# Workshop on Quality and Performance Indicators for Seafarer Health

April 28/29

IMHA

INTERNATIONAL MARITIME HEALTH FOUNDATION

**Seafarers Hospital Society**
**Workshop on Quality and Performance Indicators for Seafarer Health, April 28/29, 2025; London, UK**

**Executive Summary**

This workshop was convened by Seafarers Hospital Society (SHS) in association with the International Maritime Health Foundation and the International Maritime Health Association. The conveners recognised that, while health professionals and charities have long advocated action to improve seafarer healthcare, little has been done within the maritime industry to make this a priority.

**The purposes of the workshop were:**

- First to review and contextualise the SHS initiative on the creation of a 'culture of care' for seafarer health and wellbeing by means of progressive quality improvements and associated measures of performance at ship, company and sector levels.
- Second, as an effective health improvement programme needs to be underpinned by a valid knowledge base on the frequency and severity of health risks and the effectiveness of interventions, the sources and quality of currently available data were assessed.
- Finally, as this is a novel approach to seafarer health, the opportunities and challenges to implementing a quality improvement and performance measurement framework based on a valid set of priorities for prevention and treatment were considered, with the emphasis on how best to take forward the consensus from the workshop.

The workshop took place over two days with participants from a range of backgrounds and used a mix of pre-circulated documents, presentations, both in person and remote, and discussion sessions.

**The summary conclusions were:**

- A progressive approach to quality improvement and performance assessment is feasible. This would best be embedded with existing performance measures for non-health related topics.
- While imperfect, the sector-wide knowledge base is sufficient to set priorities but given the delays between health risk interventions and some measurable health outcomes, measures of activity may need to be substituted for health metrics for some risks.
- At company level, while progressive quality improvements are feasible, use of health-related measurements to monitor this presents challenges. There would be benefits from collecting and analysing anonymised data from across sectors of the maritime industry.
- Participants are needed for well-designed pilot studies. These should address the feasibility of implementation, and also the cost-effectiveness and cost-benefit aspects of doing so.

**Introduction**

SHS not only assists in improving seafarer health and wellbeing on an individual level, but also aims to develop best practice in the global, highly dispersed and ever more complex environment of sea trade and business.

As part of this effort SHS commissioned a research project on seafarer health needs in cooperation with the Yale University. A report was published in August 2022[1]. SHS then followed up with an initiative to create a 'Culture of Care', based on the obligations and recommendations of the ILO

[1] https://seahospital.org.uk/yale-university-report-seafarer-health-research-to-date-and-current-practice

Maritime Labour Convention 2006[2]. Its aim is to develop health related parameters for those responsible in the industry following the example of key performance indicators (KPIs) as established by InterManager and BIMCO[3],[4]. A first set of proposed health related KPIs was published in 2024[5].

As part of the above initiative and to further develop its recommendations SHS organised this workshop and gathered a group of experts, representatives and stakeholders.

**The workshop was co-hosted by:**

the International Maritime Health Association (IMHA) and

the International Maritime Health Foundation (IMHF).

The focus and purpose of this workshop was to address the lack of uptake from the industry to the use of the Key Performance Indicators (KPIs) proposed by SHS as a means of improving the quality of seafarer healthcare in terms of prevention of illness, promotion of health-related aspects of wellbeing and the care of those who are ill or injured. A special focus was on understanding the barriers to their adoption.

This report presents the outcomes of the workshop with an overview of the presentations, as well as the interactive discussion sessions. It looks in particular at the knowledge base for assessing priorities and for measuring the effectiveness of the SHS approach to quality and performance as a means of genuinely benefiting both the health of seafarers and the efficient operation of the maritime sector.

*See Appendix 1 for the Workshop Programme*

**Participants:**

- Sandra Welch, SHS (Organiser)
- Dr Tim Carter, SHS, IMHF, IMHA (Adviser)
- Dr Klaus Seidenstücker, IMHF (Rapporteur)
- Cpt Kuba Szymanski, InterManager, SHS
- Dr Nebojša Nikolić, IMHF Board President
- Dr Robert Verbist, IMHA President
- Dr Alison Kay, Trinity College Dublin
- Dr Katherine Sinclaire, International SOS (pre-recorded)
- Dr Jens Tülsner, Marine Medical Solutions, Hamburg
- Dr Imogen Stilz, Shell, London
- Dr Sue Stannard, UK Maritime and Coastguard Agency, IMHA
- Dr Antonio Abaya, Health Metrics Inc. Manila.
- Taner Umac, Rightship

[2] Ilo.org/resource/other/maritime-labour-convention-2006-amended-including-2022-amendments
[3] www.bimco.org/products/bimco-ship-pi
[4] www.intermanager.org; https://www.shipping-kpi.org
[5]https://seahospital.org.uk/about-us/best-practice-kpis/

- Dr Frank Leonard, Royal Fleet Auxiliary (retired)
- Cpt Yves Vandenborn, NorthStandard P&I (pre-recorded)
- Dr Phillip Belcher, Intertanko
- Katerina Sfaellou, Nautical Institute
- Cpt Alastair Evitt, InterManager retired (online)
- Dr Brant Connors, IMHA
- Riina Williams, SHS
- Gemma Welch, Research Consultant

**Presentations**

Presentations were given on both days. For systematic reasons this report positions all presentations first, starting with general topics and finishing with health-related presentations. Then followed by day one discussions and group work.

*NB: Discussions of day two and the organiser's concluding remarks are at the end.*

**Quality improvement and Key Performance Indicators**

The workshop started with an introduction by Sandra Welch and Dr Tim Carter on the present state of the SHS KPI project. As part of the SHS efforts to improve seafarer health – 'On Course for a Culture of Care' was developed, which outlined a framework with KPIs that measure change and effectiveness over time, to get companies to effectively think about and action change in relation to seafarer health (see above and footnote 5). It was commissioned in part to bring longer term benefits from better knowledge of what matters (risks) and what works (interventions).

They were designed to inform maritime managers and shipowners/operators where they are and where they need to be, to measure change – inform them if they are on track and what it will take to get them to where they need to be. KPIs exist as a path to improvement – monitor, adjust, act and improve. SHS sees these KPIs as a commitment and investment in seafarer health and KPIs are the first visible steps to change.

The framework was built in line with existing industry frameworks such as BIMCO KPIs, the Maritime Labour Convention and Ship Management Systems. They aim to be a continuation of existing industry tools for performance management. The value of utilising KPIs as a tool for performance and quality enhancement in this instance, is that this form of measurement is widespread in the industry and can be used to mark progress and provide recognition. Special features of health-related measures are that there are often long delays between changes to living and working conditions as well as consequential health effects that may not be specific to such changes. Hence some of the metrics proposed look at what is being done to reduce risks (inputs) rather than at reductions in ill-health (outputs and outcomes).

Kuba Szymanski gave an overview of established performance metrics in the maritime industry and their value in detecting and avoiding risk factors. The latter being an incentive for the extra effort of reporting. He pointed at the value of data collection to convince managers of the need for a culture of change by establishing performance rules for better and safer procedures and possible cost reduction. In providing solutions the SHS initiative intends to be a catalyst – not replace the owner.

Alison Kay provided insights on the use of KPIs as tools for performance and quality enhancement in several projects in which she has participated across a range of branches of industry. To establish KPIs requires a systems approach starting with a situational analysis and getting management as well as individuals to accept and understand the need of change. This to be followed by designing and

communicating the change deemed necessary. Finally, to evaluate effectiveness and embed the process in a continuous effort to establish a culture of care and openness for further change as necessary.

KPIs can then be used to evaluate and measure effectiveness but only within a culture which is caring, concerned for social justice and the conservation of human capital as well as open to further change as necessary.

Dr Philip Belcher from Intertanko observed that current maritime KPIs are effective at addressing systemic change and issues that can fail to be apparent at the individual level, but enable accountability at management level through the measurement of performance.

Intertanko, is an industry organisation representing and setting internal standards for its members. Intertanko uses (quantitative) performance indicators to inspire qualitative engagement.

The aim is to provide for safe operations in their tanker fleet by using an inspection system – non-exclusive – but considered to be a "ticket to trade".

With this system Intertanko succeeded in lowering the detention rate of their ships from 4 to 1 %. Their seafarer survey, much like that of InterManager, gives a snapshot of the industry. Intertanko reports from this survey a high "rate of happiness and motivation" among their crews. The most important contributing factors are perceived to be mentorship, availability of internet, opportunity for social life and E-learning options. Intertanko also focuses on the individual seafarer rather than on management structures.

He noted that the use of quantitative data that measures performance indicators can inspire further and more meaningful qualitative engagement.

Dr Imogen Stilz shared medical incident data for a maritime fleet of hydrocarbon carriers over a period of 7 years.

The presentation outlined a framework for learning from medical incidents at sea considering:

- The root cause tree and chains of events leading to medical incidents: environmental, life style, and predispositional factors -> can cause pre-symptomatic health conditions -> can cause symptomatic health conditions -> which can then cause personal harm (as well as potentially impact on safe operations)
- International standards such as SOLAS & ISM code; STCW medical fitness standards; MLC & STCW standards on medical care provide a framework for mitigation at different points along this root cause tree.
- The benefit of consistently collected data on medical case severity, and outcome measures (treated on board vs shoreside review vs repatriation vs ship diversion) that are operationally relevant as well as indicating the degree of medical urgency.

Incidence per person-year for a medical incident on ship was: 28% requiring more than 1$^{st}$ aid treatment (i.e. *any prescription treatment, or restricted work, or time off work, or simply the ship medical officer being unsure and requesting telemedical support*), 9.0% requiring shoreside review, 2.8% requiring repatriation, 0.3% requiring a ship diversion. Comparison with data from medical cases on offshore platforms shows comparable routine (3.4%) and emergency evacuation rates (1.0%) with ship repatriation and diversion rates respectively.

Incidence rates for different conditions and for ship diversions have been largely stable over the time period. Shoreside review rates temporarily reduced during the COVID-19 pandemic restrictions but have returned to pre-pandemic rates – with the exception of dental cases.
A targeted exploration of seafarer health perceptions and behaviours around dental health helped explain these changes in the data.

Dr Imogen Stilz demonstrated how a quantitative analysis of frequency and severity of medical incidents for different health conditions allows a risk based prioritisation of conditions for intervention (risk=frequency x severity).

The choice of intervention for those conditions that are identified as a priority should consider the root cause tree for that specific condition. The root cause tree will also determine at which point (or combination of points) an intervention is mostly likely effective. For example, the seafarer PEME may help reduce cardiovascular problems, but is ineffective for accidents and only of limited value for dental problems. Or minimising workplace hazards will likely help with prevention of injury and MSK problems, but have little effect on cardiovascular conditions.

Key points:

- Systematic medical incident data analysis can drive organisational learning and improvement. Consistent data collection is key –> under ISM code and the MLC operators are already required to record and learn from safety incidents. Why not use the same method to record and learn from health incidents (even when the incident is not safety-related)?
- Understanding the root causes, organisational context, and seafarer's health behaviours and beliefs is important.
- This allows selecting risk based intervention priorities and effective intervention points.

Taner Umac gave insights into how Key Performance Indicators (KPIs) are employed as tools for enhancing performance and quality within the maritime sector. At the core lies the importance of aligning KPIs with the organisation's mission, vision, and business demands.

Common categories of KPIs include operational, technical, safety, environmental, commercial, and human-centred indicators.
• Operational and technical KPIs may focus on areas such as fuel efficiency, planned maintenance compliance, and spare parts availability.
• Safety KPIs track incidents, inspections, and lost time injuries (LTIs).
• Environmental KPIs cover emissions and waste management.
• Commercial metrics include off-hire days, idle periods, and voyage efficiency.
• People-related indicators are increasingly prioritised, such as crew retention rates, training days, and career progression within the company.

KPIs help clarify focus areas and set meaningful targets. They raise internal awareness and foster alignment across departments, both onshore and onboard. Ongoing visibility and monitoring enable timely adjustments and targeted actions, supporting a culture of continuous improvement. They also facilitate effective benchmarking within and across the industry. Furthermore, KPI data support companies in clearly and credibly communicating their progress to stakeholders—such as charterers, investors, lenders, and regulators—demonstrating a genuine commitment to performance and sustainable development.

Katerina Sfaellou introduced the Nautical Institute's approach to seafarer health improvement by setting learning and training standards. The Institute's philosophy is to aim at good leadership and mentoring that by itself would support wellbeing and a culture of caring.

Professional leadership is communicated through the Institute's publications, courses, certification and projects providing continuous professional development to seafarers of all ranks at sea and ashore, aiming to empower the leaders of tomorrow. Thought leadership, mentoring and open communications benefit all ranks and not only higher management.

**Health and performance indicators**
Two presentations (both pre-recorded) combined information on healthcare and the use of quality and performance tools.

Yves Vandenborn from NorthStandard reviewed the possible role of P&I clubs in supporting KPI development by providing health related data and the implementation of health metrics in the industry.

Data collected on company claims show that about 28% of expenses are directly attributable to health issues (11% injury, 17% illness). In terms of causes about 32% of the injuries are attributable to "trips, slips and falls". This finding gave rise to company safety policies and campaigns within the industry. Of the illness claims 18% are caused by infections. 17% arise from GI problems, 13% from cardiac and 11% from vascular conditions. In NorthStandard's statistics backpain is only linked to 7%. To serve as guidance in developing health related performance indicators the limitations of P&I data must be observed: it is cost rather than diagnosis based, with little depth of analysis, often no root cause analysis, limited quality of reporting, no recording of deaths, cost varies with location of incident and treatment, attribution is generally to a main cause, for instance a collision may not provide consequential health related data.

Dr Katherine Sinclaire gave a perspective based on medical incidents management provided for the maritime clients of MedSea, a part of International SOS, a medical assistance service. International SOS cares for about 5,000 cases per year on approximately 1,300 vessels worldwide. It holds a large data set with reports on each client.

Among the incidents managed, dental problems have the highest rate (14%) These almost always resulted in onshore evaluation. Frequency of accidents/injury was similar (14%). 53% of all injuries require shoreside evaluation, mostly at the next port of call resulting in loss of working hours. Hands are the most likely body part affected (31%), with the engine room (31%) as the location where many of these injuries occur. These were followed by dermatologic problems (12%) and Gastrointestinal (11%). It was noted that 1% of all incidents require diversion. Data shows that injuries are the number one reason (53%) for diversion or repatriation, but this is only a small proportion of the total numbers. By contrast diversion or repatriation is indicated in 20% of cases due to Cardiovascular incidents and in 15% of Gastrointestinal incidents. It was felt that mental health was being underreported resulting in only 1% of cases referred.

**Problems identified:**
- No direct communication with ship hospital
- Training level of officer responsible for medical care varies
- Vessel medical inventories often outdated
- Unhealthy lifestyle of seafarers
- Limited access to shore-based care

**Improvement projects:**
- Video calling
- Up to date diagnostic and medical kits.
- Health promotion
- Data collection and analysis
- Collaboration across the industry

The presentation demonstrated how health data collection is already being utilised through the analysis of MedSea's response to medical incidents at sea. With their large case volumes and data set, MedSea is able to identify health trends within a company's fleet, and in addition to benchmark performance against other fleets on their platform.

**Reflection**

As a result of these presentations the delegates felt that a standardisation of KPI methodologies was essential to acquire broad appeal and buy-in from maritime managers and shipowners/operators. Additionally, it was agreed that health KPIs need to be communicated as a means of improving cost control in order to promote maritime management, shipowner/operator engagement. It was suggested that KPIs could be used as a mechanism to acquire industry-wide data. Lastly it was felt that progress in this initiative is best achieved by shipowner/operators embedding health KPIs into their existing systems and processes.

There was a concern that seafarers were often not aware, included or part of the process of developing quality improvement and performance measurement initiatives and that this was particularly important for those relating to health. Seafarers need to be engaged and their input to KPI development is essential.

**The knowledge base on seafarer health**

In addition to the presentations combining health risk and performance management (Yves Vandenborn, Katherine Sinclaire) several speakers covered the sources and quality of information on the causes of ill health and injury in seafarers and how these could underpin quality and performance initiatives.

Dr Antonio Abaya summarised his studies on health-related repatriation in seafarers from the Philippines. The study has run for ten years and is published in "International Maritime Health"[6],[7],[8]. From 2010 to 2019 13,285 repatriations out of 853,381 deployments of Filipino seafarers were analysed, a frequency of 1.5%. Diagnoses were captured according to ICD 10. The top five causes for repatriation were conditions of the musculoskeletal system, injury, gastrointestinal, genitourinary or cardiovascular diseases.

He noted that experience and length of service did not increase likelihood of repatriation, with repatriation decreasing with seasoned seafarers.[9] He noted that repatriations after long periods on board showed a different pattern of ill-health to those from earlier in contracts. His published articles give detailed information on the causes and consequences of repatriation and indicate that more

[6] Abaya AR, Roldan S, Ongchangcho JC, et al. Repatriation Rates in Filipino Seafarers: a Five-Year-Study of 6759 Cases. IntMaritHealth.2015;66,4:189-195

[7] Abaya AR, Chan JP, Leal JK, et al. Five-Year (2015-2019) Follow-Up-Study of 6526 Cases of Medical Repatriation of Filipino Seafarers. IntMaritHealth.2023;74,3:161-170

[8] Abaya AR, Bacnis-Abola R, Vidal MS, et al. Retrospective 10-Year Study on Filipino Seafarer Medical Repatriations:Comparing Two Time Periods. IntMaritHealth 2025;76,1:33-41

[9] Abaya AR, Roldan S, Ongchangcho JC, et al. Repatriation Rates in Filipino Seafarers: a Five-Year-Study of 6759 Cases. IntMaritHealth.2015;66,4:189-195. *Further Reading* Abaya AR, Chan JP, Leal JK, etal. Five-Year (2015-2019) Follow-Up-Study of 6526 Cases of Medical Repatriation of Filipino Seafarers. IntMaritHealth.2023;74,3:161-170. *and* Abaya AR, Bacnis-Abola R, Vidal MS, et al. Retrospective 10-Year Study on Filipino Seafarer Medical Repatriations:Comparing Two Time Periods. IntMaritHealth 2025;76,1:33-41

knowledge about seafarer welfare and prevention could be used to reduce diversions and repatriations.

Taking the example shared by Antonio Abaya, which serves as further evidence of the importance of data collection in understanding and improving health care, was the uncovering of links between Filipino seafarers having Kidney Stones and working in the engine room. There was a direct link with developing Kidney Stones due to the high temperature surroundings, lack of hydration (water intake) and no ablution facilities in the engine room.

Dr Susan Stannard presented statistics derived from statutory seafarer medical examinations in the UK. Obesity, hypertension and mental conditions were leading causes for time limitations on medical certificates. Deficiencies in colour vision (mainly in recruits), visual acuity, hearing and dental problems required restrictions. Diabetes, cardiovascular problems and sensory/mental conditions commonly resulted in temporary unfitness. Sensory/mental conditions, cancer, diabetes, cardiovascular and respiratory disease were the leading causes for permanent unfitness.

Fitness examinations could provide a wealth of data to support the creation of KPIs. However, there are obstacles to such data collection and it is only available from a few countries. Where available it could be utilised within the maritime industry to support seafarers ahead of deployment and promote a healthy lifestyle, as well as to monitor wellbeing onboard.

The newly established fatality register of ILO might be a good additional source of information[10].

Dr Frank Leonard presented a study conducted within the Royal Fleet Auxiliary (support ships for the UK Royal Navy). The retrospective study comprised all cases of early retirement based on medical reasons. A total of 1,545 cases were considered.

The most prominent causes for early retirement were found to be:

- Injuries (549)
- Musculoskeletal conditions (396)
- Sensory organ impairment (68)
- Nervous system disease (67)
- Cardiovascular and respiratory (56 each) and
- Endocrine/metabolic disease (51)

**Reflections**

These studies indicate that, while information comes from a range of contacts between seafarers and health professionals there is considerable agreement on the most frequent conditions and on their implications. Such data do form a valid basis for setting priorities for health improvement actions and for the development of KPIs and quality initiatives that could be shown to reduce the considerable costs of onshore care, diversion and repatriation as well as improving the wellbeing and loyalty of seafarers.

The presentations showed the value in the collection of data, but also the need to collate and share it, so that the industry can measure any changes and monitor the subsequent outcomes. Aspects of the group discussions are included in the following paragraphs, the full set of questions posed, and group conclusions is at appendix 2.

In bringing together the need for a symbiotic relationship between health data and performance

[10] https://www.ilo.org/resource/other/global-register-fatalities-sea-experimental-data-collection-primary

metrics Kuba Szymanski, outlined the value of data and KPIs in detecting and avoiding future health risks. They can be used as a lever to help shipowners/operators understand the benefits of using health associated KPIs in reducing associated injury and illnesses risks to their fleets. He pointed to the value of data collection to drive industry's culture of change, with health associated safety/ illness trends forming the basis for better and safer procedures and possible cost reductions.

Dr Nebojša Nikolić noted agreement that a suitable unified database would be desirable to arrive at valid health-related benchmarks for the assessment of best practice/performance. A first step would be to agree on a procedure to collect data and a structure to assemble and analyse them. KPIs could be used to collect data and establish a framework comprising as many stakeholders as possible.
To start this process a campaign would be helpful to motivate ship operators/owners, crewing managers etc., to take on this extra workload in anticipation of seeing its long-term benefits. The campaign should involve the media and policy decision-makers. A structure to assess progress and remaining or emerging problems and a bi-annual survey should accompany the process and adopt new KPI's as needed.

The participants identified two different data sets: those addressing the management of health incidents and those addressing the environmental root causes affecting health and wellbeing. These would be targeting seafarers and shipowners/operators.
In addition to this, the survey would also serve as an additional way to raise seafarer awareness and build engagement in the process. The Nautical Institute's Mariners' Alerting and Reporting Scheme (MARS) was raised as a source to increase engagement.

The cost of 'bad practice' needs to be analysed and published to drive more stakeholders to buy-in. This could be an additional way to commit seafarers to engaging with KPI development.

Dr Robert Verbist considered that a progressive approach was needed, first involving a limited number of companies to show the value of health related KPIs. He considered that there was an inherent tension between those who wanted to push ahead with a quality improvement and performance measurement system and those who argued that the available data was insufficient to set priorities.
As much of the data had its origins in clinical interactions between seafarers and medical practitioners it was essential that both were committed to the benefits of health KPIs. Larger and better data sets are needed, but there is sufficient to make a start, key to improving such data sets is a willingness of companies to share anonymised data.

**Several important points arose from the group discussions and from dialogues between sessions in addition to those noted above:**

1. Data sharing could be limited by GDPR and similar legislation. This was inconsistent internationally.
2. There was a danger that data could be used to penalise either seafarers who would be excluded from employment on the basis of poorly validated findings or those within companies who provided a true and fair return of information that was unwelcome to managements.
3. Conversely quantification of performance was a valuable tool for driving up standards and ensuring both the health of seafarers and benefits to their employers.
4. Many aspects of provision of healthcare on board were outdated. These included: officer healthcare training, medical supplies, communications with TMAS (especially direct satellite links to ship's hospitals to enable direct telemedical interviews with patients). All these had been the subject of recent IMHA and IMHF workshops.
5. Provision onboard to enable seafarers to improve health was often lacking. This includes access to an appropriate diet, confidential sources of advice on mental wellbeing, exercise

facilities and access to female hygiene requisites. These are needed to complement any initiatives on 'a Culture of Care'.

6. Seafarers need to buy-in to healthcare quality improvement and their voices on what is needed have to be responded to in real terms so that there is good organisational justice and no fear of programmes imposed solely for the benefit of ship managements. Bottom-up approaches are more important than those imposed from the top down.

**Final discussions**

The following additional statements/ suggestions were made:

- While we understand we need more data, the reality is that there is data available and it is suggested that we undertake a gap-analysis to understand what data would be helpful to gather in addition to that currently available.
- Select the top five challenges to health and wellbeing and campaign to address these. Target those that are not doing well. Dental is an area that requires further review.
- A review of comparable other transport sector and remote care health data should be made as a source of case studies for ongoing data collection and KPI setting.
- We noted there are stakeholders missing from this working group – consideration needs to be made about those that are not 'around the table' that need to be and invite accordingly.
- Maritime health bodies (IMHF, IMHA), charities, trade unions and trade association all need to continue the collaboration started in this workshop.
- To ensure the roll out of the data project and KPI project we will look to establish a working group to action next steps.
- KPIs are utilised and recognised around the industry, this methodology can 'bolt' on to existing frameworks to ensure maximum uptake and minimal disruption. We need to undertake a gap analysis to understand where and how these frameworks can best be updated.
- Engaging the wider maritime sector through industry media and publications is crucial to ensuring uptake and eventual regulatory standardisation. This is a key pillar in the campaign strategy.
- Success is associated with company and ship buy-in, the appointment of a 'Champion', to engage and ensure accountability when needed will ensure the continual push for a culture of care. This will be utilised further into the campaign and roll out process.
- Best practice reports will identify the gold standard within shipping and create positive competition to drive ongoing uptake and use of health specific KPIs. These will be drafted following the first seafarer data collection and inform strategic communications going forwards.
- Demonstrate the concept of a 'culture of care' and the potential for progressive improvement by pilot studies.
- Involve the individuals at risk. Demonstrate how KPIs can support seafarers on board.
- Promote in publications used in the industry to increase awareness of maritime health related information.

**Summary**

The participants agreed that there was sufficient information on health priorities available to start the process of securing participation in seafarer health quality and performance pilot studies. A database of information collected in a standardised way or specific studies on health will be needed to validate priorities. Procedures to develop this need defining. Health KPIs could be used to collect anonymised data. This would help establish a network of as many stakeholders as possible, importantly including of maritime managers and shipowners (who were not present at the workshop).

The benefits of quality improvement and performance measurement initiatives need to be promoted to motivate ship owners/operators and seafarers to participate and undertake the initial work required. These include better health among seafarers and improved management of episodes of illness, leading to reduced costs and operational disruption as well as improved retention of skilled crew. Conversely the human and monetary costs of shortcomings in healthcare also need to be better defined and presented, possibly using the Nautical Institute's Mariners' Alerting and Reporting Scheme (MARS).

It is important for health-related performance measures to be compatible with or incorporated in existing systems of maritime performance measurement and to align with other statutory instruments such as the ILO Maritime Labour Convention and the IMO ship management system. Lessons need to continue to be learnt from other sectors of industry who have successful health-related quality and performance measurement in place. These will include economic aspects and issues of social justice.

**Way forward**

A representative working group needs to be set up to develop these consensus views into policies and actions, initially on a voluntary basis, but possible for later incorporation into more formal international instruments.

A first meeting of the proposed working group should be come first and then a wider conference when they have developed more specific proposals. Following this, a working group can be formed to organise a conference with all the relevant stakeholders.

# Performance and Quality Workshop

Hosted by the Seafarers Hospital Society, the International Maritime Health Foundation and the International Maritime Health Association

Welcome to this workshop on quality and performance indicators for seafarer health. Our aim is to bring together several strands of thinking and practice, and develop maritime management practices to enhance the health of seafarers by integrating these strands into a coherent whole. Our focus will be on cargo and related trades such as offshore support, but it is hoped that our conclusions can help aid similar initiatives in other sectors such as passenger shipping, fishing and research vessels. We are defining health widely to include psychological health and self-perceived well-being.

**The strands are:**

1. The Seafarers Hospital Society initiative on creating a caring culture at sea and its expression as a sequence of actions at company level based around obligations and recommendations included in the ILO Maritime Labour Convention. Is this a viable framework for company policy development that will genuinely improve health and well-being of seafarers?
2. The existing frameworks of Key Performance Indicators published by BIMCO and in use in parts of the maritime industry. These are weak on maritime health metrics. Is it feasible to develop a set of indicators for maritime health within this KPI system?
3. The current knowledge base on the nature, frequency and severity of health risks for seafarers (What matters?) and the effectiveness of interventions to improve health (What works?). There is a patchwork of information on both risks and interventions, but it is relatively unfocused and produced and held by a range of organisations. How practical is it to collate existing information, prioritise needs for additional information and present it in the most useful way?
4. Attitudes to protecting and enhancing the health of seafarers (Who cares?) among all the different parties who contribute to it. Who are seen as the key duty-holders for seafarer health both in the short and long term?
5. How best to promote the consensus from this workshop to effect change and improvements in maritime health management and practice?

Given the goal of improved seafarer health, there will be inputs and processes that contribute to this, such as training, provisions and campaigns on board. These may well be good expressions of a commitment to care. These in turn should lead to outputs and outcomes in terms of health benefits.

Factors which make indicator development for health more complex than KPIs in some other areas include the time delays between interventions and measurable health improvements and often the lack of specificity of such improvements. As it may be easy to take token steps to manage health or to collect health outcome data in a biased way, these factors need to be held in mind during the workshop.

After personal introductions and a brief review of work plans, the rest of the first morning will present examples of information sources and findings on seafarer health as well the current uses of maritime KPIs and experiences from other sectors of work. During the afternoon we will split into cross-disciplinary groups to address different aspects of integration of management and practice, coming together at the end of the day to review the outcomes of the group work and identify how best to develop them into a more integrated framework.

On the second morning we will review the first day, before additional presentations and a discussion about how best to bring our views together in a report of the workshop. There will be time for plenty of informal discussions over meals and refreshments and a sub-group will come together on the second afternoon to plan reporting, publicity and any other agreed actions.

Sandra Welch (workshop organiser, CEO SHS)
Tim Carter (adviser, SHS, IMHF, IMHA)

## 27 April 2025
## Arrival and Registration

18:30 Buffet Dinner

## 28 April 2025
## Day 1

9:00 **Welcome**
Sandra Welch

**Introductions**
Brief comments from all present and words from SHS (Captain Kuba Szymanski), IMHF (Dr Nebojša Nikolić) and IMHA (Dr Robert Verbist)

9:30 **The SHS initiative on KPIs and quality in maritime health:**
Origins, development, progress. The use of input and process indicators to improve healthcare.

**Is a framework based on MLC the best approach?**
Dr Tim Carter and Sandra Welch

10:00 **Existing KPIs in the maritime sector:**
Effectiveness of existing systems
Captain Kuba Szymanski, Intermanager

10:15 **Perspectives on medical incidents in seafarers, their consequences, and using data to improve quality management and performance assessment**
Dr Katherine Sinclaire, Aviation and Maritime, International SOS Johannesburg

10:30 **Use of KPIs as tools for performance and quality enhancement in other sectors**
Alison Kay, Trinity College Dublin

11:00 Tea Break

11:30 **Statutory Medical examination results and their consequences**
Dr Sue Stannard, IMHA

11:50 **Studies of health-related repatriations in seafarers from Philippines**
Dr Antonio Roberto Abaya, Health Metrics, Inc.

12:10 **Use of KPIs as tools for performance and quality enhancement in the Maritime Sector**
Taner Umac, Rightship

12:30 **Health related early retirement**
Dr Frank Leonard (RFA retired)

12:45 **Information currently available from companies and P&I clubs**
Captain Yves Vandenborn, NorthStandard P&I

13:00 Lunch

13:30 **Plenary discussion**
(Chair: Dr Nebojša Nikolić)
- Review of morning presentations
- Identification of gaps of knowledge and practice
- Attitudes to self-assessment and to extension of maritime KPIs to seafarer health
- Who benefits, who pays?

14:15 **Group work**
Captain Kuba Szymanski to facilitate

15:00 Tea served

16:00 **Plenary discussion: conclusions from Groups 1-4**
Sandra Welch

16.40 - 1700 **Recap of the day and closure**
Captain Kuba Szymanski

18:30 Dinner

## 29 April 2025
## Day 2

9:30 **Reflections on topics discussed in day 1**
(Chair: Dr Robert Verbist)
All participants

10:15 **Existing KPIs in the maritime sector:**
Origins, ownership, uses, effectiveness of the system
Dr Phillip Belcher, Intertanko

10:30 **The frequency of medical incidents in tanker fleets and how lessons learned can set priorities for intervention**
Dr Imogen Stilz, Shell

10:45 **Fostering a culture of Best Practice**
Katerina Sfaellou, Nautical Institute

11:00 **Tea Break**

11:30 **Concluding discussion**
(Chairs: Captain Kuba Szymanski, Dr Tim Carter and Sandra Welch )

**1. Priorities:**
- Safety related performance aspects
- Physical health (medical emergencies, repatriations, long term health maintenance)
- Psychological wellbeing, distress and ill-health)
- Issues of frequency, severity and costs of different risks

**2. Roles in promoting, refining and revising of KPIs:**
Ship operators, trade unions, health professionals, maritime authorities and UN Agencies (ILO,IMO)

**3. Next steps**

**4. Outline framework for report, audiences and messages**
Dr Klaus Seidenstücker

13:00 **Lunch**

Drafting subgroup session

**Seafarers Hospital Society**
020 8858 3696 | admin@seahospital.org.uk | seahospital.org.uk

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**Appendix 2 Group discussions day one**

**Group work:**

Questions Group 1:

- What are the priorities for developing health indicators and why?
- How may they differ between different interest groups? (Companies, P&I Clubs, seafarers, trade unions, national and international regulators, maritime health professionals?

Conclusions Group 1

- Start with a "blue chip" company that really well to show what works
- Look at retention rates (personnel coming in and leaving; why?)
- Analyse impact of health and wellbeing on accidents
- Show difference of healthcare outcomes between seafarers and workers ashore
- Quantify operational risk
- Mental health and suicide – stabilisation/intervention system in place?
- Involve regulators for a public health toolkit
- Demonstrate effects of risk on reputation and cost
- Win trade unions as caring will raise membership
- Showcase the best to the community
- Holistic, multidisciplinary approach of maritime health professionals
- Involve families, bystanders, mentoring

Questions Group 2:

- What are the practicalities of introducing health indicators?
  What are shipping companies, P&I clubs, national statutory and non-statutory, international statutory and voluntary levels?

Conclusions Group 2:

- Measuring vital signs and weight (?)
- Need a worldwide standard for measuring
- Incentivising habits and actions: dental hygiene, exercise, nutrition
- Policy benefits: reward transparency
- Look at individual cases and compare with wider data sets (experiential approach?)
- Foster competition, provide recognition, gold award,
- Incentivise participation in surveys
- Acquire sponsorship for KPI surveys and their development

Questions Group 3:

- What are the steps to the introduction and adoption of health indicators within shipping?
- What is the role of charities and professional organisations as catalysts for voluntary incorporation into management practices, inclusion within existing KPI frameworks, adoption as part of the ISM Code?

Conclusions Group 3:

- Clarification externally as well as internally (?)
- Identify the most important pain points: disembarkation/diversion rates
- Using systems already established, tag on to those (statute reporting of nonconformities), use same process.
- Gain traction with stakeholders in the roll out phase, understand what is needed and why, engage with the process.
- Clarify safeguarding of data procedures
- Find people that can showcase this
- Plan to share and what to do with data but adhere to safety of data.
- Explain how to learn from them
- Provide recommendations for actionable implementation.
- Optional sharing of data

- Role of charities: promote best practice in management, inclusion in existing frameworks, adoption as part of ISM Code

Questions Group 4:

- What is the scope for abuse and safeguards: confidentiality both corporate and clinical towards honest recording and analysis, unjustified discrimination in recruitment and re-hiring?
- What are remedies to prevent abuse?
- Should KPIs be more than a self-assessment tool?

Conclusions Group 4:

- Be prepared to react to abuse to avoid negative reflections.
- Collect and record data in a culturally acceptable way
- Compliance with regulations
- Benchmark yourself to avoid bad repercussion to your project.
- Look at comparable transport industry for best practice
- KPI should be more than a self-assessment tool. Should start low but aim at next levels, Takes money.
- Make it more of a competition, trust pilot system, ranking.
- Have data collected to go to regulators?
- Who will keep the log?
- We do need champions.
- To win the first handful of companies sign in is important. Aim at companies with an established medical director/directorate.
- Data and KPIs side by side in tandem (?)
- Embedding healthcare as a culture of change

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