



# Maritime Telemedicine Service System

Presented by  
- Han Wool Jeong  
Joon Sung Lee  
Yoon Geun Choi

2015





**01. Amendment Strategy**

**02. Working Environment of Seafarers on board**

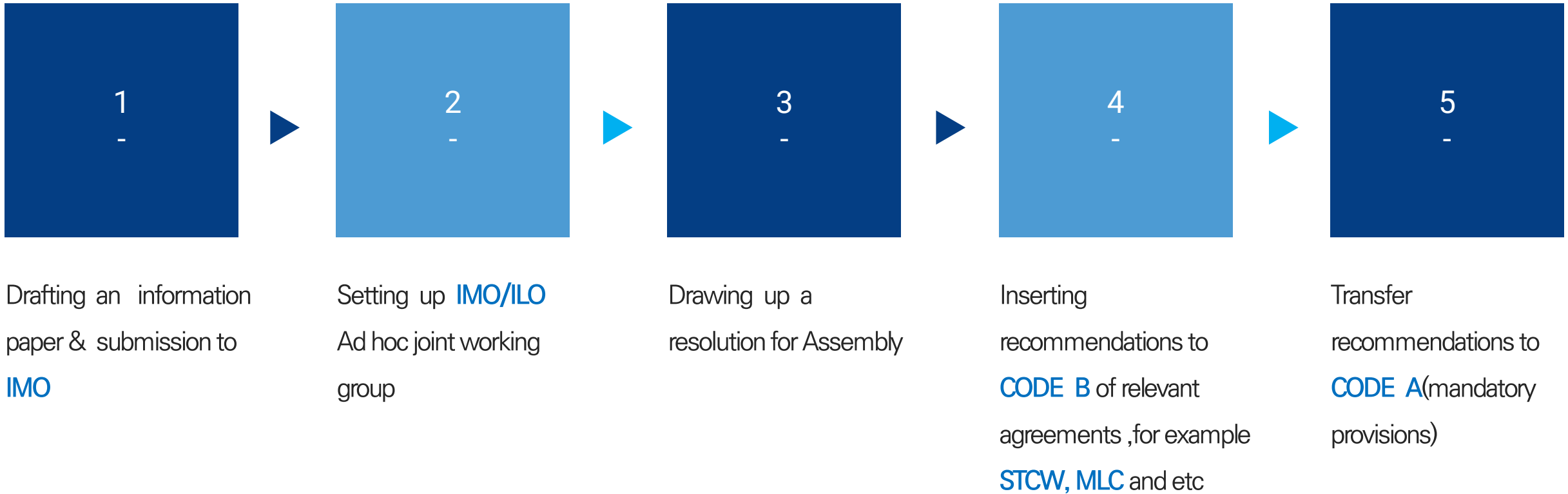
**03. Current State of Maritime medical care**

**04. K-Telemedicine Service**

**05. Challenges**

**06. Amendment of STCW Convention**

# 1. Amendment Strategy of IMO Conventions



# 1. Amendment Strategy of IMO Conventions



## 01. MSC/INF 01

INTERNATIONAL MARITIME ORGANIZATION

MARITIME SAFETY COMMITTEE  
1st session  
Agenda Item 1

MSC 97/INF.01 ↓  
5 November 2015 ↓  
ENGLISH ONLY

<Promotion of Health Condition of Seafarers by  
Introduction of Maritime Telemedicine Services>

Submitted by the Republic of Korea

SUMMARY

Executive summary: This document provides information on a Maritime Telemedicine by Republic of Korea which aims to address measures to improve seafarers' health by developing maritime telemedicine service.

Strategic direction: 5.2

High-level action: 5.2.6

Planned output: 5.2.6.1

Action to be taken: Paragraph 10, Paragraph 11

Related document:


INTRODUCTION

1 Following discussion on maritime telemedicine system at a previous session of the Committee, Member States and observer organizations were invited to consider the issue and submit proposals to the next session. This note is intended to inform MSC 96 of a relevant ongoing project funded by the Republic of Korea.

Necessity

2 The seafarers, unlike the workers on land, work at a inferior atmosphere which may include unwanted, ceaseless noise and vibrations, sudden coldness and hotness, long period of on-duty hours without proper rest and last but not least, lack of exercise, of fresh food and of fresh water due to lack of space. For healthcare and prevention of disease of seafarers, it is mandatory for seafarers to receive medical examination before embarkation but there exists a lack of system to

## 02. IMO/ILO Joint Working group

INTERNATIONAL MARITIME ORGANIZATION

LEGAL COMMITTEE  
1<sup>st</sup> session  
Agenda item 1

LEG 79/4  
5<sup>th</sup> November 2015  
ORIGINAL: ENGLISH

PROVISION OF FINANCIAL SECURITY

Proposal for the establishment of a Joint IMO/ILO Ad Hoc Expert Working Group to consider the subject of liability and compensation regarding claims for death, personal injury and abandonment of seafarers

Note by the Secretariat

SUMMARY

Executive summary: This document reports on the agreement of ILO to IMO's proposal to establish the Joint Group

Action to be taken: Paragraph 2


Related documents: MSC 97/INF 01

1 In response to a proposal made by the Legal Committee at its ninety-seventh session, the Governing Body of ILO at its 273<sup>rd</sup> session held in November 2015 agreed to establish a joint IMO/ILO Ad Hoc Expert Working Group to consider the subject of liability and compensation regarding claims for death, personal injury and abandonment of seafarers. The Governing Body of ILO authorized the holding of this Working Group in London, if agreed by IMO, with a maximum duration of IMO, with a maximum duration of five working days and a compensation of eight ILO participants (four shipowners and four seafarer representatives) and eight IMO participants.

Action requested of the Committee

2 The Legal Committee is invited to take note of this information and decide as appropriate. In particular, the Committee is invited to consider possible dates for the proposed meeting as well as the compensation of the Working Group.

## 03. A Res1053(27)

INTERNATIONAL MARITIME ORGANIZATION

ASSEMBLY  
30th session  
Agenda Item 1

A 30//Res.1053 ↓  
7 December 2015 ↓  
Original: ENGLISH

Resolution A.1053(27)

Adopted on 5 November 2015 ↓  
(Agenda Item 1)

PROMOTION OF SEAFARERS' HEALTH BY ↓  
INTRODUCTION OF MARITIME TELEMEDICINE SERVICES

THE ASSEMBLY OF THE INTERNATIONAL MARITIME ORGANIZATION AND THE GOVERNING BODY OF THE INTERNATIONAL LABOR OFFICE,

NOTING that 5.2 Technology, navigation and higher safety management standards is included in IMO SDS(Strategy Direction): Safety of Life at Sea, 5.2.6 Development and Implementation of 5- Navigation Strategies is also included in 5.2 as HLR(High Level Action Plan), and one of the seventeen M SR(Maritime Service Portfolio) belonging to 5- Navigation is remote medical assistance,

CONSIDERING that seafarers' disease risk is higher than workers on land due to their own dangerous working environments,

RECALLING that there are blind spots in equity of seafarers' health and medical care,

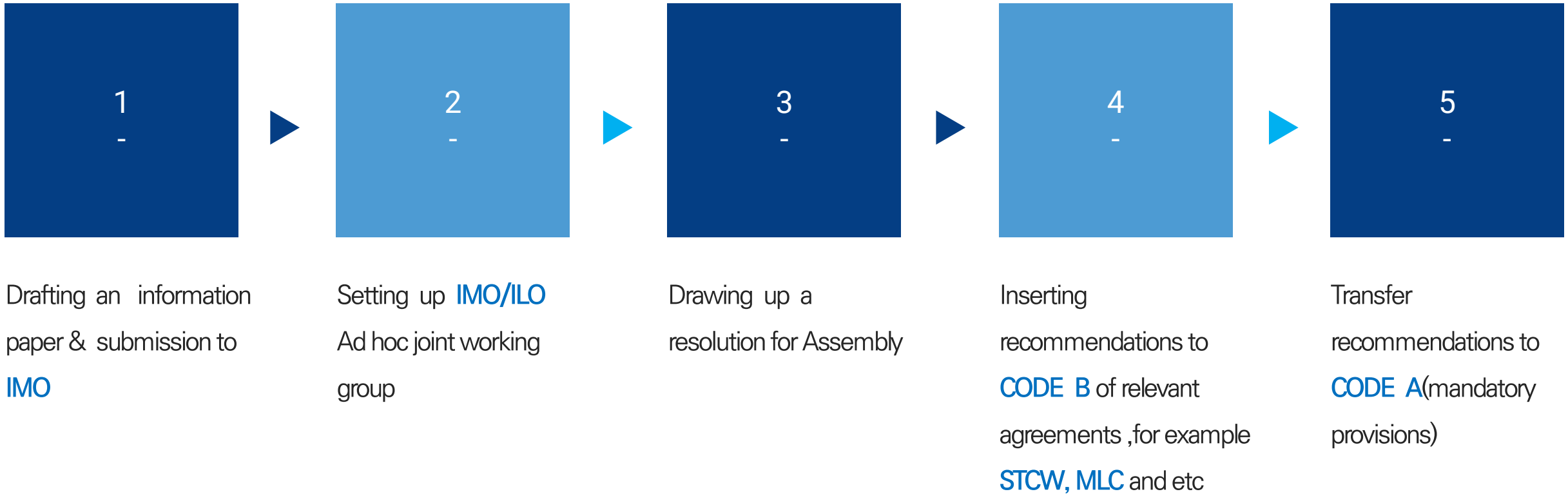
RECALLING ALSO that as a result of international indifference to seafarers' medical welfare, medical care devices are not obligatory on board and ship owners are turning away the solutions for solving the problem as well,

RECALLING FURTHER that since it is easy to acquire a medical manager certificate, practical medical care for seafarers is not active,

CONCERNED that health care and medical assistance system at sea are still unsatisfactory,

NOTING ALSO that (IMO)(International Maritime Organization) and ILO(International Labor Organisation) have been requesting each government to progress continuous and systematic investigation for seafarers' health and disease.

# 1. Amendment Strategy of IMO Conventions



# 2. Working Environment of Seafarers

## 01. Workplace Characteristics

Since most ships are made of steel, it is very likely for one to suffer even with a small bump against the ship structure. And the frequency of accidents that require emergency measures is high due to workplace characteristics on board.

## 02. Mentality

Seafarers are under tremendous amount of stress due to certain job characteristics : the separation between rest and work is vague, and responsibility and requirements to carry out their job are considerably high.

## 03. Social Culture

Cultural conflicts are increasing due to an increase in multicultural vessels where multinational seafarers work at. Also, one is facing stress caused by having to confront the same people for almost 24 hours in a restricted space.

## 04. Vibration

Health condition of seafarers is gradually deteriorating due to continuous vibration and noise caused from engines ceaselessly.

# 3. Present Condition of Medical Care for Seafarers

- Existing international conventions regarding medical assistance to seafarers are only focusing on follow-up care of diseases and remote medical advices.
- Taking a step further, we promote the introduction of maritime telemedicine services to reduce the outbreak of disease of seafarers and improving their health condition.

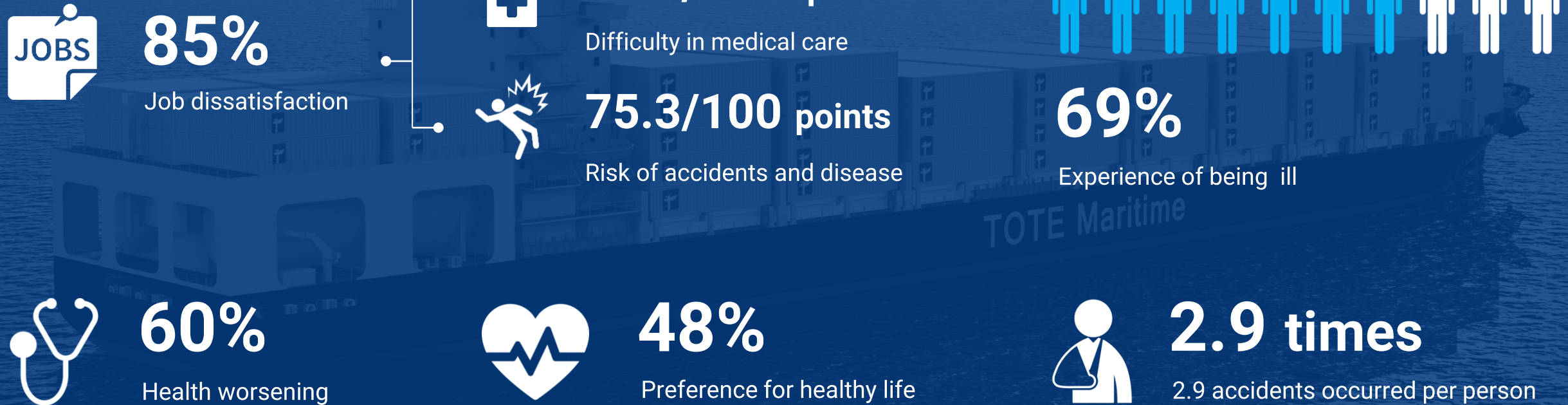


Categories	Purpose	Methods	Contents
Existing medical assistance system	Emergency medical advices  Treatment of disease	Medical examination of seafarers before embarkation  Ship medical environment management  Emergency telemedicine advices	Health protection



# 4. Perception and Current State of Health Care for Seafarers

- Unsatisfactory medical system impedes the long-term embarkation of seafarers and causes shortage in overall global seafarer supply.

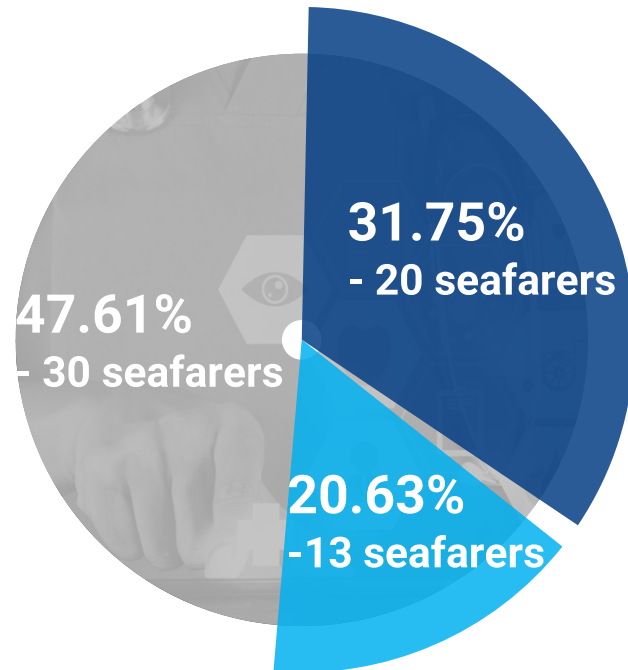




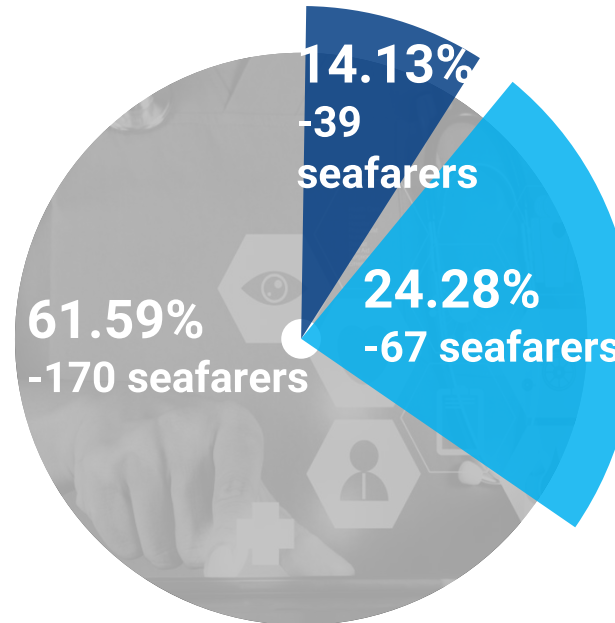
# 6. Current State of Maritime Telemedicine Service

## \_02. Satisfaction with Emergency Medical Treatment

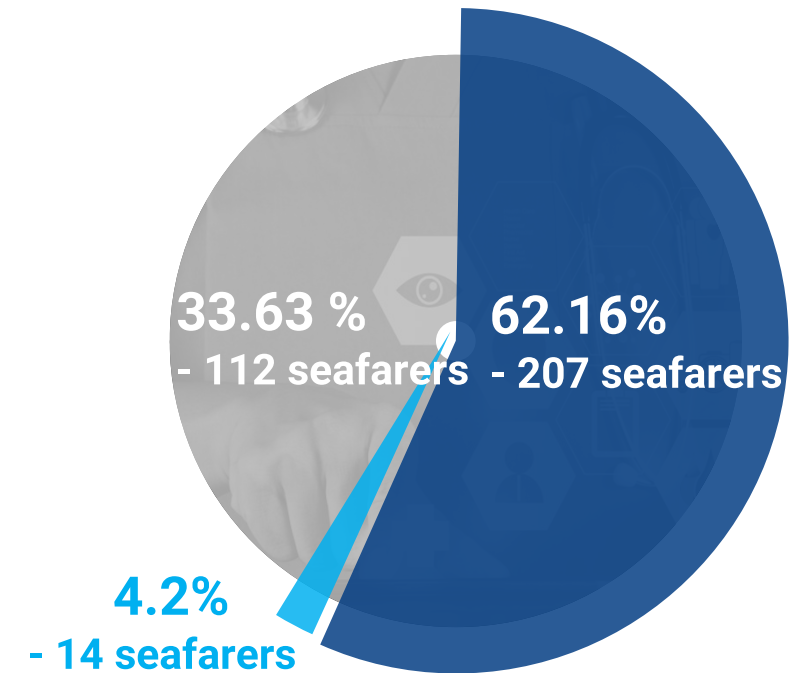
[Satisfaction with emergency medical treatment]



[Satisfaction with present policy regarding medical treatment only in case of emergency]



[Need for improvement of medical equipment on board]



■ Satisfied ■ Fair ■ Unsatisfied

■ Satisfied ■ Fair ■ Unsatisfied

■ Necessary ■ No comment ■ Unnecessary

# 7. K-Telemedicine Service

- Korea has been conducting this research in a long-term. It is now implementing a maritime telemedicine service demonstration project in order to solve the inequity of medical care service for seafarers.

## STEP 02.

### Implementation of the Project on a Trial Basis

- Telecommunication equipment on board
- Satellite telecommunication
- Shore-based telecommunication server

## STEP 03.

### Actual Demonstration of the System

- Gather information
- Basic & Detailed design

## STEP 04.

### Introduction to International Conference

- Drafting an information paper and submitting to IMO
- Hosting a special three-party committee with the cooperation of ILO

## STEP 01. Development of Maritime Telemedicine Service System

- Gather information
- Basic & Detailed design

# 7. K-Telemedicine Service

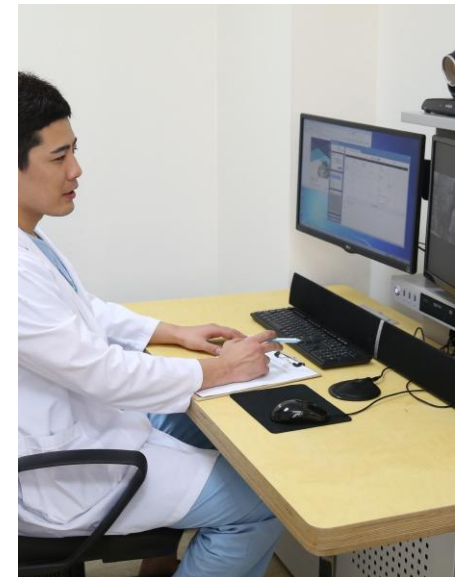
## / 01.

Maritime telemedicine service demonstration was held, where Per Okkels, the Vice-Minister of Health and Welfare of Denmark observed.



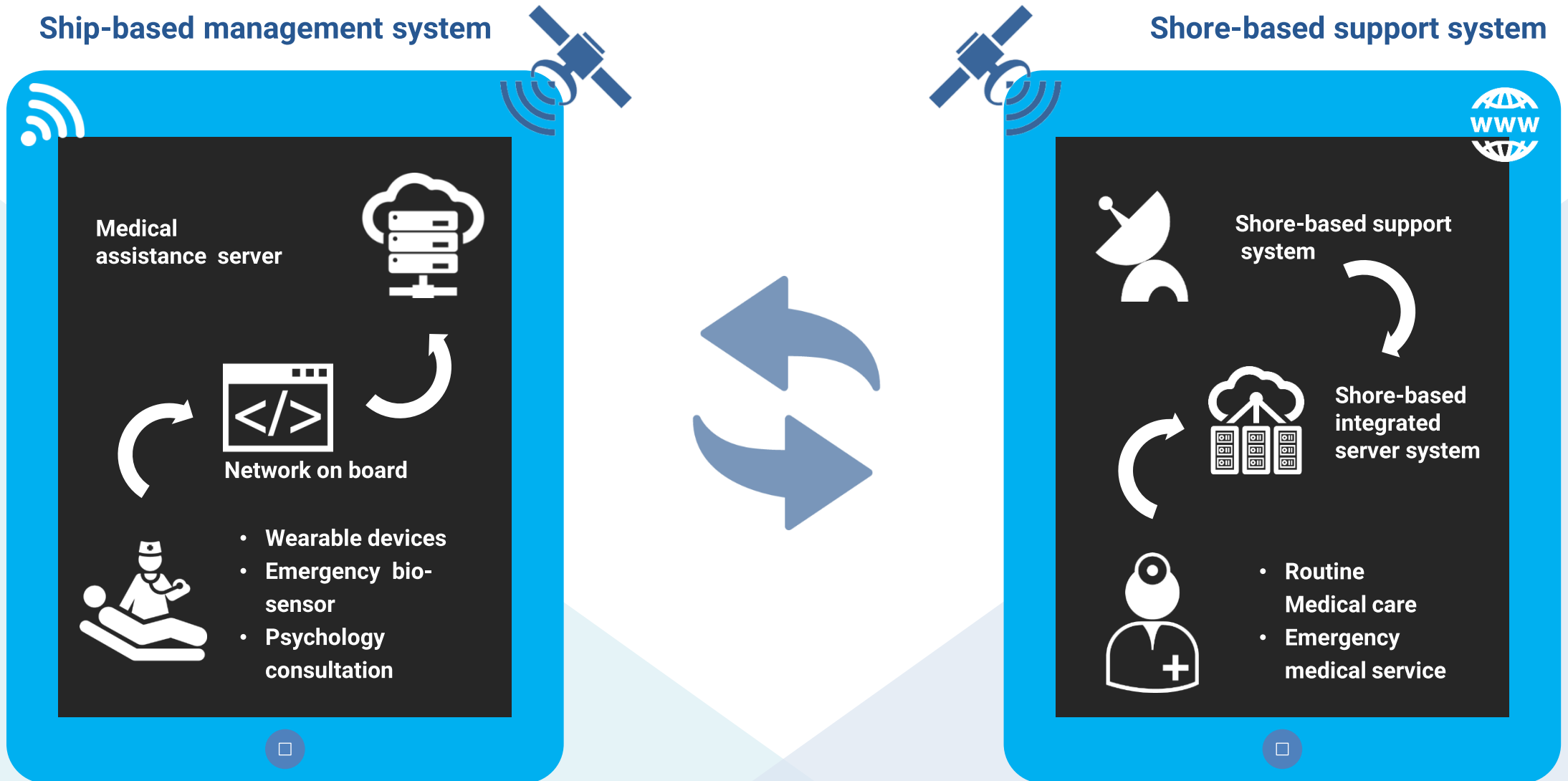
## / 02.

Business cooperation with Phillips Korea was agreed regarding maritime telemedicine service field .





# 8. K-Telemedicine Service System Platform



# 9. Challenges

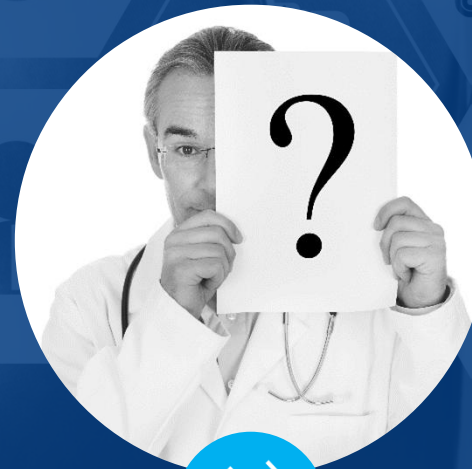
- The Rep. of Korea has found [the following challenges](#) while implementing maritime telemedicine service demonstration projects.



1. Communication Cost



2. Cyber Security



3. Responsibility of Health Care  
Provider on Shore



4. Lack of Capability of medical  
care providers on board

# 10. Amendment of STCW Convention

## Current Article of Convention

### Regulation VI/4

Mandatory minimum requirements relating to medical first aid and medical care

1. Medical first aid provider
2. Medical care provider
3. Certificate



## Proposal of Amendment

### Regulation VI/4

Mandatory minimum requirements relating to medical first aid and medical care

1. Medical first aid provider
2. Medical care provider
3. Telemedicine service provider
4. Certificate

“ We suggest a new QUALIFICATION with the name, <telemedicine service provider> ”  
& Include the details on STCW Regulation VI/4 – Section 3.



# 10. Amendment of STCW Convention

- The entire article of Regulation VI/4 of STCW Annex Chapter VI after the amendment are as follows.

## Regulation VI/4

### Mandatory minimum requirements relating to medical first aid and medical care

1. Seafarers designated to provide medical first aid on board ship shall meet the standard of competence in medical first aid specified in section A-VI/4, paragraphs 1 to 3 of the STCW Code.
2. Seafarers designated to take charge of medical care on board ship shall meet the standard of 2 competence in medical care on board ships specified in section A-VI/4, paragraphs 4 to 6 of the STCW Code.
3. **Seafarers designated to take charge of maritime telemedicine service system on board shall meet standard of competence in medical care on board in section A-VI/4, paragraphs 7 to 10 of the STCW Code.**
4. Where training in medical first aid or medical care is not included in the qualifications for the certificate to be issued, a special certificate or documentary evidence, as appropriate, shall be issued indicating that the holder has attended a course of training in medical first aid or in medical care.

# 11. Amendment of STCW CODE – Section B

- The amendment content of Regulation VI/4 of STCW CODE – Section B are as follows.

## **Section B-VI/4**

### **Mandatory minimum requirements related to medical first aid and medical care**

7. Every seafarer who is desinated to provide telemedicine service on board ship shall have at least an year of experience as medical care provider on board
  8. Every seafarer who is designated to provide telemedicine service on board ship shall be required to demonstrate the competence to undertake the tasks, duties and responsibilities listed in column 1 of table B-VI/4-3.
  9. The level of knowledge of the subjects listed in column 2 of table B-VI/4-3 shall be sufficient to enable the designated seafarer to take appropriate operation of maritime telemedicine service system at all times \*
- \* IMO Model Course 1.16 – “Maritime Telemedicine” may be of assistance in the preparation of courses.
10. Every candidate for certification under the provisions of regulation VI/3, paragraph 2 shall be required to provide evidence that the required standard of competence has been achieved in accordance with the methods for demonstrating competence and the criteria for evaluating competence tabulated in columns 3 and 4 of table B-VI/4-3.

“ This amendment will be transferred to STCW CODE Section A ”  
(mandatory provisions) after numerous conferences by the international society.

# 11. Amendment of STCW CODE – Section B

Table B-VI/4-3

Specification of the minimum standard of proficiency in maritime telemedicine

Column 1	Column 2	Column 3	Column 4
COMPETENCE	KNOWLEDGE, UNDERSTANDING AND PROFICIENCY	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
Effective use of maritime telemedicine service system	<p>Operation of maritime telemedicine service system</p> <p>1. Use of maritime telemedicine service equipments and trouble- shooting</p> <p>2. Instruction and care for chronic patients on board</p> <p>3. Management of PHR of seafarers</p> <p>MEDICAL ENGLISH</p> <p>Guidance to reduce the outbreak of disease of seafarers</p> <p>Guidance to improve the health condition of seafarers</p>	<p>Assessment of evidence obtained from practical instruction and demonstration</p> <p>Where practicable, approved practical examination at a hospital</p>	<p>Should effectively execute the requirements and instructions of shore-based medical professionals</p> <p>Should follow the manual provided by the manufacturer of maritime telemedicine service equipment</p> <p>MEDICAL ENGLISH should be in accordance with &lt;MARITIME TELEMEDICINE ENGLISH&gt; published by IMO and WHO.</p>





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## MISSION of IMO

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To promote safe, secure, environmentally sound, efficient and sustainable shipping through cooperation.





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Everyone has the right to life, liberty and security of person.

– Article 6, Universal Declaration of Human Rights–

