding the guidelines for prevention and control of transmission of infectious disease; and occupational health and safety for more than 1,074 of staffs working in 17 laundry facilities.

The project advises on analysis of the issues reported by customers, enabling them to find the root causes and corrective actions to improve the quality of the services. All laundry staff who attended the training now have a good understanding of prevention and control of infectious disease transmission; and occupational health and safety. Efficient laundry management can eliminate threats and reduce risks or damage to the business while supporting the continuous growth of the healthcare industry. The customers are also less exposed to contamination from the laundry staff. The project also prepares us for a new wave of COVID-19 and helps monitor the system and work process in the laundry facilities of N Health suppliers.

After the session, the laundry staffs become more experienced and proficient according to international standards. They possess skills and the capability to understand prevention and control of transmission of infectious disease; and occupational health and safety while ensuring a systematic and verifiable service quality control.



BDMS Sustainability Development

BDMS Sustainability Development Policy

BDMS has established a Sustainability Development Policy to set out the organizational management guidelines in accordance with sustainability. This aims to ensure cooperation with all stakeholders, maintain the balance and control the economic, social and environmental impact. The Policy as well indicates the responsibilities of the Board of Directors and the employees at the operational and management level to drive the organization.

Sustainability Management Governance

Board of Directors

Review sustainability policy and management guidelines covering stakeholder engagement and material sustainability topics.

President

Report sustainability performance to the Board of Directors and communicate suggestions and guidelines on sustainability management from the Board of Directors.

Corporate Sustainability Development Committee

Support the operations following the sustainability policy and guidelines, report the sustainability performance to the President and update the operation's progress to stakeholders.

BDMS CSD Department and Sustainability Development Committee

from each Business Group Develop and support the management system with integrated technology and innovation and prepare the sustainability report for the Corporate Sustainability Development Committee.

Employees

Acknowledge and comply with the sustainability policy and guidelines.

(See further details in BDMS Sustainability Development Policy at <https://investor.bangkokhospital.com/storage/downloads/corporate-governance/20200409-bdms-sustainability-development-policy-en.pdf>)

Development Guidelines for BDMS Sustainability

Stakeholder Engagement throughout Value Chain

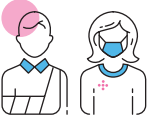

Identification and Assessment of Sustainability Material Topics

Response and Management of Sustainability Material Topics

Public Relations on Sustainability Performance

Stakeholder Engagement

To ensure completeness throughout the value chain, BDMS reviews the current stakeholders’ list against those of international healthcare organizations. Stakeholders are categorized into major groups including high-priority and others. Categorization criteria are based on the level of dependence, the impact from business activities, and influence on the business. The details on the stakeholder engagement are as follows:

Major Stakeholders*	Stakeholder Engagement Process	Suggestion / Expectation / Concern	BDMS Response Process
 <p>Patient & Customers</p>	<ul style="list-style-type: none"> • Contact Call Center 1719 • Prepare service satisfaction surveys to ensure the direct response to demands 	<ul style="list-style-type: none"> • Satisfaction towards the high-quality services • Privacy security • Communication channels to facilitate the customers 	<ul style="list-style-type: none"> • Assign the customer service department • Provide complimentary health training • Establish projects to improve customer satisfaction • Improve employees’ capabilities in service provision and language to create impressive service
 <p>Employee, Doctor & Dentist</p>	<ul style="list-style-type: none"> • Perform the engagement survey of all staff once a year • Organize the monthly Staff Meet CEO • Create Line group and communicate through the applications of the organization • Appoint the Welfare Committee as employee representatives • Constantly carry out focus group discussion for doctors and dentists • Arrange online treatment channels such as Tele-Medicine and Tele-consultation 	<ul style="list-style-type: none"> • Acknowledge and understand the employee needs through the contact channels • Acknowledge feedback, demands and suggestions • Publish crucial organizational information to all employees • Improve capabilities and promote learning • Enhance employee engagement • Support a culture of compliments and encouragement • Provide compensation during COVID-19 • Organize the COVID-19 insurance for doctors, dentists and employees with a high risk of exposure 	<ul style="list-style-type: none"> • Establish applications for the employees to facilitate in skill development and communication • Increase the contact channels for compliments to encourage employees • Develop the potential and foster learning online and in general • Establish career paths • Ensure occupational health • Offer flexible benefits • Establish awarding programs and clear employee performance evaluation guidelines

Major Stakeholders*	Stakeholder Engagement Process	Suggestion / Expectation / Concern	BDMS Response Process
 <p>Investor and Shareholder</p>	<ul style="list-style-type: none"> Organize the Annual General Meeting Quarterly organize virtual analyst meeting and upload webcast on Opportunity Day website of the Stock Exchange of Thailand Submit the complete information technology report to the Stock Exchange of Thailand in a timely manner Organize virtual roadshow for local and international investors Acknowledge feedback from shareholders and investors on the strategic development and operational guidelines 	<ul style="list-style-type: none"> Ensure excellent performance during the COVID-19 Ensure a valued return on investment and proper dividend payment to stakeholders Develop a sustainable business in response to future changes Ensure equality among shareholders and protect the benefits of shareholders and investors Disclose information transparently and in a timely manner Ensure responsibility towards the society, the community and the environment 	<ul style="list-style-type: none"> Publish the Annual Information List (56-1), Annual Report and Sustainability Report Other contact channels e.g. <ul style="list-style-type: none"> Company website www.bangkokhospital.com under “Investor Relations” Newsletter and E-Newsletter Telephone and Email Ensure good corporate governance Enforce Anti-corruption Policy to manage conflicts of interest Ensure Risk Management for Sustainable Growth Foster innovations for the community, society and the environment Put into an effect a Whistleblower policy
 <p>Supplier</p>	<ul style="list-style-type: none"> Annual site visits and evaluations for sustainable development 	<ul style="list-style-type: none"> Ensure fair and transparent business operations with all suppliers Provide accurate and complete information Create shared value for business sustainability 	<ul style="list-style-type: none"> Launch digital procurement Develop the knowledge in each professional operation Communicate to build a relationship with suppliers through http://partnership.nhealth-asia.com/
 <p>Community</p>	<ul style="list-style-type: none"> Constantly organize community relations activities to visit the community, promote health and receive feedback Contact Call Center 1719 	<ul style="list-style-type: none"> Survey and receive feedback and suggestions from the community Sustainably improve community’s quality of life Operate eco-friendly business 	<ul style="list-style-type: none"> Constantly organize health knowledge-sharing projects, such as the Parental Vaccines Project and Basic Life Support (CPR), for organizations, foundations, departments, communities and educational institutions. This is with the determination to reduce fatality rates and disease severity in the community

Remarks

* Other stakeholders apart from the aforementioned groups are government/authorities/regulators, accreditation bodies and business partners**, funders and intermediaries***, to ensure compliance with regulations and constant communication to the stakeholders through provided channels.

** Business partners include medical institutions, private hospital groups and public hospitals.

*** Intermediaries include health insurance companies collaborating with BDMS.

Sustainability Material Topics

The content of the Sustainability Report is based on the context of the society in general, while the sustainability material topics are identified from the cooperation with the relevant stakeholders, covering all economic, social and environmental aspects. The report is prepared with accurate information and evaluated by the following process:

Identification of Sustainability Material Topic Process



Step 1 Identification

- Corporate Sustainability Development Department together with the relevant department collect, analyze, inspect and prioritize the sustainability material topics related to healthcare businesses.
- The draft sustainability material topics must include internal and external factors such as strategic direction, global trends, healthcare industry trends, amendment to regulations, emerging risks and key points identified by stakeholders.



Step 2 Verification

- The highest executives of the Corporate Sustainability Development Department present the draft of sustainability material topics to the Board of Directors or Executive Committee or President or the Sustainability Development Committee (depending on circumstances). They are responsible for verifying the accuracy and appropriateness of the information according to the Sustainability Development Policy and the changing business context in the future and approves the draft.



Step 3 Sustainability Report Preparation and Communication

- The approved sustainability material topics determine the content of the sustainability report.
- The details of sustainability material topics cover management guidelines and performance according to the indicators. The information is collected, screened and verified before submitting the annual report to the stakeholders.



Step 4 Continuous Development

- All stakeholders can view the guidelines for sustainability material topics management through the assigned channels of BDMS such as Sustainability Report, annual report or BDMS website in the Sustainability Development section.
- All stakeholders are welcome to provide suggestions on the sustainability material topics management or the report. The feedback will be utilized for further development of the operations.

After the sustainability material topic evaluation in 2020, there was no change to the sustainability material topic, compared with the content in the BDMS Sustainability Report in 2019.

Dimension	Material Topics	Scope of Impact on Stakeholders				
		Internal	External			
		Employees and Medical Professionals	Investors and Shareholders	Customers and Patients	Suppliers	Community and Society
Economy	Supply Chain Management	✓			✓	
	Privacy and Information Security	✓	✓	✓		
	Service Quality and Patient Safety	✓		✓	✓	
	Customer Relationship Management	✓		✓		
	Innovation and Collaboration	✓			✓	✓
Environment	Climate Change Management	✓			✓	✓
	Waste and Hazardous Waste Management	✓			✓	✓
	Energy Management	✓			✓	
	Water and Wastewater Management	✓				✓
Society	Community Engagement and Healthcare	✓				✓
	Accessibility	✓		✓		✓
	Responsible Sales and Labeling	✓				
	Talent Attraction and Retention	✓				
	Labor Practices and Human Rights	✓		✓	✓	✓
	Occupational Health and Safety	✓			✓	

Contacting Channels

For any inquiries on BDMS Sustainability Report 2020, please contact the Corporate Sustainability Development Department of Bangkok Dusit Medical Services PCL (BDMS)



Address

7th Floor, E Building,
2 Soi Soonvijai 7,
New Phetchaburi Road,
Bang Kapi, Bangkok
10310 Thailand



Telephone

02-310-3133



Fax

02-310-3255



E-mail

bdms.csd@bdms.co.th

About This Report

Reporting Practices & Scope

Bangkok Dusit Medical Services PLC (BDMS) has published the sustainability report for 8 consecutive years. This report has been prepared in accordance with the GRI Standards: Core option. The report information was from January 1 to December 31, 2020, continuing from the previous Sustainability Report Volume.7 (published on March 9, 2020). The report aims to update the progress of the sustainability performance covering the economic, social, environmental, and corporate governance aspects; as well as aspiration towards leader in healthcare service excellence accredited under international standards while ensuring utmost customer satisfaction.

The information disclosed here is expanded from the scope of the report in 2019 by emphasizing pilot hospitals in 2020 as follows:

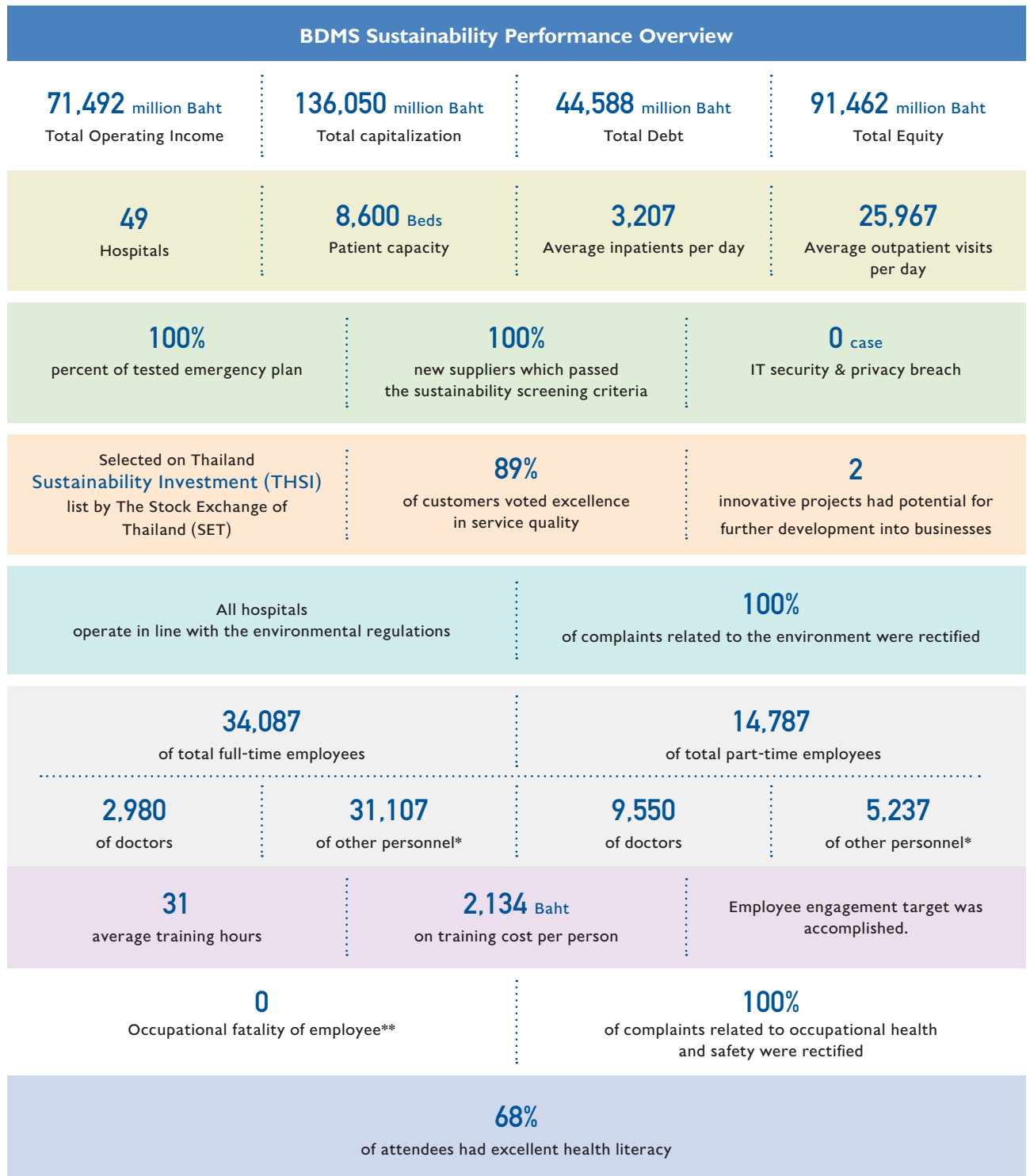
- Bangkok Hospital Headquarter
- Bangkok Hospital Chiangmai
- Bangkok Hospital Huahin
- Bangkok Hospital Ratchasima
- Bangkok Phuket International Hospital
- BNH Medical Center
- Bangkok Hospital Pattaya
- Bangkok Hospital Rayong
- Bangkok Hospital Phuket
- Bangkok Hospital Hat Yai
- Samitivej Sukhumvit Hospital
- Samitivej Sukhumvit Hospital
- Samitivej Sriracha Hospital
- Phyathai 2 Hospital

Remark

- See additional details on the scope of report in each chapter of the report. The reporting scope of Environmental and occupational health indicators covered 55.73% of Total Operating Income. The reporting scope of social indicators covered 100% of Revenue.
- BDMS will expand the scope of the report covering all operations in the future. See further details of BDMS subsidiaries in the BDMS Annual Report 2020 at <https://investor.bangkokhospital.com/th/downloads/annual-report>



BDMS Sustainability Performance



Remark

* Other personnel are all general and medical employees excluding doctors

** See reporting scope in Occupational Health & Safety chapter

Innovation for Healthcare

Innovation and Collaboration

Principles and Importance

Business innovation adds value to the organization and its stakeholders and drives organizational success. This is in line with our strategy to improve services and differentiate the organization from others while contributing to enhanced social and environmental values.

BDMS Innovation Management

In collaboration with local and world-class organizations, BDMS innovation management has determined guidelines to develop innovation in response to the organizational strategy to ensure the utmost service experience and continuously optimize business efficiency.

BDMS Innovation Management Strategy



Enhanced Excellence & Value Based Experience

Develop innovations to improve healthcare services for patients by enhancing their experiences and benefits



Smart Virtual Hospital

Adopt technology to enhance healthcare service efficiency in responding to patients' needs at all times and in line with BDMS standards and expertise



Improve Operation Efficiency

Integrate technology with medical expertise to develop innovation and maximize the efficiency of healthcare services

BDMS Sourcing and Innovation Development Guidelines

BDMS has established guidelines for knowledge development and innovation sourcing in response to its organizational and development strategy in collaboration with organizations in Thailand and abroad. The Investment Committee is tasked with considering investment in functional innovations that produce concrete results. The details of the guidelines are as follows:



Towards Academic

Support research and development of new medical knowledge with the Bangkok Health Research Center (BHRC) and medical partners



Towards Efficiency

The Quality Assurance Department and Innovation Department are tasked with sourcing innovation through training and activities that foster innovation development to enhance the efficiency of subsidiary hospitals and external private organizations



Towards Smart Hospital

Select innovation from international startup companies through a partnership with Plug and Play, and encourage startup co-research in Thailand to achieve the Smart Hospital goal

IDEA I DO Lab - Innovative Training Program

BDMS launched an innovative training program called IDEA I DO Lab to establish a system to develop innovative projects in response to needs and to create value for customers with concrete results. The program focuses on 4 topics:



Design Thinking

Tailoring the thinking process for innovation development according to the customers' needs



Value Proposition

Analyzing patients' needs and creating value in innovation for clients



Business Model Canvas

Integrating innovation with business thinking by using the Business Model Canvas to ensure sustainability



Story Telling

Enhancing storytelling and presenting innovative projects to display their value

In 2020, 30 staffs participated in the IDEA I DO Lab. 13 projects were initiated and have potential for future BDMS business development.

Towards Academic

BDMS is committed to accelerating the development of medical knowledge at the Bangkok Health Research Center (BHRC) and healthcare partners in the country and abroad. Together they continuously publish medical research to communicate and engage with internal and external medical research communities.

Research Guidelines and the Bangkok Health Research Center (BHRC)

Recognizing the importance of research and development, BDMS has established a research and development management policy by founding the Bangkok Health Research Center (BHRC) and appointing a committee to facilitate BDMS research. BHRC is responsible for presenting an annual report on innovation and research as well as biannually publishing The Bangkok Medical Journal, listed in the Thai-Journal Citation Index (TCI) and ASEAN Citation Index (ACI). In 2020, BHRC supported a total of 33 researches.



Research Management and Technology and Healthcare Innovation Policy

(<http://www.bangkokhealth.com/download/Policy-BDMS-Reearch%26Innovation.PDF>)



Bangkok Health Research Center (BHRC)

(<https://www.bangkokhealth.com/>)



BHRC Annual Report

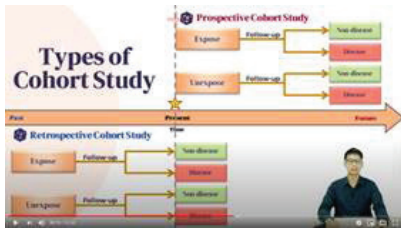
(<http://www.bangkokhealth.com/v2/aboutus.html>)



The Bangkok Medical Journal

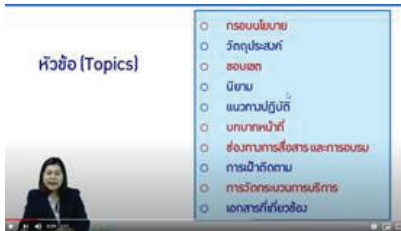
(www.bangkokmedjournal.com)





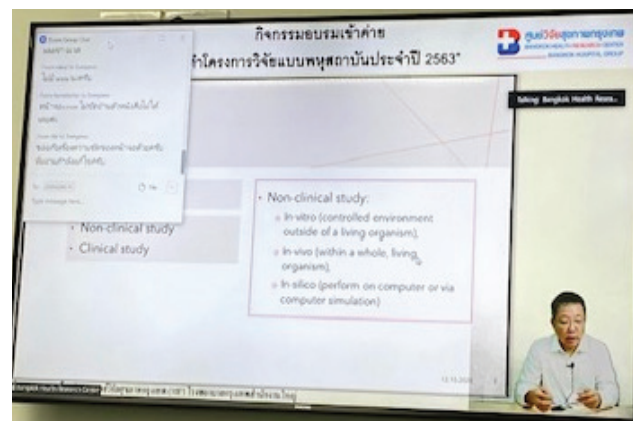
BHRC Research Support 2020

Apart from supporting the registration of intellectual property, BHRC has also facilitated research during Covid-19. Given the limitations imposed by the pandemic, some training courses involved self-learning, such as Research Overview, Research Design and Research Operation in BDMS, and some involved online training hosted by BHRC associate networks such as Research Camp.











As BHRC is registered with the Revenue Department for research and innovative technology development, research-related expense resulted in a tax deduction totaling 1,767,956.44 baht, or three times the actual amount within the maximum limit, in line with the the Royal Decree issued under the Revenue Code Governing the Exemption from Revenue Taxes (No. 598) BE 2559 (2016). BHRC applied for 2 projects — Physical Activity Project (PA) and Gonadal Shield — certified by the National Science and Technology Agency (NSTDA) of the Ministry of Science and Technology.

To enhance efficiency and gain the ability to approve original research, BHRC will apply to the NSTDA for self-declaration of technology and innovation research costing less than 3 million baht in 2021. This is to facilitate the consideration process in line with the national policy on research and development from the private sector, which is fundamental to driving the country’s economy.



Collaborative Partnerships on Research and Medical Innovation

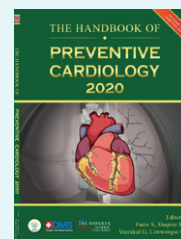
BDMS collaborates with medical institutions and hospital partners to exchange knowledge and develop research on medical innovation. Details of the institutions and organizations are as follows:

 <p>Oregon Health & Science University</p> <p>ความร่วมมือด้านอาชีวอนามัย กุมารเวช การบำบัด การจำลองทางคลินิก ทันตกรรม และการแพทย์ เชิงป้องกันเกี่ยวกับโรคหัวใจ</p>	 <p>MD Anderson</p> <p>Collaboration on basic research, treatment efficiency and knowledge sharing</p>	 <p>Hannover Medical School</p> <p>Collaboration on study and research regarding accidents and orthopedics</p>	 <p>Missouri Orthopaedic Institute</p> <p>Collaboration on the study, training and research on orthopedics</p>
 <p>Maxine Dunitz Neurosurgical Institute at Cedars –Sinai</p> <p>Collaboration on brain and neurovascular research</p>	 <p>Sano Hospital</p> <p>Collaboration on gastrointestinal system research</p>	 <p>Nagoya University</p> <p>Collaboration on education and training</p>	 <p>Other</p> <p>Other institutions such as Kameda Medical Center, Straumann Holding AG, Takatsuki Hospital, etc</p>

Handbook of Preventive Cardiology 2020 – Research Collaboration between BDMS and OHSU



In 2014, BDMS and Oregon Health & Science University (OHSU) signed an agreement for a health alliance. The objective is to share knowledge and medical personnel to improve various fields of healthcare in the Asia Pacific region. In 2020, BDMS and OHSU published the Handbook of Preventive Cardiology 2020 for hospitals and the community. The handbook focuses on documenting experiences and providing guidelines for preventive cardiology.



See further details at https://www.bangkokmedjournal.com/handbook?fbclid=IwAR3w9oYeH1cR70I0aSZmS02F40ypn_BenG-1KvKkbAycPAk4BLxLiGNqsxIg

Towards Efficiency

BDMS teams up with the subsidiary hospitals and private organizations in Thailand to create innovation. Together they have appointed the Quality Assurance Department and Innovation Department to collaborate with other related parties to organize a project competition on innovation within the organization. The objective is to gather ideas and apply innovative projects to BDMS businesses.

Innovative Projects with the Private Sector in 2020

BDMS joined a collaborative project with Siam Cement Public Company Limited (SCG) to share knowledge on open innovation and develop functional and eco-friendly products that respond to customers' needs.



Premium BDMS Transfer Wheelchair

The Premium BDMS Transfer Wheelchair was developed based on feedback during patient transfers in the hospital. To ensure their safety and comfort, the Premium BDMS Transfer Wheelchair offers many advantages such as ergonomic seating, a seat belt to prevent falling, an adjustable armrest to assist the patient when standing up, and a leg rest for the patient with cast or leg injury. It also benefits the patient assistants as it's easy to move, foldable and requires simple maintenance. Moreover, as the wheelchair is manufactured in the country, it can help reduce costs and create a future competitive advantage to the country.



Medication Cart

BDMS developed a Medication Cart based on knowledge integration between the designers and nurses in BDMS subsidiary hospitals. The new features ensure compliance with medical operational rules and also reduce impediments to work through improvements such as adjusted drawer dimensions, reduced cart size to facilitate ease of use and save energy, and a biohazard waste container to maximize the efficiency of patient care.



Circular Christmas Tree

BDMS launched a Circular Christmas Tree to recycle used hemodialysate gallon drums made of HDPE into flower pots with a double-wall design to prevent mosquito breeding and mold growth inside the building due to evaporation. Golden Pothos, which can reduce PM2.5 and carbon dioxide, was planted in the pots to reduce pollutants in the building. As a result, BDMS hospitals were able to recycle 100-150 gallon bottles per day. In 2020, BDMS arranged Golden Pothos in recycled pots into a Christmas tree before distributing them as New Year presents to raise awareness of the circular economy.

Outstanding Research with BDMS Network Hospitals - Reducing Air Pollution with Devil's Ivy

BDMS teamed up with Bangkok Hospital Rayong and the Bangkok Health Research Center (BHRC) on research into the role of devil's ivy in reducing carbon dioxide and suspended particulate matter inside hospital buildings. The plant's ability to purify the air can improve well-being and combat Sick Building Syndrome (SBS), symptoms of which can include irritation of the nose, eyes, throat and skin, difficulty breathing, headache and fatigue, from working near printing machines. The project was initiated by physicians at Bangkok Hospital Rayong where the first pilot project provided satisfactory results.

The research shows that devil's ivy significantly reduces the density of carbon dioxide and PM2.5 from printing machines and relieves SBS symptoms in the experimental group. This can save costs from medical fees and gradually improve employees' quality of life.

In collaboration with Bangkok Hospital Rayong and BHRC, BDMS implemented this project in 5 hospitals: Bangkok Hospital Rayong, BDMS Headquarters, Bangkok Hospital Chiang Mai, Bangkok Hospital Khon Kaen and Samitivej Sriracha Hospital. Data collection is now underway. If the results align with its objective, BDMS will expand the project to all subsidiary hospitals. The design of the flower pots, a collaboration between Bangkok Hospital Rayong, BHRC, BDMS and SCG, will later be registered as intellectual property.



BDMS Innovative Competition in 2020

In 2020, BDMS assigned the Quality Assurance Department and the Innovation Department to collaborate with external experts in organizing a project competition for innovation in BDMS subsidiary hospitals. The competition was divided into 3 categories: Innovation, Patient Experience and Research. Such projects provide an opportunity for employees to think creatively and introduce innovations that can be beneficial to the organization and also create business opportunities. The three winners from the total of 25 projects in each category are as follows:

Insurance Management System

The Insurance Management System (IMS) developed by Bangkok Dusit Medical Services won in the innovation category. It integrates the application and AI to analyze the hospital treatment database, user database and insurance claim policy database to maximize the efficiency of insurance claims for inpatients by reducing document submission time and errors. IMS can also lessen risks such as insurance claim rejection and personal data leaks. The project is forecast to save human resources and paper costs of more than 87 million baht.

Currently, the IMS is being trialled at BDMS Headquarters. It is planned to be introduced at subsidiary hospitals and to the public to promote more effective provision of health insurance and accessibility of healthcare to all people.

Just Scan It! Pharmacist Beside You

Just Scan It! Pharmacist Beside You by Bangkok Hospital Siriroj won in the patient experience category. It focuses on instructions for the safe use of medicines as some users may not understand the instructions on the drug label. The QR Code on the packaging can link users

to a website that details the correct use of medicine in Thai and English, demonstrated by certified pharmacists. This helps ensure that patients can take the medicine properly and are satisfied with the results.

Mid- & Long-term Outcome & Factors Influencing Survival after Off-pump Coronary Artery Bypass Grafting (OPCAB)

Mid- & Long-term Outcome & Factors Influencing Survival after OPCAB by Bangkok Heart Hospital won in the research category. The benefit of OPCAB (off-pump coronary artery bypass) is that it doesn't require stopping the patient's heart during surgery, which will help reduce side effects and complications after surgery compared with cardiopulmonary bypass. As a result, doctors can minimize bleeding, shorten surgery time and rehabilitation, and use less anesthetic.

The research shows that for patients undergoing OPCAB, the survival rate in the mid- and long-term outcome is around 5 and 10 years after the surgery. Nevertheless, factors affecting survival rate are age, obesity and cardiovascular diseases, while a factor that increases the survival rate is left internal thoracic artery (LITA) grafting.

Towards Smart Hospital

BDMS has partnered with Plug and Play to select innovations from startup companies in Thailand and abroad to promote successful business strategy linked to becoming a Smart Hospital.

PLUGANDPLAY

Plug and Play and BDMS

Plug and Play is a platform for sourcing innovation from startup companies worldwide focusing on technology and healthcare.

In 2020, BDMS identified 12 projects related to BDMS businesses, 2 of which are AI projects that hold great potential for development.

See further details of Plug and Play at <https://www.pluginandplaytechcenter.com/>



AI and Research

BDMS has carried out a trial involving integrated research on AI at Bangkok Hospital Headquarters to maximize diagnostic efficiency. The project enables doctors to interpret chest x-rays with 95% accuracy, enhancing work efficiency and saving time. Our ultimate goal is to develop our innovation for the public.



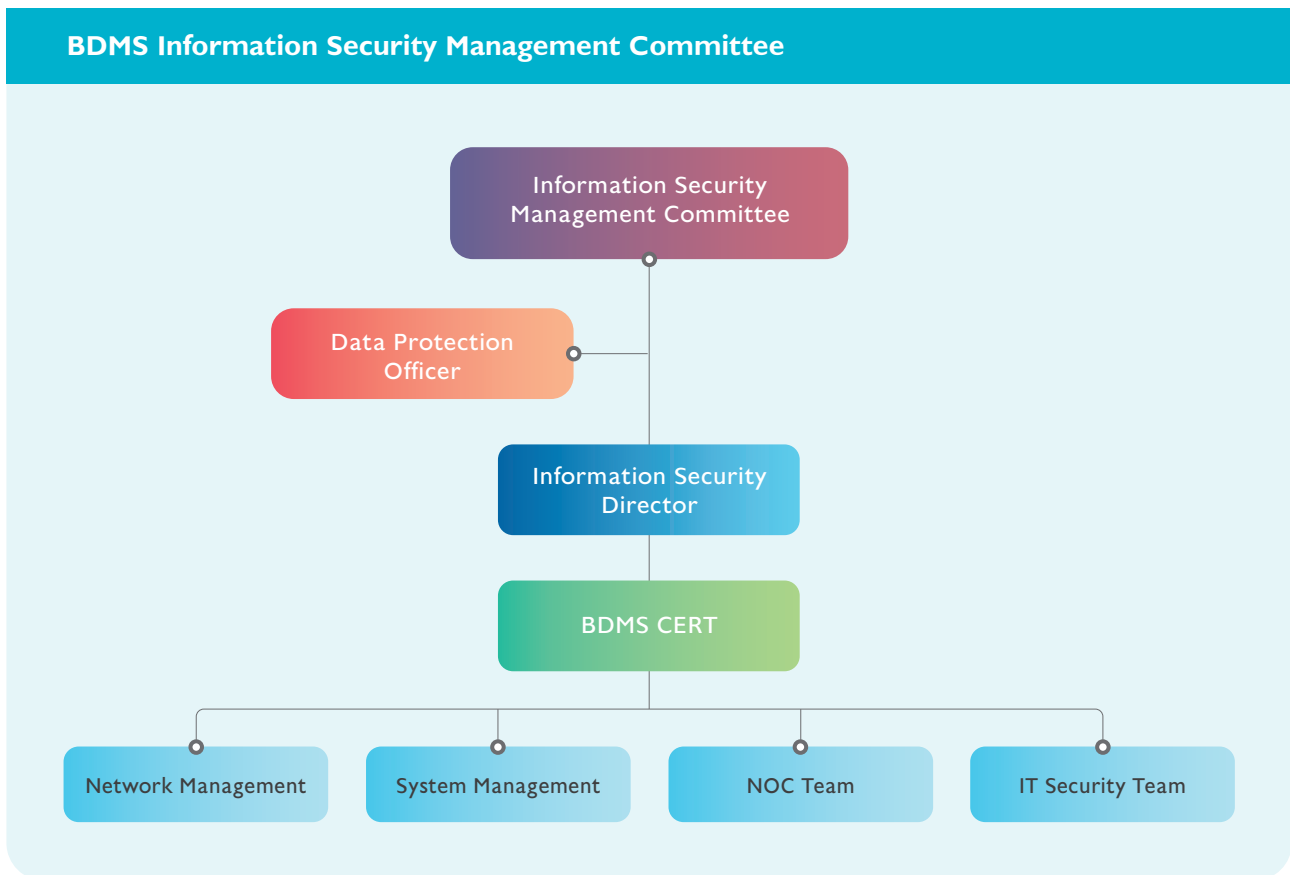
Information Security & Privacy

Principles and Importance

Healthcare services rely on information technology systems to ensure continuous and efficient operations. BDMS consequently places high importance on assessing the risks regarding cybersecurity and user data privacy in conformity with related regulations. A data breach can negatively affect the corporate reputation and also pose financial risks. Understanding the importance of information privacy and security, BDMS has established policies and fundamental structures for its information systems to ensure the personal information security of clients and employees.

Information Security Management

BDMS has established a structure for information security and also enforces policies, guidelines and standards for work operations in the organization. This is to ensure appropriate utilization of information technology and to prevent potential risks.



Information Security Management Committee (ISMC)

ISMC consists of BDMS Board of Directors and senior executives who are responsible for approving and enforcing related policies or procedures; setting criteria and managing critical risks; and taking disciplinary action against those violating the policy. The responsibility of the Committee will cover data privacy in 2021.

Data Protection Officer (DPO)

DPO are BDMS employees or appointed personnels who are responsible for supervising the storage and usage of personal information; reporting risks or related incidents; providing suggestions for the Committee; organizing training; publicizing news and coordinating with related internal and external departments on information management.

Information Security Director (ISD)

ISD consists of Executive representatives of BDMS subsidiaries who are responsible for providing consultancy on the establishment of policy and related measures; supervising systems and computer network administrators; encouraging education of related personnel; monitoring compliance; updating the policy; finding solutions to violations of policy or information security; and submitting a quarterly report to the Committee.

BDMS Computer Emergency Response Team (BDMS CERT)

BDMS CERT are BDMS employees or appointed personnels who are responsible for responding to incidents related to information security; advising and rectifying information security threats; monitoring and publicizing news related to information security; studying and updating tools and guidelines and performing other duties as may be assigned.



Information Security Management Guidelines

BDMS subsidiaries must establish procedures and processes covering the following details:



Information Resource Usage



Data Protection



Cybersecurity Protection



User Account Management



Thirty-party Service Delivery Management



Information Asset Management



Information Security Operation Management



Information Security Incident Management



Disaster Recovery Plan

See further details on information security management at <https://investor.bangkokhospital.com/storage/downloads/corporate-governance/20190717-bdms-ism-policy-en.pdf>

Practices in Case of Serious Information Security Incidents

BDMS has established practices in case of serious information security incidents to properly counter the threats and minimize any impact within the shortest time frame possible.

The IT Infrastructure Department in BDMS CERT is responsible for managing information security under the supervision of the relevant executives. The practices in case of serious information security incidents are as follows:

Detect and lessen threats that may cause anomalous events affecting information security.

Set and improve the conditions and rules of anomaly detection according to the type of threat.

Rank threats according to priority considering the impact on customers and users, Recovery Time Objective (RTO) and Maximum Tolerated Period of Disruption (MTPD) to determine appropriate backup plans.

Prohibit non-related personnel from communicating with or providing data to external personnel.

Should any employees be informed of events that may impact information security, BDMS CERT must be contacted immediately.

Complete the assignment on management of unwanted and unexpected information security events, such as classifying the incidents, establishing reporting channels, dealing with the incidents, improving systems, summarizing performance and preparing a preventive plan to avoid repeat events

Immediately report information security events through the assigned reporting channels.

Immediately report information security weaknesses through the assigned reporting channels by informing only the supervisors and the Information Security Department. Attempting to investigate by oneself is prohibited.

Assess information security events by categorizing and ranking events and detected weaknesses according to their priority for reporting and rectification.

Respond to information security events by following the guidelines, rectify anomalies in the agreed time frame and propose recovery plans.

Learn from information security events by presenting statistical data, an overview, trend assessment and root cause of anomalous events as well as practices and/or other necessary data for the BDMS Board of Directors and ISMC to prepare a preventive plan to avoid repeat events.

Collect evidence related to anomalous events to determine the root cause within 7 days and prepare a security incident report.

Information Technology Backup System for Business Continuity

BDMS subsidiary companies must establish procedures and backup systems to prevent risks to business continuity as follows:

Select and prepare

an appropriate backup system while ensuring its serviceability

Prepare an emergency plan

to ensure business continuity and amend the plan according to the mission

Assign the responsible personnel

to monitor the information system and the backup system

Test the systems

to ensure readiness at least once a year

Information Security Management Policy of Bangkok Hospital Headquarters

BDMS has assigned its subsidiaries to establish information security procedures and processes in accordance with the Information Security Management Policy. Bangkok Hospital Headquarters adopted the policy and information security guidelines in 2020. The policy and guidelines are communicated to the relevant personnel through online channels and committee meetings. The hospital must monitor all complaints related to information security. The Information Security Management Policy comprises 7 sections as follows:

1



Section 1:
Information Accessibility and Usage

2



Section 2:
Information Security Operations Management

3



Section 3:
Risk Evaluation and Assessment

4



Section 4:
Physical and Environmental Safety

5



Section 5:
Information Security Response

6



Section 6:
Information Security Awareness

7



Section 7:
Electronic Signature Policy



Information Security Training

BDMS organizes IT Awareness training yearly to raise the awareness of all personnel regarding information security through the AMPOS application. The training courses are as follows:

- Cybersecurity
- Safe Social Networking
- What Is Ransomware?
- How to Create a Strong Password
- Get to Know Phishing Email

BDMS Information Security Status

ISO 27001 and ISO 27799

BDMS subsidiary hospitals* and companies are certified for information security in health informatics in compliance with international standards

Vulnerability Analysis

BDMS performs vulnerability analysis and penetration tests on vital systems

Information Security Breach Zero Cases

BDMS had zero cases of violations of information security in 2020

* Only Bangkok Hospital Pattaya, Phyathai Sriracha General Hospital and N Health in 2020. The future plan is for BDMS Headquarters and Greenline Synergy Company Limited (GLS) in 2021.

Privacy Management

BDMS enforces the policy and guidelines on Privacy management covering all details stated in the Personal Data Protection Act (PDPA) B.E. 2562 (2019), which will be enforced in 2021. The company will implement regulations related to the BDMS PDPA Program and prepare measures to respond to violations of personal data to ensure immediate action and trust of stakeholders.

BDMS Personal Data Protection Act (PDPA) Program

BDMS is running the PDPA Program from August 2020 to May 2021 to ensure coordination with internal personnel to acknowledge and raise awareness of the importance of the Personal Data Protection Act. The program includes a communication plan, policy revision, implementation of measures and training. The program outline is as follows:



Data Governance Council

BDMS subsidiary hospitals and companies must assign personnel to join the Data Governance Council to support the operations in conformity with the Personal Data Protection Act. The Council's responsibilities are as follows:

Consider, suggest and revise the Information Privacy Policy, quality evaluation criteria as well as related rules and regulations regarding information prioritization

Establish procedures and guidelines on information exchange from the preparation stage to launch, as well as during and after operations to ensure information security

Assess and revise the right of a department to utilize information according to its roles and mission

Support departments with resources to effectively comply with the information policy

Devise an action plan and procedures

BDMS Information Privacy Guidelines

BDMS has revised its guidelines for BDMS Information Privacy in critical operations and publicized them throughout the BDMS group according to the Personal Data Protection Act, with details as follows:

1. Privacy Notice

Ensure the data subject is aware of the privacy notice. The company will collect private data through both direct and indirect means.

2. Record of Processing Activity (ROPA)

Ensure the data is verifiable by the data subject and the Office of the Data Protection Commission in either paper or electronic form.

3. Personal Data Security Measure

Establish guidelines for information security, access management, data settings, period for personal data retention, retention and disposal, personal information storage and data transfer.

4. Data Processing Agreement

Establish an agreement on data collection and information security measures to prevent loss of "or" unauthorized or illegal access to or use, alteration, modification or disclosure of personal data. Report any violation of privacy security and prepare a ROPA for verification.

5. Data Subject Rights Request

Establish and update the right of access and receipt, right to withdraw, right to transfer, right to object, right to erasure, right to restriction of processing and right to rectification of data

6. Data Breach Notification

Report any data breach that might affect the data subject's rights and freedoms to the Office of the Data Protection Commission within 72 hours from the event. In case of a high-risk event, the data subject must be alerted of the breach and provided a remedy

7. Use of Social Media for Personal Data Collection or Disclosure

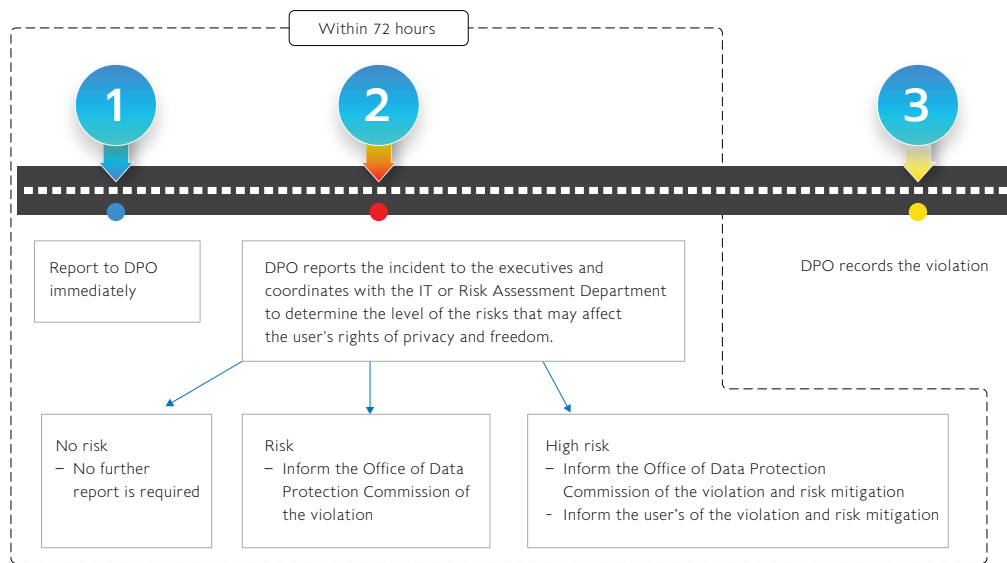
Provide a privacy notice link for users to request consent for private data collection and display the message as follows: “to safeguard privacy information as stated in the laws, private information shall not be disclosed to non-related third parties.” Erase private information on social media to prevent disclosure of information and privacy breaches.

8. Disclosure of Data to Third Party

Establish measures in case of disclosure of data to third party in necessary events such as transfer of health checkup records or treatment results to insurance agencies or family members. Ensure the data subject provides consent in writing before the disclosure to the agent.

BDMS Guidelines for Violation of Privacy Security

BDMS follows the Personal Data Protection Act in setting guidelines for violations of privacy security. The details of the BDMS guidelines are as follows:



Employees who witness a violation of privacy security must report to it the Data Protection Officer (DPO) to suspend service or lessen the damage. The DPO must inform the relevant executives and collaborate with the Technical Department or the

Risk Assessment Department to determine the level of risk that may affect any users’ rights of privacy and freedom. The event must be reported within 72 hours, including details such as type of event, type of information and damage.



Training on the Personal Data Protection Act (PDPA) B.E. 2562 (2019)

In 2020, BDMS, together with the Faculty of Law at the University of the Thai Chamber of Commerce and consultants to the Food and Drug Administration, developed a training course on the Personal Data Protection Act (PDPA) BE 2562 (2019) for related personnel. Course topics included regulatory compliance on user data collection, consent precautions, consent through mobile applications, consent for finger scan access, personal data information recorded in medical equipment, and related notifications.

Privacy Management Performance 2020

No complaints related to clients' information leaks were recorded in any channels

Zero complaints
from external parties

Zero complaints
from regulatory parties

Zero confirmed case
of information leaks,
theft or loss

Healthcare Service Quality

Service Quality and Patient Safety

Principles and Importance

Service quality management is essential to healthcare facilities, especially in hospitals where patients' safety is of great importance. As a consequence, BDMS has established a quality control policy for healthcare services and internal guidelines in line with national and international standards. This aims to reduce reputational risks that can arise from complaints regarding patient safety resulting from inferior operations.

Standardization & Compliance Committee (SCC)

BDMS assigns the subsidiary hospitals to be certified by national and international healthcare service standards to ensure a guideline covering all aspects from patient care to organizational management by appointing the designated committee to be responsible for the regulations and related standards.



Standardization & Compliance Committee (SCC)

BDMS appointed the Standardization & Compliance Committee (SCC) to govern and ensure all subsidiary hospitals' compliance with the policy and patient safety system plan according to the corporate strategy. The Committee is also in charge of Systematically following up the quality system and indicators, and other responsibilities as follows:

Establish policy, strategy, patient safety standards and usage of BDMS medical resources	Devise the hospital quality standards and follow-up plan according to the Healthcare Accreditation (HA), Joint Commission International (JCI) and other standards	Foster corporate culture in patient safety standards
Review the policy, guidelines, and mandatory documents in the hospitals or Center of Excellence. Provide suggestions to the Committee with the authority of approval	Monitor the quality indicators and hospital quality standards certification and report relevant evaluation results	Organize the meeting to follow up the operations and the progress

Service Standards

BDMS operates in line with the national and international standards covering all key activities of the organization.

BDMS National and International Standards



Hospital Accreditation Thailand (HA) and Advanced HA



Joint Commission International (JCI)



JCI CCPC (Joint Commission International Clinical Care Program Certificate)



EMRAM (Electronic Medical Record Adoption Model) of HIMSS Analytics
HIMSS (Healthcare Information and Management Systems Society)



Commission on Accreditation of Medical Transport Systems Global (CAMTS Global (US&EU)) for Patient Transfer in Land, Air and Water



College of American Pathologists (CAP) Laboratory Accreditation Program

BDMS National and International Standards



ISO/IEC 27001

ISO / IEC 27001 - Information Security



ISO 27799

ISO 27799 - Health Informatics



ISO 15189

ISO 15189 - Medical laboratory Quality for Accurate Results and Support of Research, Treatment and Disease Prevention



ISO 15190

ISO 15190 - Medical laboratory Quality on General Environment Management, Hazard Prevention, Biosecurity and Waste Management



ISO 9001

ISO 9001 - Quality Management System



ISO 9002 - Quality Assurance for Production, Installation and Services



ISO 17025

ISO 17025 - Testing and Calibration Laboratories



Hemodialysis Standards by The Royal College of Physicians Thailand (RCPT)



JCI Standards on Ambulatory Care



Temos International Healthcare Accreditation - International Patient Management on Medical and General Services



Thai Labour Standards (TLS) by Department of Labour Protection and Welfare of the Ministry of Labour



Service Standards on Assisted Reproductive Technology by Protection of a Child Born By Medically Assisted Reproductive Technology Act, B.E.2558 (2015)

Joint Commission International (JCI)

BDMS develops patient care's quality and safety as certified by the international standards of Joint Commission International (JCI). Such standard assesses all key activities regarding patient's care from admission to discharge, with the same criteria of international healthcare facilities.

Patient-Centered Standards



International Patient Safety Goals: IPSG



Access to Care and Continuity of Care: ACC



Patient and Family Rights: PFR



Assessment of Patients: AOP



Care of Patients: COP



Anesthesia and Surgical Care: ASC



Medication Management and Use: MMU



Patient and Family Education: PFE



International Patient Safety Goals: (IPSG)

International Patient Safety Goals (IPSG) is one of the factors considered by Joint Commission International (JCI) with the details as follows:

Identify Patients Correctly

Systematically Improve the accuracy of the patient identification

Improve Effective Communication

Provide the guidelines for verbal communication efficiency or telephone call between the caregivers and the patients

Improve the Safety of High-Alert Medication

Set out the guideline to improve the safety of high-alert medication

Ensure Safe Surgery

Establish the guideline to build trust in safe operations

Reduce the Risk of Health Care-Associated Infections

Comply with the policy or operational rules on hand hygiene

Reduce the Risk of Patient Harm Resulting from Falls

Set out the guideline to reduce the risks for patient harm from falls

Health Care Organization Management Standards



Quality Improvement and Patient Safety: QPS



Prevention and Control of Infections: PCI



Governance, Leadership, and Direction: GLD



Facility Management and Safety: FMS



Staff Qualifications and Education: SQE



Management of Information: MOI

See further details at <https://www.jointcommissioninternational.org/>



Commission on Accreditation of Medical Transport Systems: (CAMTS)

BDMS Emergency Services (BES) transfers patients in compliance with the Commission on Accreditation of Medical Transport Systems (CAMTS), which introduces quality and safety standards for emergency medical transport by land, air and sea. The criteria include organizational vision and mission, direction and operational guidelines, modern medical treatment of specific diseases, safety standards of aircraft and other transport vehicles, aircraft maintenance, communication standards and coordination as well as safe patient transfer.

See further details on CAMTS at

<https://www.bangkokhospital.com/en/center-clinic/trauma/bdms-emergency-services-bes?info=overview>



Healthcare Accreditation: HA

BDMS is certified by Healthcare Accreditation (HA) of the Healthcare Accreditation Institute (Public Organization), focusing on patient care's quality and safety according to international standards.

Quality Assurance Process



Quality Development

Healthcare facilities develop the system suitable for their conditions and in line with standards.



Quality Evaluation

The medical institution appoints consultants and auditors to evaluate the quality of the hospital when applying for accreditation.



Quality Accreditation

The institution approves quality accreditation of the healthcare facilities. The first accreditation is valid for 2 years.

Quality Assurance Criteria

Organizational Management Overview

The overview includes leadership, strategy, patient/customer, measurement, analysis and knowledge management, workforce and operations.

Key Hospital Systems

The systems are the risk, safety and quality management, professional governance, patient care environment, infection prevention and control and other key systems in the hospitals

Patient Care Processes

The processes include service accessibility, patient assessment, planning, patient care, information and empowerment for patients/families and continuity of care.

Results

The results include healthcare, patient care, human resources, leadership, critical work process effectiveness and financial performance.

See further details of HA at <https://www.ha.or.th/>

BDMS Accreditation Results

To ensure continuous development, BDMS complies with the policy and healthcare standards, covering the impact assessment on health and safety. The standards accreditations are as follows:

14

hospitals under BDMS

participated in JCI evaluation and all were accredited

13

hospitals under BDMS

with BDMS Emergency Services (BES) were accredited by CAMTS Global (US & EU)

100%

of hospitals accredited by JCI and/or HA/Advance HA

have passed the assessment and development for ultimate patient's safety.

Quality Management for Safety

BDMS subsidiary hospitals are required to establish a policy and plan, aiming to standardize healthcare services, establish the manuals and organize the projects related to quality development to ensure the safest operations for the patient.

Quality Policy

- BDMS commits to achieving healthcare services excellence and patient care
- Implementation of national and/or international requirements for quality standards in healthcare accreditation together with our long years of experience, momentum and tradition, enable us to formulate our “Quality Concepts” for patient care
- We are determined to providing a value-added, innovative, consistent improvement on medical treatment to sustain and further improve treatment results, patient safety and patient satisfaction.

See further details at <https://www.bangkokhospital.com/en/about-us/vision-mission>

Quality Improvement and Patient Safety Plan Procedure (QPS Plan Procedure)

BDMS enforces the QPS Plan Procedure in response to the demand and the satisfaction of patients and customers while improving the services, containing costs and enhancing the convenience for the customers, employees and doctors. QPS Plan Procedure comprises assessment and improvement on the corporate governance structure and management according to JCI and HA standards as well as other related regulations. The performance is at least quarterly reported to the relevant committee. QPS Plan Procedure consists of the following principles:

Priorities

The Board of Directors evaluates and prioritize service areas on quality and patient safety by assessing the risks, types of issues, regulations, standards and issues from patients.

Reporting Systems and Confidentiality

Issues on quality and related measures must be analyzed and reported to the Board of Directors and other related committees for analysis following the guideline by the Quality Management Committee. The investigation results are confidential and accessible to authorized personnel for service quality development only.

Methodology

Plan-Do-Study-Act (PDSA) is adapted in the process development, project design and patient safety incident analysis to systematically develop the organizational issue management.

Annual Review of Patient Safety and Quality Improvement Plan

The annual review indicates the success of operations in terms of quality and budgets. The relevant committee will receive the report to plan the service quality development in the following year

Quality Campaign Initiative

Bangkok Hospital Pattaya launched the annual Quality Campaign for all employees in response to the quality development policy and customer needs on a value-added, efficient, safe and excellent patient care. All employees are encouraged to exchange knowledge and participate in quality development as well as foster an ethics and safety culture. The employees can submit their registration to the Continuous Quality Improvement (CQI) consisting of principles, objectives, indicators, procedures, duration and follow-ups to undergo the selection process and receive the awards.

In 2020, 92 projects were submitted in the Quality Campaign comprising 38 projects on patient safety, 40 projects on core process and 14 projects on cost containment. The winner was awarded 100,000 Baht for their contribution. The Quality Campaign helps raise awareness of the ethics, safety culture and customer safety at BDMS Bangkok Pattaya.

See further details of the quality campaign in the innovation and collaboration chapter.

BDMS Network Patients Safety Culture Survey

BDMS launches the BDMS Network Patients Safety Culture Survey for the medical personnel such as doctors, nurses, caregivers, physical therapists, and all frontline staff (hospital porter, registrar, etc.) The survey is referred from the Agency for Healthcare Research and Quality (AHQR) in the U.S.A. and categorized in 12 sections as follows:

Overall Safety	Occurrence Report Frequency	Expectation from The Consultancy and Safety Promotion Activity	Safety Promotion Activity
Open Communication	Feed Back and Communication on Errors	Organizational Learning and Continuous Development	Nonpunitive Response to Error
Workforce Management	Hospital Management for Patient Safety	Transitions of Care	Team work

The survey result enables the organization to assess the current status of patient safety culture and identify strengths and areas of improvement. Moreover, this encourages a positive safety culture and ensures trust and mutual understanding on the importance of safety with confidence in the preventive measure efficiency.

Customer Relationship Management



Principles and Importance

Effective customer relationship management enhances customers' loyalty to healthcare services as well as increases the company's value by maintaining and expanding the long-term customer base. Moreover, new business opportunities can be captured based on customer feedback and demand analysis. BDMS values the importance of customer relationship management and consequently established a governance structure system to analyze customer feedback and demand to ensure continual customer satisfaction improvement.

Customer Relationship Management (CRM)

BDMS appoints the patient experience management working team in its subsidiaries to establish systematic customer relationship management practices. The team is responsible for devising the customer relationship management, operating according to the development strategy covering all aspects of services and reporting the performance to the healthcare quality department and innovation for continuous services.



Customer Satisfaction Strategy

To ensure customer satisfaction, BDMS sets out a customer satisfaction strategy in 6 service quality models as follows:

Responsiveness

Be polite, respect privacy, understand the patient's needs, offer sincere assistance, and simplify the information for better understanding

Clarify

Inform and communicate service information correctly, promptly and clearly

Promise

Ensure the best service and safe treatment by professionals

Physical

Arrange service areas considering the amenities, environment, products, innovation and data flow of the users

Sustainability

Ensure service sustainability and high standards

Delight

Express a willingness to provide smooth, flexible and consistent services.

Customer Touch Points Services

BDMS launched customer touch points starting from the access to hospital, registration, throughout the end, covering all details of the services provision.



1. Airport & Entrance

Create the first impression by arranging an airport transfer, limousine service, valet parking, and interpretation service.



2. Registration, Visa, & Customer Service

Facilitate the online registration, product and service information provision, and visa service to ensure accessible and smooth services.



3. Doctor Consultation

Ensure that doctors' and nurses' communication is polite and respects patient privacy. Listen attentively and spend time providing clear explanations.



4. Blood & Diagnostic Test

Provide efficient services and explain the work process with politeness and respect to patients.



5. Medication Collection

Ensure excellent service and provide accurate medication information, including its properties and results with politeness.

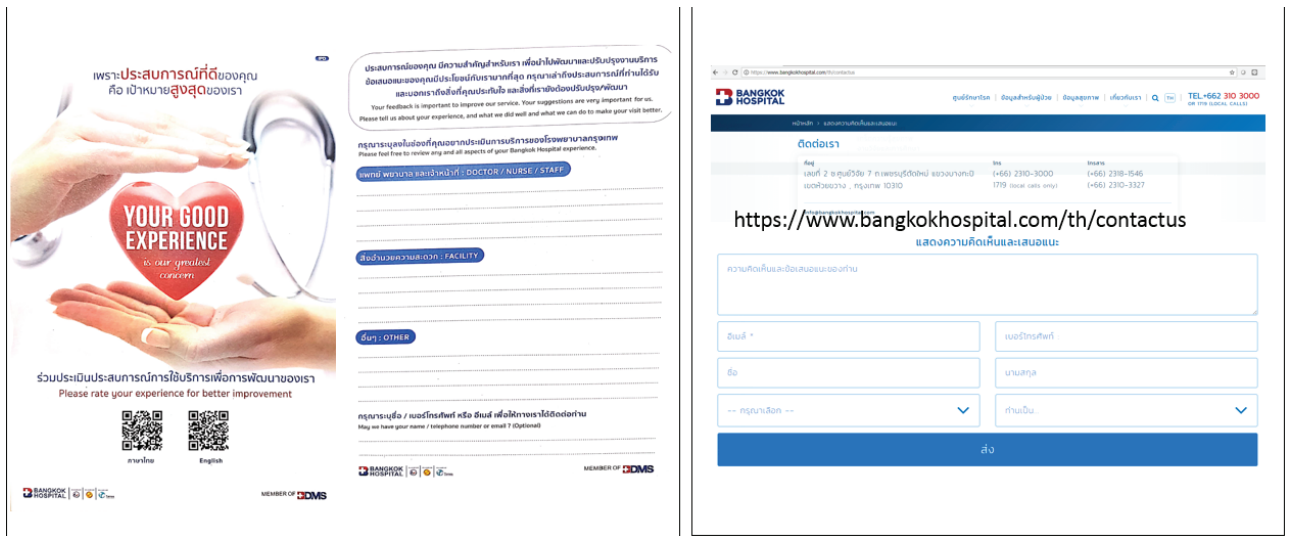


6. Discharge

Create a good impression at discharge e.g. ticket reservation and airport transfer and safely store patients' data in the database.

Service Reporting or Feedback Channels

BDMS welcomes the reporting and customer feedback from various channels such as phone, the hospital website, letters or customer satisfaction forms available in each service point. For the utmost safety and satisfaction of the customers, the hospital officers are ready to assist in any cases of unpredictable problems. All information is maintained in the database of the hospital for further utilization on operational development.



Contact Channel Examples of BDMS hospitals

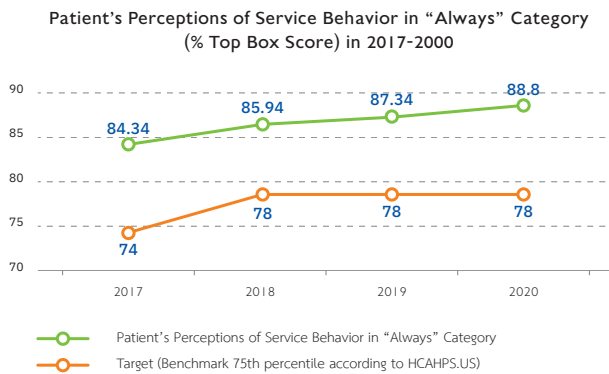
Bangkok Hospital	Samitivej Hospital	BNH Hospital	Phyathai Hospital	Paolo Hospital
				
https://www.bangkokhospital.com/contact	https://www.samitivejhospitals.com/th/ติดต่อเรา	https://www.bnhhospital.com/th/contact-us-3/	https://www.phyathai.com/contact	https://www.paolohospital.com/th-TH/center/ContactUs

Customer Satisfaction Monitoring

BDMS monitors the experience and satisfaction of outpatients and inpatients by constantly evaluating their perceptions of service behavior using top box score. The evaluation is carried out monthly, quarterly and annually to ensure an accurate analysis of service behavior and development opportunities. All factors are studied in related projects and the next evaluation will be in 2020.

Patient's Perceptions of Service Behavior 2020

BDMS monitors patients' perceptions of service behavior in each customer touchpoint using clear evaluation criteria. The results are presented in percentage and compared with the international standards as follows:



The survey result in 2019 was an input for initiative in 2020. BDMS will regularly monitor the customer satisfaction and ensure continuous service quality development for ultimate customer's satisfaction.

OPD Overall Hospital Rating		IPD Overall Hospital Rating	
Satisfied	Developmental Opportunity	Satisfied	Developmental Opportunity
Doctor Communication	Explanation of Bill	Doctor Communication	Care Transition after Left Hospital

Patient's Perceptions of Service Behavior



Never
(Score = 1)



Sometimes
(Score = 2)



Often
(Score = 3)

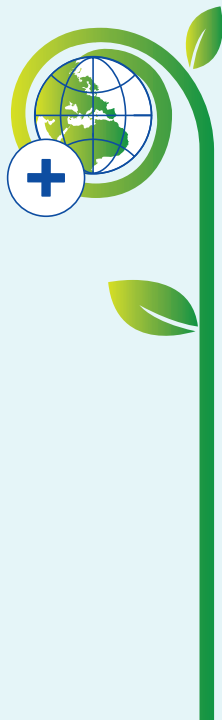


Always
(Score = 4)

See further details of Customer Satisfaction Monitoring in the BDMS Annual Report 2020 at <https://investor.bangkokhospital.com/en/downloads/annual-report>

Environment and Healthcare

Environmental Management and Policy



Principles and Importance

Environmental management is crucial for businesses as it can help control financial and social impacts and lessen reputational risks arising from activities that are potentially harmful to the environment. Therefore, BDMS enforces an environmental policy and environmental management system to systematically manage resources, gather, store and utilize such information for continual performance improvement, and express the commitment and transparency in environmental management to all stakeholders.

BDMS Earth Healthcare Policy

BDMS enforces the environmental policy BDMS Earth Healthcare to demonstrate its determination and provide the guidelines on environmental management in line with the Sustainable Development Goals (SDGs). The Policy will appoint the General Support Department and the Corporate Human Resources Department to publicize a communication plan to all personnel to ensure mutual understanding and collaboration.



BDMS Earth Healthcare Policy



Building Eco-mindset

Create awareness of executives and all employees on their responsibilities toward the environment through training and communication on environmental performance to related personnel.



Designing Better Environment

Design workplace and environmental management systems following regulations and international standards.



Moving to Green Business

Become eco-friendly business and lessen impacts throughout the supply chain by enhancing the efficiency of resource consumption transport.



Sustaining Social Engagement

Promote participation and mutual benefits for the environment and well-being of the community and at the same time foster eco-friendly behaviors.

BDMS Earth Healthcare Policy



<https://investor.bangkokhospital.com/storage/downloads/corporate-governance/20200103-bdms-earth-healthcare-policy-en.pdf>

BDMS Earth Healthcare Policy in Social Media



<https://www.youtube.com/watch?v=9BBLQ05f9Zk>

BDMS Earth Healthcare Challenges



Garbage and Hazardous Waste Management



Carbon dioxide Minimization for Low-carbon Society



Water and Energy Resource Management



Rehabilitation, Creation and Expansion of Projects on Community Ecological System Conservation



Sustainable Production and Consumption throughout the Value Chain



Eco-Friendly Innovations and Products



Community Engagement and Knowledge Sharing for Pro-Environment Behavior



“BDMS Earth Healthcare” Training in 2020

BDMS Corporate Human Resources Department organized the BDMS Earth Healthcare training program for all personnel to ensure understanding and capability to establish environmental initiatives following the policy. The training is intended to set and follow up the environmental policy, promote recognition and engagement with the external sectors to ensure policy sustainability.



In 2020, BDMS, in collaboration with Chulalongkorn University and the Electricity Generating Authority of Thailand, provided mandatory training on environmental management in line with the BDMS Earth Healthcare to raise awareness on the environment for 160 employees at the management level. The training aims to encourage them as role models in nature conservation and efficient environmental management in the organization.













BDMS Environmental Management

BDMS environmental management guideline is in line with international standards - ISO 14001 Environment Management System, The Institute of Hospital Quality Improvement and Accreditation (HA Thailand) and Joint Commission International (JCI). The guideline scope covers workplace and operations safety, energy conservation for medical equipment, and infectious and toxic waste management. The Environment of Care Committee (ECC) is responsible for managing and monitoring the compliance to the standards.



Environment of Care Committee: ECC

BDMS subsidiaries operate in accordance with BDMS policy by appointing an Environment of Care Committee (ECC) whose responsibilities are as follows:

Environment of Care Committee (ECC) Responsibilities		
 <p>Enforce the policy and guidelines of the hospital management following the standards and regulations</p>	 <p>Establish proactive and reactive measures and guidelines for the hospital management following the circumstances</p>	 <p>Monitor the buildings, their structure, internal and external areas of the hospital following the standards and regulations</p>
 <p>Appoint the appropriate Committee or responsible personnel to ensure efficiency in operations following the quality plan of the hospital</p>	 <p>Establish the evaluation criteria and system standards indicators</p>	 <p>Frequently supervise, monitor, assess and manage the risks of the hospital with efficiency and promptness</p>
 <p>Frequently supervise, monitor, assess and manage the risks of the hospital with efficiency and promptness</p>	 <p>Evaluate the work process efficiency using indicators to ensure that the performance is at the appropriate and acceptable level</p>	 <p>Annually review the system's effectiveness and practicality by annually following the policy</p>
 <p>Submit the management evaluation report and prepare the plan for the following year for the Quality Management Committee (QMC)</p>	 <p>Organize a monthly meeting or, when deems necessary to follow up the work process</p>	 <p>Quarterly report the work process to the Quality Management Committee (QMC), or when deems necessary</p>

BDMS enforces all subsidiary hospitals to perform regular environmental assessments according to the regulations. This assessment comprises noise levels from water pumps and electricity generators which may affect the community, refrigeration systems, the noise level in high-noise areas, dust, climate, lighting, heat and quantity of hazardous chemicals in the workplace, fire safety of the building, etc.

BDMS Environmental Management Performance

100%
of the environmental performance complied with regulations

0
confirmed cases of complaints regarding environment management from regulatory body

Resource Use Efficiency

Principles and Importance

Recognizing the importance of resource use efficiency, BDMS manages solid waste and hazardous waste according to the regulations, to lessen the environmental impact on society. BDMS understands the ever-changing environmental conditions and emphasizes water consumption and climate change to ensure all subsidiary hospitals practice efficient resource consumption in accordance with the regulations.

Solid Waste and Hazardous Waste

BDMS has established solid waste and hazardous waste management in line with the Environment Policy, related regulations and standards. All BDMS employees and contractors, including stores and restaurants, must operate in line with the Policy.

Solid Waste and Toxic Waste Management Structure



Environment of Care Committee (ECC)

Devise the plan and comply with the policy on solid waste and toxic waste management as well as the effluent water quality. Implement the preventive measures to avoid the effects on all stakeholders.



Occupational Health, Safety and Environment Officer and Infection Control Officer

Supervise and share the knowledge on the management of solid waste, toxic waste, and wastewater as stated in the regulations. Foster waste reduction, accident prevention and risk reduction on toxic waste management.



All Employees at the Hospital

Sort and manage solid waste and toxic waste at the designated areas such as no disposal of the chemical solution into the drain, compliance with the dangerous chemicals management, waste reduction in the workplace and efficient resource consumption.



Cleaner

Sort solid waste and record the amount of waste before selling to external parties.



Radiologic Technologist

Sort the solid waste contaminated with radioactive to prevent the radioactive emission according to related regulations



Facility Engineer

Ensure the serviceability of the device for wastewater treatment in the hospital and monitor the wastewater quality. Improve the effluent water quality exceeding the limit as stated in the regulations.

Types of Solid Waste and Hazardous Waste in Hospital



Disposable Waste

such as food waste from non-biodegradable waste which can be recycled into organic fertilizer for trees in hospital areas.



Recyclable

such as expired UPS batteries which can be resold to the manufactures, used hemodialysale gallons which can be recycled to make plant pots or waste bins or plastic bottles which can be recycled into green clothing with the help of business partners.



Hazardous Waste

such as expired or degenerated medication and solutions or chemicals in the laboratory which can only be disposed of by companies approved by the Department of Industrial Works to incinerate hazardous waste.



Hazardous Waste

such as objects in contact with patient secretions, which must be incinerated in the specified infections incinerator approved by the relevant government sector. Infectious waste is highly hazardous that any leakage could be harmful to the environment.

Guideline for Hazardous Waste Management of Hospital

Hazardous waste from the operations must be properly and safely managed according to the Hazardous Materials Inventory Control Workflow. BDMS has established safe waste management and storage, such as hazardous materials and waste management plan, test spill kit drill and spill incident report. Hazardous waste is categorized as follows:

Types of Hazardous Waste				
Infectious	Sharps	Pharmaceutical	Chemical	Heavy metals
Pressurized containers	Pathological & Anatomical	Genotoxic / Cytotoxic	Radioactive	

Guideline for Hazardous Waste Management at BDMS

Report

Establish the occurrence reporting channels and countermeasures for incidents such as a leak or exposure to hazardous waste, etc.

Manage

Implement process on the management in case of a leak or exposure to hazardous waste, provide personal protective equipment and ensure the availability of spill kit test.

Communicate

Communicate the safe management process of hazardous materials or waste, such as the process for a leak or exposure to hazardous materials or waste, by providing an updated Material Safety Data Sheet (MSDS).

Dispose

Safely dispose of hazardous materials and waste using the service providers certified by the regulations and ensure their annual audit is performed.



Waste Reduction Example Projects at BDMS Headquarter

BDMS Headquarter continuously supports projects that help reduce solid waste, such as Be Green which encourages the internal sectors to avoid using plastic bags, foam box and plastic bottles. The project also fosters the employees to recycle according to the 3R (Reduce Reuse Recycle: 3R) and promote activities to raise its awareness. Consequently, the solid waste quantity was reduced by more than 2,950 kg.

Moreover, to practice the circular economy, reduce waste and promote recycle, BDMS teams with Siam Cement Group Public Company Limited (SCG) have proceed recycling medical packages into household products such as flower pots.

In 2020, the project can transform 500 kg of solid waste (plastic) into 300 flower pots with a total cost of 105,000 Baht.

Adjusted Waste Collection Measure

Bangkok Hospital Huahin launched the project to ensure a full capacity utilization of the trash bags before disposal. The cleaners and general supporting team are encouraged to reduce the trash bag quantity, prevent climate change and ensure cost containment, especially the trash bag quantity in the outpatient and central areas. The bags can only be collected when the waste fills up to 80%, using the existing stocks. The cleaners must record the waste collection, set out its collection quantity and be mindful of the environment. After 4 months of implementation, 28% of waste bag usage decreased, saving 52% of the cost from waste bag purchase and exceeding the target of the previous waste collection measure.

Hazardous Waste Management - Disposing of Medical Gloves

BDMS set out the guideline for disposal of medical gloves exposed to blood or secretion after treatment which is considered hazardous waste. With the help of specified and standardized contractors for hazardous waste disposal, the waste must be incinerated at a temperature no less than 1,000 °c, under a control process to avoid impact to the environment. BDMS will audit the quality of the operations, including air and water quality as well as ash, at least once a year together with the Disease Control Department and the Environment Department.

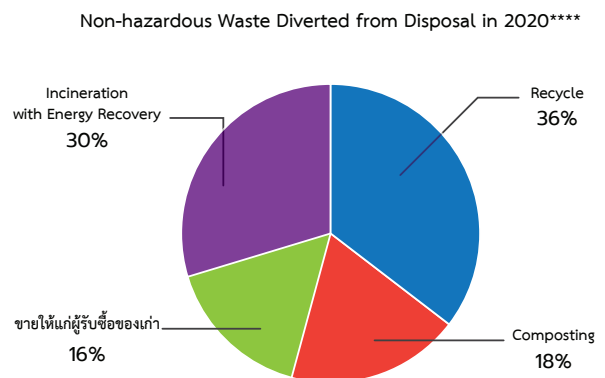
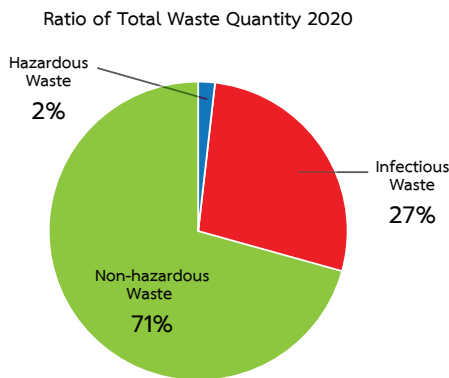
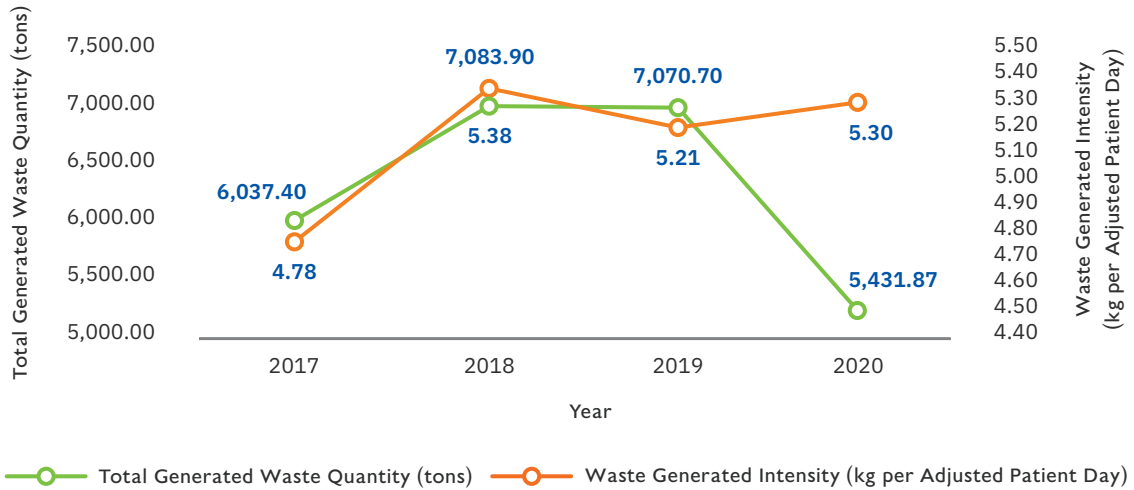


Hazardous Waste Management – Battery Disposal in Bangkok Hospital Hua Hin

Bangkok Hospital headquarters, Bangkok Huahin Hospital, Bangkok Hospital Hat Yai and Phyathai 2 International Hospital resold the expired batteries from the emergency lights to the manufacturer to reduce the hazardous waste disposal. In 2020, 19.49 tons of batteries were recycled.

BDMS Solid Waste and Hazardous Waste Management Performance in 2020

Generated Waste Quantity in 2017-2020 *,**



5,431.87
ton per year of total waste quantity

5.30
kg per Adjusted Patient Day*** waste generated intensity

0.14
per Baht Revenue waste generated intensity

840.41
tons per year waste diverted from disposal

4,591.58
tons per year of waste for disposal

Remarks

- * Related to the specified scope of the report (see further details in the solid waste and hazardous waste statistics)
- ** Due to COVID-19, the solid waste and hazardous waste quantity, as well as the resource consumption in operations, reduced in 2020
- *** The Total Adjusted patient day is calculated from converted outpatient number and incorporate with inpatient number on the same basis.
- **** Number of patients per year is calculated using the accumulated Average Daily Census (AADC), which is the average of patients per day multiply by 365 days.

Solid Waste and Hazardous Waste Statistics

Description*	Unit	Data Collection Period			
		2017	2018	2019	2020
Waste Generated	Tons (t)	6,037.40	7,083.90	7,070.70	5,431.87
Total Quantity of Hazardous Waste	Tons (t)	101.02	147.04	157.92	114.95
Total Quantity of Infectious Waste	Tons (t)	1,381.17	1,617.84	1,761.74	1,485.78
Total Quantity of Non-hazardous Waste	Tons (t)	4,555.21	5,319.03	5,151.04	3,831.14
Waste Generated Intensity**	kg / Adjusted Patient Day	4.78	5.38	5.21	5.30
	g / Baht Revenue	0.14	0.15	0.14	0.14
Waste Diverted from Disposal	Tons (t)	749.73	1,065.70	1,128.19	840.41
Hazardous Waste Diverted from Disposal	Tons (t)	38.24	52.05	43.23	19.49
Recycle	Tons (t)	38.24	52.05	43.23	19.49
Internal	Tons (t)	0	0	0	0
External	Tons (t)	38.24	52.05	43.23	19.49
Infectious Waste Diverted from Disposal	Tons (t)	0	0	0	0
Non-hazardous Waste Diverted from Disposal	Tons (t)	711.48	1,013.65	1,084.96	820.92
Recycle	Tons (t)	377.72	524.81	555.74	416.43
Internal	Tons (t)	0	0	0	0
External	Tons (t)	377.72	524.81	555.74	416.43
Composting	Tons (t)	205.27	255.02	282.13	216.31
Internal	Tons (t)	0.16	0.16	0.16	0.16
External	Tons (t)	204.95	254.70	281.81	215.99
Other Management Method***	Tons (t)	128.50	233.83	247.08	188.18
Internal	Tons (t)	0	0	0	0
External	Tons (t)	128.50	233.83	247.08	188.18
Waste Directed from Disposal	Tons (t)	5,287.83	6,018.36	5,942.67	4,591.58
Hazardous Waste Directed from Disposal	Tons (t)	62.78	94.99	114.68	95.46
Incineration without Energy Recovery	Tons (t)	57.22	86.50	106.16	89.97
Internal	Tons (t)	0	0	0	0
External	Tons (t)	57.22	86.50	106.16	89.97

Description*	Unit	Data Collection Period			
		2017	2018	2019	2020
Landfill	Tons (t)	5.55	8.50	8.53	5.49
Internal	Tons (t)	0	0	0	0
External	Tons (t)	5.55	8.50	8.53	5.49
Infectious Waste Directed from Disposal	Tons (t)	1,381.17	1,617.84	1,761.74	1,485.78
Incineration without Energy Recovery	Tons (t)	1,381.17	1,617.84	1,761.74	1,485.78
Internal	Tons (t)	0	0	0	0
Internal	Tons (t)	1,381.17	1,617.84	1,761.74	1,485.78
Non-hazardous Waste Directed from Disposal	Tons (t)	3,843.88	4,305.53	4,066.24	3,010.34
Incineration without Energy Recovery	Tons (t)	485.55	528.04	396.81	345.78
Internal	Tons (t)	0	0	0	0
External	Tons (t)	485.55	528.04	396.81	345.78
Incineration without Energy Recovery	Tons (t)	837.55	879.93	863.58	748.33
Internal	Tons (t)	0	0	0	0
External	Tons (t)	837.55	879.93	863.58	748.33
Landfill	Tons (t)	2,520.78	2,897.57	2,805.86	1,916.23
Internal	Tons (t)	0	0	0	0
External	Tons (t)	2,520.78	2,897.57	2,805.86	1,916.23

Remarks

* The scope of the report on solid waste and hazardous waste management in 2020 covers 14 hospitals compared with the disclosed information on BDMS Sustainability Report 2019 as follows:

- Bangkok Hospital Head Quarter
- Bangkok Hospital Chiang Mai
- Bangkok Hospital Hua Hun
- Bangkok Hospital ratchasima
- Bangkok Hospital Siriroj
- BNH Hospital
- Bangkok Hospital Pattaya
- Bangkok Hospital Phuket
- Bangkok Hospital Hat Yai
- Bangkok Hospital Rayong
- Samitivej Hospital Sukumvit
- Samitivej Hospital Srinakarin
- Samitivej Hospital Sriracha
- Phyathai 2 Hospital

** The Total Adjusted patient day is calculated from converted outpatient number and incorporate with inpatient number on the same basis.

*** Other disposal methods for non-hazardous waste such as sell to the waste collector.

Water and Wastewater Management

BDMS manages water consumption and wastewater treatment by recording the quantity of water consumption and setting out measures for proper wastewater treatment quality in compliance with regulations.

Guideline for Water and Wastewater Management

<p>Establish the wastewater treatment system according to the usage, such as the installation of grease traps in kitchen facilities.</p>	<p>Install the retention tank for the facilities with radioactive service to eliminate the risk of contamination to the wastewater treatment system and inspect the radiation level of the wastewater.</p>	<p>Employ the specialists in wastewater management to perform a daily follow up on its efficiency in all facility.</p>
--	--	--

<p>Prepare the essential backup device of the wastewater treatment system to avoid delay in case of malfunction.</p>	<p>Install the wastewater disinfection system before the effluent and perform the daily inspection to regularly monitor the wastewater treatment system.</p>	<p>Monthly monitor the quality of the wastewater and water for consumption. Install the water generator system to ensure the service quality according to the international standards.</p>	<p>Improve the water disinfection system by using the cooling tower and chlorine to enhance the efficiency of the disinfection and reduce chemical usage.</p>
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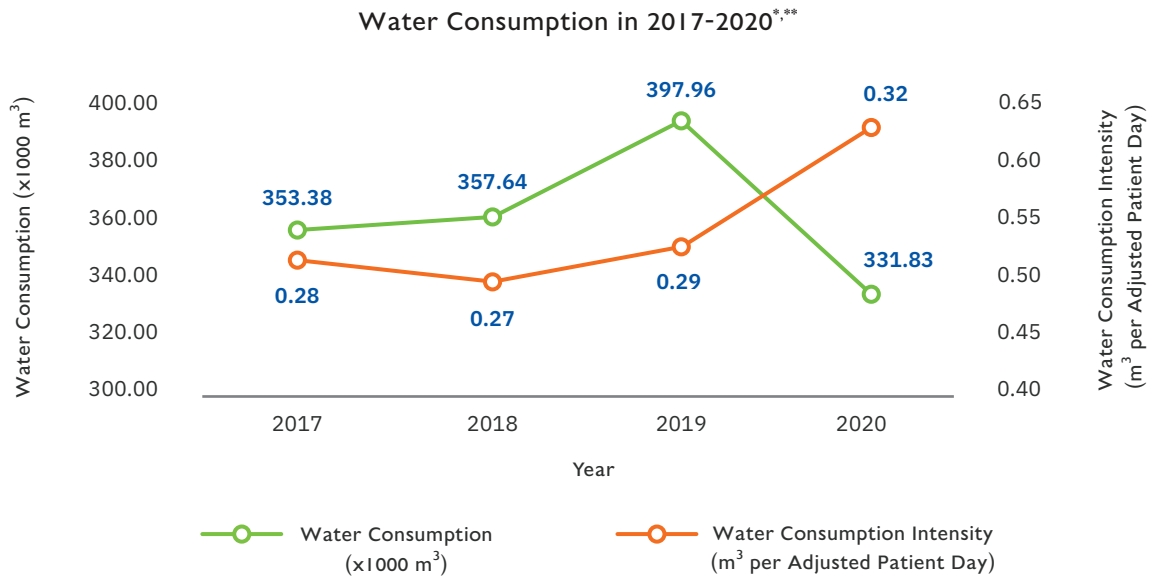
Examples of Project to Enhance Water Consumption Efficiency in Hospital



In 2020, saving
753,260
Baht in total

BDMS Headquarter launched the projects to enhance the water consumption in the sanitary system and cooling tower. For example, the valve pressure of 400 hand-held bidets and sinks was reduced to 50%. Moreover, due to an inefficiency of cooling system in the cooling tower, the maintenance and cleaning interval is changed to 4 times per year instead of 2 and increased the water tray cleaning to 4 times per month. As a result, the Hospital water consumption in 2020 was at 186,840 m³, compared with 221,400 m³ in 2019, saving 753,260 Baht in total.

BDMS Water Consumption Performance 2020



1,729,442.93
m³ per year
total water
withdrawal*

1,397,609.69
m³ per year
total water
discharge***

331,833.24
m³ per year
total water
consumption

0.62
m³ per Adjusted
Patient Day****
water consumption
intensity

8.68
m³ per Million Baht
Revenue
water consumption
intensity

Remark:

* Related to the specified scope of the report (see further details in the water and wastewater management statistics)

** Due to COVID-19, the water withdrawal and the resource consumption in operations reduced in 2020

*** The quality of wastewater after treatment must be in accordance with the regulations. The ratio of the water discharge must be at 80% of the water withdrawal

**** The Total Adjusted patient day is calculated from converted outpatient number and incorporate with inpatient number on the same basis.

Water and Wastewater Management Statistics

Description*	Unit	Data Collection Period							
		2017		2018		2019		2020	
		All Areas	Water Stress Area **	All Areas	Water Stress Area **	All Areas	Water Stress Area **	All Areas	Water Stress Area **
Total Water Consumption	Cubic Meter (m ³)	353,883.85	9,225.20	357,635.61	9,905.40	387,948.47	11,578.20	331,833.24	11,115.80
	Megaliters (ML)	353.88	9.23	357.64	9.91	387.95	11.58	331.83	11.12
Water Consumption Intensity	m ³ /Adjusted Patient Days***	0.28	0.01	0.27	0.01	0.29	0.01	0.32	0.01
	m ³ / Million Baht Revenue	8.13	0.21****	7.63	0.21****	7.82	0.23****	8.68	0.29****
Total Water Withdrawal	Cubic Meter (m ³)	1,785,463.13	46,126.00	1,813,993.92	49,527.00	1,970,981.95	57,891.00	1,729,442.93	55,579.00
Total Water Withdrawal by Company	Cubic Meter (m ³)	212,602.66	0	230,298.63	0	195,510.25	0	179,531.20	0
Freshwater Withdrawal	Cubic Meter (m ³)	212,602.66	0	230,298.63	0	195,510.25	0	179,531.20	0
Other Withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Surface Water Source	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Freshwater Withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Groundwater Source	Cubic Meter (m ³)	212,602.66	0	230,298.63	0	195,510.25	0	179,531.20	0
Freshwater Withdrawal	Cubic Meter (m ³)	212,602.66	0	230,298.63	0	195,510.25	0	179,531.20	0
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Seawater Source	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Freshwater Withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Produced Water	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Freshwater Withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Third-party Water Source (e.g. municipal water suppliers)	Cubic Meter (m ³)	1,572,860.47	46,126.00	1,583,695.29	49,527.00	1,775,471.70	57,891.00	1,549,911.73	55,579.00
Freshwater Withdrawal	Cubic Meter (m ³)	1,572,860.47	46,126.00	1,583,695.29	49,527.00	1,775,471.70	57,891.00	1,549,911.73	55,579.00
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0

Description*	Unit	Data Collection Period							
		2017		2018		2019		2020	
		All Areas	Water Stress Area **	All Areas	Water Stress Area **	All Areas	Water Stress Area **	All Areas	Water Stress Area **
Surface Water Source	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Freshwater Withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Groundwater Source	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Freshwater withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Seawater Source	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Freshwater withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Produced Water	Cubic Meter (m ³)	1,572,860.47	46,126.00	1,583,695.29	49,527.00	1,775,471.70	57,891.00	1,549,911.73	55,579.00
Freshwater withdrawal	Cubic Meter (m ³)	1,572,860.47	46,126.00	1,583,695.29	49,527.00	1,775,471.70	57,891.00	1,549,911.73	55,579.00
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Total Water Discharge	Cubic Meter (m ³)	1,431,579.28	36,900.80	1,456,358.31	39,621.60	1,583,033.49	46,312.80	1,397,609.69	44,463.20
Freshwater withdrawal	Cubic Meter (m ³)	1,431,579.28	36,900.80	1,456,358.31	39,621.60	1,583,033.49	46,312.80	1,397,609.69	44,463.20
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Surface Water Source	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Freshwater withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Groundwater Source	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Freshwater withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0

Description*	Unit	Data Collection Period							
		2017		2018		2019		2020	
		All Areas	Water Stress Area **	All Areas	Water Stress Area **	All Areas	Water Stress Area **	All Areas	Water Stress Area **
Seawater Source	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Freshwater Withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0
Third-party Water Source) (e.g. municipal wastewater treatment plant)	Cubic Meter (m ³)	1,431,579.28	36,900.80	1,456,358.31	39,621.60	1,583,033.49	46,312.80	1,397,609.69	44,463.20
Freshwater Withdrawal	Cubic Meter (m ³)	1,431,579.28	36,900.80	1,456,358.31	39,621.60	1,583,033.49	46,312.80	1,397,609.69	44,463.20
Other withdrawal	Cubic Meter (m ³)	0	0	0	0	0	0	0	0

Remarks

* The scope of the report on solid waste and hazardous waste management in 2020 covers 14 hospitals compared with disclosed information on BDMS Sustainability Report 2019 as follows:

- Bangkok Hospital Head Quarter
- Bangkok Hospital Chiang Mai
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- Bangkok Hospital Hat Yai
- Bangkok Hospital Rayong
- Samitivej Hospital Sukumvit
- Samitivej Hospital Srinakarin
- Samitivej Hospital Sriracha
- Phyathai 2 Hospital

** In 2020, only Bangkok Hospital Chiang Mai is in the water stress area referring to the World Resources Institute (<https://www.wri.org>)

*** The Total Adjusted patient day is calculated from converted outpatient number and incorporate with inpatient number on the same basis.

**** Calculated from water consumption volume in water stress area (**) and total operating income according to reporting coverage (*)

***** The quality of wastewater after treatment must be in accordance with the regulations. The ratio of the water discharge must be at 80% of the water withdrawal

Energy and Climate Change

Principles and Importance

Apart from the impact on climate change, energy is of great importance for healthcare services. Being aware of such impact, BDMS monitors the energy consumption in the organization and sets out projects to ensure utmost efficiency and reduction of greenhouse gas emissions.

Energy Management

BDMS appoints the Energy Management Committee to operate in line with the Energy Management Policy and relevant regulations to contain costs, reduce energy imports and lessen environmental impacts. To ensure utmost efficiency in energy consumption, the Committee is also responsible for arranging the projects for energy saving and revising the guideline.

Energy Management Policy

BDMS sets out an Energy Conservation Policy as the operational guidelines on energy management.

Operate and develop appropriate energy management and apply to the operations according to the regulations.

Constantly and promptly improve the energy consumption efficiency suitable for the works, technologies to ensure excellent operations.

Annually devise the plan and objective of the energy conservation and communicate to all personnel for a better understanding and good practice.

All employees must comply with the regulations and report the energy management to the Environment of Care Committee (ECC).

Support the tasks related to the energy on human resources, budget, duration of work, training and suggestions.

Annually revise the policy, objective and operational plan by the executives and Environment of Care Committee (ECC).

นโยบายประหยัดพลังงาน
ENERGY SAVING POLICY

ด้วยโรงพยาบาลกรุงเทพ สำนักงานใหญ่ มีความมุ่งมั่นที่จะบริหารจัดการการใช้ทรัพยากร และพลังงานอย่างมีประสิทธิภาพ รวมทั้งการลดค่าใช้จ่ายของโรงพยาบาล จึงขอประกาศนโยบายประหยัดพลังงาน ฉบับที่ 1 ดังนี้

1 เครื่องปรับอากาศในสำนักงาน อาคารศูนย์วิจัยคอมพิวเตอร์ตั้งแต่ชั้น 4 - 9
ปิดการใช้งานตั้งแต่เวลา 17.00 น. ของทุกวัน เปิดใช้งานอีกครั้งเวลา 07.00 น. ของวันถัดไป

พนักงานที่ทำงานหลังจากเครื่องปรับอากาศปิดระบบหลังเวลา 17.00 น. สามารถทำงานได้ที่ห้องอาหารพนักงาน และห้องประชุม ชั้น 4 ซึ่งเปิดให้บริการระบบเครื่องปรับอากาศจนถึงเวลา 20.00 น.

TURN OFF 5 PM | TURN ON 7 AM

เราทีมงานต้องทำเอง ต้องไปห้องประชุม ชั้น 4

5 โยงเข็นแล้ว กลับบ้านกันเถอะ

2 ลิฟต์หมายเลข 1
ปิดบริการ เวลา 18.00 น. ของทุกวัน | เปิดบริการ เวลา 07.00 น. ของวันถัดไป

ลิฟต์หมายเลข 2
เปิดบริการ 24 ชั่วโมง

*ลิฟต์ทั้ง 2 ตัว อาคารศูนย์วิจัยคอมพิวเตอร์ จัดจุดให้บริการที่ชั้น 2 และชั้น 3

ขึ้นชั้น 2 เอง เดินดีกว่า

ขอให้นักงาานทุกท่านให้ความร่วมมือและปฏิบัติตามอย่างเคร่งครัด ซึ่งนโยบายประหยัดพลังงานนี้ จะทำหนดให้เริ่มปฏิบัติในวันที่ 5 มีนาคม 2563 เป็นต้นไป จาก แผนก General Support

BANGKOK HOSPITAL MEMBER OF SODMS

Energy-Saving Projects in Bangkok Hospital Headquarters

Bangkok Hospital Headquarters encourages the efficiency of resource and energy consumption in the facilities by organizing energy-saving campaigns such as utilization control of the air conditioning system in limited time and areas as well as assigning the elevator operation for specified floor only.

Moreover, other energy-saving methods are switching off lights when not in use, using stairs instead of elevators, reducing paper usage, adjusting air conditioner temperature settings or unplugging the devices when not in use.

Chiller System Control at Bangkok Hospital Headquarters

According to the energy-saving measures during COVID-19, Bangkok Hospital Headquarters has established a project to control the chiller system operations by shutting down the chilled water valve in no service areas and reducing the cooling tower utilization. The project saved 1.76 million kWh per year or 6,713,000 Baht.

Variable Speed Drive (VSD) Installation in Bangkok Hospital Huahin

Bangkok Hospital Huahin launched a project to save energy by installing the Variable Speed Drive (VSD) in 3 chilled water pumps with the cost of 450,000 Baht to enhance its efficiency according to the actual usage in different timing. The harmonic filters are also installed to prevent the control signal interference and support energy-saving.

In addition, the hospital managed the chiller plant for the air conditioners in the facilities by adjusting the chilled water production settings to accommodate the

green's POWER
PROTECTING THE ENVIRONMENT STARTS FROM SAVING ENERGY

รณรงค์พนักงาน BHQ ประหยัดพลังงาน
ร่วม "รักษ์" สิ่งแวดล้อม สร้างโลกสีเขียว

- 1 ปิดสวิทช์**
ปิดไฟ และอุปกรณ์ไฟฟ้า
ที่ไม่จำเป็นต้องใช้
และไม่ลืมปิดทุกครั้งที่
Turn off the light
switch each time.
- 2 ใช้บันได แทนลิฟต์**
ชั้น 2 ถึง 3 ใช้บันได
แทนการใช้ลิฟต์และบันไดเลื่อน
The more instead of
elevator.
- 3 ลดใช้กระดาษ**
ส่งเอกสารทางกระดาษ
ด้วย Electronic File
แทนการใช้กระดาษ
Reduce Paper and Replace
with Electronic File.
- 4 ปรับเทอร์ม**
ตั้งอุณหภูมิห้องเย็นในอาคาร
25 องศาเซลเซียส
Adjust air conditioner
temperature at 25 Degree Celsius.
- 5 ถอดปลั๊ก**
ถอดปลั๊กอุปกรณ์ไฟฟ้า
ทุกครั้งเมื่อเลิกใช้งาน
Unplug the power cord after
work to save energy power.

BANGKOK HOSPITAL MEMBER OF SODMS

actual usage depending on the timing and climate as appropriate. For example, the water temperature will be increased by 1 °c from 45 °c on rainy days. The operating hours of large air conditioners in the central areas are also decreased by switching on later and switching off earlier. Moreover, the lighting hours of operation for hospital signages and light poles surrounding the buildings and parking lots are adjusted to save energy. The engineering service team is responsible for the daily monitoring of all tasks.

In 2020, the project saved 142,600 kWh per year, or a 10.39% decrease compared with 2019, or 618,063 Baht. The VSD payback period was earlier than anticipated.

Chiller System Layout Adjustment in Bangkok Hospital Phuket

Bangkok Hospital Phuket planned to amend the chiller system layout by analyzing its high energy consumption and reducing its operating hours. The team attentively monitored the results to avoid effects to the customer services in the hospital, ensured cost saving on energy consumption and prolonged the service life of the chiller

system. The project saved 390,167 kWh per year or 1.42 million Baht from the total cost of 20,000 Baht.

Cooling Tower System Adjustment in Bangkok Hospital Ratchasima

Aiming to improve the system efficiency and save energy, Bangkok Hospital Ratchasima adjusted the cooling tower system by replacing the old system with the new one, while monitoring the efficiency of the newly installed system. The project saved 267,769 kWh per year or 913,046 Baht with a total cost of 1.75 million Baht. The payback period is expected in 1.92 years.

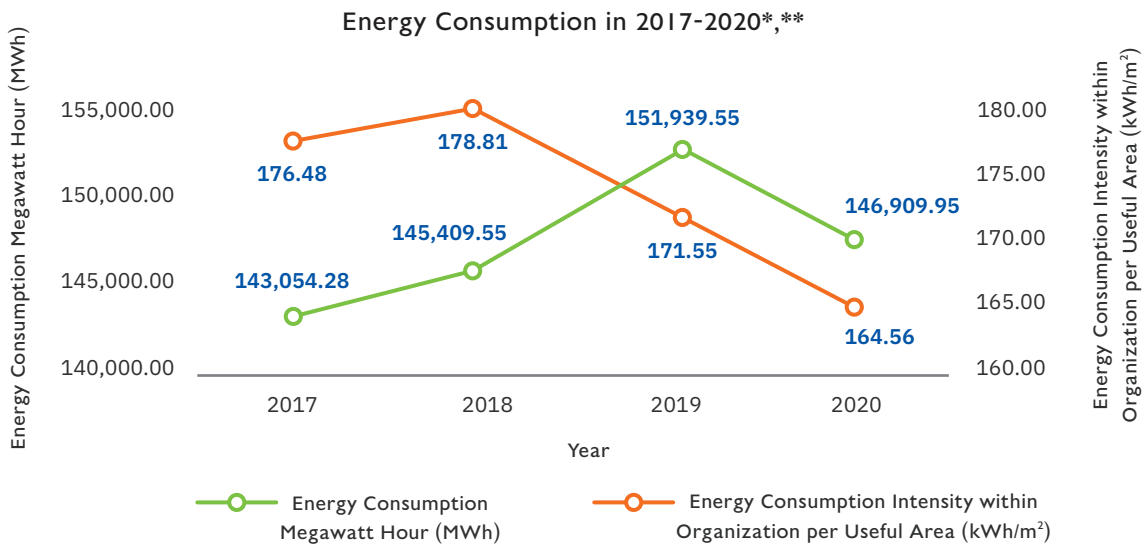
Examples of Energy from Renewable Sources in Samitivej Sukhumvit Hospital

Samitivej Sukhumvit Hospital installed the solar rooftop to increase the electricity production from renewable sources at Building 3 and reduced electricity purchased from the external sectors. The project saved 184,382 kWh or 668,602 Baht with an expected payback period of 7.48 years.





Energy Consumption Performance 2020



146,909.95
MWh per year
Total quantity of electricity consumption**

162,775.00
kWh per year Total quantity of electricity consumption from renewable sources

164.56
kWh per m²
Electricity consumption intensity

0.0038
kWh per Baht Revenue
Electricity consumption intensity

Remarks

* Related to the specified scope of the report (see further details in the energy management statistics)

** Due to COVID-19, the energy and resource consumption in operations reduced in 2020.

Energy Management Statistics

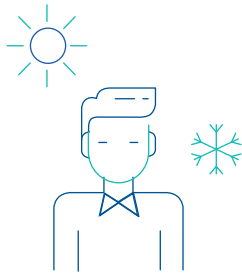
Description*	Unit	Data Collection Period			
		2017	2018	2019	2020
Total Energy Consumption within Organization	Kilowatt Hour (kWh)	143,054,278.10	145,409,546.87	151,939,548.39	146,909,947.92
	Megawatt Hour (MWh)	143,054.28	145,409.55	151,939.55	146,909.95
Energy Consumption Intensity within Organization	Kilowatt-Hour Per Square Meter (kWh/m ²)	176.48	178.81	171.55	164.56
	Kilowatt-Hour Per Baht Revenue (kWh/Baht Revenue)	0.0033	0.0031	0.0031	0.0038
Total fuel consumption from non-renewable sources	Kilowatt Hour (kWh)	0	0	0	0
Coal	Kilowatt Hour (kWh)	0	0	0	0
Natural Gas	Kilowatt Hour (kWh)	0	0	0	0
LPG	Kilowatt Hour (kWh)	0	0	0	0
Diesel	Kilowatt Hour (kWh)	0	0	0	0
Fuel Oil	Kilowatt Hour (kWh)	0	0	0	0
Total fuel consumption from renewable sources	Kilowatt Hour (kWh)	15,084.00	15,084.00	43,800.00	162,775.00
Biodiesel	Kilowatt Hour (kWh)	0	0	0	0
Biomass	Kilowatt Hour (kWh)	0	0	0	0
Biogas	Kilowatt Hour (kWh)	0	0	0	0
Solar	Kilowatt Hour (kWh)	15,084.00	15,084.00	43,800.00	162,775.00
Wind	Kilowatt Hour (kWh)	0	0	0	0
Total Energy Purchased for Consumption	Kilowatt Hour (kWh)	143,039,194.10	145,394,462.87	151,895,748.39	146,747,172.92
Electricity Consumption	Kilowatt Hour (kWh)	143,039,194.10	145,394,462.87	151,895,748.39	146,747,172.92
Steam Consumption	Kilowatt Hour (kWh)	0	0	0	0
Heating Consumption	Kilowatt Hour (kWh)	0	0	0	0
Cooling Consumption	Kilowatt Hour (kWh)	0	0	0	0

Description*	Unit	Data Collection Period			
		2017	2018	2019	2020
Total Energy Self-generated but not for Consumption	Kilowatt Hour (kWh)	0	0	0	0
Electricity Generated	Kilowatt Hour (kWh)	0	0	0	0
Steam Generated	Kilowatt Hour (kWh)	0	0	0	0
Heating Generated	Kilowatt Hour (kWh)	0	0	0	0
Cooling Generated	กิโลวัตต์-ชั่วโมง (kWh)	0	0	0	0
Total Energy Sold	Kilowatt Hour (kWh)	0	0	0	0
Electricity Sold	Kilowatt Hour (kWh)	0	0	0	0
Steam Sold	Kilowatt Hour (kWh)	0	0	0	0
Heating Sold	Kilowatt Hour (kWh)	0	0	0	0
Cooling Sold	Kilowatt Hour (kWh)	0	0	0	0
Total Costs of Energy Consumption	Baht	519,361,945.85	525,598,071.62	558,504,525.07	533,915,278.39

Remarks

* The scope of report on solid Energy management in 2020 covers 14 hospitals compared with in disclosed information on BDMS Sustainability Report 2019 as follows:

- Bangkok Hospital Head Quarter
- Bangkok Hospital Chiang Mai
- Bangkok Hospital Hua Hun
- Bangkok Hospital ratchasima
- Bangkok Hospital Siriroj
- BNH Hospital
- Bangkok Hospital Pattaya
- Bangkok Hospital Phuket
- Bangkok Hospital Hat Yai
- Bangkok Hospital Rayong
- Samitivej Hospital Sukumvit
- Samitivej Hospital Srinakarin
- Samitivej Hospital Sriracha
- Phyathai 2 Hospital



Climate Change Management

Climate change can render an impact on business operations of all industries, including healthcare services. Therefore, healthcare businesses must understand the emerging risks and business opportunities from the increasingly severe consequences of climate change. BDMS performs the risk and business opportunity assessment resulting from climate change as well as monitoring the operations to lessen its impact on operations.

Examples of Climate Change Impact on Health

Extreme Heat

Increasing temperature can result in heart and respiratory diseases such as asthma in the elderly due to pollution, pollen and allergens in the air during hot seasons.

Natural Disasters & Variable Rainfall Patterns

The increasing sea level and severe natural disasters can demolish buildings, healthcare facilities and other utilities. This can result in relocation, stress, diseases, shortage of clean freshwater, animal transmitted diseases and lack of nutrition from the shortage of agricultural products due to variable rainfall patterns.

Patterns of infection

Climate change can prolong the waterborne and animal transmitted diseases such as malaria and dengue fever.

See further details at <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

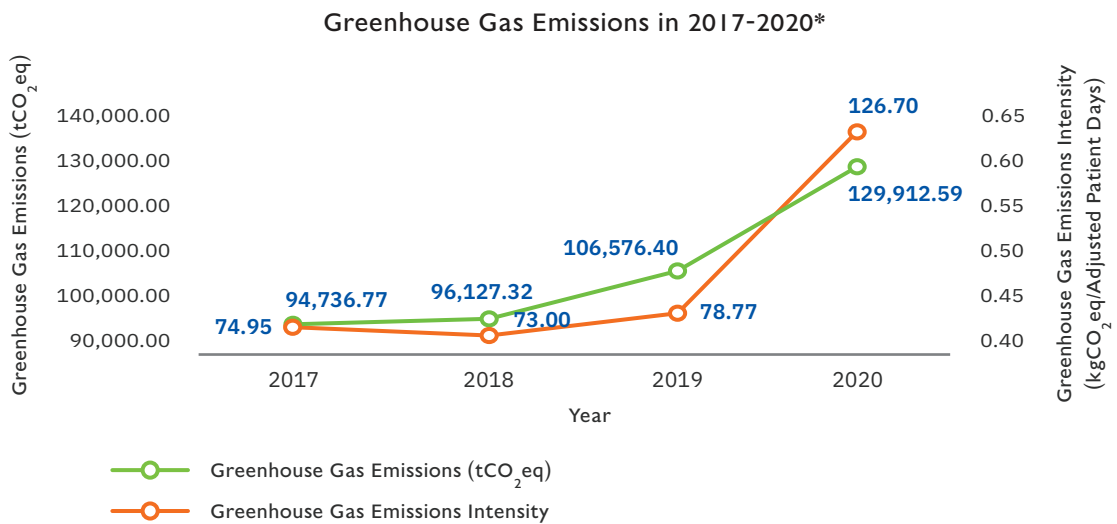
Campaign to Raise Awareness of Climate Change

BDMS subsidiaries participated in Care the Bear project hosted by The Stock Exchange of Thailand (SET) in 2020 to mitigate climate change from business activities. The 6 care principles include encouraging the attendees to use public transport, reducing paper and plastic, prohibiting foam products, reducing electricity usage, recycling decoration materials and ensuring no food waste.

BDMS subsidiary hospitals and N Health joined the project by attending the meeting and seminar in 2020 and integrating the principles to reduce greenhouse gas emissions according to SET. The project reduced the emissions of more than 5,039.30 kg CO₂eq or equivalent to yearly Carbon Dioxide Adsorption of 560 trees, achieving the target set by BDMS of 1,000 kg CO₂eq.



BDMS Greenhouse Gas Emissions Performance in 2020



129,912.59
tCO₂eq per year of total greenhouse gas emissions*

72.74%
of greenhouse gas emissions from purchased energy for the organization

126.70 kg
CO₂eq per patient's night of stay greenhouse gas emissions intensity**

0.0034
KgCO₂eq per Baht revenue greenhouse gas emissions intensity

Remarks

* Related to the specified scope of the report (see further details in the greenhouse gas emissions statistics)

** The total number of days for all patients calculated from converted outpatient number and incorporate with inpatient numbers on the same basis.

Greenhouse Gas Emissions Statistics

Description*,**	Unit	Data Collection Period			
		2017	2018	2019	2020
Total Greenhouse Gas Emissions	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	94,736,768.04	96,127,372.79	106,976,396.27	129,912,590.29
	Ton of Carbon Dioxide Equivalent (tCO ₂ eq)	94,736.77	96,127.37	106,976.40	129,912.59
Greenhouse Gas Emissions Intensity***	kgCO ₂ eq / Adjusted Patient Days	74.95	73.00	78.77	126.70
	kgCO ₂ eq / Baht Revenue	0.0022	0.0021	0.0022	0.0034
Total direct GHG emissions (Scope1)	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	3,479,705.35	3,704,893.63	9,450,763.92	35,413,491.35
	Ton of Carbon Dioxide Equivalent (tCO ₂ eq)	3,479.71	3,704.89	9,450.76	35,413.49
	% per Total GHG Emission	3.67%	3.85%	8.83%	27.26%
Stationary Combustion	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	92,107.29	191,014.34	131,814.03	85,696.51
Natural Gas	Megajoules (MJ)	0	0	0	0
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	0	0	0	0
LPG	Litre	47,040.00	113,280.00	78,240.00	50,400.00
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	79,083.6480	190,446.3360	131,537.0880	84,732.4800
Diesel	Litre	4,810.03	10,106.92	4,927.82	17,153.50
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	13,023.6372	568.01	276.94	964.03
Motor Gasoline	Litre	0	0	0	0
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	0	0	0	0

Description*,**	Unit	Data Collection Period			
		2017	2018	2019	2020
Fuel Oil	Litre	0	0	0	0
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	0	0	0	0
Mobile Combustion	Kilogram of Carbon Dioxide Equivalent (kgCO₂eq)	2,601,337.06	2,486,837.29	2,532,366.89	2,110,089.44
LPG	Litre	0	0	0	0
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	0	0	0	0
Diesel	Litre	778,404.12	735,667.58	744,529.51	592,374.49
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	2,133,060.81	2,015,949.87	2,040,234.21	1,623,283.81
Motor Gasoline	Litre	209,304.18	210,471.29	219,967.23	217,586.21
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	468,276.2515	470,887.4171	492,132.68	486,805.63
Refrigerant	Kilogram of Carbon Dioxide Equivalent (kgCO₂eq)	786,261.00	1,027,042.00	6,786,583.00	33,217,705.40
R-22 (HCFC-22)	Kilograms (kg)	394.10	533.60	783.80	465.60
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	693,616.00	939,136.00	1,379,488.00	819,456.00
R-32	Kilograms (kg)	85.00	78.00	95.00	190.20
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	57,545.00	52,806.00	64,315.00	128,765.40
R-134	Kilograms (kg)	-	-	4,739.00	28,780.70
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	-	-	5,307,680.00	32,234,384.00
R-134a	Kilograms (kg)	27.00	27.00	27.00	27.00
	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	35,100.00	35,100.00	35,100.00	35,100.00
Biogenic Emissions	Kilogram of Carbon Dioxide Equivalent (kgCO₂eq)	0	0	0	0

Description ^{*,**}	Unit	Data Collection Period			
		2017	2018	2019	2020
Total Indirect GHGs Emissions from Energy Purchased & Consumed (Scope2)	Kilogram of Carbon Dioxide Equivalent (kgCO ₂ eq)	91,257,062.70	92,422,479.16	97,525,632.35	94,499,098.94
	Tons of Carbon Dioxide Equivalent (tCO ₂ eq)	91,257.06	92,422.48	97,525.63	94,499.10
	% per Total GHG Emission	96.33%	96.15%	91.17%	72.74%

Remarks

* The scope of the report on solid waste and hazardous waste management in 2020 covers 14 hospitals compared with disclosed information on BDMS Sustainability Report 2019 as follows:

- Bangkok Hospital Head Quarter
- Bangkok Hospital Chiang Mai
- Bangkok Hospital Hua Hun
- Bangkok Hospital ratchasima
- Bangkok Hospital Siriroj
- BNH Hospital
- Bangkok Hospital Pattaya
- Bangkok Hospital Phuket
- Bangkok Hospital Hat Yai
- Bangkok Hospital Rayong
- Samitivej Hospital Sukumvit
- Samitivej Hospital Srinakarin
- Samitivej Hospital Sriracha
- Phyathai 2 Hospital

** The greenhouse gas emissions calculation and Emission Factor are referring to the Thailand Greenhouse Gas Management Organization (Public Organization) (<http://www.tgo.or.th/>)

*** The total number of days for all patients calculated from converted outpatient number and incorporate with inpatient number on the same basis.

**** The increase rate of refrigerants is due to the expansion in scope of data collection in 2020

Human Capital Development

Labor Practices and Human Rights

Principles and Importance

BDMS values the importance of establishing a good relationship with all employees to ensure successful healthcare business operations that make optimum use of employees' expertise. To strengthen fair treatment that follows human rights principles, BDMS has established guidelines for employees and contractors.

Guidelines for Employment and Termination

BDMS enforces guidelines for employment and termination of all clinical and non-clinical personnel by respecting international human rights principles, fair treatment and workplace rights. All personnel, including women, persons with disabilities and underprivileged persons must be treated equally and given the same opportunity.



Employee Fair Treatment Policy

Ensure fair treatment regardless of factors such as age, gender, gender identity & expression, sexual orientation, race, nationality, skin color, disability, religion, marital status, pregnancy, military status or other factors non-related to work.

Ensure non-discrimination in recruitment by considering the skills and abilities related to work positions.

Equally develop all employees based on the appropriateness and skill requirements of work positions to equalize career advancement opportunities.

Pay wages, compensation and provide all forms of remuneration in line with labor laws in a timely manner without deducting payment unless required in compliance with relevant laws.

Pay equal wages to employees of different genders in similar work positions and job descriptions.

Enforce and publicize performance evaluation criteria to all employees with transparency and fairness to ensure their career advancement.

Arrange fair career transfers for career progress on the basis of equality and non-discrimination.

Termination of employment must result from underperformed against set evaluation criteria or work descriptions, a serious breach of discipline, health-related issues diagnosed by doctors, or other reasons not related to discrimination.

Report of Misconduct

To report misconduct or to make further inquiries about the Fair Treatment Policy, please contact the Corporate Human Resources Department at



Phone number 02-755-1911 and 02-755-1912



E-mail bdmscorp@bdms.co.th

Doctor Employment and Termination Policy

BDMS has established guidelines for doctor & dentist resources management by establishing the Medical Staff Organization with reference to the Employment and Termination Policy, with details as follows:

Examples of Admission Criteria

Qualifications, expertise, education, medical training and experience, up-to-date medical license and continuous medical study by candidates.

List of experienced personnel who monitor and work with the candidates, as a point of reference based on their knowledge and ethics.

Any incidents related to rejection or revocation of a medical license, rights to treatment from other institutions, appointment as a member of a medical organization, lawsuit for negligence on duty, criminal record, receipt and acknowledgment of regulatory requirements and acceptance of BDMS Medical & Dental Staff Bylaws.

Examples of Termination Criteria

No treatment of patients in BDMS subsidiaries within one year.

Revocation of medical license by The Medical Council of Thailand, The Dental Council, or the Bureau of Sanatorium and Art of Healing.

Resignation from BDMS subsidiary hospitals.

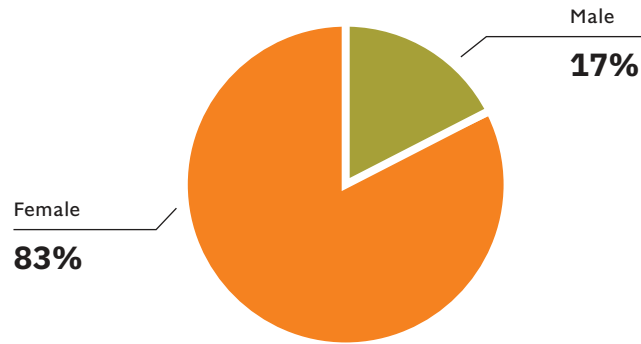
Disqualified by the Committee.

Death

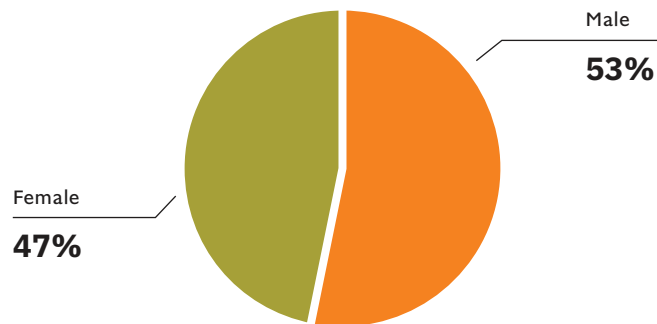
Retirement at 80 years old unless an extension is approved by executives.

BDMS Human Capital Performance

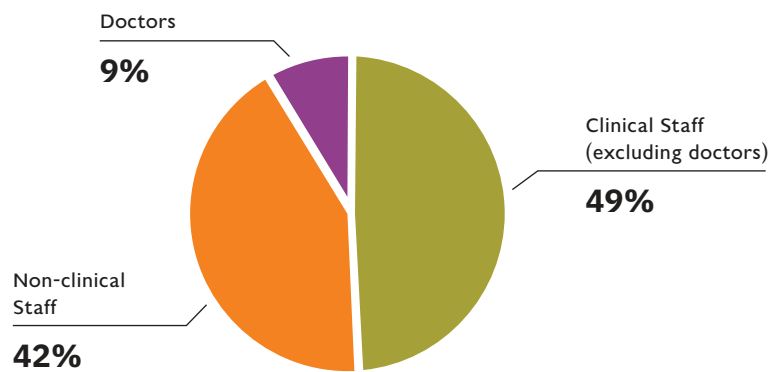
BDMS Full-time Employee (excluding doctors)



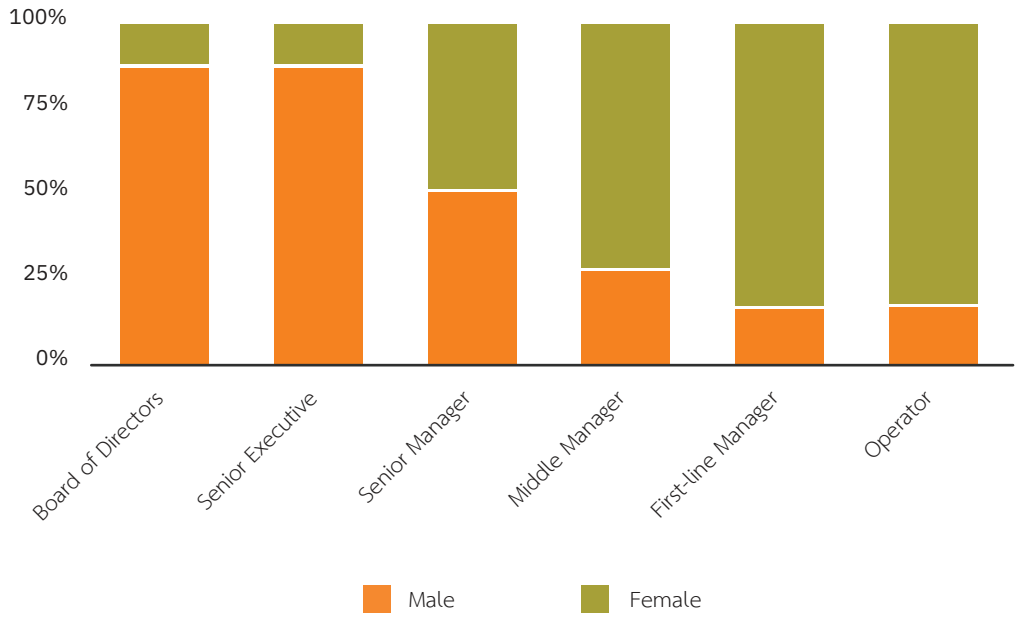
BDMS Full-time Doctor



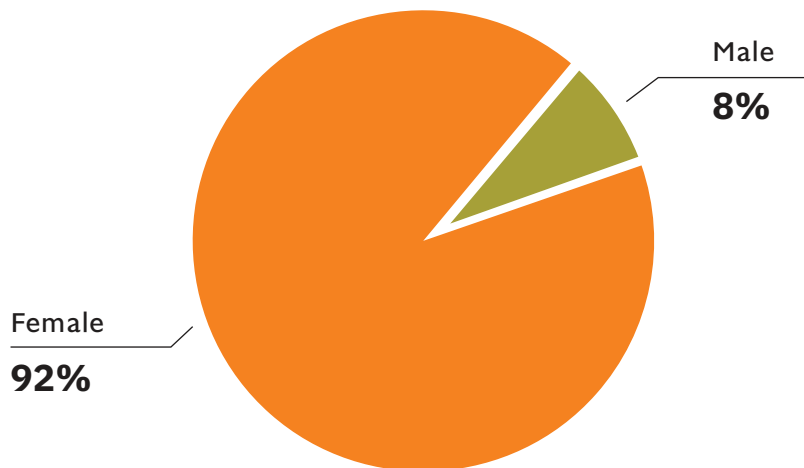
Ratio of BDMS Full-time Employee



Ratio of BDMS Employee by Positions

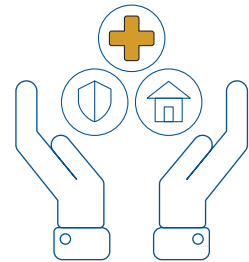


Ratio of All BDMS Manager in Healthcare Related Operations (excluding doctors and senior executives) BDMS



Welfare Committee

The BDMS Welfare Committee comprises at least 5 employees at the supervisory and operational levels as employee representatives of all position levels (100%) with a term limit of 2 years. The Committee must hold a meeting at least once every quarter or when called by more than half of the Committee members.



Welfare Committee Responsibilities



Discuss issues related to employees' welfare with the employer.



Provide consultancy and suggestions to the employer regarding employees' welfare.



Monitor, control and manage employees' welfare.



Submit feedback and guidelines on employees' welfare to the Welfare Committee.

Example of feedback submission and guidelines on employee welfare to the Welfare Committee

The BDMS Welfare Committee regularly holds meetings to listen to suggestions and adjust operations based on employee feedback and the company's status, such as a health club and provision of co-pay sleep testing. In 2020, Bangkok Hospital Pattaya organized the following events for its employees.



Marketplace for employees on their day off to earn extra income twice a week.



Activities such as a retirement party, New Year party, and New Year's Eve activities for night-shift employees.



Monthly birthday gift-giving and prize draw.



Complimentary meals.



Other projects to encourage good health, mental attitude and financial health.

Policy and Guidelines for Labor Practices and Human Rights

BDMS has established a policy and guidelines for labor practices and human rights to emphasize their importance and ensure all employees' compliance.

Policy and Guidelines for Human Rights



Support employees' rights as stated in regulations.



Discourage any activities in violation of human rights and related to corruption.



All employees must receive equal opportunity in working and be assigned responsibilities according to their abilities.



All employees must receive an opportunity for self-development and the freedom to give beneficial feedback to the company provided that it doesn't violate others' rights.



All employees must not violate the rights of, threaten or discriminate against others due to their diversity, and must be open to suggestions to develop innovation in the organization.



Employment of children aged below 18 or illegal migrant workers is prohibited.



Ensure fair treatment to all employees according to the relevant regulatory requirements, traditions and local cultures.



Those who violate the Policy shall be subject to disciplinary actions in line with BDMS regulatory requirements or regulations.

See further details on the Policy at

<https://investor.bangkokhospital.com/storage/downloads/corporate-governance/20160216-bdms-hr-en.pdf>

See further details of training related to the human rights and BDMS business ethics

Performance in Human Rights Policy and Guideline in 2020

0 cases
of unfair treatment and
human rights

100%
of all employees received
human rights training and
fair treatment

New Employees: By attending
the orientation Existing Employees:
By viewing a video before taking
the employee engagement survey

193 Persons
BDMS employees with
disabilities

Employee Statistics

Employee Statistics Non-clinical and Clinical Staff (excluding doctors)

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Employee by Type of Employment									
Total Full-time Employees	Persons	31,142		32,293		33,306		31,107	
		5,637	25,505	5,670	26,623	5,790	27,516	5,424	25,683
	%	18.10	81.90	17.56	82.44	17.38	82.62	17.44	82.56
Thailand	Persons	30,806		31,965		32,977		30,801	
		5,530	25,276	5,566	26,399	5,687	27,290	5,327	25,474
	Cambodia	Persons	336	328	329	306			
		107	229	104	224	103	226	97	209
Total Part-time Employees	Persons	6,168		7,287		6,896		5,237	
		1,071	5,097	1,439	5,848	1,403	5,493	1,262	3,975
	%	17.36	82.64	19.75	80.25	20.35	79.65	24.10	75.90
Thailand	Persons	6,109		7,238		6,857		5,167	
		1,045	5,064	1,419	5,819	1,385	5,472	1,236	3,931
	Cambodia	Persons	59	49	39	70			
		26	33	20	29	18	21	26	44
Board of Directors Diversity									
Board of Directors	Persons	13		14		14		16	
		12	1	13	1	13	1	14	2
	% of total Board members	92.31	7.69	92.86	7.14	92.86	7.14	87.50	12.50
Age < 30 years	Persons	0		0		0		0	
		0	0	0	0	0	0	0	0
	% of total Board members	0.00		0.00		0.00		0.00	
Age 30-50 years	Persons	2		2		1		1	
		1	1	1	1	1	0	1	0
	% of total Board members	15.38		15.38		7.14		6.25	
		7.69	7.69	7.14	7.14	7.14	0.00	6.25	0.00
Age > 50 years	Persons	11		12		13		15	
		11	0	12	0	12	1	13	2
	% of total Board members	84.62		92.31		92.86		93.75	
		84.62	0.00	85.71	0.00	85.71	7.14	81.25	12.50

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Employee Diversity (by Position) (Excluding the President and consultants)									
All Full-time Employees by Position	Persons	31,128		32,280		33,298		31,096	
		5,627	25,501	5,660	26,620	5,782	27,516	5,415	25,681
	% of total employees	18.08	81.92	17.53	82.47	17.36	82.64	17.41	82.59
All Employees in Management Levels	Persons	1,086		1,189		1,255		1,270	
		368	718	401	788	399	856	398	872
	% of total employees of same level	33.89	66.11	33.73	66.27	31.79	68.21	31.34	68.66
Senior Executives (no more than 2 positions below the President)	Persons	15		18		16		14	
		12	3	14	4	13	3	12	2
	% of total employees of same level	80.00	20.00	77.78	22.22	81.25	18.75	85.71	14.29
Age < 30 years	Persons	0		0		0		0	
		0	0	0	0	0	0	0	0
	% of total employees of same level	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Age 30-50 years	Persons	4		2		2		1	
		3	1	1	1	1	1	1	0
	% of total employees of same level	6.06	3.03	3.03	1.52	20.00	6.67	5.56	5.56
Age > 50 years	Persons	11		16		14		13	
		9	2	13	3	12	2	11	2
	% of total employees of same level	16.67	24.24	21.21	19.70	60.00	13.33	72.22	16.67
Employees above the Senior Manager Level	Persons	223		247		245		237	
		124	99	133	114	127	118	121	116
	% of total employees of same level	55.61	44.39	53.85	46.15	51.84	48.16	51.05	48.95

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Age < 30 years	Persons	1		0		0		0	
		0	1	0	0	0	0	0	0
	% of total employees of same level	0.45		0.00		0.00		0.00	
		0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
Age 30 - 50 years	Persons	118		119		101		90	
		67	51	63	56	54	47	45	45
	% of total employees of same level	52.91		48.18		41.22		37.97	
		30.04	22.87	25.51	22.67	22.04	19.18	18.99	18.99
Age > 50 years	Persons	104		128		144		147	
		57	47	70	58	73	71	76	71
	% of total employees of same level	46.64		51.82		58.78		62.03	
		25.56	21.08	28.34	23.48	29.80	28.98	32.07	29.96
Employees in the Middle Manager Level	Persons	712		789		847		870	
		208	504	233	556	235	612	240	630
	% of total employees of same level	29.21	70.79	29.53	70.47	27.74	72.26	27.59	72.41
Age < 30 years	Persons	11		10		10		11	
		7	4	3	7	4	6	6	5
	% of total employees of same level	1.54		1.27		1.18		1.26	
		0.98	0.56	0.38	0.89	0.47	0.71	0.69	0.57
Age 30 - 50 years	Persons	563		615		644		653	
		159	404	184	431	186	458	188	465
	% of total employees of same level	79.07		77.95		76.03		75.06	
		22.33	56.74	23.32	54.63	21.96	54.07	21.61	53.45
Age > 50 years	Persons	138		164		193		206	
		42	96	46	118	45	148	46	160
	% of total employees of same level	19.38		20.79		22.79		23.68	
		5.90	13.48	5.83	14.96	5.31	17.47	5.29	18.39
Employees in First-line Manager Level	Persons	136		135		147		149	
		24	112	21	114	24	123	25	124
	% of total employees of same level	17.65	82.35	15.56	84.44	16.33	83.67	16.78	83.22

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Age < 30 years	Persons	1		0		0		1	
		0	1	0	0	0	0	0	1
	% of total employees of same level	0.74		0.00		0.00		0.67	
Age 30 - 50 years	Persons	113		106		113		113	
		21	92	15	91	19	94	21	92
	% of total employees of same level	83.09		78.52		76.87		75.84	
Age > 50 years	Persons	22		29		34		35	
		3	19	6	23	5	29	4	31
	% of total employees of same level	33.33		43.94		23.13		23.49	
All Employees in the Operational Level	Persons	30,042		31,091		32,043		29,826	
		24,783	5,259	25,832	5,383	26,660	5,017	24,809	25,832
	% of total employees of same level	82.49		16.91		83.09		16.80	
Age < 30 years	Persons	12,447		12,811		12,983		10,426	
		1,834	10,613	1,785	11,026	1,815	11,168	1,432	8,994
	% of total employees of same level	41.43		41.20		40.52		34.96	
Age 30 - 50 years	Persons	15,992		16,511		17,143		17,461	
		12,984	3,047	13,464	3,110	14,033	3,150	14,311	13,464
	% of total employees of same level	53.23		53.11		53.50		58.54	
Age > 50 years	Persons	1,603		1,769		1,917		1,939	
		417	1,186	427	1,342	458	1,459	435	1,504
	% of total employees of same level	5.34		5.69		5.98		6.50	
		1.39	3.95	1.37	4.32	1.43	4.55	1.46	5.04

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
All Employees in the Manager Level Related to Healthcare (excluding doctors and senior executives)	Persons	258		279		297		302	
		16	242	19	260	23	274	24	278
	% of total employees of same level	6.20	93.80	6.81	93.19	7.74	92.26	7.95	92.05
Employee Diversity (by Work Category)									
All Full-time Employees by Work Category	Persons	31,142		32,293		33,306		31,107	
		5,637	25,505	5,670	26,623	5,790	27,516	5,424	25,683
	% of total employees	18.10	81.90	17.56	82.44	17.38	82.62	17.44	82.56
Clinical Staff (excluding doctors) (e.g. nurses, pharmacists, physical therapists, radiologic technologists and medical scientists)	Persons	16,366		17,436		18,051		16,780	
		1,137	15,229	1,204	16,232	1,226	16,825	1,138	15,642
	% of total employees of same level	6.95	93.05	6.91	93.09	6.79	93.21	6.78	93.22
Age < 30 years	Persons	7,847		8,209		8,259		6,625	
		573	7,274	580	7,629	577	7,682	458	6,167
	% of total employees of same level	47.95		47.08		45.75		39.48	
		3.50	44.45	3.33	43.75	3.20	42.56	2.73	36.75
Age 30 - 50 years	Persons	7,901		8,499		8,964		9,281	
		516	7,385	569	7,930	582	8,382	618	8,663
	% of total employees of same level	48.28		48.74		49.66		55.31	
		3.15	45.12	3.26	45.48	3.22	46.44	3.68	51.63
Age > 50 years	Persons	618		728		828		874	
		48	570	55	673	67	761	62	812
	% of total employees of same level	3.78		4.18		4.59		5.21	
		0.29	3.48	0.32	3.86	0.37	4.22	0.37	4.84

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Non-clinical Staff	Persons	14,776		14,857		15,255		14,327	
		4,500	10,276	4,466	10,391	4,564	10,691	4,286	10,041
	% of total employees of same level	30.45	69.55	30.06	69.94	29.92	70.08	29.92	70.08
Age < 30 years	Persons	4,613		4,612		4,734		3,813	
		1,268	3,345	1,208	3,404	1,242	3,492	980	2,833
	% of total employees of same level	31.22	68.78	31.04	68.96	31.03	68.97	26.61	73.39
Age 30 - 50 years	Persons	8,892		8,856		9,039		9,037	
		2,744	6,148	2,743	6,113	2,788	6,251	2,787	6,250
	% of total employees of same level	54.33	45.67	50.79	49.21	50.07	49.93	53.86	46.14
Age > 50 years	Persons	1,271		1,389		1,482		1,477	
		488	783	515	874	534	948	519	958
	% of total employees of same level	7.77	92.23	7.97	92.03	8.21	91.79	8.80	91.20
Expatriate Employees (excluding doctors)	Persons	653		706		331		316	
	% of total employees of same level	2.10	97.90	2.19	97.81	0.99	99.01	1.02	98.98

Clinical Staff (only doctors)

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Total Doctors by Type of Employment									
All Full-time Doctors	Persons	2,691		2,861		3,013		2,980	
		1,453	1,238	1,542	1,319	1,596	1,417	1,565	1,415
	%	53.99	46.01	53.90	46.10	52.97	47.03	52.52	47.48
Thailand	Persons	2,659		2,818		2,974		2,936	
		1,432	1,227	1,511	1,307	1,573	1,401	1,535	1,401
	% of total full-time doctors	98.81		98.50		98.71		98.52	
		53.21	45.60	52.81	45.68	52.21	46.50	51.51	47.01
Age < 30 years	Persons	72		65		82		59	
		28	44	24	41	33	49	22	37
	% of total full-time doctors	2.68		2.27		2.72		1.98	
		1.04	1.64	0.84	1.43	1.10	1.63	0.74	1.24
Age 30 - 50 years	Persons	1,850		1,953		2,021		1,985	
		901	949	935	1,018	934	1,087	902	1,083
	% of total full-time doctors	68.75		68.26		67.08		66.61	
		33.48	35.27	32.68	35.58	31.00	36.08	30.27	36.34
Age > 50 years	Persons	737		800		863		892	
		503	234	552	248	598	265	611	281
	% of total full-time doctors	27.39		27.96		28.64		29.93	
		18.69	8.70	19.29	8.67	19.85	8.80	20.50	9.43
Cambodia	Persons	32		43		39		44	
		21	11	31	12	23	16	30	14
	% of total full-time doctors	1.19		1.50		1.29		1.48	
		0.78	0.41	1.08	0.42	0.76	0.53	1.01	0.47
Age < 30 years	Persons	0		1		1		0	
		0	0	0	1	0	1	0	0
	% of total full-time doctors	0.00		0.03		0.03		0.00	
		0.00	0.00	0.00	0.03	0.00	0.03	0.00	0.00

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Age 30 - 50 years	Persons	28		37		40		38	
		18	10	28	9	28	12	27	11
	% of total full-time doctors	1.04		1.29		1.33		1.28	
		0.67	0.37	0.98	0.31	0.93	0.40	0.91	0.37
Age > 50 years	Persons	4		5		6		6	
		3	1	3	2	3	3	3	3
	% of total full-time doctors	0.15		0.17		0.20		0.20	
		0.11	0.04	0.10	0.07	0.10	0.10	0.10	0.10
All Part-time Doctors	Persons	9,567		9,581		10,022		9,550	
		5,376	4,191	5,264	4,317	5,450	4,572	5,168	4,382
	%	56.19	43.81	54.94	45.06	54.38	45.62	54.12	45.88
Thailand	Persons	9,506		9,504		9,963		9,503	
		5,331	4,175	5,204	4,300	5,401	4,562	5,132	4,371
	% of total part-time doctors	99.36		99.20		99.41		99.51	
		55.72	43.64	54.32	44.88	53.89	45.52	53.74	45.77
Age < 30 years	Persons	843		784		841		703	
		376	467	337	447	377	464	325	378
	% of total part-time doctors	8.81		8.18		8.39		7.36	
		3.93	4.88	3.52	4.67	3.76	4.63	3.40	3.96
Age 30 - 50 years	Persons	7,083		7,085		7,444		7,096	
		3,804	3,279	3,682	3,403	3,826	3,618	3,607	3,489
	% of total part-time doctors	74.04		73.95		74.28		74.30	
		39.76	34.27	38.43	35.52	38.18	36.10	37.77	36.53
Age > 50 years	Persons	1,580		1,635		1,678		1,704	
		1,151	429	1,185	450	1,198	480	1,200	504
	% of total part-time doctors	16.52		17.07		16.74		17.84	
		12.03	4.48	12.37	4.70	11.95	4.79	12.57	5.28
Cambodia	Persons	61		77		59		47	
		45	16	60	17	49	10	36	11
	% of total part-time doctors	0.64		0.80		0.59		0.49	
		0.47	0.17	0.63	0.18	0.49	0.10	0.38	0.12

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Age < 30 years	Persons	5		2		1		1	
		3	2	1	1	1	0	1	0
	% of total part-time doctors	0.05		0.02		0.01		0.01	
		0.03	0.02	0.01	0.01	0.01	0.00	0.01	0.00
Age 30 - 50 years	Persons	50		69		49		40	
		37	13	54	15	41	8	30	10
	% of total part-time doctors	0.52		0.72		0.49		0.42	
		0.39	0.14	0.56	0.16	0.41	0.08	0.31	0.10
Age > 50 years	Persons	6		6		9		6	
		5	1	5	1	7	2	5	1
	% of total part-time doctors	0.06		0.06		0.09		0.06	
		0.05	0.01	0.05	0.01	0.07	0.02	0.05	0.01

Human Capital Development

Principles and Importance

To deliver outstanding healthcare services and innovation, high-potential employees are vital in driving corporate strategy. BDMS values its importance and understands that human capital development can promote talent attraction and collaboration on organizational advancement.

Employee Training and Development

The Education and Training Committee, Human Resources Department and trainers must comply with the training and development policy for clinical and non-clinical employees, including recruits, contracted and part-time employees. This is to ensure their understanding of the company's direction, their responsibilities and the hospital quality system.



BDMS Training



General Orientation

BDMS vision, mission and quality systems



Unit Orientation

Department's mission, scope of services, operational policies and guidelines



Mandatory Training

Training on BDMS strategy, quality systems and quality improvement, basic fire training, basic life support and other courses for clinical staff twice a year



Quality Improvement Training

Information from incident monitoring, patients' complaints, changes to operational procedures, or new technologies



Other Related Training

Educational scholarships granted for those who wish to continue their study

BDMS Employee Training Target

BDMS evaluates the necessity of employee training by considering the corporate strategy direction, training needs, competency evaluation, obstacles during the operations, qualitative information, new technologies and regulations. This is to prepare an individual development plan and organize the training with the medical organization, nurse organization and quality center. BDMS sets the training target at 30 hours yearly to develop the knowledge and ability to become skilled and expert clinical and non-clinical personnel.



Adaptation to Online and Virtual Training

BDMS integrates technology into training and virtual class through online systems and e-learning. The employees can attend the training through the mobile phone, enabling access to learning anytime and anywhere with various channels depending on the profession. The system is under the care of the BDMS information security system team.

Clinical Skill

BDMS Training Center for Clinical Skill has been established for simulation-based training for doctors, registered nurses and medical personal of all BDMS networks. The training aims to achieve the goal of becoming an excellent healthcare center and providing utmost benefits to the patients. The course focuses on orthopedics, trauma, neuroscience, cardiovascular system and cancer.

Non-clinical Staff

In 2020, BDMS was determined to strengthen the employee digital skills, which have become more necessary and played a significant role in working and daily life. As a result, BDMS organizes training for the non-clinical staff to enhance their digital skills, raise awareness, manage information, and analyze such information to ensure their work efficiency. The course outlines include online training program preparation, presentation, design thinking, digital marketing, building a leadership brand and data analytics for business.



BDMS Employee Training

In 2020, BDMS organized employee training focusing on upskills and reskills of service and innovation, Talent Program and New Manager Program. The training aims to enhance work efficiency and employee engagement, which will result in annual promotion accordingly.

“Discover Yourself: Working Successfully with Your Team” Training

BDMS and Chulalongkorn University organized “Discover Yourself: Working Successfully with Your Team” training to enhance the service skills, self-understanding and awareness on diversity, especially when working under the supervisors, to bring out the strengths of the team and ensure smooth teamwork. The project also focuses on guiding the employees to understand the importance of life goal setting, find inspiration and understand the lifestyle and workstyle of the different generations. Moreover, the training encourages the employees to be compassionate to others during the current situation and be happy despite COVID-19 pandemic situation which affects the economy, condition of living, and state of mind.

A total of 296 employees participated in the online training. According to the evaluation, most employees agreed that the training was adaptable in real life (4.51 out of 5 points) and can render a positive impact on the organization.





Patient Safety Training

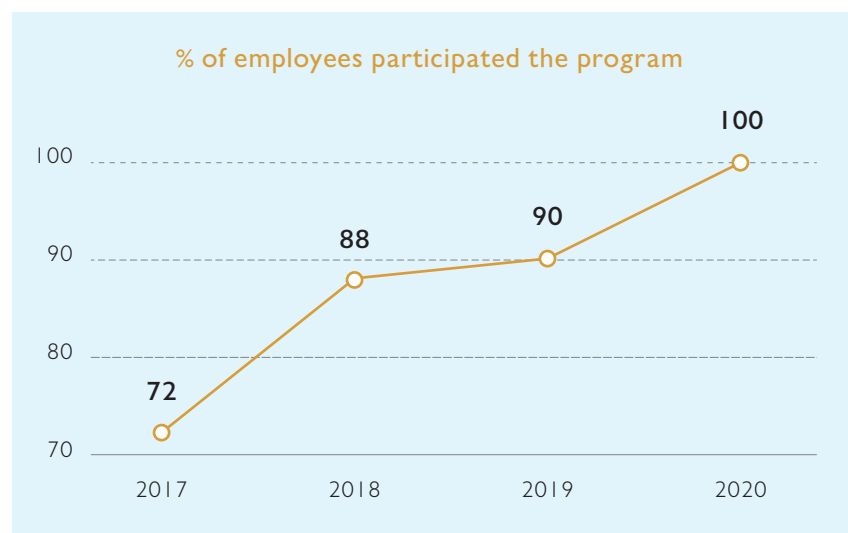
BDMS values patient safety as a priority and therefore assigned the subsidiary hospitals to provide training to improve the knowledge and identify the key performance indicators for patient safety in 2020. For example, Bangkok Hospital Rayong provides annual mandatory training for the staff regarding safe operations standards and key performance indicators for all sectors to ensure continuous development and reduce errors.

Aiming to ensure continuous quality development, Bangkok Hospital Pattaya, a Center of Excellence in traumas, heart and neuroscience, organized the “Patient Safety week” to educate the patient safety goal and raise awareness on operations safety standards in accordance with JCI. The event highlights were patient safety goals, facility management and safety plan, and safety culture, where the employees can learn through the activities by themselves. The hospital publicized the project to all and tested their understanding of the subjects.

In 2020, the 2-hour safety training cost around 40,000 Baht with 150 participants. A total of 1,393 employees attended the “Patient Safety Week” exhibition, resulting in safe service delivery according to JCI.

92.13%

of employees agree that the patient safety training is beneficial to their operations



Medical Knowledge Development in New Normal

In response to the COVID-19 pandemic situation the academic sectors in BDMS subsidiary hospitals are responsible for organizing the lecture on medical knowledge development in the new normal. This was to reduce doctors' and dentists' exposure to the virus in the hospital and develop continuous medical knowledge according to the Medical & Dental Staff Bylaws using online channels such as website www.bdmscmeonline.com and Microsoft Teams application. As for BDMS MSO Training, the hospital invited the speakers to record the session in advance and then published it on the website. The doctors and dentists can watch the lecture anywhere, which is an adaptation from the regular training that requires class attendance 4 times a month.

In 2020, BDMS assessed the doctors and dentists attending the lecture from the completeness of the lecture topics each month to ensure they achieve the target of 20 credits of study per year. The ultimate goal was to develop medical knowledge regardless of the situation while ensuring the attendant's safety and build trust in the organization on medical knowledge standards.

BDMS Human Capital Development in 2020

31 hours	29 average credits	2,134 Baht*	100%
of average training per person per year for non-clinical staff (comparing with the target of 30 hours per person per year)	in the Continuing Medical Education for doctors per person per year (comparing with the target of 20 credits per person per year)	of average expense per person on training (excluding doctors)	of internal promotion were from knowledge and skill evaluation

* In 2020, BDMS saved the average training expense during COVID-19 pandemic situation due to the increase in the online training that requires only minimal cost.

Human Capital Development Performance

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Employee Training									
Employee Training (excluding doctors)									
Total training hours of full-time employees	Average training hours per person	49		45		43		31	
		40	52	38	47	36	45	30	32
Nurses	Average training hours per person	84		81		70		43	
		90	78	91	70	72	68	47	40
Clinical Staff (excluding doctors) (E.g. nurses, pharmacists, physical therapists, radiologic technologist and medical scientist)	Average training hours per person	53		52		55		43	
		51	54	54	50	52	59	44	41
Non-clinical Staff	Average training hours per person	36		34		31		30	
		34	38	34	33	31	31	30	30
Average training expense per person	บาท	8,303		7,625		6,379		2,134*	
Employee Training for Doctors									
Number of CME Credits	Average credits per person per year	25		30		32		29	
		26	24	30	30	31	33	29	29
	Average credits per person per year	20		20		20		20	

Remarks

* In 2020, BDMS saved the average training expense during COVID-19 pandemic situation due to the increase in the online training that requires only minimal cost.

** CME = Continuing Medical Education

Talent Attraction and Retention

Principles and Importance

Talent attraction and retention renders competitive advantages in the business success in line with the corporate strategy. BDMS sets guidelines for talent attraction and retention by considering clear performance evaluation criteria and continuously tracking employee engagement surveys. The objective is to determine appropriate employee remuneration and benefits according to the overall performance of the organization.

Performance Management System

BDMS establishes the performance management system to evaluate the performance, promotion and remuneration of all employees. The evaluation criteria include core competencies, leadership competencies and work responsibility. The evaluation results will determine the employee's competency development direction. BDMS evaluates the employees twice a year to find the development methods and improve the operations to set the remuneration and the development plan in the following year. BDMS believes that an implicit and fair evaluation creates the opportunity for career advancement, which will help attract and retain high-potential employees.

Performance Management System Procedure



Disseminate the strategic target of the performance indicator and corporate target to all high executives and the department head level



Quarterly review the performance with the employees and report to the senior executives who will provide guidelines to the Human Resource Department to ensure targets achieved



Relevant supervisors perform evaluations within their departments to review remuneration and plan for future development.



The Human Resources Department and directors compare performance reviews with KPIs to determine the annual bonus or salary increment.

BDMS Employee Performance Evaluation 2020

100%

of employees received performance and career path evaluation following performance indicators and ranked the competency within the department

100%

of employees who passed evaluations were entitled to the promotion and/or appropriate salary increments.

Employee engagement

BDMS Human Resources Department sets the guidelines on employee engagement to understand the needs and create the opportunity to improve the employee engagement while monitoring the annual performance through the survey.

Employee Engagement Promotion Initiatives



Employee Engagement Survey is arranged once a year. The survey results are for engagement development or determination of appropriate employee benefits



Occupational health and safety is promoted by the Employee Wellness Committee (EWC) on employee wellbeing initiatives such as health check-ups and vaccinations



Talent Management Program fosters employees with an outstanding performance by providing coaching according to each individual's development plan and assign projects which can potentially expand the business



Career Development is discussed to ensure the employee's understanding of a stable career path and prepare for their future promotion.



Succession Plan is implemented to develop the capable employee to fill key positions in the company in case of senior executives' retirement or resignation, or business expansion



Compensation Management and Fringe Benefits is based on the Equal Work: Equal Pay and Pay for Performance principles

BHQ Special Reward 2020

The Human Resources Department of Bangkok Hospital Headquarters launched the BHQ Special Reward 2020 program to award the employees using a scoring system on the AMPOS application. The employees can collect points to redeem rewards selected from the employee survey.

The program was organized in response to the employee engagement survey in 2010, of which “Recognition and Rewarding” was one the most potential topic for improvement.

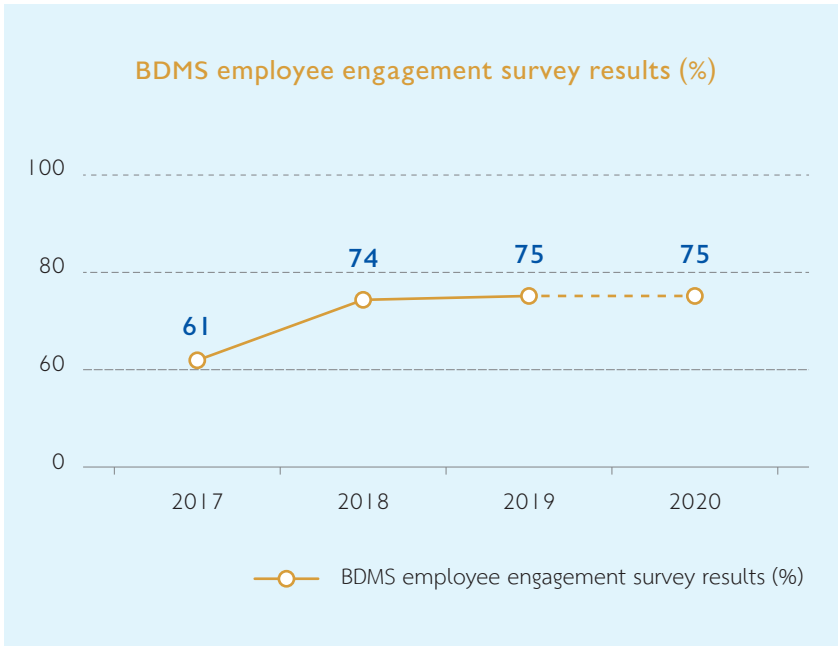


Benefits for BDMS Full-time Employees

Bangkok Hospital Headquarters provides benefits for full-time employees as listed on the Ampos application as follows:

Healthcare Service	Dental Service	Maternity Benefits
Annual Health Check-up	Vaccination	Gym
Provident Fund	Diligence Allowance	Leave
Uniform Allowance	Funeral Allowance	Dormitory
Children’s Day Care	Subsidies to healthcare workers infected with HIV during work	Canteen and other discounts in the hospitals

(See further details of projects for welfare and wellbeing of employees in the Employee Safety and Wellbeing chapter)



Survey result of **75***

compared with the target of **75%***

* The survey results are from 2019 due to the COVID-19 pandemic situation in 2020. See further details at <https://www.bdms.co.th/newsroom/building-a-sustainable-organization-with-an-employee-engagement-program>

** Excluding BDMS doctors

Employee Engagement Survey Results 2020

The BDMS employee engagement survey results** in 2020 displayed a high level of satisfaction in areas related to well-being, while recognition and awards were listed as an area for improvement. Therefore, BDMS has introduced projects in response to the survey, such as a communication channel with the employee on Line@. Moreover, all employees can view the survey results via e-mail and the company’s website.

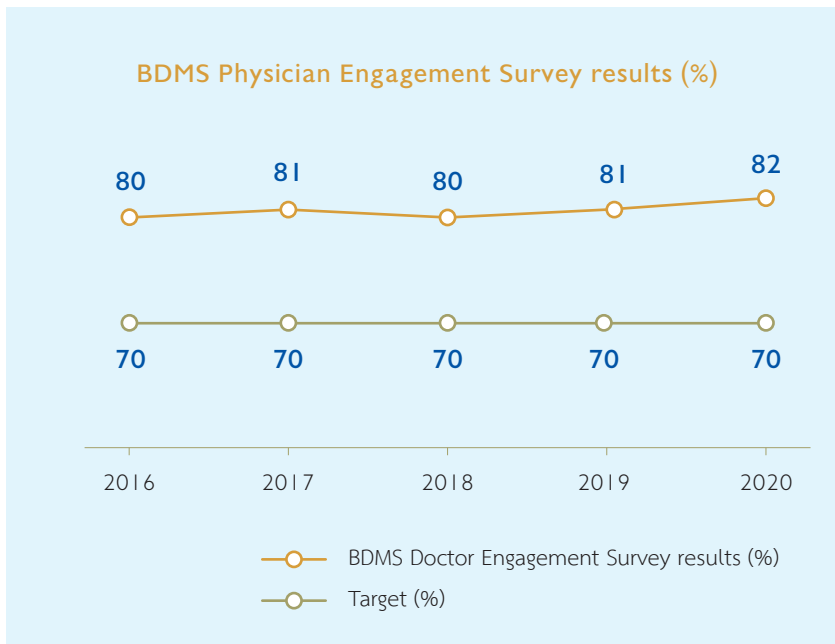


Doctor Engagement

BDMS organizes the survey to monitor the Doctor engagement in aspects such as positive perspectives towards the organization, work responsibilities and performance in line with the target. The survey is to ensure their retention, willingness and dedication to perform the duty.

Doctor Engagement Survey 2020

BDMS refers to related theories for the Doctor engagement survey guidelines and inquires for the medical executives' suggestions before organizing a survey of 38 topics using 5 Likert scales. Besides, BDMS revises the questionnaire every 3 years and the target every year.



82.36%
of the survey result in 2020,
compared with the target
at the international standards
at 70%

BDMS Strengths

Such as the cleanliness of the area, organizational pride, services in the Pharmacy Department, respect at workplace and reception

Opportunities for Development

Such as open suggestions on the BDMS operations, food quality, marketing, work-life balance and patient satisfaction review

* DSS Health Care Engagement Index (HCEI)

BDMS Doctor Engagement Development Guidelines 2020

BDMS values the importance of physician engagement towards the organization by launching related projects with the details as follows:

Operational Area Development

Improve the building quality, especially the canteen, renovate the kitchen, introduce new menus, expedite the service and ensure temperature and quality control. Other projects include providing rest areas for doctors working in shifts.

Communication Development

Open for doctor's suggestions in the monthly meeting by the medical organization and organize the CEO meet Doctors and CMO Meet Doctors to strengthen the relationship between the doctors and the executives. Other projects include the BDMS MSO training application.

Knowledge Development

Provide the scholarship to the qualified doctors, organize online training for continuous education of doctors and dentists, promote and update knowledge exchange to maintain the medical license

Marketing Development

Promote innovative projects by doctors and meeting between the marketing team and doctors and dentists



Talent Attraction and Retention Statistics

Non-clinical and Clinical Staff (excluding Doctor)

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Employment									
Employment Rate	Persons	6,012		7,507		7,236		2,958	
		1,058	4,954	1,288	6,219	1,328	5,908	597	2,361
	% compared with total full-time employee	19.31		23.25		21.73		9.51	
		3.40	15.91	3.99	19.26	3.99	17.74	1.92	7.59
Thailand	Persons	5,935		7,448		7,173		2,915	
		1,040	4,895	1,271	6,177	1,308	5,865	587	2,328
	% of compared with total new employee	98.72		99.21		99.13		98.55	
		17.30	81.42	16.93	82.28	18.08	81.05	19.84	78.70
Age < 30 years old	Persons	4,271		5,431		5,088		1,807	
		629	3,642	752	4,679	784	4,304	313	1,494
	% of compared with total new employee	71.96		72.92		70.93		61.99	
		10.46	60.58	10.02	62.33	10.83	59.48	10.58	50.51
Age 30 - 50 years old	Persons	1,593		1,917		1,980		1,029	
		378	1,215	474	1,443	475	1,505	244	785
	% of compared with total new employee	26.84		25.74		27.60		35.30	
		6.29	20.21	6.31	19.22	6.56	20.80	8.25	26.54
Age > 50 years old	Persons	71		100		105		79	
		33	38	45	55	49	56	30	49
	% of compared with total new employee	1.20		1.34		1.46		2.71	
		0.55	0.63	0.60	0.73	0.68	0.77	1.01	1.66
Cambodia	Persons	77		59		63		43	
		18	59	17	42	20	43	10	33
	% of compared with total new employee	1.28		59.00		60.00		54.43	
		0.30	0.98	0.23	0.56	0.28	0.59	0.34	1.12
Age < 30 years old	Persons	57		51		53		29	
		14	43	15	36	17	36	7	22
	% of compared with total new employee	0.96		0.68		0.74		0.99	
		0.23	0.72	0.20	0.48	0.23	0.50	0.24	0.74

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Age 30 - 50 years old	Persons	16		8		8		13	
		3	13	2	6	1	7	3	10
	% of compared with total new employee	0.27		0.11		0.11		0.45	
		0.05	0.22	0.03	0.08	0.01	0.10	0.10	0.34
Age > 50 years old	Persons	4		0		2		1	
		1	3	0	0	0	0	0	1
	% of compared with total new employee	0.07		0.00		0.03		0.03	
		0.02	0.05	0.00	0.00	0.03	0.00	0.00	0.03
Turnover Rate of All Employees*	Persons	5,600		6,215		6,250		5,181	
		1,049	4,551	1,083	5,132	1,233	5,017	976	4,205
	% of compared with full-time employee	17.98		19.25		18.77		16.66	
		3.37	14.61	3.35	15.89	3.70	15.06	3.14	13.52
Thailand	Persons	5,542		6,146		6,184		5,115	
		1,034	4,508	1,062	5,084	1,210	4,974	960	4,155
	% of compared with total turnover employee	98.96		98.89		98.94		98.73	
		18.46	80.50	17.09	81.80	19.36	79.58	18.53	80.20
Age < 30 years old	Persons	3,172		3,500		3,326		2,565	
		485	2,687	475	3,025	530	2,796	436	2,129
	% of compared with total turnover employee	56.64		56.32		53.22		49.51	
		8.66	47.98	7.64	48.67	8.48	44.74	8.42	41.09
Age 30 - 50 years old	Persons	2,123		2,367		2,518		2,113	
		460	1,663	508	1,859	581	1,937	399	1,714
	% of compared with total turnover employee	37.91		38.09		40.29		40.78	
		8.21	29.70	8.17	29.91	9.30	30.99	7.70	33.08
Age > 50 years old	Persons	247		279		340		437	
		89	158	79	200	99	241	125	312
	% of compared with total turnover employee	4.41		4.49		5.44		8.43	
		1.59	2.82	1.27	3.22	1.58	3.86	2.41	6.02

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Cambodia	Persons	58		69		66		66	
		15	43	21	48	23	43	16	50
	% compared with total turnover employee	1.04		1.11		1.06		1.27	
		0.27	0.77	0.34	0.77	0.37	0.69	0.31	0.97
Age < 30 years old	Persons	37		38		36		29	
		9	28	12	26	10	26	7	22
	% compared with total turnover employee	0.66		0.61		0.58		0.56	
		0.16	0.50	0.19	0.42	0.16	0.42	0.14	0.42
Age 30 - 50 years old	Persons	15		29		29		35	
		3	12	9	20	12	17	9	26
	% compared with total turnover employee	0.27		0.47		0.46		0.68	
		0.05	0.21	0.14	0.32	0.19	0.27	0.17	0.50
Age > 50 years old	Persons	6		2		1		2	
		3	3		2	1			2
	% compared with total turnover employee	0.11		0.03		0.02		0.04	
		0.05	0.05	0.00	0.03	0.02	0.00	0.00	0.04
Voluntary Turnover Rate of All Employees	Persons	4,028		4,550		4,526		3,660	
		679	3,349	714	3,836	775	3,751	599	3,061
	% compared with full-time employee	12.93		14.09		13.59		11.77	
		2.18	10.75	2.21	11.88	2.33	11.26	1.93	9.84
Thailand	Persons	3,985		4,496		4,484		3,602	
		669	3,316	694	3,802	759	3,725	586	3,016
	% compared with total voluntary turnover employee	98.93		98.81		99.07		98.42	
		16.61	82.32	15.25	83.56	16.77	82.30	16.01	82.40
Age < 30 years old	Persons	2,434		2,762		2,568		2,077	
		352	2,082	358	2,404	370	2,198	338	1,739
	% compared with total voluntary turnover employee	60.43		60.70		56.74		56.75	
		8.74	51.69	7.87	52.84	8.17	48.56	9.23	47.51
Age 30 - 50 years old	Persons	1,495		1,671		1,844		1,462	
		301	1,194	320	1,351	375	1,469	235	1,227
	% compared with total voluntary turnover employee	37.12		36.73		40.74		39.95	
		7.47	29.64	7.03	29.69	8.29	32.46	6.42	33.52

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Age > 50 years old	Persons	56		63		72		63	
		16	40	16	47	14	58	13	50
	% compared with total voluntary turnover employee	1.39		1.38		1.59		1.72	
		0.40	0.99	0.35	1.03	0.31	1.28	0.36	1.37
Cambodia	Persons	43		54		42		58	
		10	33	20	34	16	26	13	45
	% compared with total voluntary turnover employee	1.07		1.19		0.93		1.58	
		0.25	0.82	0.44	0.75	0.35	0.57	0.36	1.23
Age < 30 years old	Persons	30		33		24		27	
		7	23	12	21	8	16	6	21
	% compared with total voluntary turnover employee	0.74		0.73		0.53		0.74	
		0.17	0.57	0.26	0.46	0.18	0.35	0.16	0.57
Age 30 - 50 years old	Persons	10		21		18		29	
		2	8	8	13	8	10	7	22
	% compared with total voluntary turnover employee	0.25		0.46		0.40		0.79	
		0.05	0.20	0.18	0.29	0.18	0.22	0.19	0.60
Age > 50 years old	Persons	3		0		0		2	
		1	2	0	0	0	0	0	2
	% compared with total voluntary turnover employee	0.07		0.00		0.00		0.05	
		0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.05
Employee Engagement									
Employee Engagement	% of employee engagement	61		74		75		75**	
		61	61	74	75	75	75	75**	75**
	% of target rate	61		74		75		75**	

Remark

* Total Turnover rate covers the cases of involuntary and voluntary turnover (e.g. retirement, employment termination due to misconduct against code of conduct, voluntary turnover, etc)

** Referring to the survey in 2019 due to the COVID-19 pandemic situation in 2020. See further details at <https://www.bdms.co.th/newsroom/building-a-sustainable-organization-with-an-employee-engagement-program>

Clinical Staff (Doctor)

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Doctor Employment									
Full-time Doctor Employment	Persons	363		356		373		252	
		180	183	177	179	184	189	116	136
	% compared with total full-time doctor	13.49		12.44		12.38		8.46	
		6.69	6.80	6.19	6.26	6.11	6.27	3.89	4.56
Thailand	Persons	363		348		370		246	
		180	183	171	177	184	186	112	134
	% compared with full-time doctor employment	100.00		97.75		99.20		97.62	
		49.59	50.41	48.03	49.72	49.33	49.87	44.44	53.17
Cambodia	Persons	0		8		3		6	
		0	0	6	2	0	3	4	2
	% compared with full-time doctor employment	0.00		2.25		0.80		2.38	
		0.00	0.00	1.69	0.56	0.00	0.80	1.59	0.79
Doctor Turnover									
Full-time Doctor Turnover Rate	Persons	272		247		249		266	
		131	141	125	122	149	100	149	117
	% of total full-time doctor	10.11		8.63		8.26		8.93	
		4.87	5.24	4.37	4.26	4.95	3.32	5.00	3.93
Thailand	Persons	264		241		241		247	
		129	135	121	120	141	100	138	109
	% compared with total turnover doctor	97.06		97.57		96.79		92.86	
		47.43	49.63	48.99	48.58	56.63	40.16	51.88	40.98
Cambodia	Persons	8		6		8		19	
		2	6	4	2	8	0	11	8
	% compared with total turnover doctor	2.94		2.43		3.21		7.14	
		0.74	2.21	1.62	0.81	3.21	0.00	4.14	3.01
Total Full-time Doctor Voluntary Turnover Rate	Persons	263		244		247		261	
		125	138	123	121	148	99	145	116
	% of total full-time doctor	9.77		8.53		8.20		8.76	
		4.65	5.13	4.30	4.23	4.91	3.29	4.87	3.89

Description	Unit	Data Collection Period							
		2017		2018		2019		2020	
		Male	Female	Male	Female	Male	Female	Male	Female
Thailand	Persons	255		244		247		261	
		123	132	123	121	148	99	145	116
	% compared with total voluntary turnover doctor	93.75		98.79		99.20		98.12	
		45.22	48.53	49.80	48.99	59.44	39.76	54.51	43.61
Cambodia	Persons	8		6		8		20	
		2	6	4	2	8	0	11	9
	% compared with total voluntary turnover doctor	2.94		2.43		3.21		7.52	
		0.74	2.21	1.62	0.81	3.21	0.00	4.14	3.38
Doctor Engagement									
Doctor Engagement	% of Doctor engagement	80.32		80.19		81.2		82.36	
		80.83	79.71	80.61	79.73	81.71	80.66	83.06	81.66
	% of target	80.00		81.00		81.00		82.00	

Occupational Health and Safety

Principles and Importance

Occupational health, safety and good working conditions are crucial for the organization and need to be controlled and managed to prevent any negative impact to the financial and reputational risks from work absence due to sickness and fatal accidents linked to unsafe working conditions. Being aware of such importance, BDMS has established guidelines to promote occupational health and safe working conditions for all employees and those who work for the company's well-being to ensure efficient work processes and employee engagement.

Occupational Health and Safety Policy and Guideline

BDMS enforces the systems and occupational health and safety guidelines for all employees in accordance with the risk assessment on occupational health and safety, healthcare standards, hospital accreditation, JCI and relevant regulations covering all business activities. The Policy ensures the Occupational Health, Safety and Environment Committee establishment in all responsible facilities to assess risks and set out the measures for business activities both related and non-related to the healthcare services and ensure continual operations.



Occupational Health, Safety and Environment Policy for BDMS Subsidiary Hospitals

Strictly comply with laws, regulations of the government sectors as well as other regulations related to the occupational health, safety and environment

Reduce pollution by exercising waste management and control the effluent quality level according to the laws. Maximize the usage of raw materials and natural resources. Prevent diseases, disease transmission and accidents from work. Ensure the good air quality in the building, good health of the personnel working in the hospitals and constant improvement

Communicate and raise awareness on nature conservation. Monitor the occupational health and safety of all employees and other personnel operating in the organization and the public

Ensure sufficient and proper resources according to the Occupational Health, Safety and Environment Policy

Environment of Care Committee (ECC)

The Environment of Care Committee (ECC) comprises at least 11 members representing all personnel from employer and employee levels. The ECC serves for a 2-year time with clearly assigned responsibilities. Meetings are held monthly or when more than half of the members call for a meeting.

Environment of Care Committee Members



1 Chairperson



4 Employer
Representatives in
Supervisory Level



5 Employee
Representatives in
Operational Level



1 Safety Officer in
Professional or Supervisor
Level as a committee
member and secretary



Responsibilities of the Environment of Care Committee (ECC)



Review policy and establish safe working plans for during and outside work hours covering accident prevention and reduction, workplace hazards, sickness or any serious incidents from work or unsafe working conditions, to present to the employers



Report and advise measures following the regulations and workplace safety standards to employers to ensure the safety of employees, contractors and external personnel



Review projects or training about workplace safety and safety responsibility for employees, supervisors, executives, employers and other personnel of all levels



Review rules, manuals and standards related to workplace safety for the employers



Survey workplace safety practices and inspect hazard statistics in the workplace at least once a month



Support and promote workplace safety activities



Set out the reporting system for unsafe operations and ensure the compliance employees of all level



Follow up the progress on the proposal for the employers



Regularly and annually prepare the updates on performance, issues, obstacles and suggestion regarding the committee's operations to the employer



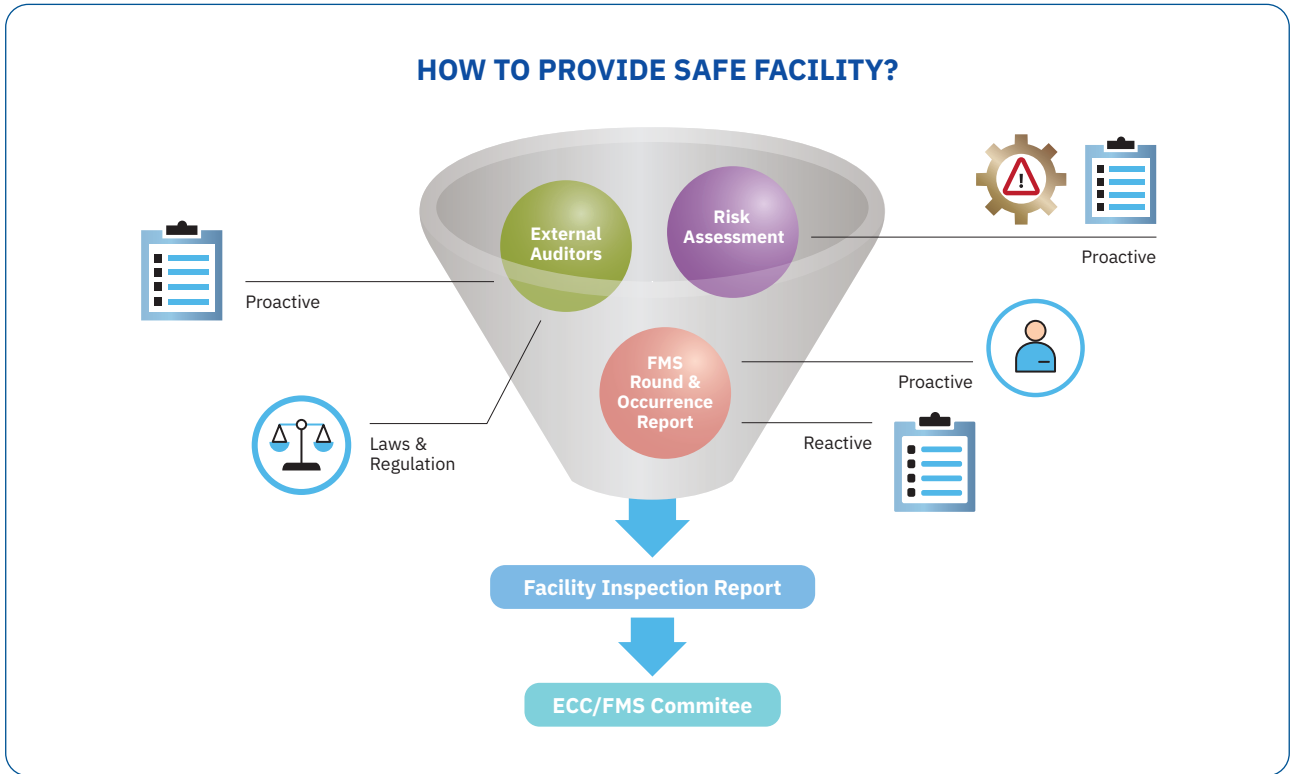
Assess the workplace safety performance of the facilities



Perform tasks as assigned by the employer

The employees can contact the Environment of Care Committee (ECC) to submit complaints or inquiries related to the safety of working operations at the Occupational Health, Safety and Environment Department to establish hazardous preventive measures and avoid incident repetition.

Example of Occupational Health and Safety of Hospital Facility under Construction or Renovation



BDMS ensures the occupational health management in all business activities such as the construction or renovation of hospital facility by assigning the hospital leaders and relevant department of the facility management to submit the facility inspection report to the Safety Committee, consisting of the Environment of Care Committee (ECC) and Facility Management & Safety Committee for consideration and approval on the construction budget.

Facility Inspection Report

Risk Assessment

On risks related to the building safety

External Auditors

According to the local and international regulations, particularly on the building safety and fire safety systems.

FMS Round & Occurrence Report

To inspect the operating areas and details stated in the occurrence report from the related sectors.



An example of risk management in hospital facility construction and renovation is the Preconstruction Risk Assessment (PCRA). The assessment must be completed prior to demolition, construction and renovation of the buildings. The objectives are to identify risks and set out the measures and responsible personnel to reduce the risks throughout the process and to ensure document and contractor management according to the regulations.

Risk Factors of the Hospital Construction or Renovation Work

Air Quality	Infection Control	Utilities	Noise
Vibration	Hazardous Materials	Emergency Services	Other Hazards on Treatment & Services

Employee’s Health, Safety and Biohazard Post-exposure Management Policy

To ensure the sound health of employees and contractors, BDMS has established Staff Health, Safety and Biohazard Post Exposure Management for risk identification on infection during operations and proper preventive guidelines in case of exposure to biohazard. The Policy objectives are to identify clear responsibilities and guidelines, ensure internal meetings, poster detailing the work process in hospitals, and organize annual training in infection prevention.

Duties and Responsibilities

Infection Control Committee (ICC)

Set out health and safety measures for employees

Hospital Management Committee

Revise and approve employee health and safety measures

Executives

Approve and monitor operations in compliance with health and safety measures

Supervisors of Related Departments

Ensure that employees within the division comply with the measures and report any operational issues to infectious control nurses

Human Resources Department or Assigned Personnel

Follow the guidelines and monitor performance such as occupational disease rates, health checkup rates, and immunization as per guidelines

Related Personnel

Comply with agreed operational measures

Operational Guidelines

Health Screening

Assess risks and establish the health assessment criteria for pre-employment health examinations, annual health examination, periodic health examination and repeat medical examination.

Health Risk Assessment

Identify hazards from operations and issue preventive measures according to the risk assessment results. Annually assess the condition of the buildings and air quality according to the regulations and quarterly report to ECC

Periodic Preventive Immunizations

Provide necessary vaccinations to the employees and contractors according to an appropriate timeframe and details

Safe Patient Handling Training

Attend the training on manual lifting and moving of the patients or equipment according to the ergonomics for the risk group, such as nurses, patient handlers, physical therapists and nursing assistants

Workplace Violence Management Training

Provide workplace violence management training as well as prevention from the process design to management

Training for Employee who may be Second Victims of Adverse or Sentinel Events

Provide the management training for an employee who may be the second victims of adverse or sentinel events

Treatment for Work-related Injury or Sickness

Manage and monitor the work-related injury or sickness, such as accident report, initial treatment at the staff clinic or emergency department, disease prevention and control in the hospital, the process for patients from accidents, exposure to patient's blood or secretion and walkthrough survey, to assess risks and provide rectification and avoid repetition

Monitoring and Assessment for Process or Service Efficiency

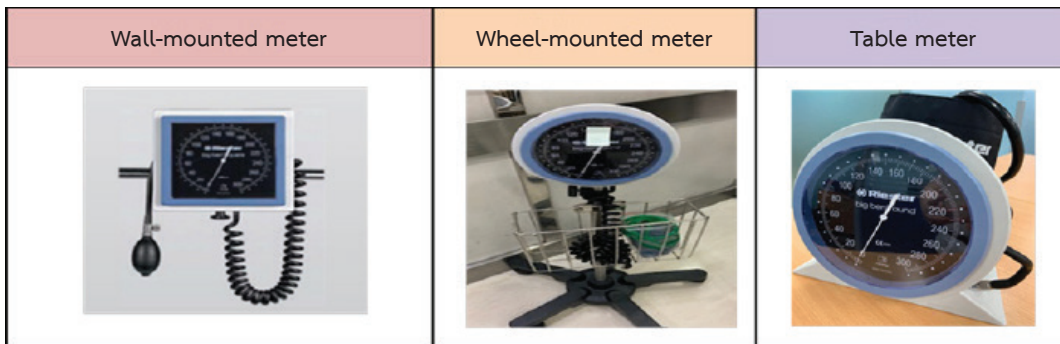
Set out the process efficiency indicators for the employees such as health checkup rates, immunization rate, work-related disease rate and disease transmission incidents in the hospitals

Occupational Health and Safety Initiatives

BDMS assigns the responsible hospitals to launch initiatives in response to the Occupational Health, Safety and Environment Policy as well as other policies relevant to occupational health. Details of the initiatives are as follows:

Non-Mercury Blood Pressure Meter Project

To eliminate the health risks of medical personnel from mercury-containing equipment such as blood pressure meters, Bangkok Hospital Headquarters launched a project to replace the mercury blood pressure meters with analog units. In 2020, 356 analog units were purchased for all subsidiary hospitals, including the wall-mounted, on-wheel and table meters. The parts of mercury blood pressure meters were separated. The mercury was disposed of as toxic waste and the bodies of the device are sent for sale



In the future, Bangkok Hospital Headquarters will discontinue the mercury-containing medical equipment and will implement this project in other subsidiary hospitals.

Occupational Health and Safety in the Workplace Training



Bangkok Hospital Headquarters organizes mandatory training about occupational health and safety in the workplace, such as Facility Management System and Fire Drill Training (Code 5), for self-learning on mobile applications for new and current employees.

Real-time monitoring Indoor Air Quality in Hospital



Bangkok Hospital Rayong launched a project about Real-time monitoring Indoor Air Quality in hospitals to build a long-term air quality monitoring system in BDMS healthcare facilities. This initiative responds to the occupational health and safety strategy and aims to build customer trust in air quality.

The installation of the devices enables real-time monitoring of air quality inside and outside the building to ensure the customer's satisfaction and trust in the indoor air quality, compared with the outdoor air.

Initiatives for the Employee Wellbeing

BDMS understands and values the development and support for employee wellbeing other than occupational health in the workplace. As a result, the hospitals have established the initiatives, such as promoting health and nutrition, exercises and stress management for the employees and their families' wellbeing.

Mother and Child Support Initiatives

Recognizing the importance of the employee's quality of life during and post-pregnancy, BDMS has established initiatives and facilities to improve their working conditions and efficiency as well as build the maternal bond. Examples of the projects in 2020 are as follows:



Launch a **knowledge-sharing workshop for expecting mothers** to create an understanding of physical changes and practices during pregnancy, alleviate their concerns and ensure the readiness of infant care during and post-pregnancy. The project was designed for customers to build trust in the services and for the employee's good and safe practices.

Arrange **breastfeeding and pumping areas** for the mothers to feed breast milk to their newborns and build a maternal bond



Establish the **daycare for pre-school children** to ensure their safety and lessen the concerns during the operations, especially for the nurses and nurse assistants which are the major workforce to provide the services to the customers.



Launch the “**Rakluk@Hospital**” seminar to educate the parents on child care during the new normal. Ensure the child’s good development with the correct child care methods by specialists in maternal-fetal medicine, Women’s Health Center, Directors of Child Development Neuropsychiatric Clinic at the BDMS headquarters. Arrange seminars and workshops with the specialists in developmental psychology of Kasetsart University to strengthen family attachment and apply the knowledge to child care.



Ergonomics Support Initiatives



Recognizing the employee's health risks, particularly in ergonomics, which is one of the major health issues of the employees, BDMS established a project to share the knowledge and correct practices on ergonomics in 2020 with the details as follows:



BDMS headquarters assigns the supervisors to conduct a **walk-through survey in the operational areas** to identify, monitor, control and rectify risks in the department. The supervisors must be alerted to the hazards from the identified risks, such as ergonomics risks. The ergonomics training is organized for employees with ergonomic risks, such as adjusting the seating positions for the back office and patient escort using accessible communication channels to raise their awareness on self-care in line with the ergonomics practices.



Bangkok Hospital Pattaya found that the operating officers in the frontline and the office were facing work-related musculoskeletal disorders resulting from improper working positions. **The ergonomics for work safety project** was then launched to provide knowledge on ergonomics, anatomy, physiology, suitable working position, office syndrome, prevention of disorders, exercise and basic self physical therapy to reduce the injury rates and ensure self-care.



Bangkok Hospital Pattaya launched **BRH Office Ergonomic** for employees referring to the welfare and site visits to plan the training and activities to raise awareness and adjust the working positions. The hospital followed up and evaluated the results after the projects to ensure the employee's benefits, reduce injury from work, reduce work absence or transfer and increase work efficiency.

Good Health and Nutrition Initiatives

To ensure the employee’s good health, BDMS has established health and nutrition initiatives according to the annual health check-up criteria. In 2020, BDMS organized the **staff clinic** for sharing knowledge on healthcare with specialists who can provide consultancy and primary diagnosis. In case of further treatment, the employees will be transferred to relevant specialists.



In addition, BDMS subsidiaries launched the **B+, FIT FOR LIFE, FIT FOR WORK** in 2020 for 40 employees at risk for diseases, referring to their health check-up results. Their private information, exercise behaviors and daily consumption are recorded for the monthly monitoring and evaluation. This initiative aimed to share the knowledge on nutrition and exercise, reduce health risks and risks for disease, encourage good health and lessen the number of treatments in the future.



Other health-related initiatives are to provide knowledge on healthcare through the internal communication channel, self-care and how to stay fit and healthy.



Physical Fitness Initiative

Recognizing the importance of exercise for the good health of all employees, BDMS assigned its subsidiary hospitals to organize exercise initiatives in 2020 with the details as follows:



All subsidiary hospitals joined the **21 Days Walking Challenge**, which encouraged all employees to exercise anywhere and anytime by achieving 9,000 steps in 21 days during and outside the working hours. The steps can be monitored using mobile applications or smartwatches. The results must be submitted at www.behealthy.bdms.co.th before midnight. The first three hospitals with the highest ratio will win the rewards to encourage their continuous exercise.



Bangkok Hospital Pattaya arranged **exercise clubs** to encourage the good health of the employees and strengthen their relationship and unity with different professionals. This also benefits in reducing the sickness rates, which affect the work performance and the service flow. The exercise club consists of sports such as table tennis, mountain biking, badminton, aerobic, yoga and golf.



Bangkok Hospital Rayong set out the employee care strategy called the sound body, **sound mind and sound finance** to ensure good health and launched an initiative called “BRH & SRH Virtual Run 90 Day Challenge.” The challenge aimed to track the running distance, encourage exercise, build an exercise lifestyle in the organization and ensure the employee’s good health according to the quality standards. Doctors, nurses and employees of Bangkok Hospital Rayong and Sri Rayong Hospital can download the application to join the activities and track the running distance to gain rewards at the end of the project.



Samitivej Hospital Srinakarin arranged **exercise activities** for the employees such as Samba dance and yoga to encourage good health, reduce stress from work and build a good relationship between the employees.

BHQ HEALTHY CHALLENGE SEASON 1 2020

จับคู่พัฒนาพริต **BMI & FAT** ไปด้วยกัน

BMI ที่เราอยาก

- 19.00 - 22.99
- 23.00 - 26.99
- 27.00 - 29.99
- ≥ 30.00 UP

ระยะเวลากิจกรรม ครั้งที่ 1 มีนาคม - พฤษภาคม 2563 ครั้งที่ 2 กรกฎาคม - กันยายน 2563

ทีมที่ลด BMI และ FAT รวมกันได้สูงสุด **รางวัลทีมชนะเลิศ 15,000 บาท**

รางวัลทีมรองชนะเลิศ อันดับ 1 10,000 บาท รางวัลทีมรองชนะเลิศ อันดับ 2 5,000 บาท

สิทธิพิเศษ

- ได้รับสิทธิพิเศษในการใช้บริการ
- มีสิทธิ์เข้าร่วมกิจกรรมพิเศษ
- Special Exercise Class
- สิทธิเข้าร่วมกิจกรรมพิเศษ

สมัครฟรี! กรณีแลกดาวและ Point ไว้ตรวจสอบรายชื่อ ได้ที่ไฟล์แนบ

รับสมัครเพิ่ม! ลด 75% **375 บาท / คน / ครั้ง**

สมัครและวัด BMI และ FAT ที่ BeFit (ศูนย์วิจัยคอนโด ชั้น 2) ตั้งแต่วันที่ 17-28 ก.พ. นี้ เวลา 12.00 - 21.00 น.

Moreover, BDMS headquarters launched the **BHQ Healthy Challenge 2020** to ensure the Body Mass Index (BMI) within the standards to reduce the risks for non-communicable diseases (NCDs) by adjusting the consumption and exercise behaviors. A total of 228 employees attended the projects, compared with the target of 180 people. 54% of the employees reduced their BMI to the target, compared with 30% target. BDMS also launched BeFit to encourage physical exercise in standardized and modern facilities with many activity options.

Project Assessment

1. Participation rate BMI Challengers Total **228 persons** or **114 Teams**

- Group 1 BMI 23-26.99 : 35 Teams
- Group 2 BMI 27-29.99 : 37 Teams
- Group 3 BMI ≥ 30 : 42 Teams

Target 180 คน Actual 228 คน

GOAL ACHIEVED Target Participant > 126%

2. BMI reduction rate ผู้เข้าร่วมกิจกรรมสามารถลดค่า BMI ได้ตามเป้าหมาย 30% ของจำนวนผู้สมัครทั้งหมด โดยนับคนที่ลดน้ำหนักมากกว่า 2 กิโลกรัมขึ้นไป

Target 30% **GOAL** Actual 54%

Most of them reduce 3 - 4 Kg. & Maximum 17.7Kg. On average BMI -1 from Body Weight Reduce 1.8 - 2.9 Kg.

BeFit สถานที่ออกกำลังกายแห่งใหม่ ณ ศูนย์วิจัยคอนโด ชั้น 2 - 3

เปิดบริการจันทร์ - เสาร์ เวลา 12.00 - 21.00 น.
เปิดบริการวันอาทิตย์และวันหยุดนักขัตฤกษ์

* วันและเวลาดังกล่าว หากมีการเปลี่ยนแปลง จะแจ้งให้ทราบอีกครั้ง

ค่าบริการสำหรับแพทย์ประจำ / พนักงานประจำ BHQ และ BDMS
50 บาท / วัน 500 บาท / เดือน 5,000 บาท / ปี

ค่าบริการสำหรับแพทย์ชั่วคราว (Part time) / พนักงานชั่วคราว กลุ่ม RPS (Part time)
100 บาท / วัน

Special สมัครรายปีวันนี้ แลกบัตรฟรี 1 เดือน ▶ ฟอนซ์าร์สูงสุดได้ 3 เดือน

Stress Management Initiatives



Understanding that the healthcare services can be pressuring and may result in direct stress towards the physical and mental, BDMS launched the initiative to reduce stress and concerns, enabling the employees to enhance their work efficiency. The examples of the initiatives for stress management in 2020 are as follows:



Bangkok Hospital headquarters allowed working in the Innovation Center, a workplace or meeting venue with a relaxed and casual ambiance. The facility is fully equipped with working devices and designed for information exchange. Working in such a relaxing environment can help reduce stress from work and stimulates creativity.



Bangkok Hospital Pattaya assessed the **stress and depression level** of the employees by creating an assessment through the QR Code (referring to the Department of Mental Health). The project designed the provide activities and care suitable for each group, such as counseling team provision, hotline consultancy 1555 and Friends for Friends (be observative, be attentive and pass on for help). Any detected cases will be immediately taken care of to ensure the quality services from the employees to the customers.



Bangkok Hospital Rayong created a **mental checkup project** to survey, monitor and care for the employees and contractors with psychological sickness. This project aims to ensure access to treatment from the psychologist and psychiatrist, take care of the employees, build good relationships of the organizations and enhance work efficiency.

Occupational Health and Safety Statistics

Description*	Unit	Data Collection Period			
		2017	2018	2019	2020
Number of Hours Worked					
Employees and Medical Personnel	Hour	37,031,147	39,874,675	40,284,021	36,058,618
Contractors	Hour	10,012,419	10,494,661	11,313,516	10,437,980
Work-related Injuries					
Fatalities as a Result of Work-related Injury					
Employees and Medical Personnel	Cases	0	0	0	0
	Cases per 1,000,000 hours	0	0	0	0
Employees and Medical Personnel	Cases	0	0	0	0
	Cases per 1,000,000 hours	0	0	0	0
High-consequence Work-related Injuries					
Employees and Medical Personnel	Cases	0	0	0	0
	Cases per 1,000,000 hours	0	0	0	0
Employees and Medical Personnel	Cases	0	0	0	0
	Cases per 1,000,000 hours	0	0	0	0
Recordable Work-related Injuries**					
Employees and Medical Personnel	Cases	349	368	380	270
	Cases per 1,000,000 hours	9.42	9.23	9.43	7.49
Employees and Medical Personnel	Cases	24	25	42	29
	Cases per 1,000,000 hours	2.40	2.38	3.71	2.78
Injuries that Led to Loss Time					
Employees and Medical Personnel	Cases	1	2	2	1
	Cases per 1,000,000 hours	0.027	0.050	0.050	0.028
Employees and Medical Personnel	Cases	1	2	15	5
	Cases per 1,000,000 hours	0.100	0.191	1.326	0.479

Description*	Unit	Data Collection Period			
		2017	2018	2019	2020
Work-related Ill Health***					
Fatalities as a Result of Work-related Ill Health					
Employees and Medical Personnel	Cases	0	0	0	0
	Cases per 1,000,000 hours	0	0	0	0
Employees and Medical Personnel	Cases	0	0	0	0
	Cases per 1,000,000 hours	0	0	0	0
Recordable Work-related Ill Health					
Employees and Medical Personnel	Cases	1	4	1	0
	Cases per 1,000,000 hours	0.027	0.100	0.025	0.000
Employees and Medical Personnel	Cases	9	5	10	3
	Cases per 1,000,000 hours	0.899	0.476	0.884	0.287

Remarks

* The scope of the report on greenhouse gas emission in 2020 covers 14 hospitals compared with disclosed information on BDMS Sustainability Report 2019 as follows:

- Bangkok Hospital
- Bangkok Hospital Chiang Mai
- Bangkok Hospital Hua Hin
- Bangkok Hospital Ratchasima
- Bangkok Siriroj Hospital
- BHN Hospital
- Bangkok Hospital Pattaya
- Bangkok Hospital Phuket
- Bangkok Hospital Hatyai
- Bangkok Hospital Rayong
- Samitivej Srinakarin Hospital
- Samitivej Sriracha Hospita
- Samitivej Sukhumvit Hospital
- Phyathai 2 Hospital

** Only cases on needlestick injuries, cut, exposure to secretions and work-related injuries requiring more than first aid treatment

*** Only cases certified by occupational physicians

Community & Societal Centric

Community Engagement and Healthcare Accessibility

Principles and Importance

Business operations nowadays can affect the community and society, which becomes more aware of such impact. Moreover, the details of the impact are widely accessible and rapidly shared. Consequently, to ensure smooth operations for all stakeholders, BDMS has established socially responsible operational guidelines to express its determination to care for the community and society, prevent and control risks that could affect the corporate reputation, and support the medical equipment and safety knowledge with the help from local communities and the government sector.

BDMS Community Engagement and Initiative Guidelines

Being aware of the business operations' impact on the surrounding communities near the hospitals, BDMS appoints the Corporate Sustainable Development Committee and related departments to build community engagement. They are responsible for conducting a site visit to collect data and understand the community members' expectations toward BDMS operations. In addition, BDMS has launched initiatives to resolve issues and build a good relationship with the communities following their requirements while reporting the environmental impact evaluation in case of hospital renovation or expansion.



Examples of Community Engagement in 2020 – Bangkok Hospital Neighborhood Club



Bangkok Hospital headquarters launched “Neighborhood Club” to share useful knowledge on healthcare such as health checkups, influenza vaccine, suggestions and expectations related to the hospital operations for residents of Soi Soonvijai community around the hospital. There were more than 195 participants who were given the Neighborhood Club Member Card, which provides discounts and special healthcare services. Moreover, such community engagement enables the Bangkok Hospital headquarters to understand the community’s expectations as one of the stakeholders as follows:

Health

Support health checkups and vaccination. Provide health knowledge and privileges on the hospital fees

Quality of Life

Ensure the cleanliness, safety and traffic surrounding the hospitals

Environment

Establish parks and green spaces for the community



BDMS has established initiatives to support the good health in the society, accessibility to healthcare and engagement on CAP-THAI4GOOD project in honor of His Majesty the King, the Securities and Exchange Commission (SEC) and Thai Rating and Information Services Co., Ltd. (TRIS) on the auspicious occasion of his coronation. The healthcare initiatives by BDMS are in accordance with the stakeholder engagement and organizational expertise as the leader in healthcare.

BDMS Corporate Social Responsibility Initiative Guidelines

Sharing Hands

Deliver healthcare services to the underprivileged in the community and society

Caring Heart

Provide the preventive healthcare knowledge according to the community and society as well as the fundamental structure of the health in the community

Collaborating Health

Collaborate with the customers to support the good health of the community and society through the company’s products or services

Sharing Hands – Donation for the Underprivileged in the Community and Society

BDMS launched a social initiative to deliver healthcare services to the underprivileged in the community and society, such as health checkups to foster their safety and wellbeing. The initiatives' details in 2020 are as follows:



Sanjorn Foundation – Health Checkup for Children in Slum

BDMS, in collaboration with Vejdusit Foundation, launched the Sanjorn Foundation to support health checkups and accessibility for those vulnerable children living in the 4 daycare centers of Under the Royal Patronage of H.R.H. Princess Galyani Vadhana Krom Luang Naradhiwas Rajanagarindra and Ban Thanyaporn.



The project gathered over 105 medical personnel and volunteers as well as provided medicine, medical supplies and lunch to the underprivileged children with health and development issues. This initiative aims to provide health checkups for the children, ensure correct primary treatment and improve their wellbeing. BDMS expects that the health checkups will reduce their sickness rate. The sick children must be diagnosed and informed of the treatment to the responsible teacher who will pass the messages to their guardians. Moreover, BDMS plans to launch parental vaccines to encourage preventive healthcare, referring to the child sickness rate in the community participating in the project.



In 2020, the sickness rate of the children participating in the project is at 61.50%, decreasing from 66% in 2019 and exceeding the target of less than 70%. A total of 571 children received standard health checkups to determine the health conditions by specialists. The information helps support the children's health and responds to the community's requirements. The project also encourages the doctors, nurses and volunteers to be proud of helping out society and constantly create a positive perception toward the company.

Destitute Patient Support and Treatment

BDMS, together with Vejdusit Foundation, launched a destitute patient support project for the third consecutive year (in 2019-2021). The project focuses on assisting the patients lacking financial liquidity and in need of emergency treatment to gain access to the standardized treatment instantly, in case the government hospitals postpone the treatment.

The project performance in 2020 of the BDMS subsidiary hospitals, Vejdusit Foundation and hospital networks such as Phyathai, Paolo and Bangkok Hua Hin together with the doctors, nurses, nurse assistants and officers was to provide surgery to 69 destitute patients, compared with the target of no less than 25 people with the cost of 5,920,720.90 Baht. The performance overview in 2019-2020 was a total of 180 destitute patients with the cost of 31 Million Baht.

The destitute patient support project fosters the volunteering culture and enhances the participant experience while responding to the employee engagement with regards to the increasing responsibilities towards the society and environment.



Further details and contacting channels for Vejdusit Foundation

Introduction to Vejdusit Foundation



<https://www.bangkokhospital.com/en/content/vejdusit-foundation>

Details of Vejdusit Foundation



<https://www.bdms.co.th/th-csr/>
เกี่ยวกับมูลนิธิเวชดุสิต

Facebook



<https://www.facebook.com/VejdusitFoundation/>



Medical Supply Donation for the Safety of the Society

To support the safety of the society, Samitivej Hospital provides medical supplies such as an emergency birth kit to reduce the fatality rate in emergency delivery in high traffic areas with no proper equipment and ensure convenience of the traffic police.

Moreover, the hospital provided 200 sets of Tytocare to the government sectors due to COVID-19, which severely transmits within Thailand and worldwide. A Tytocare is an innovation for measuring body temperature, listening to lung sounds, checking the throat, uvula and tonsil infection, investigating ear canal for ear symptoms, monitoring the heart rate and assessing the skin rashes by taking photos and videos for online diagnosis. Such innovation has been certified by the Food and Drug Administration (FDA) of the U.S.A. and Thailand as well as The Medical Council of Thailand and the Medical Association of Thailand.

Tytocare can help reduce the risk of infection for the medical personnel from touching and providing treatment to the patients or those in the high-risk group. The device relieves the lack of medical personnel issues and ensures accessibility to healthcare without traveling to the hospital despite living in remote areas or under state quarantine.

Samitivej New Life Fund

In 2013, Samitivej Sukhumvit Hospital and Samitivej Srinakarin Hospital launched a long-term project named Samitivej New Life Fund Under the Royal Patronage of His Majesty the King. The project intends to provide treatment for underprivileged children and ensure their good health as the nation's future.

The fund comprises 3 sections - pediatric patients with heart diseases, genetic disorders in children (cardiovascular diseases and cancer curable by stem cells) and pediatric patients with scoliosis.



Not only does such a project enables pediatric patients to receive the treatment, but the fund also helps raise awareness and ensure knowledge on disease prevention. Moreover, the hospitals team with external organizations to raise fund, such as selling products and special edition dolls, placing donation boxes, arranging football matches, organizing charity events, asking for donations from the movie set, obtaining income from the products sold by the doctors and staff or running for charity.



Caring Heart – Preventive Healthcare Knowledge

BDMS set out a project on preventive healthcare to the community surrounding the hospital to ensure the residents' knowledge and skills on self-care and good health while reducing health hazards from accidents or chronic diseases. The details of the project are as follows:

SAFETY FALL

BDMS has established the SAFETY FALL project to reduce the risk of injuries under the Neighborhood Club project. The doctors from the Trauma Center and Rehabilitation Center were invited to share the knowledge on the statistics of falling, the risks of falling according to the ages, factors of falling, safe falling techniques and guidelines, dangers from falling and its effects on the bone and nervous system (nonsevere and severe cases), treatment guideline for bone and nerves, cause of falling, rehabilitation guideline and falling prevention. The knowledge sharing from this project was publicized for adaptation on care for the elderly or other family members.



See further details on Safety fall at the QR Code

<https://www.youtube.com/watch?v=sJEJQqhd2fE>



Parental Vaccines

BDMS and subsidiary hospitals initiated the project which is a knowledge sharing for parents in the communities Parent Vaccines Project, the which the hospitals are located. The project’s vision is “parental vaccines are the best “vaccines” for the children.” The project aims to share knowledge and preventive healthcare while building community engagement by medical professionals. This is also to ensure the children’s wellbeing and development according to their ages in physical, emotional, social and intellectual aspects. The quality of child development reflects the quality of society.

In 2020, to ensure good health and wellbeing of the children, BDMS provided training, such as child CPR, child first aid, tepid sponge treatment for fever and handwashing techniques to prevent disease transmission for the parents and teachers in the communities in Bangkok and other cities. The training data was collected for evaluation after the projects to constantly adjust the training courses according to each community’s requirements.

A total of 10 parental vaccine projects were launched in 2020, compared with the target of 5. There were 521 participants including parents and teachers in the communities, compared with the target of 200. The participants who joined the project had a better understanding of child healthcare and were able to use the knowledge and skills during the training in daily life. In addition to the positive perspectives of the society and community towards the hospital, BDMS was able to enhance employee engagement as an organization responsible for the society and environment.





See further details on iRescue at the QR code or the link below <https://www.bangkokpattayahospital.com/>

iRescue - CPR Project

BDMS subsidiary hospitals provided basic CPR training for the surrounding communities. In 2020, Bangkok Hospital Pattaya launched a free workshop called iRescue for those aged from 12-60 years old who were interested in first aid and basic CPR training and resided within a 40 km radius of the hospitals. The project has been organized once per quarter for 7 consecutive years starting from 2013.

iRescue determines to provide the knowledge and skills to the public on how to help themselves and others in a critical situation. This is vital as it can help reduce fatality and disability rates for those injured by emergency accidents or sicknesses before transferring to the hospitals (pre-hospital). Moreover, this demonstrates the efficiency of the Bangkok Hospital Pattaya in care for emergencies and injury. Not only they can ensure the safety of the tourists and communities in Pattaya, but they are also able to provide the channels for the medical personnel to use their knowledge and professional skills to help society, resulting in self-development and pride in the profession and organization.

The project performance in 2020 was 5 projects with 758 participants. 85% of the total participants were highly satisfied with the training. The participants admired the hospitals for organizing the project and encourage its continuity. An example of the project is the motorbike taxis in Ko Lan trained by the Bangkok Hospital Pattaya on basic first aid were able to perform the basic first aid on the injured tourists and help the foundation staff during an emergency accident or sickness. This enables knowledge exchange and helps improve the relationship in the community.



CPR Project – Build Organizational Trust with Efficient Training

BDMS Hospital Hat Yai launched a project to enhance the knowledge and skills on CPR, especially in patients with cardiovascular disease, for the hospital's surrounding communities. The workshop outlines include CPR training, hand washing techniques and mask-wearing for disease prevention.

In 2020, the hospital carried out 6 workshops per year with a total of 735 participants from the communities, patient's relatives and hospital employees. 80% of the participants passed the CPR and first aid training while 70% of the participants volunteered in Bangkok Hospital Hat Yai health networks. In 2019, one of the participants performed CPR and saved the patient. In 2020, one of the participants also helped CPR a patient in the hotel area. The project provided the PR value towards the organization and generated an income of 2.2 Million Baht on additional health checkups from the CPR in 2020.



Health Literacy Project

In 2020, BDMS has established the health literacy project in collaboration with the National Housing Authority. This project is in line with BDMS's mission in sharing knowledge on health and wellbeing. The objective is to ensure community awareness of healthcare in response to communicable and non-communicable diseases. The knowledge in healthcare can sustainably strengthen the community and ensure their good health.

Healthcare literacy covering the capability and skills to access, understand, assess and integrate healthcare information then implement it in daily life to promote good health and disease prevention for the better quality of life of all ages. Besides, health literacy also enables sustainable self-care and suggestions to the surrounding people, family, community and society according to the National Strategy (2017-2037) and the 12th National Health Development Plan (2019-2011). The first strategy of the plan is to proactively enhance the health of the local and reform healthcare. All must ensure that the healthcare knowledge covers the impact of information sharing from the doctors to patients. This is to understand that the information is related to themselves, their wellbeing, environment, lifestyle or existing diseases and be able to act accordingly.





In 2020, BDMS teamed with the internal sectors, such as Bangkok Health Research Center (BHRC), Central Human Resource Department, Medical Affairs Office, Nursing Staff Organization and Corporate Sustainability Development (CSD) Committee to foster health literacy. BDMS then promoted healthcare and disease prevention with the Health Education Revision, Department of Health Service Support, Ministry of Health and the Faculty of Public Health at Mahidol University for BDMS employees such as medical and nurse personnel in the Bangkok Hospital headquarters and target groups such as residents in the areas, staff and officers of National Housing Authority headquarters, residents of Baan Eua Arthorn Bang Chalong and Tha It. The health literacy evaluation criteria are as follows:

Health Literacy Evaluation		
Information Accessibility and Healthcare	Understanding Sufficient Health Information and Services	Discussion for Better Knowledge and Understanding
Healthcare Decision Making	Health Behavior Modification	Health Information Sharing

Health Behavior Evaluation

Food Consumption	Physical Exercise	Smoking	
Alcohol Consumption	Stress Management	Tuberculosis Prevention	Reasonable Drug Consumption

According to the initial assessment in 2020, 68% of participants possessed an average, good or excellent knowledge in healthcare and able to take care of their health accordingly. 62.9% of participants had good or excellent health behaviors or most of the other behaviors. With the survey analysis, BDMS prepares a development project on the general knowledge in healthcare and behaviors. The project's examples are establishing the channels and trial activities related to the health skills enhancement for the employees and communicating the information on healthcare or lessons from other BDMS projects related to healthcare for the community and society.

BDMS plans to expand the operations to all trial target areas in the community and all operating areas to disseminate the healthcare knowledge and conduct the evaluation to assess the new target group as a leader in healthcare services for the community and society.



See further details on Health Literacy at the QR code or the link below
<https://www.bangkokhealth.com/hlmain/>



Healthy Together – Building Trust during COVID-19

Phyathai 2 Hospital launched the Healthy Together project with a team of medical personnel in occupational medicine, nurses, disease specialists, engineering team and sales department to audit the safety process and standards. The audit scope includes facilities, personnel, training, transmitted disease prevention and building trust in the customers affected by the COVID-19, such as hotels, airlines, properties, embassies. This is also to provide preventive healthcare in a high-risk situation, training and knowledge sharing in both theory and practice such as correct PPE donning process. After the rectification, the team will reaudit to ensure compliance with the Ministry of Health regulations. The team aims to ensure the partner’s understanding and communication

to the customers and surrounding communities on the quality standards to build trust in external parties using the services in the facilities such as state quarantine hotels for foreigners.

In 2020, 20 business partners joined the training on preventive healthcare with a total of 350 participants. 100% of the frontline staff in contact with the customers were informed of the guidelines from the specialists. Moreover, BDMS also assisted the business partners on their business continuity using the medical expertise resulting in a positive outcome on our PR value of 3.1 million Baht from April to December.

Collaborating Health – Collaboration for Healthy Community and Society

BDMS subsidiary hospitals organize social activities in collaboration with the customers to create an opportunity and improve the health of the community and the society while enhancing the business growth. An example of the social activity is as follows:

Commercial Initiative “Souy-Sai-Boon Project” - Screening Test for Women’s Cancer of the Underprivileged

BDMS Hat Yai had teamed with the Breast Care and Obstetric Clinic, Women’s Health Center and organization/foundation for underprivileged women on a charity project in 2018-2020 to share the knowledge and suggestions on a screening test for women’s cancer. In every checkup program, the Hospital will donate 100 Baht for the screening test of underprivileged women, such as the Yen Sira Foundation and Chemotherapy Daycare Center.

In 2020, the charity project raised the donation twice with a total of 200,000 Baht and organized the activities for more than 10,000 members. The income for the screening test for women’s cancer generated 300,000 Baht resulting in a return checkup for 6 underprivileged women.



Sales & Labeling Practices

Principles and Importance

Unethical healthcare services marketing affects corporate credibility in the long term. Related stakeholders such as patients who receive false marketing information will lose their trust in BDMS shareholders. Therefore, BDMS is committed to introduce transparent marketing, sales and labeling practices in conformity with regulations to ensure that the patients are informed of authenticated information on medication and treatments according to their needs.

Marketing Communication, Sales Practices and Drug Labeling

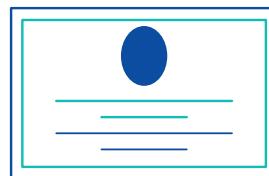
BDMS Marketing and Pharmacy Department are responsible for the marketing training and communication as well as sales practices and Drug labeling as stated by in the Notifications of the Department of Health Service Support, the Notifications of Central Committee on Prices of Goods and Services, the Ministry of Public Health and the Drug Act. Besides, various communication channels have been introduced to stakeholders to report any misconduct.

Rules on Advertisement or Publicity at Healthcare Facility

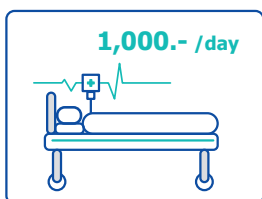
Advertisement or Publicity at Healthcare Facility without Pre-approval



Name of healthcare facility



Qualifications of the medical practitioner



Treatment, medication, medical and other service fees



Patients' rights as stated by laws



Medical care provided by the healthcare facility and approved operating hours



Knowledge and academic research on medical and health. Precautions from risk of treatment, danger and side effects



Notifications such as medical records destruction, relocation, any events held on important days or “Inquire about Medical Fees Here” signage

Prohibited Healthcare Facility Advertising



Misrepresenting, exaggerating or concealing the facts related to the healthcare operations. Presenting misleading comparison between the quality of healthcare facilities



Informing inaccurate and false expectation of the medical professionals and medical devices as advertised or notified



Misleading name of healthcare facilities which cause misunderstanding on the business license



Advertising information that is potentially harmful to physical or mental or causes annoyance to the customers or others



Advertising of inappropriate, fear-provoking, obscene or sexually provocative materials



Displaying impolite messages or exhibiting patient’s suffering



Displaying disrespectful and sarcastic messages to other healthcare facilities or professionals



Displaying unethical and socially disturbing messages



Associating with royal salutation messages and actions concerning the monarchy, the Queen, heir or designated regent

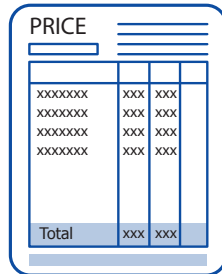
(See further details at http://www.ratchakitcha.soc.go.th/DATA/PDF/2562/E/289/T_0044.PDF)

Regulatory Requirements of Pharmaceutical Distribution, Medical Supply and Health Service Fees



Healthcare Cost Estimation

Must always be provided to the patients



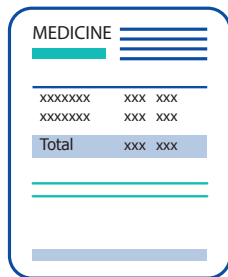
Price Notification

Ensure the notification on medicine as well as medical and service fees prior to sales, service provision or upon request



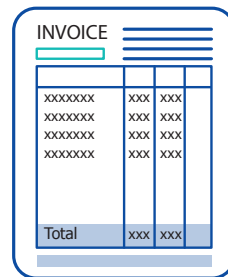
QR Code

Adequately exhibit the medical price comparison from the Department of Internal Trade in the healthcare premises



Medicine Prescription

Indicate the generic or nonproprietary name of the medicine, dosage form, dosage, instruction and duration of treatment



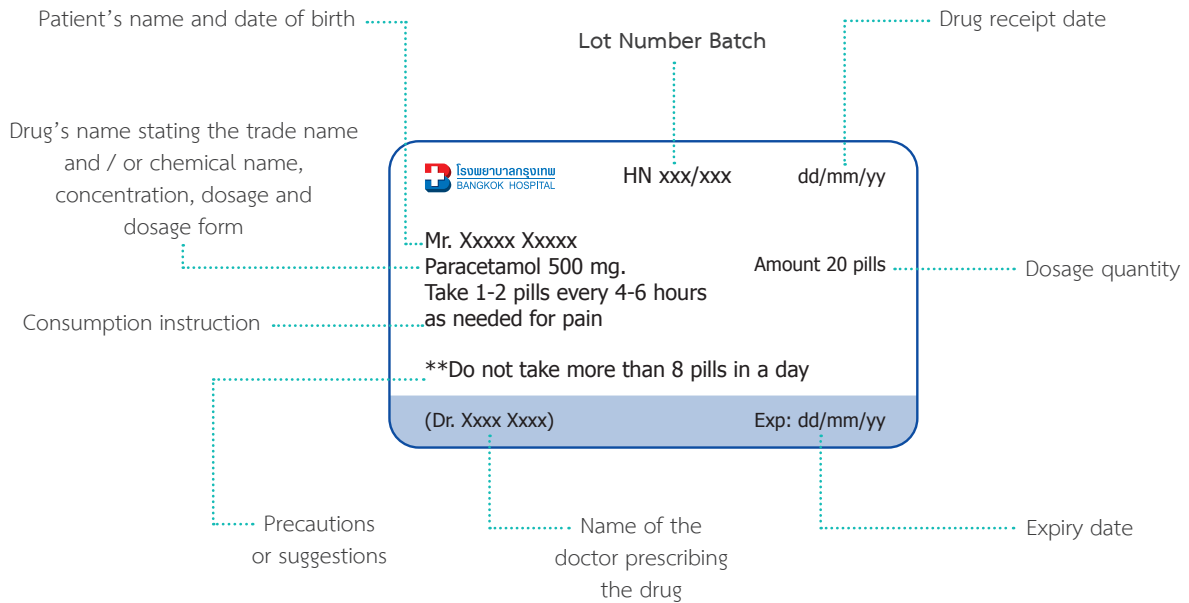
Medical Invoice

Specify the medicine name according to the prescription and the price per unit

(See further details of the regulatory requirements at http://www.ratchakittha.soc.go.th/DATA/PDF/2562/E/201/T_0174.PDF)

Drug Labeling

BDMS subsidiary hospitals must distribute the medicine with medical labeling and packaging following the regulatory requirements below:



Contacting Channels and Complaint Management for Marketing Communication, Sales Practices and Medical Labeling



BDMS provides the contacting channels for all stakeholders including internal and external personnel to submit feedbacks, complain and report misconduct as stated in “BDMS Code of Conduct.” These channels are available on the website. In 2020, no complaints regarding marketing communication, sales practices and medical labeling were filed.

(See further details of the reporting channels at the Code of Conduct session or at <https://investor.bangkokhospital.com/storage/downloads/corporate-governance/20140617-bgh-code-of-conduct2014-en.pdf>)

GRI Content Index

Reporting Practice	Disclosure	Page(s) / URL(s)	Remark / Omission
General Disclosures*			
GRI 102: General Disclosures 2016	Organizational Profile		
	102-1 Name of the organization	2,4,5,28,61,72	-
	102-2 Activities, brands, products, and services	5-13,15	-
	102-3 Location of headquarters	5	-
	102-4 Location of operations	7,62	-
	102-5 Ownership and legal form	5	-
	102-6 Markets served	5-13	-
	102-7 Scale of the organization	3,5,7-9,14,63, 131-139	-
	102-8 Information on employees and other workers	131-139	-
	102-9 Supply chain	47-49	-
	102-10 Significant changes to the organization and its supply chain	49	-
	102-11 Precautionary principle or approach	29-46	-
	102-12 External initiatives	82,85-90	-
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	102-14 Statement from senior decision-maker	2-3	-
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	102-16 Values, principles, standards, and norms of behavior	21-22,24-25	-
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102-19 Delegating authority	57	-	
102-20 Executive-level responsibility for economic, environmental, and social topics	57,60	-	

Reporting Practice	Disclosure	Page(s) / URL(s)	Remark / Omission
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	102-40 List of stakeholder groups	58-59	-
	102-41 Collective bargaining agreements	129	Please refer to Welfare Committee
	102-42 Identifying and selecting stakeholders	58	-
	102-43 Approach to stakeholder engagement	58-59	-
	102-44 Key topics and concerns raised	58-59	-
Reporting Practice			
	102-45 Entities included in the consolidated financial statements	62	-
	102-46 Defining report content and topic Boundaries	60-61	-
	102-47 List of material topics	61	-
	102-48 Restatements of information	107,112, 118,123,175	-
	102-49 Changes in reporting	60	-
	102-50 Reporting period	62	-
	102-51 Date of most recent report	62	-
	102-52 Reporting cycle	62	-
	102-53 Contact point for questions regarding the report	61	-
	102-54 Claims of reporting in accordance with the GRI Standards	62	-
	102-55 GRI content index	194-198	-
	102-56 External Assurance	See remark	BDMS will proceed external assurance in the future
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Please see disclosed details in each chapter.	-
	103-2 The management approach and its components		-
	103-3 Evaluation of the management approach		-

Reporting Practice	Disclosure	Page(s) / URL(s)	Remark / Omission
Supply Chain Management			
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	54	-
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	54	-
Customer Privacy & Data Security			
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	83	-
Service Quality & Patient Safety			
GRI 416: Customer Health & Safety 2016	416-1 Assessment of the health and safety impacts of product & service categories	90	-
GRI Not Applicable	BDMS accreditation result	90	-
Customer Relationship Management			
GRI Not Applicable	Patient's perception towards service behaviors	96	See also in Annual Report
Innovation & Partnership			
GRI Not Applicable	Number of innovation initiatives	72-73	-
Energy Management			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	116-118	-
	302-3 Energy intensity	117	-
Waste & Hazardous Materials Management			
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	102	
	306-2 Management of significant waste-related impacts	101-104	
	306-3 Waste generated	105-106	
	306-4 Waste diverted from disposal	105-106	
	306-5 Waste directed to disposal	105-107	

Reporting Practice	Disclosure	Page(s) / URL(s)	Remark / Omission
Water & Wastewater Management			
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	108	
	303-2 Management of water discharge-related impacts	108	
	303-3 Water withdrawal	109-111	
	303-4 Water discharge	109,111-112	
Climate Change Management			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	121-122	
	305-2 Energy indirect (Scope 2) GHG emissions	123	
	305-4 GHG emissions intensity	121	
Community Engagement & Health Care Accessibility			
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	14,178,185,188	
Selling Practices & Product Labeling			
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	190-193	
	417-2 Incidents of non-compliance concerning product and service information and labeling	193	
	417-3 Incidents of non-compliance concerning marketing communications	193	
Talent Retention & Inclusion			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	154-159	
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	149	
GRI 404: Training and Education 2016	404-3 Percentage of employees receiving regular performance and career development reviews	148	
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	131-139	See also in Annual Report

Reporting Practice	Disclosure	Page(s) / URL(s)	Remark / Omission
Human Capital Development			
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	145-146	-
	404-2 Programs for upgrading employee skills and transition assistance programs	142-145	-
Labor Practices & Human rights			
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	130	-
GRI 412: Human Rights Assessment 2016	412-2 Employee training on human rights policies or procedures	130	-
Employee Health & Safety			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	160-161	-
	403-2 Hazard identification, risk assessment, and incident investigation	163-165	-
	403-3 Occupational health services	161-162,165	-
	403-4 Worker participation, consultation, and communication on occupational health and safety	161-162	-
	403-5 Worker training on occupational health and safety	166	-
	403-6 Promotion of worker health	167-173	-
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	165	-
	403-9 Work-related injuries	174	-
	403-10 Work-related ill health	174-175	-



Reader Survey

Bangkok Dusit Medical Services PCL (BDMS) Sustainability Report 2020

Your views and suggestions will be incorporated in the improvement of BDMS Sustainability Report 2021
Thank you for your cooperation

Please mark in and comment in the space provided.

Gender

- Male Female Prefer not to answer

Education

- Less than bachelor's degree Bachelor's degree Master's degree Higher than Master's degree

Which of the following groups are applied to you?

- Supplier BDMS employee / Medical personnel Student / Educational institution Customer
 Shareholder / Investor Government / Regulators Business partner Other, please specify

How do you find out about BDMS Sustainability Report 2020?

- Annual shareholder meeting BDMS employee Seminar / Exhibition / Lecture
 BDMS website Other, please specify

What is your purpose in reading BDMS Sustainability Report 2020?

- Get to know BDMS Education / Research Investment decision
 Report Preparation Others, Please specify

Please rate the completeness and credibility levels of BDMS Sustainability Report 2020

	Very high	High	Medium	Low	Very Low
Completeness and credibility of the report, Easy to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sustainability performance in alignment with BDMS strategy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Content appropriateness and credibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interest in content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please choose 3 sustainability material topics that are relevant to you by importance level.

Where 1 is the most important, 2 is moderate important, and 3 is the least important.

- Supply Chain Management Privacy and Information Security Service Quality and Patient Safety
 Customer Relationship Management Innovation & Collaboration Waste and Hazardous Waste Management
 Energy Management Water and Wastewater Management Climate Change Management
 Community Engagement and Healthcare Accessibility Responsible Sales and Labeling Talent Attraction and Retention
 Human Capital Development Labor Practices and Human Rights Occupational Health and Safety
 Other, please specify

Does the content covered all BDMS sustainability material topics?

- Yes No

If no, please explain

Please provide suggestion for the next sustainability report

10. Other suggestions on BDMS sustainability management

Thank you for your cooperation

“กรุณาปฏิบัติตามรอยปรุ และส่งกลับโดยไม่ต้องติดตราไปรษณียากร”

บริการธุรกิจตอบรับ

ใบอนุญาตเลขที่ ปน.(น)/3789 ปณศ.ลาดพร้าว
ถ้าฝากส่งในประเทศไม่ต้องฉีกตราไปรษณียากร

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ฝ่ายกิจการสังคมเพื่อการพัฒนาอย่างยั่งยืน

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