



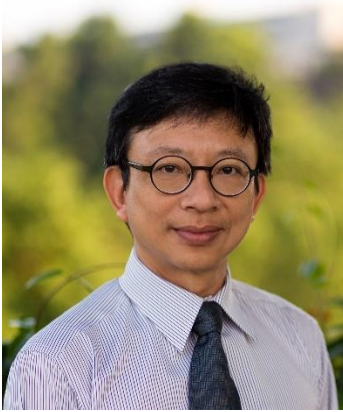
CREATING A SUSTAINABLE SAFETY & HEALTH CULTURE ON CAMPUS

2015 ANNUAL REPORT

OFFICE OF SAFETY, HEALTH & ENVIRONMENT

NATIONAL UNIVERSITY OF SINGAPORE

DIRECTOR'S MESSAGE



2015 has been a very busy year for OSHE. We introduced several new initiatives with the aim of improving the safety and health performance of the university, promoting a positive safety culture, streamlining and simplifying procedures, and making safety & health services more easily accessible.

We reviewed the NUS Safety & Health Policy and proposed some revisions to it. The revised policy was subsequently endorsed by NUS President, Prof Tan Chorh Chuan. The revised policy emphasized the importance of a positive safety & health culture. We also introduced the department safety & health management system (SMS). The aim of the department SMS is to ensure that the safety & health management of work or research activities or physical work spaces which are not assigned to specific Principal Investigators or staff are adequately addressed.

We introduced 13 new on-line training courses. These were well received as they allow staff and students to take these course at their own convenience. Our safety & health officers serving the faculties and research institutes provide timely guidance and service to the researchers and students and help them address safety issues in their academic work as well as in organizing events and student activities. Overall, the incident rates remained low with accident severity rate well below 25% of industry average.

OSHE staff have also contributed to raising safety standards in Singapore and internationally through their participation in conferences, by being members of steering and advisory committees and hosting study visits by other Universities.

OSHE's achievements for 2015 are documented in this report. As we have adopted the NUS Business Excellence model as the framework to manage OSHE and its programme, this annual report takes the format of the NUS Service Class report. This will allow us to track our performance in a consistent way over the years.

Finally, OSHE would not have been able to accomplish what it had without the support of all our stakeholders. I would therefore like to thank NUS Senior Management for their support and to all faculty, staff and students who had contributed to making NUS a safety and disaster-resilient university.

Dr Peck Thian Guan
Director
Office of Safety, Health & Environment

ORGANISATIONAL PROFILE



OSHEians at Town Green

A. ORGANISATION CHART

In 2015, the Safety & Health Management (SHM) division has undergone a re-organisation with the introduction of Strategic Planning group, grouping of Chemical Safety, Physical Safety and Radiation Safety under the Sciences cluster, and the renaming of the cluster overseeing Audits, Accidents/Incidents, Infrastructure and General Safety to Governance & General Safety.

The Emergency Management (EM) Division would be taking over the Business Continuity Management from Office of Risk Management with effect from 2016, as decided at BCMC meeting in November 2015.

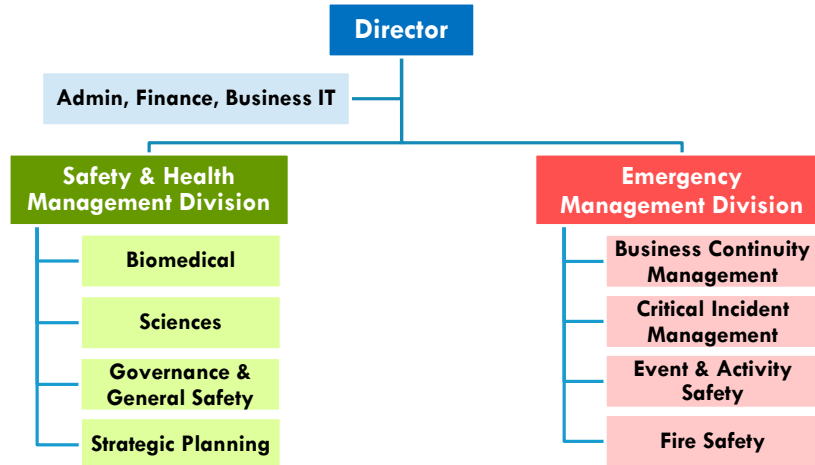


Figure 1. Organisation chart of OSHE

B. MISSION, VISION & VALUES

Our Mission, Vision and Values succinctly encapsulates what we do and remained relevant in 2015.

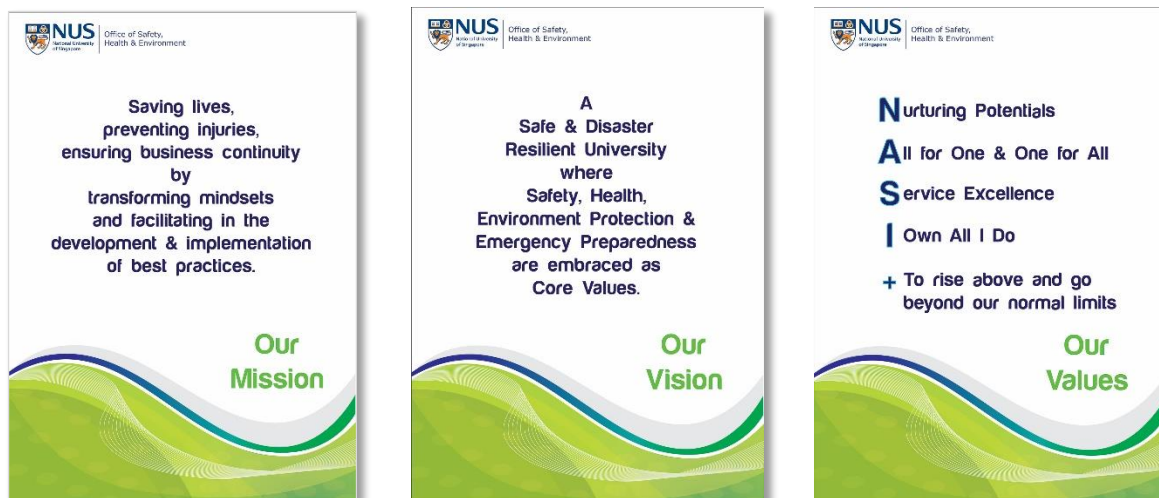


Figure 2. Mission, Vision and Values of OSHE

C. SERVICE CREED



Figure 3. OSHE Service Creed

Formulated by OSHEians during a brainstorming session at the departmental Strategic Planning Day on 18 Sept 2015, the OSHE's Service Creed echoes the unanimous sentiment that we should be a One-Stop Solution service provider in matters concerning safety, health and emergency preparedness, by valuing our partnership with stakeholders, serving with professionalism, speed and empathy, looking for opportunities to adopt lean and green solutions, and demonstrating service excellence.

D. PRODUCTS & SERVICES

In 2015, OSHE's products and services expanded to include the Total Workplace Safety & Health (TWSH), and with effect from 2016, the Business Continuity Planning would be expanded to Business Continuity Management.

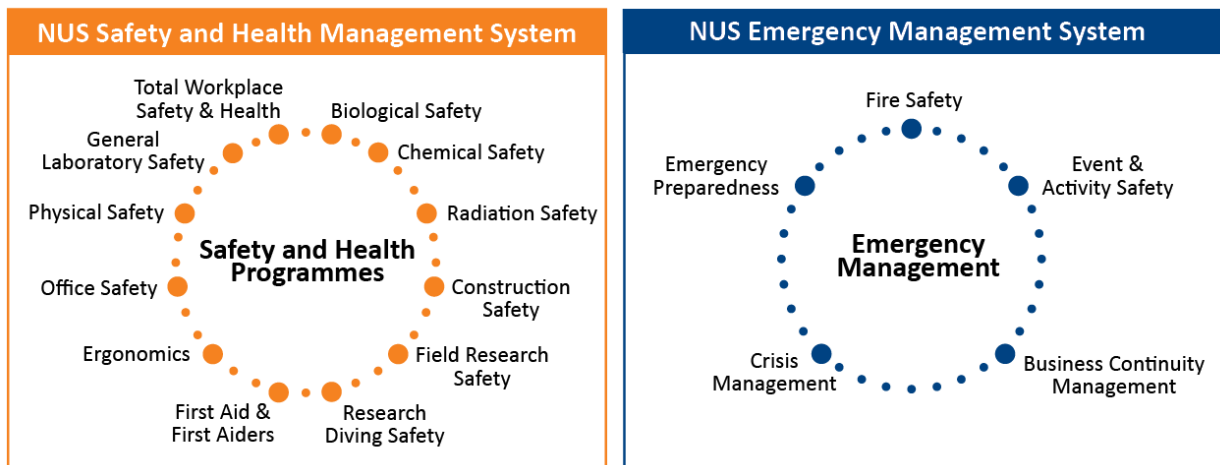


Figure 4. Safety & Health Management and Emergency Management Programmes

E. KEY MILESTONES & EVENTS

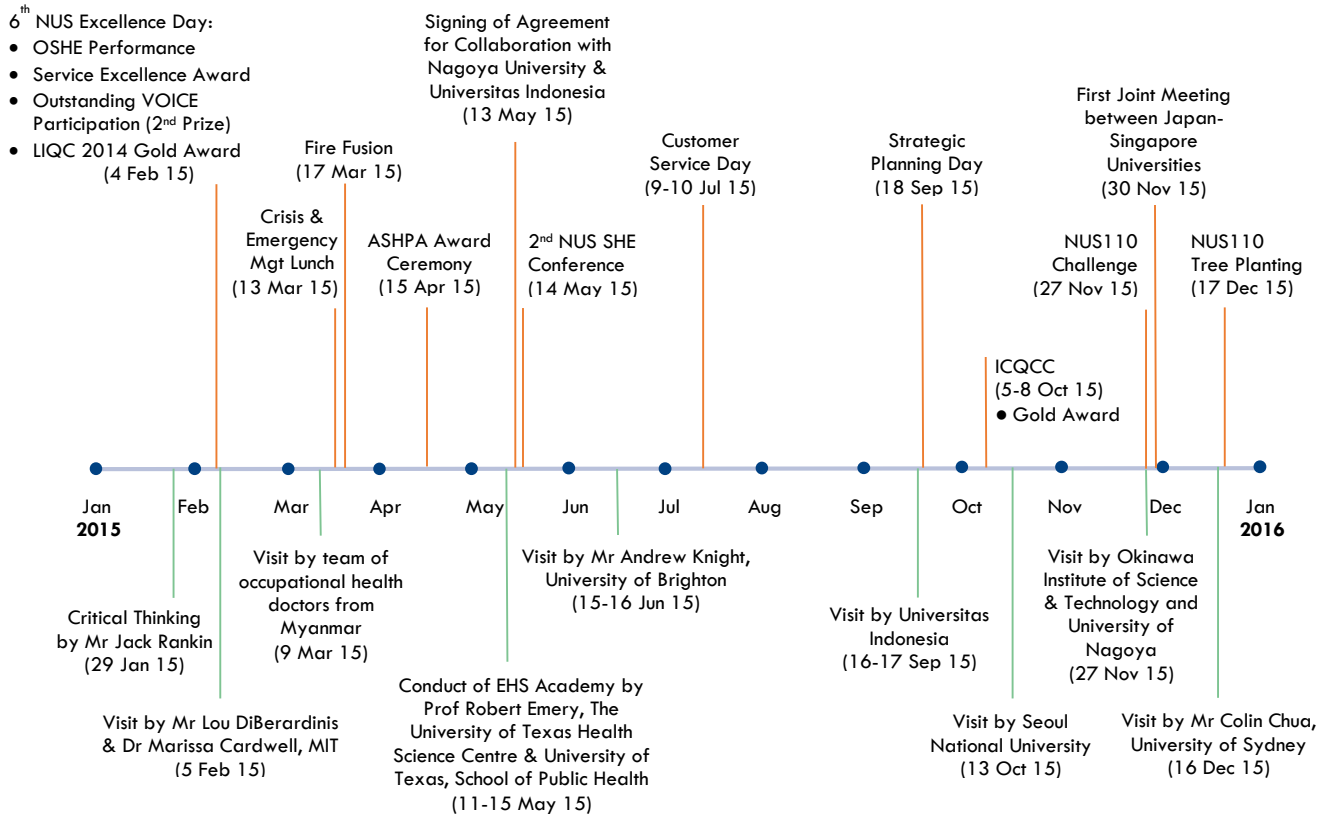


Figure 5. OSHE's key milestones and events in 2015

OSHE's key events are illustrated in Figure 5. One of the key highlights for OSHE in 2015 was the OSHE's performance at the 6th NUS Excellence Day on 4 Feb 2015 which emphasized the importance of safety in a laboratory. Based on an original script by OSHE, it revolved around a scientist who reminisced about an unprecedented accident due to safety lapses in the laboratory which became the turning point in his life. Learning from his mistake, his new determination to embrace safety and integrate into his research eventually won him a prestigious scientific award in his career. This production saw all OSHEians rehearsing diligently to give a rousing performance. OSHE was also awarded the Outstanding for Service Excellence for NUS Service Class 2014, Outstanding VOICE Participation (2nd Prize) Award and Learning Institutions Quality Conference (LIQC) 2014 Gold Award at the 6th NUS Excellence Day.

To appreciate the contributions of the Unit Incident Commanders (UICs), OSHE organised a NUS CEM Team & UICs Cohesion & Appreciation Lunch on 13 Mar 2015. In addition, to recognize and reward teams in charge of fire safety in NUS buildings for having established and maintained an excellent performance in fire safety, these teams were presented with the NUS Building Fire Safety Excellence Awards at the Fire Fusion on 17 Mar 2015.

The Annual Safety & Health Performance Award (ASHPA)¹ ceremony is now a biennial event to recognize and reward participating departments/research institutes/research centres for their outstanding achievements in developing and maintaining efficient safety and health management systems. Held on 15 Apr 2015, the theme for ASHPA 2014/2015 was “Celebrating People and Partnerships”. Out of the 25 participating departments/research institutes/research centres, 7 Departments won the Commendation Awards, 17 Departments/Institute/Halls won the Commitment Awards and 1 was awarded the Certificate of Participation. The NUS President Prof Tan Chorh Chuan, Provost Prof Tan Eng Chye, Deputy President (Research & Technology) Prof Barry Halliwell, Deputy President (Administration) Mr Joseph Mullinix graced the event and OSHE thanked them for their unwavering support. Another highlight of the event was the presentation of the inaugural Distinguished Safety & Health Leadership Award to Prof Barry Halliwell and Outstanding Safety & Health Champion Award to A/Prof Sim Tiow Suan by NUS President Prof Tan Chorh Chuan for their exemplary leadership and contribution to safety & health in the research cluster and NUS Medicine, respectively. The Distinguished Safety & Health Leadership Award was also presented to Mr Joseph Mullinix for his leadership and contribution to safety, especially in Total Workplace Safety & Health (TWSH) at a TWSH luncheon event on 17 Nov 2015.

Held at University Town on 14 May 2015, OSHE successfully organised the 2nd Safety, Health and Environment (SHE) Conference which were well attended by over 300 NUS staff and students, including Heads of Department, Safety Co-ordinators and other safety & health professionals. With a conference theme entitled, “Creating a Sustainable Safety & Health Culture”, it also attracted international delegates with participation from The University of Tokyo, Nagoya University, Ehime University, Okayama University, Universitas Indonesia and Universiti Brunei Darussalam.

Another first for OSHE was the signing of Agreements for Collaboration between NUS and Nagoya University, and between NUS and Universitas Indonesia, both inked on 13 May 2015, to enhance the exchange and sharing of best practices in safety & health management system. To enhance collaboration between Japan and Singapore, OSHE initiated and organised the first joint meeting between universities in Japan and Singapore. The meeting was held in conjunction with the 2nd Asian Conference in Safety and Education in Laboratory (ACSEL) in Indonesia.

Important events of significant mention in OSHE calendar were the annual Customer Service Day and Strategic Planning Day held on 9-10 July 2015 and 18 Sep 2015, respectively. OSHE invited Mr Peter Ng from Peter Ng Training Consultancy to deliver a workshop on Creating Service Magic© in Me – PRIDE in Service to enhance our customer service. OSHE sets aside one day in the calendar year to present, review, discuss and plan for the following year’s work plan during the Strategic Planning Day.

OSHE team, 006 Safety Agents, competed against 257 teams at the International Convention for Quality Control Circles (ICQCC) 2015 in Korea and emerged with Gold Illumination Award.

2015 marked the NUS 110th anniversary, and OSHE joined in the celebration by participating in NUS110 Challenge and NUS110 Tree Planning events. OSHE planted 4 meninjau trees (*Gnetum gnemon*) along Kent Ridge Crescent (between YIH and LT4): one for the directorate and one per division (SHM, EM and BITS).

Last but not the least, OSHE values the partnership with international strategic partners and had hosted a number of overseas visitors from 8 countries in 2015, namely United States of America, United Kingdom, Japan, Korea, Myanmar, Indonesia, Brunei and Australia.

¹ To be renamed as NUS Safety & Health Awards (NUS SHA) in 2016 since it would no longer be an annual event.



Figure 6. Performance by OSHE on 6th NUS Excellence Day



Figure 7. Invited guests, Singapore Civil Defence Force (SCDF), at Fire Fusion 2015



Figure 8. Platinum winners of NUS Building Fire Safety Excellence Awards with NUS President, Prof Tan Chorh Chuan, at Fire Fusion 2015



Figure 9. Platinum winners of NUS Building Fire Safety Excellence Awards with NUS President, Prof Tan Chorh Chuan, at Fire Fusion 2015



Figure 10. NUS Provost, Prof Tan Eng Chye, with Commitment award winning departments at ASHPA 2014/2015



Figure 11. NUS President, Prof Tan Chorh Chuan, speaking at ASHPA 2014/2015



Figure 12. OSHEians at ASHPA 2014/2015 ceremony



Figure 13. Dr Peck Thian Guan delivering the Welcome Address at the 2nd NUS SHE Conference



Figure 14. Panelists at the 2nd NUS SHE Conference (L-R: Mr Danny Toh, Dr Peck Thian Guan, Mr Saravanan Gunaratnam, A/Prof Chia Sin Eng, Dr Lim Cheh Peng)



Figure 15. Delegates at the 2nd NUS SHE Conference



Figure 16. Field trip workshop by Dr Sheila Reuben at 2nd NUS SHE Conference



Figure 17. OSHE team competing in the NUS110 Challenge



Figure 18. OSHE team clinched the top prize in the NUS110 Challenge



Figure 19. NUS110 tree planting by OSHE



Figure 20. NUS110 tree planting by OSHE

LEADERSHIP



OSHE's Senior Leadership

A. SENIOR MANAGEMENT

Senior Management of OSHE comprise the Director, Head of Safety & Health Management (SHM) Division and Head of Emergency Management (EM) Division.

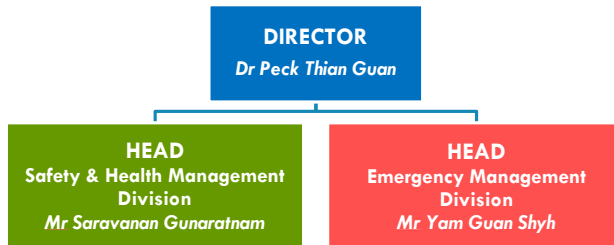


Figure 21. Senior Management of OSHE

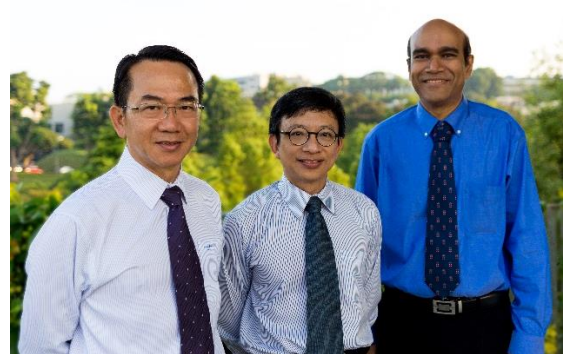


Figure 22. Dr Peck Thian Guan (centre) with Mr Yam Guan Shyh (left) and Mr Saravanan Gunaratnam (right) comprising the Senior Management of OSHE

B. SENIOR LEADERSHIP

OSHE welcomed three new members into the Senior Leadership in 2015, namely Ms Tan Bee Guan who heads the Business IT Services, Ms Tan Chuen Hui who leads the Faculty of Science group and Mr Jedison Ong who leads the Physical Sciences group.



Figure 23. OSHE Senior Leadership. From L-R (first row): Danny Toh, Dr Peck Thian Guan, Ms Gisela Ho, Dr Lim Cheh Peng, Ms Tan Chuen Hui and Mr Yam Guan Shyh. From L-R (second row): Mr Jedison Ong, Mr Ravindran s/o Sockalingam, Mr Saravanan Gunaratnam, Dr Tessy Joseph and Ms Tan Bee Guan

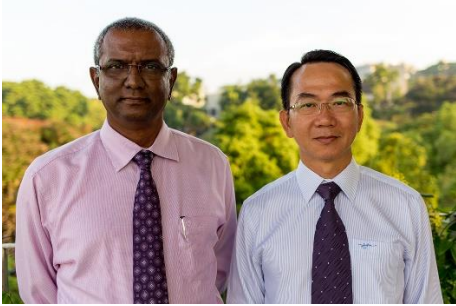


Figure 24. Head of Emergency Management (EM) Division, Mr Yam Guan Shyh, with EM Group Leader, Mr Ravindran s/o Sockalingam



Figure 26. Ms Tan Bee Guan (Business IT Services)



Figure 25. Head of Safety & Health Management (SHM) Division, Mr Saravanan Gunaratnam, with SHM Group Leaders. From L-R: Dr Tessy Joseph, Dr Lim Cheh Peng, Mr Jedison Ong, Mr Saravanan Gunaratnam, Mr Danny Toh, Ms Tan Chuen Hui and Ms Gisela Ho

PLANNING



Brainstorming and planning session at the annual Strategic Planning Day

STRATEGIC PLANNING DAY

The annual Strategic Planning Day was held on 18 Sept 2015 at Resorts World Convention Centre. The objectives were to discuss Work Plan 2016 and OSHE 2020 cum team building. The outcome of the 2015 Strategic Planning Day is summarised below:

1. Presentation of proposed programme-level Work Plan 2016 by each division to facilitate the development of individual Work Plan 2016 and budget planning.
2. Brainstorming session on “OSHE 2020” based on OSHE Strategic Map. Topics include:
 - a. Career Planning (Administrative Staff)
 - b. Disaster-Ready Organisation
 - c. Cost-Effective Safety & Health Solutions
 - d. Adopt Lean & Green Practices
 - e. Safe & Healthy Workplace
 - f. Attract, Develop and Retain Talent
 - g. Positive Work Environment
 - h. Robust Safety & Health Governance and Oversight Framework
 - i. OSHE Leadership in 2020
3. Team building event to inject an element of fun and teamwork during the yearly strategic planning exercise.
4. The new focus areas for 2016 are:
 - a. EHS360 – integrated IT based data acquisition and EHS management system
 - b. Department Safety & Health Management System Audit Programme
 - c. Safety Culture
 - d. Safety Co-ordinator Framework
 - e. Management vs Professional track for OSHE’s safety officers
 - f. Career development for OSHE’s administrative staff



Figure 27. OSHEians at Strategic Planning Day



Figure 28. Strategic Planning Day



Figure 29. Gastronomical treat at buffet lunch

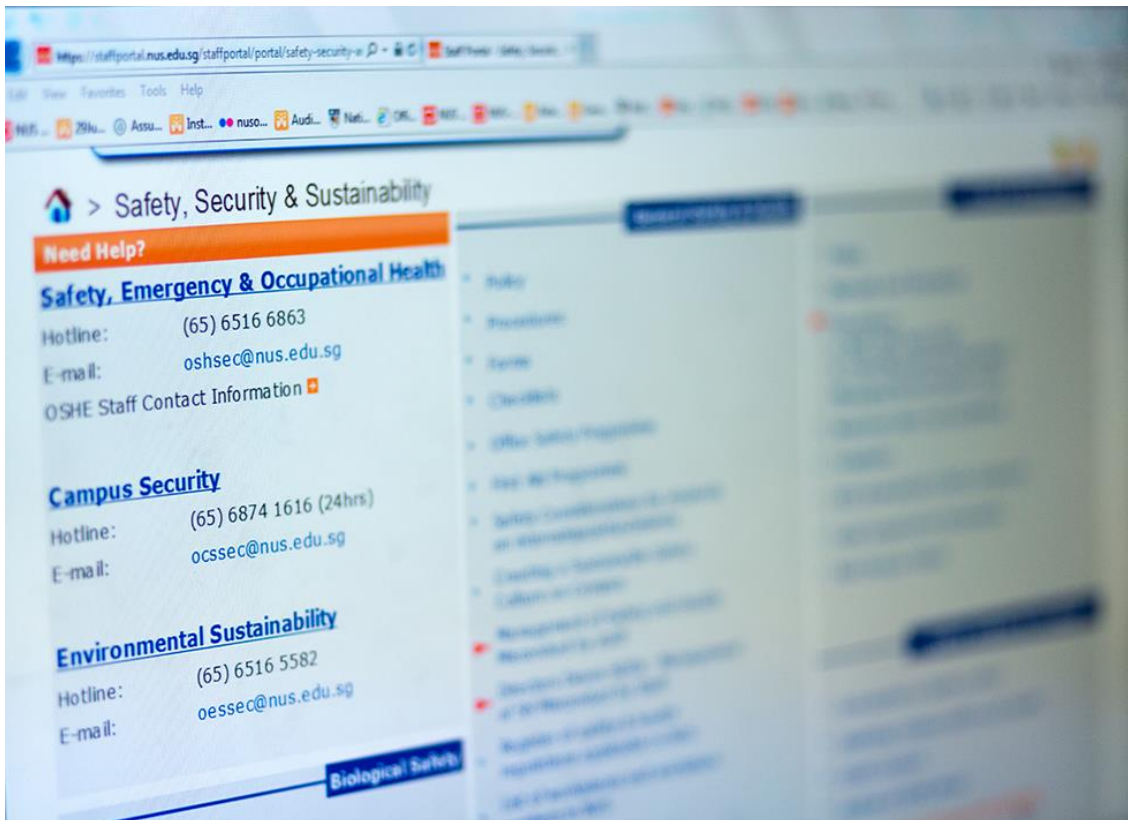


Figure 30. Team Awesome taking a wefie to complete a mission during the team building session



Figure 31. Team Brilliant taking a group photo to complete a mission during the team building session

INFORMATION



Safety & health information and resources available at OSHE website

A. EHS360 PROGRESS

In 2015, to support the growing demands of data acquisition and management of OSHE programmes, OSHE has successfully embarked on an exercise to open, review and award a tender for an integrated IT-based data platform known as EHS360. EHS360 is expected to be operational in 2016.

B. EDMS MIGRATION

OSHE embarked on an exercise to review, re-name and re-organise the files for archival in EDMS, in preparation for the migration to OpenText in 2016.

PEOPLE



Every OSHEian, young and old, is an asset to OSHE

A. EMPLOYEES PROFILE

OSHE's staff strength has increased steadily over the years to meet the growing safety & health and crisis management needs of the University. With an additional 7 headcounts in 2015, the total staff strength in 2015 was 50. The number of staff who has attained Bachelor's Degree, Master's Degree and PhD has also increased, consistent with the demands for multi-faceted skill sets required to support the various programmes in OSHE.

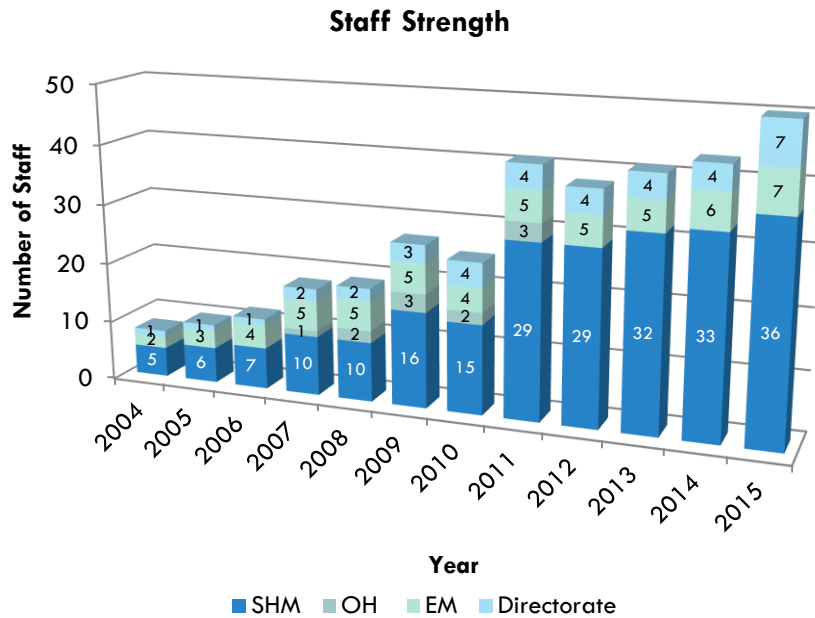


Figure 32. Staff Strength of OSHE from 2004 - 2015

Educational Level	2014			2015		
	MAO*	EPS**	Total No.	MAO*	EPS**	Total No.
PhD	0	7	7	0	9	9
Master's Degree	0	10	10	0	11	11
Bachelor's Degree	0	19	19	0	26	26
Diploma	3	2	5	2	1	3
Others	2	0	2	1	0	1
Total	5	38	43	3	47	50

*MAO = Management Associate Officer **EPS = Executive & Professional Staff

Table 1. Educational Level of OSHE Staff

B. SOCIAL COMMITTEE

Under the chairmanship of Mr Joel Swee Dao Wen, the 2015 OSHE Social Committee has successfully organized 8 social and team bonding events.

Date	Events Organised by OSHE Social Committee
25 February 2015	Chinese New Year celebration
3 July 2015	Popiah making session
9 – 10 July 2015	Team bonding events during Customer Service Day
14 August 2015	SG50 lunch celebration
25 August 2015	Seminar on Demystifying Traditional Chinese Medicine
4 September 2015	BBQ dinner
18 September 2015	Team bonding events during Strategic Planning Day
20 November 2015	Bowling

Table 2. 2015 events organised by OSHE Social Committee



Figure 33. Lo Hei during the Chinese New Year celebration



Figure 34. Enjoying healthy popiah @ popiah-making event



Figure 35. Celebrating SG50 together



Figure 36. Team Awesome at Customer Service Day team-bonding event



Figure 37. BBQ dinner @ Highgate Condominium



Figure 38. Bowling @ West Coast Recreation Centre



Figure 39. 2015 OSHE Social Committee
(L-R: Mr Alvin Gan, Mr Leong Wai Mun, Ms Wong Thai Jin, Dr Joanne Chew, Mr Joel Swee, Mr Ryan Yu; Absent: Dr Shao Yi-Ming, Ms Oh Siew Kee)

C. NUS EVERYDAY ICONS

As part of the NUS110 and SG50 celebrations, Mr Ravindran s/o Sockalingam was named one of the 20 NUS Everyday Icons in recognition of his contributions in helping students improve the safety management of their events and activities.



Figure 40. Mr Ravindran s/o Sockalingam was recognized as an NUS Everyday Icon

D. DEVELOPING OUR PEOPLE

i. TRAINING

OSHE continues to invest in the training and development of its staff. OSHE adopts the 70-20-10 philosophy advocated by Office of Human Resources (OHR) where 70% of a staff's competency development comes from mentoring and/or on-the-job training, 20% from learning from others and the last 10% from attending formal training courses.

Staff are given opportunities to take on new challenges while being mentored by their respective reporting officer or a more senior or experienced staff. The newer staff in EM Division were given the responsibility to manage the fire safety programme while others in SHM Division were appointed to serve as Secretariat to the Institutional Safety & Health Committees. OSHE's book club, which previously involved only the management staff with the Director, was extended to the groups where the Group Leader acted as the facilitator for his / her group.

Lastly, OSHE staff attended various formal training courses. Please refer to Results and Statistics for training hours.



Figure 41. Training on Creating Service Magic© in Me – PRIDE in Service by Mr Peter Ng

ii. CONFERENCES

Dr Peck Thian Guan attended the Campus Safety Health and Environment Management Association (CSHEMA) Annual Meeting in Washington DC, USA. He also conducted a pre-conference Professional Development Workshop together with Ms Kathy Seabrook,

the immediate past president of the American Society of Safety Engineers (ASSE) on the implementation of Safety & Health Management System in universities.

Dr Lim Cheh Peng and Ms Alicia Huang represented 006 Safety Agents at the International Convention for Quality Control Circles (ICQCC) 2015 held at Changwon, Korea. They presented their winning project entitled “Safer Chemical Transportation” at the convention and emerged as Gold Illumination winners.

Five OSHE staff attended the 2nd Asian Conference on Safety and Education in Laboratory (ACSEL) in Depok, Indonesia. The following papers were presented at ACSEL 2015:

Name of OSHE Staff	Title of Oral Presentations
Mr Saravanan Gunaratnam	Emerging Challenges for Universities for Safety and Health Management – A Global Scan on What is the Horizon?
Dr Lim Cheh Peng	Implementation of Total Workplace Safety & Health (TWSH) at National University of Singapore
Dr Tessa Joseph	An Integrated System for Managing Safety, Health and Compliance Issues for Biomedical Research in NUS
Mr Danny Toh	Corporate Governance in Safety & Health Management in NUS
Mr Daniel Wong	Implementing Risk Management in a Systematic Manner for Research Laboratories

Table 3. List of papers presented at 2nd ACSEL (1-2 Dec 2015)

OSHE also organised and participated in a pre-conference joint-meeting between Japan-Singapore universities to enhance collaboration in safety and health matters. Japan was represented by Ehime University, Nagoya University and The University of Tokyo, whereas Singapore was represented by NUS, Singapore Institute of Technology (SIT) and National Research Foundation (NRF).



Figure 42. Pre-conference joint meeting between Japan and Singapore universities



Figure 43. Delegates for the joint meeting between Japan and Singapore. From L to R: A/Prof Chia Sin Eng (NUS), Prof Toshiro Tanaka (Ehime University), Mr Rendell Tan (SIT), Mr Danny Toh (NUS), Prof Yoshito Oshima (The University of Tokyo), A/Prof Ning Chen (Nagoya University), Prof Ruth Vergin (Ehime University), Dr Tessy Joseph (NUS), Dr Lim Cheh Peng (NUS), Mr Rafi Osman (NRF), A/Prof Yoshiko Tsuji (The University of Tokyo), Mr Daniel Wong (NUS), Prof Shizuaki Murata (Nagoya University), A/Prof Lim Kok Hwa (SIT), Mr Saravanan Gunaratnam (NUS)



Figure 44. Singapore delegates comprising representative from NUS, SIT and NRF at the ACSEL 2015



Figure 45. International Advisory Committee and International Steering Committee of ACSEL 2015

iii. INSTITUTIONAL, NATIONAL & INTERNATIONAL COMMITTEES

OSHE officers also serve in international and national committees on various aspects of safety & health. This enables our officers to network with other safety & health professionals, to learn from them as well as to contribute to the development of the profession.

In 2015, OSHE staff has participated in 20 various institutional, national and international committees, including two newly established institutions, namely Organisational Development Steering Committee (ODSC) and NUS Total Workplace Safety & Health (TWSH) Committee.

Institutional, National and International Committees	Name of Staff
1. Singapore representative to ISO PC 283 and Task Group Leader for the development of the ISO standard on Occupational Health and Safety Management System (ISO 45001)	Dr Peck Thian Guan
2. Deputy Chairman of SPRING Singapore's Technical Committee on Occupational Safety and Health Management System	
3. International Steering Committee, Asian Conference on Safety and Education in Laboratory (ACSEL)	Dr Peck Thian Guan (Chairman) Mr Saravanan Gunaratnam
4. Members of the Review Committee for Code of Practice SS532 : Storage of flammable liquid	Mr Hairulnizam Ishak Mr Joel Swee Dao Wen
5. Member of MD6 BSL-3 Biosafety Committee	Dr Tessy Joseph
6. Member of Duke-NUS GMS ABSL-3 Biosafety Committee	
7. Working Group on Safety & Health in Higher Education and Research (HER) sector	Dr Peck Thian Guan (Chairman) Mr Saravanan Gunaratnam (Member) Dr Lim Cheh Peng (Secretariat)
8. SPRING Singapore's General Engineering and Safety Standards Committee	Mr Saravanan Gunaratnam
9. SPRING Singapore's Technical Committee on Business Continuity	Mr Yam Guan Shyh
10. SISO Committee Member	Mr Saravanan Gunaratnam
11. Singapore-MIT Alliance for Research and Technology (SMART) Institutional Biosafety Committee (IBC)	Dr Lim Cheh Peng (Observer)
12. WDA's Biosafety Technical Committee	Dr Tessy Joseph Dr Lim Cheh Peng
13. Biorisk Association of Singapore	Dr Tessy Joseph (Asst. Treasurer) Mr Danny Lum (Internal Auditor)
14. Business Continuity Management Committee (BCMC)	Dr Peck Thian Guan
15. Organisational Development Steering Committee (ODSC) NEW	Dr Peck Thian Guan
16. NUS Total Workplace Safety & Health (TWSH) Committee NEW	Mr Saravanan Gunaratnam (Chairman) Dr Peck Thian Guan Dr Lim Cheh Peng
17. Institutional Biosafety Committee (IBC)	Dr Peck Thian Guan Mr Saravanan Gunaratnam Dr Joanne Chew (Secretariat) Ms Christine Hu (Asst. Secretariat)
18. Institutional Construction Safety Committee (ICSC)	Dr Peck Thian Guan Mr Ngeow Kao-Peng (Secretariat)
19. Institutional Laboratory Safety Committee (ILSC)	Dr Peck Thian Guan Mr Saravanan Gunaratnam Mr Joel Swee Dao Wen (Secretariat)
20. Institutional Safety & Health Professionals (ISHP)	Dr Peck Thian Guan Mr Saravanan Gunaratnam Dr Sheela Reuben (Secretariat) Ms Dhanapriya Muthirulappan (Asst. Secretariat) Mr Daniel Wong (Asst. Secretariat)

Table 4. Participation of OSHE staff in institutional, national and international committees



Figure 46. Dr Peck Thian Guan chairing the 9th Working Group on Safety & Health in Higher Education and Research (HER) sector meeting

CUSTOMERS



Department of Mechanical Engineering

A. Meeting with new Deputy President (Research & Technology) and Deputy President Designate (Administration)

On 5 Oct 2015, Dr Peck Thian Guan and OSHE team comprising safety professionals and management staff, met with Prof Ho Teck Hua (Deputy President, Research & Technology) and Mr Don Yeo (Deputy President Designate, Administration), together with Prof Tan Eng Chye (Provost), Mr Joseph P Mullinix (Deputy President, Administration) and Professor Barry Halliwell (Senior Advisor to President) to gain a better understanding of the NUS Senior Management's vision for safety and health management on campus.

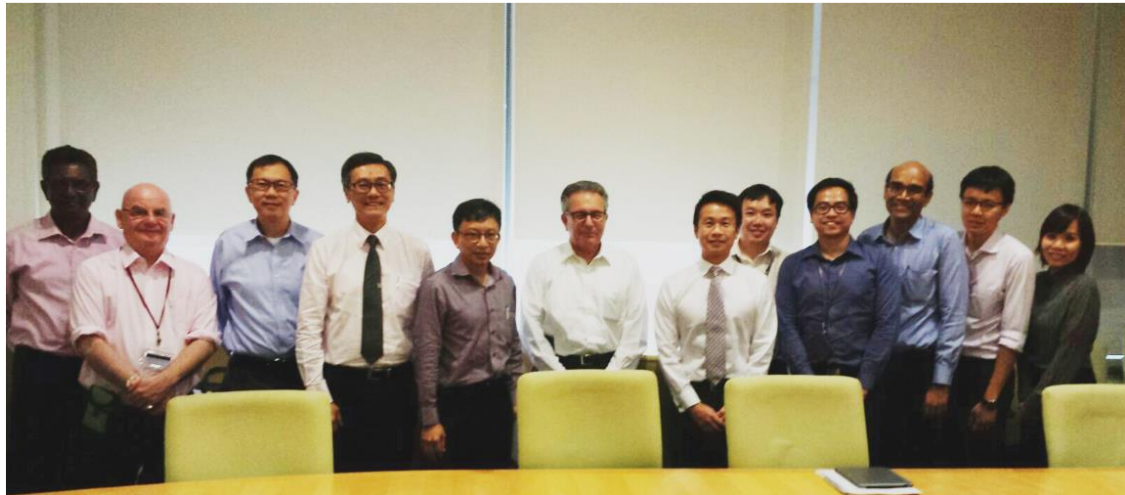


Figure 47. OSHE staff with the NUS Senior Management team
 From L-R: Mr. Ravindran s/o Sockalingam, Prof Barry Halliwell (Senior Advisor to President), Prof Ho Teck Hua (Deputy President, Research & Technology), Prof Tan Eng Chye (Provost), Dr Peck Thian Guan, Mr Joseph Mullinix (Deputy President, Administration), Mr Don Yeo (Deputy President Designate, Administration), Mr Danny Toh, Mr Jedison Ong, Mr Saravanan Gunaratnam, Dr Joshua Wong, Ms Gisela Ho

B. Meeting with new key appointment holder in University Administration cluster

OSHE's Senior Management met with the following new key appointment holders in the University Administration cluster in 2015 to introduce OSHE:

S/N	University Administration	Name	Designation
1	Central Procurement Office	Ms Cecilia Lee	Chief Procurement Officer
2	Office of Housing Services	Mr Koh Yan Leng	Director

Table 5. List of key appointment holders in University Administration offices whom OSHE met

C. Meeting with new Deans, Heads of Department (HODs) & Directors

It is a practice for OSHE's Senior Management to meet new key appointment holders in laboratory-based faculties, departments, research institutes and centres. The purpose of the meeting is to introduce to the newly appointed Deans, HODs, and Directors the safety & health management system in NUS, the NUS Safety & Health Policy and the OSHE Safety & Health Officer who will be serving the faculty.

In 2015, OSHE met the following new Deans / HODs / Directors:

S/N	Faculty / Department / Research Institutions / Research Centres	Name of Deans / HODs / Directors	Designation
1	Yong Loo Lin School of Medicine	Mr Sim Tiong Kian	Director Administration
2	Department of Chemistry	Prof Richard Wong Ming Wah	Head of Department
3	NUS Centre for the Arts	Ms Sharon Tan Kheng Huay	Director
4	Singapore Nuclear Research and Safety Initiative (SNRSI)	Prof Lim Hock	Director

Table 5. List of new Deans/ HODs / Directors whom OSHE met

D. New Internal Partners

OSHE works closely with internal partners. In 2015, two newly established offices were identified as key partners. They are the Central Procurement Office (CPO) and the Office of Corporate Compliance (OCC).

The list of internal partners and their working relationship with OSHE is given in Table 6.

NUS Offices	Areas of working relationship
NUS Senior Management	
Office of the President	Development of University policies on safety & health
Office of the Provost	Development of University policies on safety & health, in particular in areas affecting the faculties
Office of the Deputy President (Research and Technology)	Development of University policies on safety & health, in particular in areas affecting the research institutes and centres
Office of the Deputy President (Administration)	Development of University policies on safety & health, in particular affecting administrative departments
Office of the Vice President (Campus Infrastructure)	Development of University policies on safety & health, in particular those which an impact on space and physical infrastructure
Academic Cluster	
Office of Admissions	Distribution of Emergency Preparedness packs to new students
Registrar's Office	Crisis and emergency management
Faculties & Schools	Safety & Health audits & inspections and roll out of safety & health programmes
Administration Cluster	
Central Procurement Office ^{NEW}	Procurement sourcing, commercial contract management, compliance with procurement procedures and reporting
Centre for Counselling & Psychological Services	Staff and student counselling & psychological matters
Computer Centre	IT matters
Enterprise Office (Industry Liaison Office)	Material Transfer Agreements
International Relations Office	Crisis management involving international students or NUS students overseas
Office of Campus Amenities	Dining and Transportation
Office of Campus Security	Safety and security matters
Office of Corporate Compliance ^{NEW}	Compliance with the Personal Data Protection Act (PDPA)
Office of Corporate Relations	Communication and media matters
Office of Environmental Sustainability	Environmental interests
Office of Estate & Development	New Capital and A&A Projects
Office of Facilities Management	Facilities matters
Office of Financial Services	Financial matters
Office of Housing Services	Safety & health management in Residences
Office of Human Resources	Staff matters
Office of Legal Affairs	Legal advice
Office of Resource Planning	Financial resources
Office of Risk Management	Business Continuity Planning & Enterprise risk management
Office of Student Affairs	Student matters
Organisational Excellence Office	Quality improvement and six sigma projects
University Health Centre	Staff & students' clinical and student insurance matters
University Town Management Office	UT facilities

Table 6. OSHE's Internal Partners

RESULTS & STATISTICS

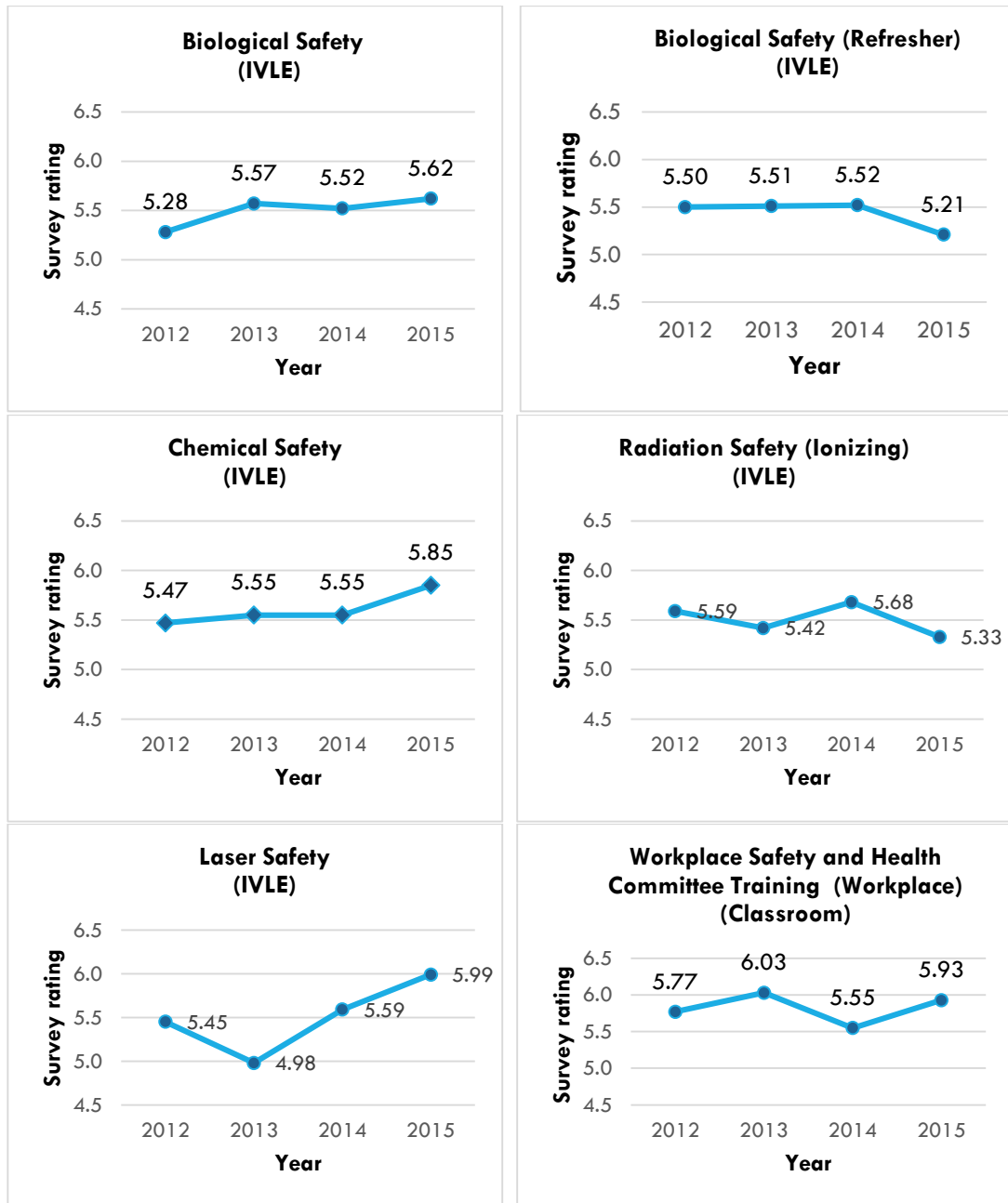


OSHE's performance indicators

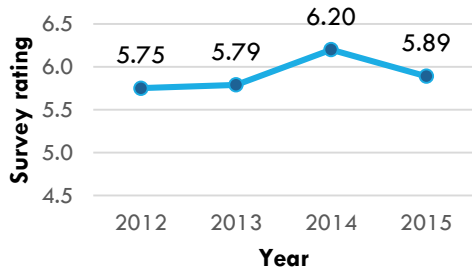
A. CUSTOMER RESULTS

i. Customer Satisfaction Survey for training courses

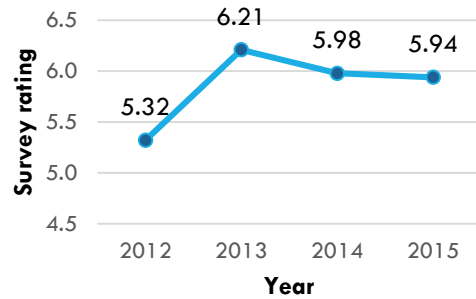
OSHE's customer satisfaction ratings have consistently been favourable and have exceeded the target rating of 5 out of 7.



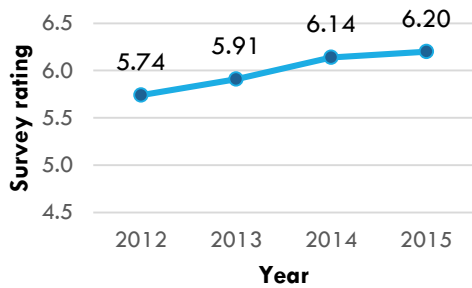
Workplace Safety and Health Committee Training (Laboratory) (Classroom)



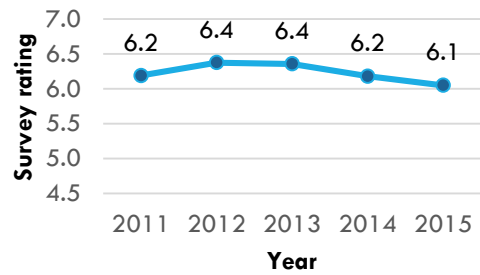
Risk Management for Workplace (Classroom)



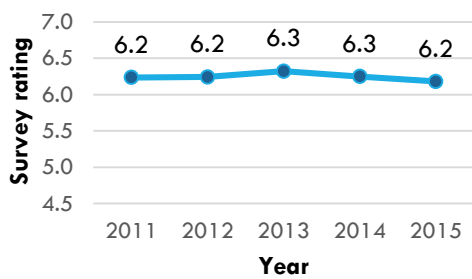
Risk Management for Laboratories (Classroom)



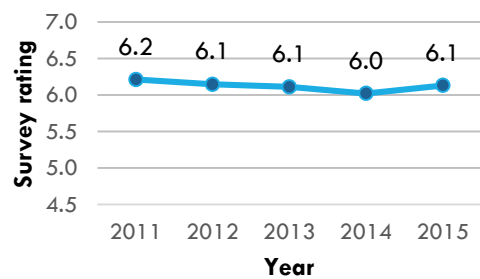
Fire Safety Education Course (Classroom)



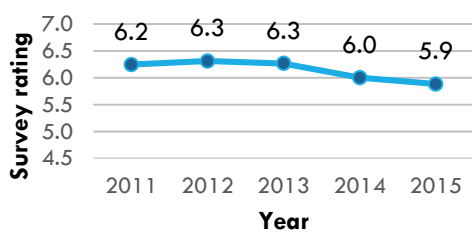
Fire Safety Refresher Course (Classroom)



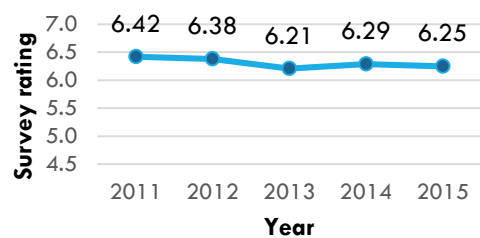
Fire Warden Training Course (Classroom)



Fire Safety Coordinator Course (Classroom)



Crisis Management: Business As Usual (Classroom)



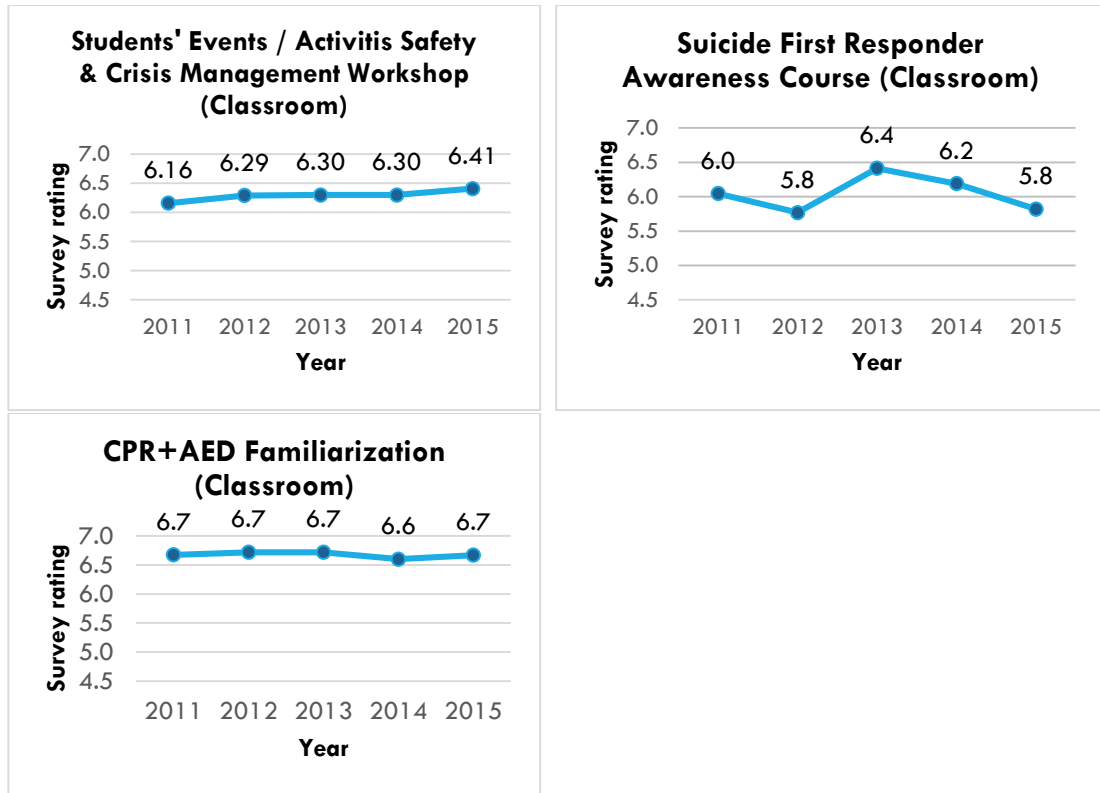


Figure 48. Course survey results

ii. OSHE Online Survey

The online survey rating in 2015 for OSHE's key services, namely Advisory, Audit and Fire Safety Inspection have increased across the board.

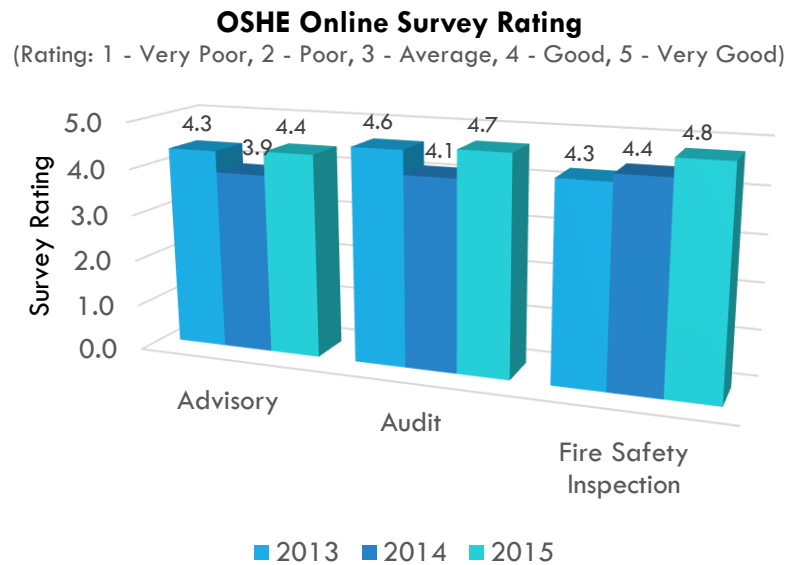


Figure 49. OSHE online survey rating for Advisory, Audit and Fire Safety Inspection (2013 – 2015)

iii. Compliments-to-complaints Comparison

The number of compliments received continue to rise over the years. OSHE has also received a number of complaints, which were investigated and closed in a timely manner.

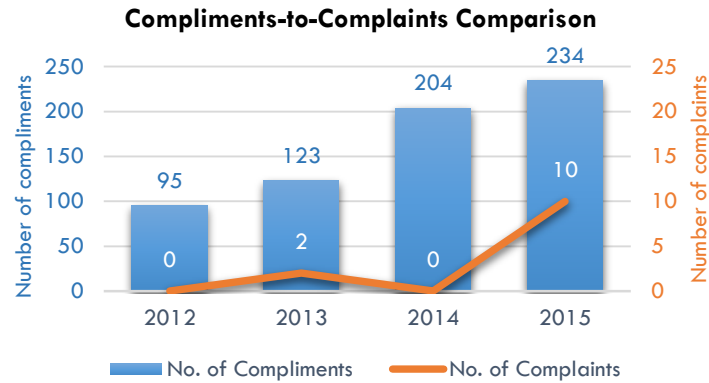


Figure 50. Compliments-to-complaints comparison (2012 – 2015)

iv. Incident Statistics

The NUS injury rate remained below 25% of the industry injury rate.

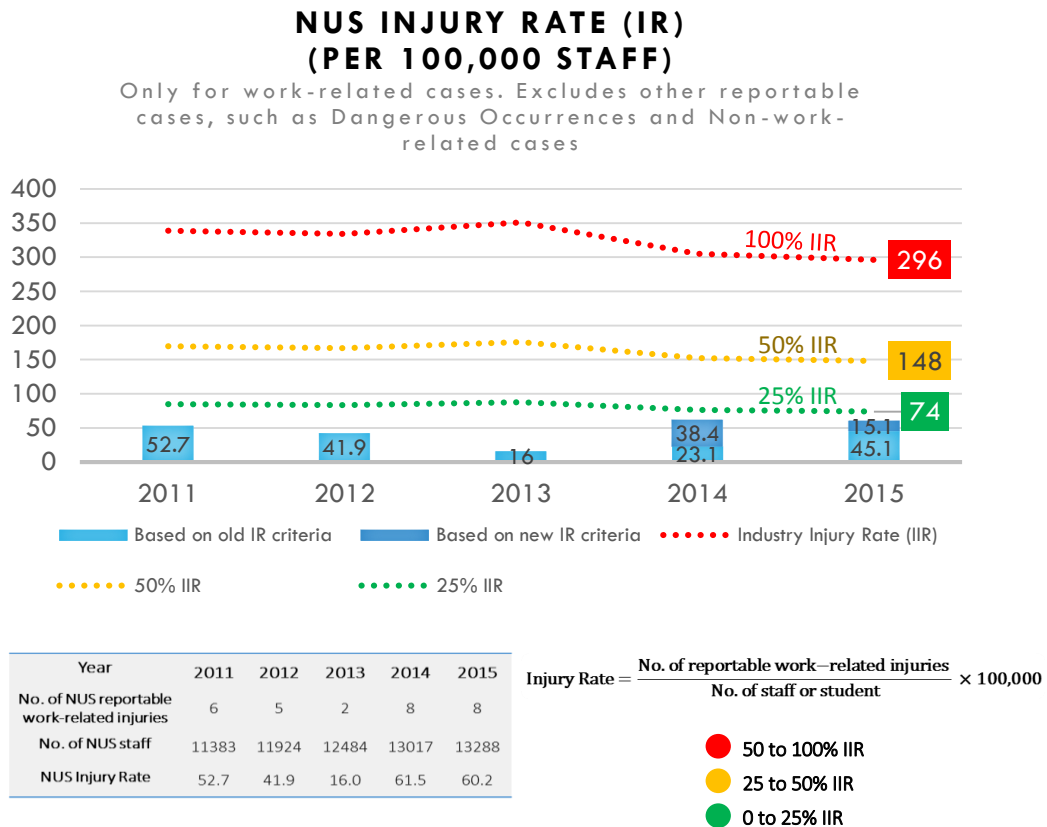


Figure 51. NUS injury rate (per 100,000 staff)

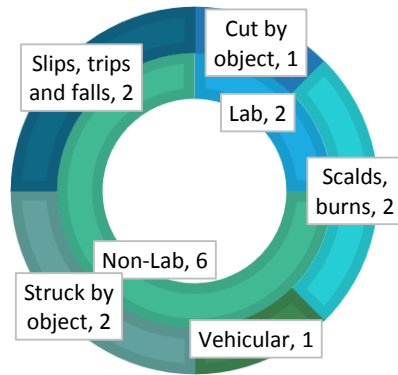


Figure 52. Reportable injuries (work-related) in 2015

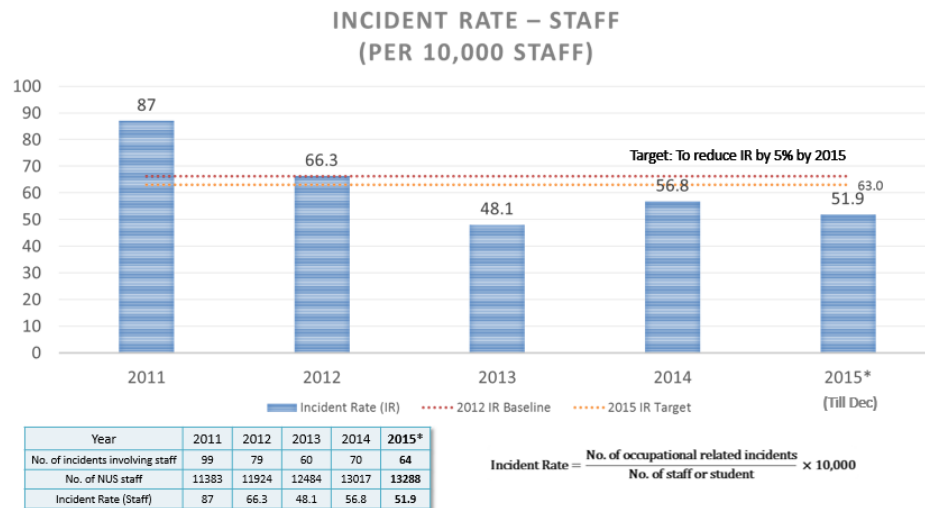


Figure 53. Incident rate for staff (per 10,000 staff)

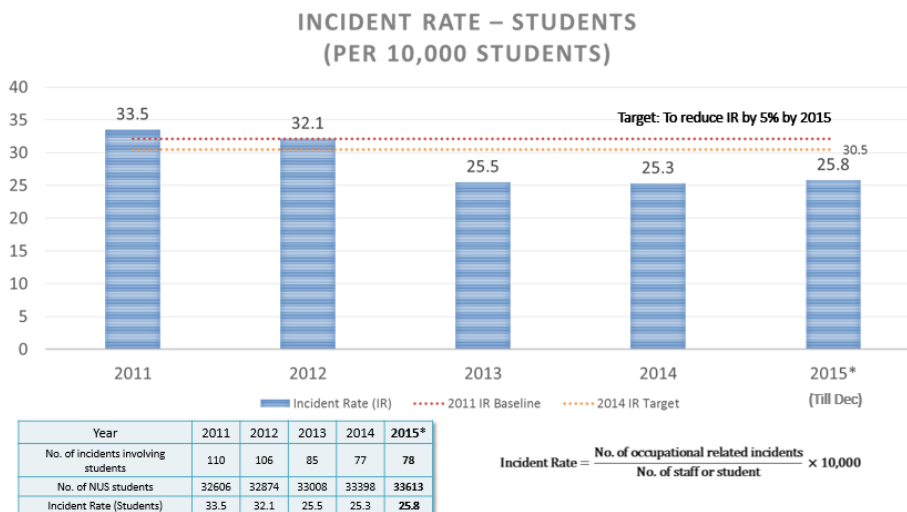


Figure 54. Incident rate for students (per 10,000 student)

B. PEOPLE RESULTS

The Quality of Hire has increased in 1st half of 2015.

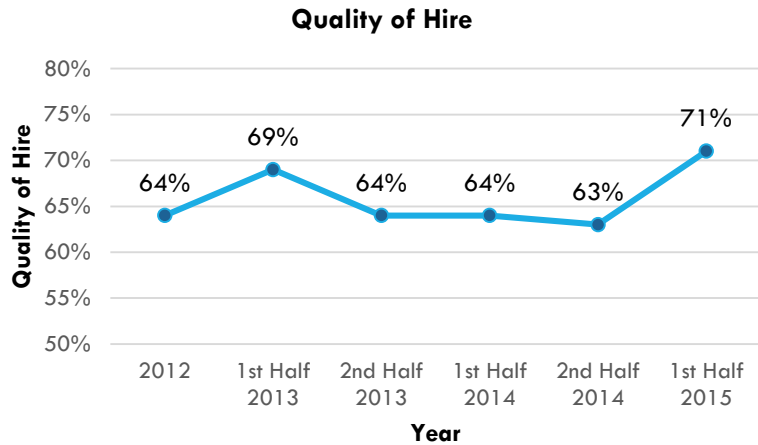


Figure 55. Quality of Hire (2012 – 2015)

OSHE continues to invest in staff development, in particular, raising the competencies of our staff. The average training hours per OSHE staff is above the average training hours per University Admin staff (Table 7).

Training Hours	2011	2012	2013	2014	2015
Average training hours per OSHE staff	148	82	83	53	57
Average training hours per University Admin staff	45	44	35	34	26

Table 7. Average training hours per staff

The number of Professional Development Group (PDG) training organised by OSHE has increased steadily over the years, with 24 PDGs organised in-house to train and increase the competencies of OSHE staff. The PDG trainings are listed in Table 8.



Figure 56. Number of Professional Development Group (PDG) organised

S/N	Training	Trainer	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1	Regulations for Chemicals	Dhanapriya M. & Joel Swee, OSHE	14 Jan											
2	Critical Thinking	Jack Rankin, PD Training	29 Jan											
3	Biological Safety	Jayavani K, OSHE		13 Feb										
4	The Current Consensus on Safety and Performance of Laboratory Ventilation Systems and Fume Hoods and Opportunities for Energy Conservation	Lou DiBerardinis, MIT		5 Feb										
5	Biosafety regulations	Danny Lum, OSHE		27 Feb										
6	Goal Zero Journey	Shell			13 Mar									
7	Radiation Safety	Pramoth Chandrikamohan			27 Mar									
8	How to write Audit Reports / discussion on common audit findings	Hairulnizam Bin Ishak, OSHE				20 Apr								
9	Accident Incident Investigation	Goh Keng Beng, OSHE				24 Apr								
10	EHS Academy	Prof Robert Emery,					11-12 May							
11	Experience in tackling and managing Ebola in US and how it can be done in Singapore	The University of Texas Health Science Centre and University of Texas, School of Public Health					15 May							
12	Radiation Talk By Dr Robert Emery						15 May							
13	Auditors Roundtable Meeting	Hairulnizam Bin Ishak, OSHE					27 May							
14	Overview of IT in OSHE	Ryan Yu and Samantha Tan, OSHE						10 Jun						
15	Developing and Applying UK Higher Education Safety in Fieldwork Guidance	Andrew Knight, University of Brighton						15-16 Jun						
16	Design Review	Lau Kwok Siong, OSHE						18 Jun						
17	Field Trip Guidelines	Dr Sheela Rueben, OSHE						29 Jun						
18	Biological Spill – train the trainer for FSHOs	Jayavani K & Danny Lum, OSHE							6 Jul					
19	Creating Service Magic® in Me - PRIDE® In Service	Peter Ng, Peter Ng Training Consultancy							9 July					
20	Chemical Spill – train the trainer for FSHOs	Dhanapriya M & Joel Swee Dao Wen, OSHE							23 Jul					
21	Occupational Health	Dr Gregory Chan & Dr Joshua Wong								14 Aug				
22	MS SharePoint 2010 Training	Ms Vanathy Rajendran, Computer Centre										9 Oct		
23	Physical Safety – LOTO, WAH, Lifting	Jedison Ong, OSHE											19 Nov	
24	Overview of the certification of Generalist OHS Professionals/ Practitioners in Australia	Colin Chua, University of Sydney												16 Dec

Table 8. Professional Development Group (PDG) training conducted



Figure 57. Trainees of Critical Thinking with Mr John Rankin



Figure 58. PDG on biosafety regulations by Mr Danny Lum



Figure 59. EHS Academy with Prof Robert Emery



Figure 60. Seminar by Andrew Knight

The number of OSHE staff with professional certification is listed in Table 9.

S/N	Professional Certification	Number of Staff
1	Registered Fire Safety Manager	14
2	Registered Safety Officer	13
3	Biosafety Coordinator	11
4	OHSAS 18001 Lead Auditor	10
5	Noise Monitoring and Control Officer	6
6	Advanced Certificate in Training and Assessment	5
7	ISO 14001 Lead Auditor	5
8	Environmental Control Officer	3
9	Lean Six Sigma (Yellow Belt)	2
10	Radiation Safety Officer	2
11	Laser Safety Officer	1
12	Certified Safety & Health Manager	1
13	Business Continuity Certified Expert	1
14	Crisis Management Certified Expert	1
15	Certified Instructor for Mental Health First Aid (Singapore)	1
16	Associate Member of Business Continuity Institute (AMBCI)	1
17	Certified Fire Protection Specialist (NFPA, USA)	1
18	Certified Fire and Explosion Investigator (USA)	1
Total		79

Table 9. Number of staff with professional certification in 2015

OSHE has experienced a healthy decline of attrition rate over the years, with only 2.2% in 2015.

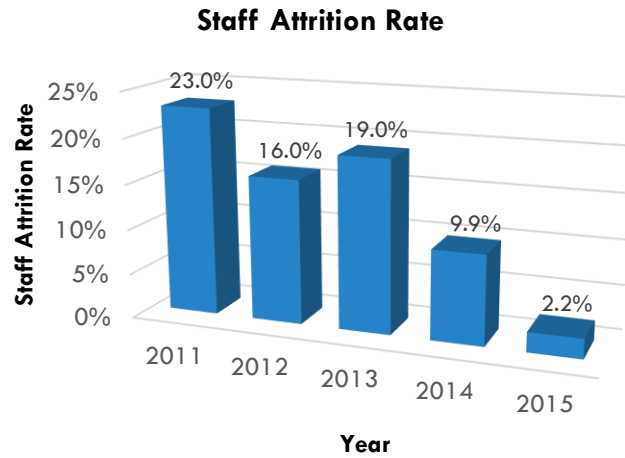


Figure 61. Staff attrition rate

The average length of service has increased from 3.9 years in 2014 to 4.6 years in 2015.

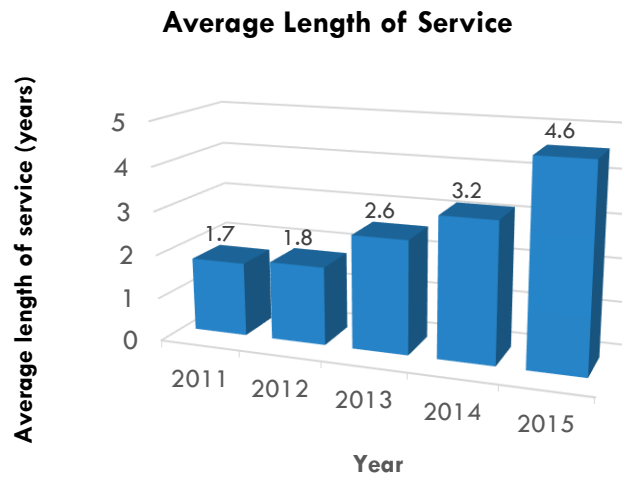


Figure 62. Average length of service

The average sick leave of OSHE staff was 3 days in 2015, below the target 4 days per staff per year.

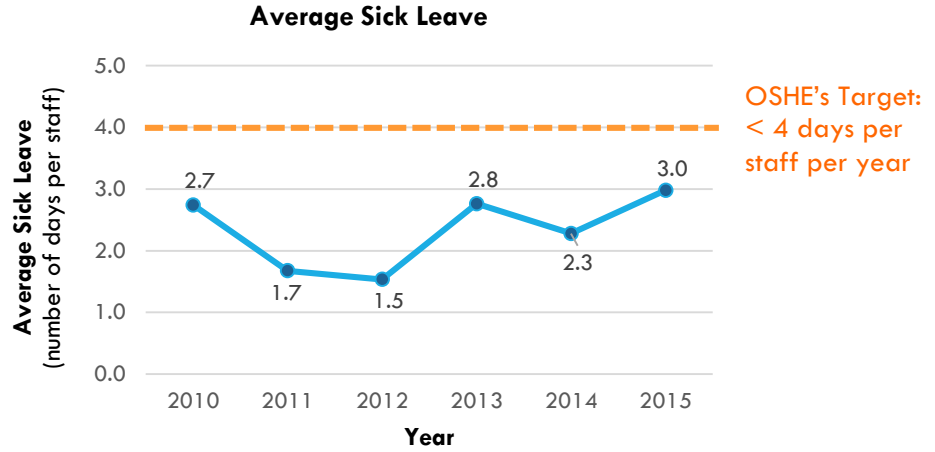


Figure 63. Average sick leave

In 2015, there were 17 wellness programmes that OSHE organized or OSHE staff had participated in.

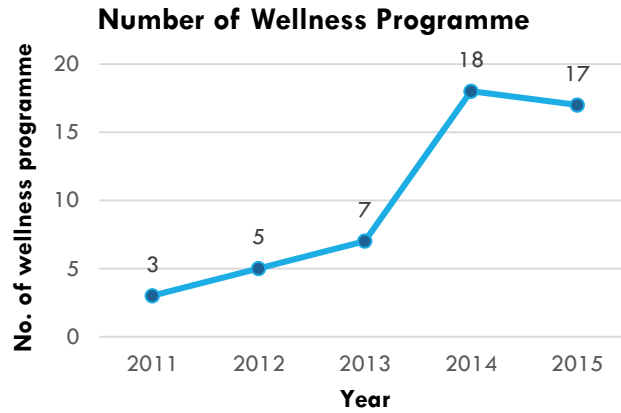


Figure 64. Number of wellness programmes

C. OPERATIONAL RESULTS

i. New Products & Services / Policies / Standards / Programmes

5 NEW/ REVISED POLICIES & STANDARDS

S/N	POLICIES & STANDARDS	DESCRIPTION
1	Revised NUS Safety & Health Policy	Approved by NUS President, Prof Tan Chorh Chuan, on 10 May 2015, the policy was revised to support the University's goal of creating a sustainable safety & health culture. The revised policy established the roles and responsibilities of NUS Senior Management as well as safety KPIs of Deans, HoDs, Directors.
2	Standard for Hepatitis B Screening and Vaccination within NUS	Approved by the Institutional Biosafety Committee (IBC) and issued on 3 March 2015, this standard is applicable to all staff and students that are potentially exposed to human specimens, tissues, biological fluids and cell lines, and/or live Hepatitis B virus.
3	Revised Standard for Medical Surveillance in BSL2 Laboratories	Approved by the Institutional Biosafety Committee (IBC) and issued on 3 March 2015, this standard is applicable to all staff, students and long-term visitors handling specific Risk Group 2, all Risk Group 3 & 4 biological agents as regulated under the Biological Agents and Toxins Act (BATA). Available specific vaccines or toxoids should be offered after a risk assessment of possible exposure and a clinical health assessment of the individual have been conducted.
4	Mandatory Establishment of Department Safety & Health Management System and Audit at High Hazard Departments	Supported and approved by NUS Senior Management, all NUS departments / research institutes / research centres (RI/RCs) with high hazard activities must establish the Department Safety & Health Management System (DSHMS) and undergo a biennial audit.
5	Mandatory Eye and Face Protection in Research Laboratories and Workshops	Supported and approved by NUS Senior Management, the Institutional Laboratory Safety Committee (ILSC) and the Institutional Biosafety Committee (IBC), the policy on mandatory eye and face protection in research laboratories and workshops where corrosive, infectious or injurious materials are handled was effective from June 2015.

Table 10. New / revised policies and standards

13 NEW ONLINE SAFETY & HEALTH COURSES

S/N	MODULE CODE	COURSE
1	OSHGEN01	Laboratory Safety Induction Training
2	OSHGEN02	Introduction to Laboratory Safety and Health in NUS – Policy, Principles and Practice
3	OSHERGO01	NUS Office Ergonomics Training
4	OSHERGO02	NUS Laboratory Ergonomics Training
5	OSHBIO03	Safe Handling of Human Tissue and Fluids
6	OSHBIO04	Biosafety Legislations & Guidelines
7	OSHBIO05	Biological Spills and Emergency Response
8	OSHCHM02	Safe Use & Handling of Hydrofluoric Acid
9	OSHCHM03	Safe Use & Handling of Pyrophoric Chemicals
10	OSHCHM04	Semi-Quantitative Risk Assessment (SQRA)
11	OSHCHM05	Chemical Spill Management
12	OSHRAD05	Basic MRI Safety Training
13	OSHRAD06	MRI Safety Training for Operators

Table 11. New online training courses

2 NEW SAFETY & HEALTH AWARDS

OSHE established two new Safety & Health Awards for NUS colleagues to recognize leaders who have gone beyond the call of duty, working in strong partnership with OSHE, and pursuing the safety agenda for NUS.

S/N	AWARDS	RECIPIENTS
1	Distinguished Safety & Health Award	a. Prof Barry Halliwell, Prof. Barry Halliwell, Deputy President (Research and Technology) on 15 April 2015 b. Mr Joseph P Mullinix, Deputy President (Administration) on 17 Nov 2015
2	Outstanding Safety & Health Champion Award	a. A/Prof Sim Tiow Suan on 15 April 2015

Table 12. New Safety & Health Awards



Figure 65. Prof Tan Chorh Chuan, NUS President presenting the Distinguished Safety and Health Leadership Award to Prof Barry Halliwell, Deputy President (Research & Technology)



Figure 66. Prof Tan Chorh Chuan, NUS President presenting the Outstanding Safety and Health Champion Award to A/Prof Sim Tiow Suan, Assistant Dean, Yong Loo Lin School of Medicine



Figure 67. Presentation of the Distinguished Safety & Health Leadership Award to Mr Joseph Mullinix by Ms Aileen Tan, Vice President (Human Resources)

2 NEW INSTITUTIONAL COMMITTEES

S/N	INSTITUTIONAL COMMITTEES	PURPOSE
1	NUS Total Workplace Safety & Health (TWSH) Committee	<p>NUS TWSH Committee is chaired by Mr Saravanan Gunaratnam with Mr Joseph Mullinix (Deputy President, Administration) as advisor and representatives from the Office of Safety, Health & Environment, Office of Human Resources, Office of Campus Amenities and University Health Centre as members.</p> <p>The committee was established to promote the total well-being of NUS staff and students by integrating personal factors into workplace safety and health management.</p> <p>Some examples of TWSH initiatives:</p> <ul style="list-style-type: none"> • Promotion of health screening • Healthier dining at work • Consideration of individual's health risk factors condition when doing risk assessments • NUS Worker Health Medical Questionnaire (WHMQ) to address the personal health factors for new hires • Pilot implementation of TWSH in OFM
2	Organisational Development Steering Committee (ODSC)	<p>The ODSC is chaired by the President, and members include Provost, Deputy President (Research & Technology) and Deputy President (Administration), Vice President (Campus Infrastructure), Vice President (Office of Human Resources), Senior Director (Office of Financial Services), Senior Director (Office of Resource Planning), Senior Director (Computer Centre), Director (Office of Safety Health and Environment) and Director (Office of Risk Management). The committee will set goals, establish a comprehensive framework and approve specific initiatives to enhance and strengthen the S&H policies, practices and culture in NUS.</p>

Table 13. New Institutional Safety & Health Committees



Figure 68. NUS TWSH Committee with partners at the TWSH luncheon on 17 Nov 2015

1 NEW INITIATIVE

S/N	INSTITUTIONAL COMMITTEES	PURPOSE
1	Safety Corner at NUS Co-op	Established in July 2015 to promote the supply of personal protective equipment (PPE) to be easily available at our NUS Co-op (LT27).

Table 14. New initiative



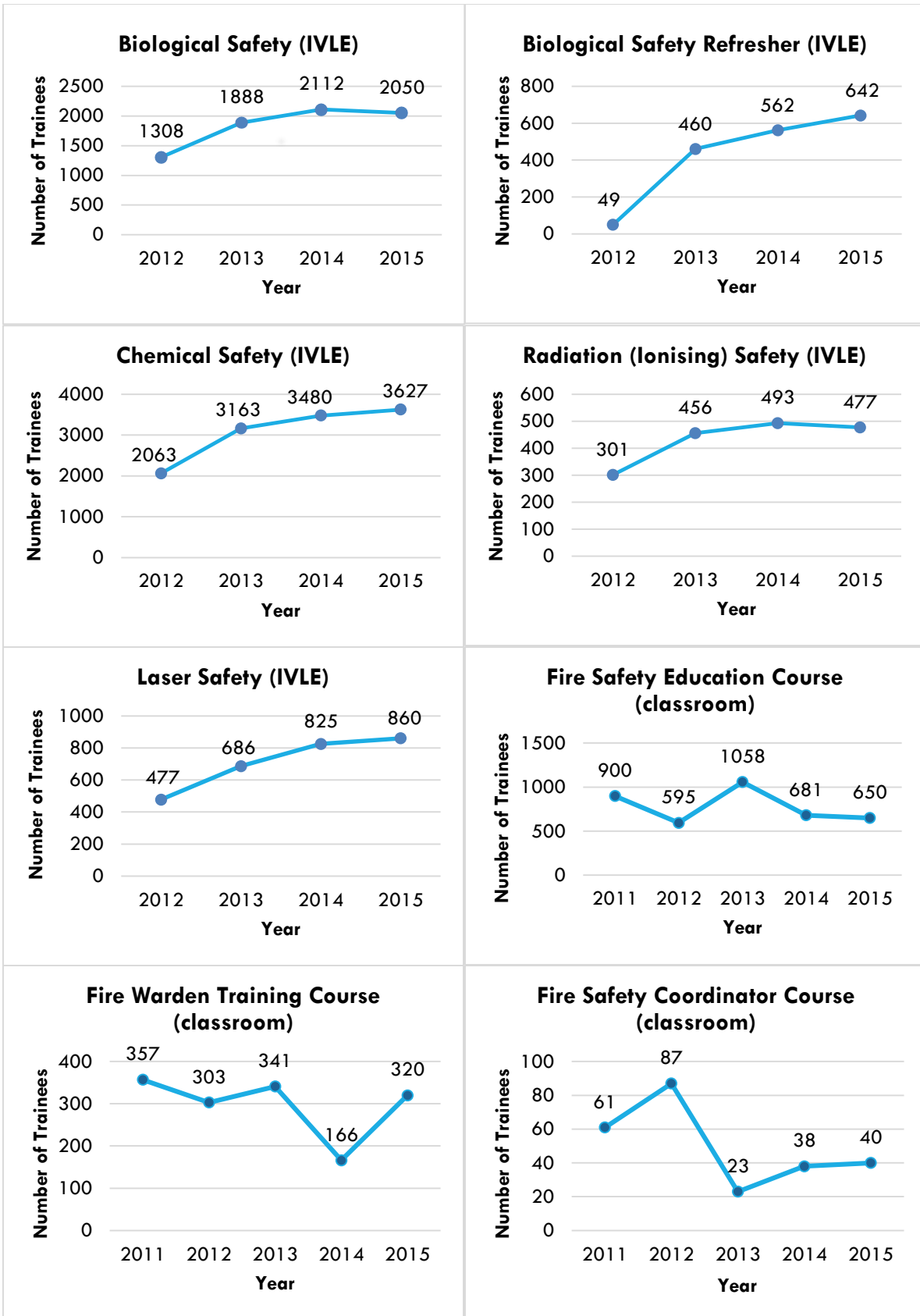
Figure 69. Safety Corner in NUS Co-op LT27

ii. Number of Trainees

The number of trainees trained in safety & health training courses (Safety & Health Management Division) is found in the table below.

Safety & Health Training Courses	No. of Trainees			
	2012	2013	2014	2015
IVLE Courses				
●Biosafety	1308	1888	2112	2050
●Biosafety (Refresher)	49	460	562	642
●Chemical Safety	2063	3163	3480	3627
●Radiation Safety (Ionising)	301	456	493	477
●Laser Safety	477	686	825	860
●Laboratory Safety Induction ^{NEW}				273
●Safe Handling of Human Tissue and Fluids ^{NEW}				13
●Biosafety Legislations & Guidelines ^{NEW}				7
●Biological Spills and Emergency Response ^{NEW}				11
●Safe Use & Handling of Hydrofluoric Acid ^{NEW}				7
●Safe Use & Handling of Pyrophoric Chemicals ^{NEW}				1
●Chemical Spill Management ^{NEW}				9
●Basic MRI Safety Training ^{NEW}				5
●MRI Safety Training for Operators ^{NEW}				5
Sub-total (IVLE Courses)	4198	6653	7472	7987
Sub-total (Classroom Courses)	715	912	692	789
Grand Total (IVLE & Classroom)	4913	7565	8164	8776

Table 15. Number of trainees trained in safety & health training courses (Safety & Health Management Division)



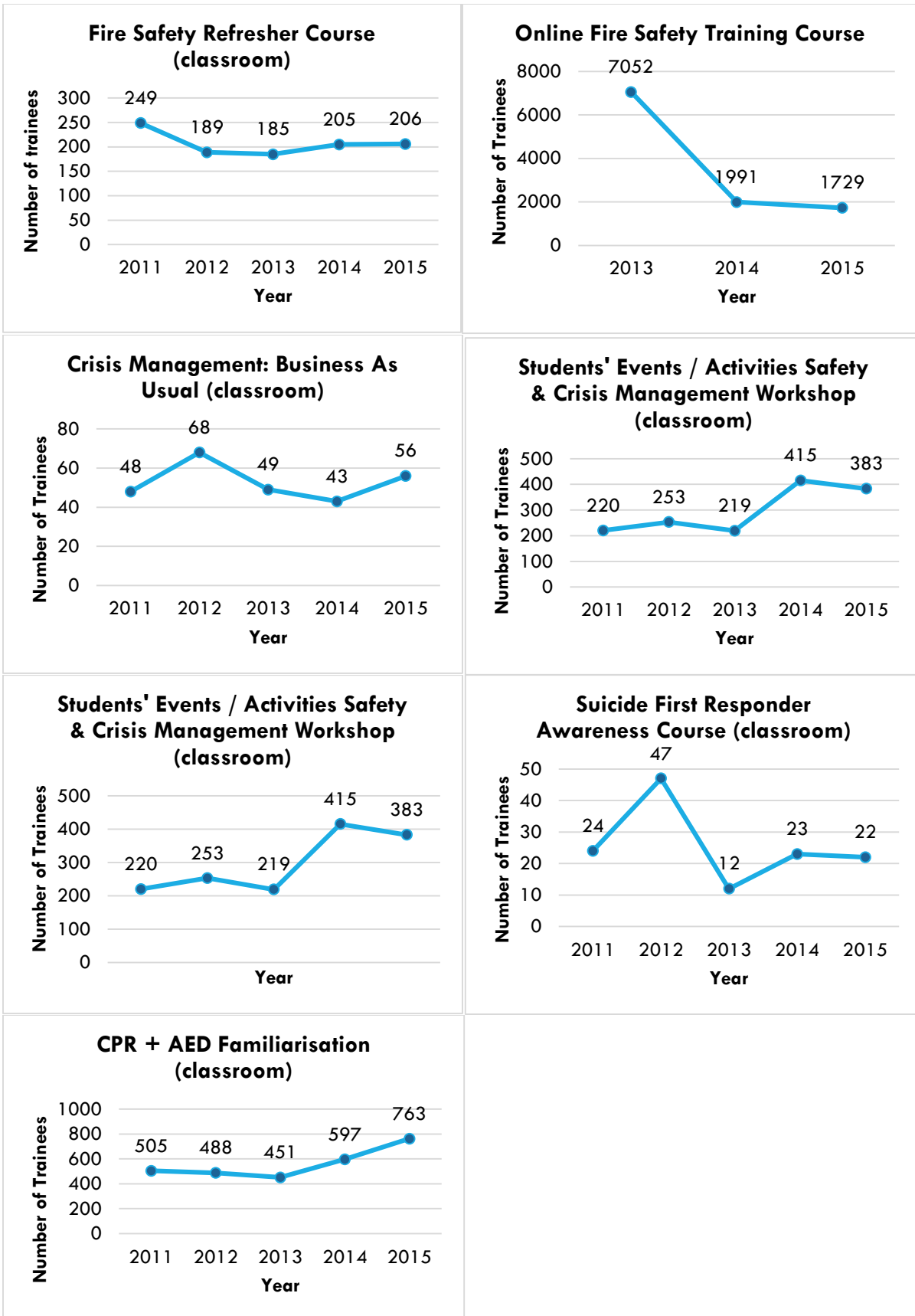


Figure 70. Number of trainees trained in safety courses

The number of trainees / courses conducted in life safety, fire safety & emergency preparedness courses (Emergency Management Division) are given below.

Life Safety Courses	No. of Trainees				
	2011	2012	2013	2014	2015
Safety & Crisis Management Workshop	220	234	218	415	383
CPR+AED Familiarisation Training	544	569	477	597	763
Total	764	803	695	1012	1146

Fire Safety Courses	No. of Trainees				
	2011	2012	2013	2014	2015
Fire Safety Education	900	595	1015	712	650
Fire Warden Training	357	303	341	166	354
Fire Coordinator Course	61	87	23	38	40
Fire Safety Refresher Course	249	189	185	253	206
Fire Extinguisher Practical Only	0	0	780	645	314
Other Fire Safety Training	2071	2824	2923	2924	2652
Total	3638	3998	5267	4738	4216

Emergency Preparedness Courses, Exercises & Briefings	No. of Training Courses, Exercises & Briefings				
	2011	2012	2013	2014	2015
Crisis Management Course	4	4	4	3	4
Suicide First Responder Awareness Course	3	4	2	2	2
Practical Exercises and Table Top Exercises	5	4	8	5	10
Briefings to Unit Incident Commanders	3	3	9	17	16
Promotional Programmes	1	1	1	5	2
Additional Training	4	5	4	8	4
Pandemic Preparedness Activities	6	6	20	21	26
Total	26	27	48	61	64

Table 16. Number of trainees trained or courses conducted in life safety, fire safety & emergency preparedness courses (Emergency Management Division)

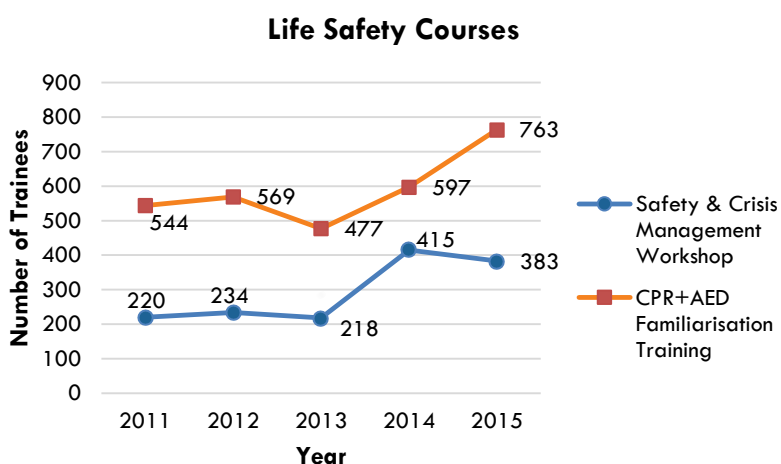


Figure 71. Number of trainees trained in Life Safety Courses

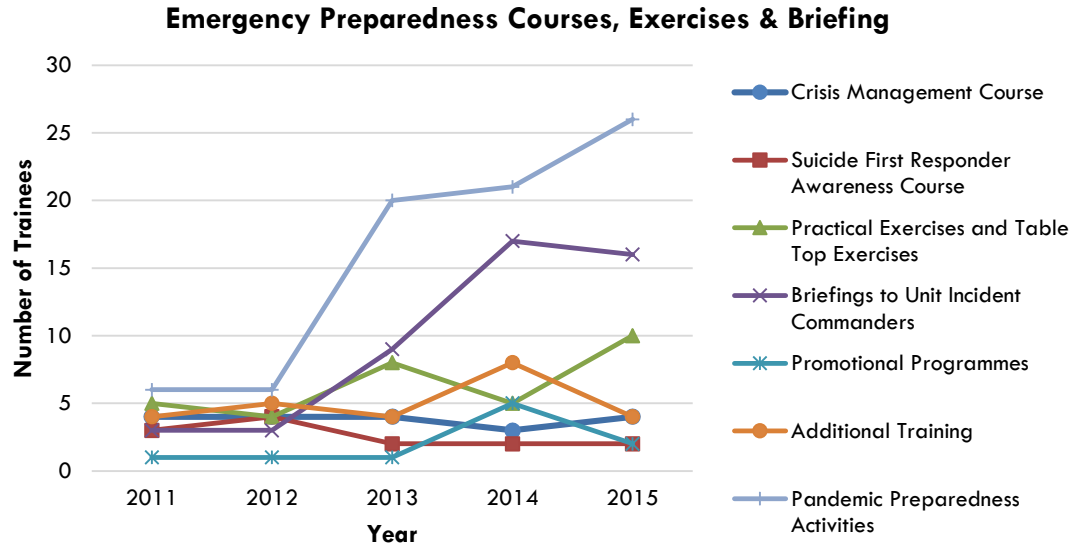


Figure 72. Number of trainees trained / courses conducted in Emergency Preparedness Courses, Exercises & Briefing

iii. Number of Project Risk Assessments (PRAs) Reviewed

Project Risk Assessments (PRAs) reviewed	2011	2012	2013	2014	2015
No. of PRAs for Institutional Biosafety Committee (IBC)	317	294	413	407	492
No. of PRAs for Institutional Laboratory Safety Committee (ILSC)	6	134	209	214	162
Total No. of PRAs reviewed (IBC & ILSC)	323	428	622	621	654

Table 17. Number of Project Risk Assessments reviewed

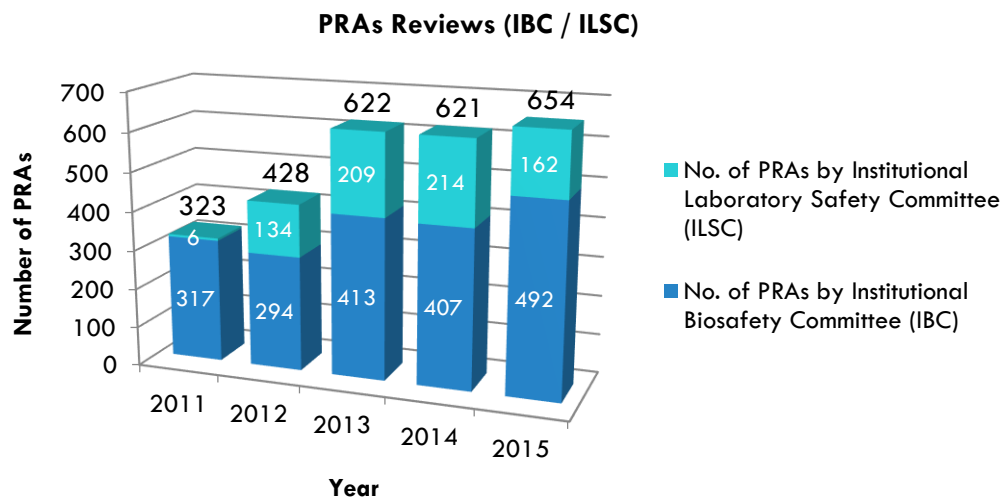


Figure 73. Number of PRAs reviewed

iv. Number of Laboratory Design Reviews

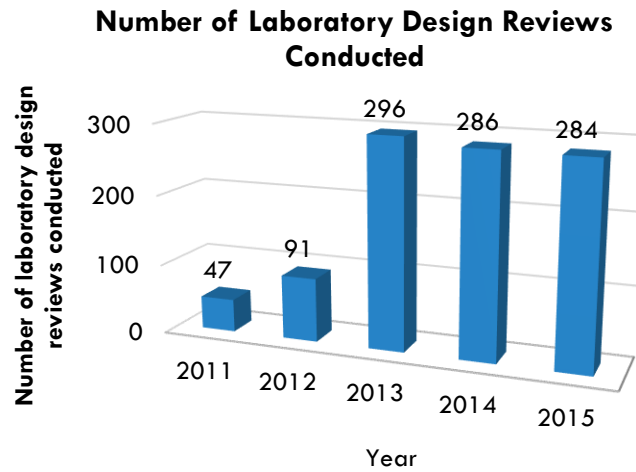


Figure 74. Number of laboratory design reviews conducted

v. Number of Safety Inspections Conducted

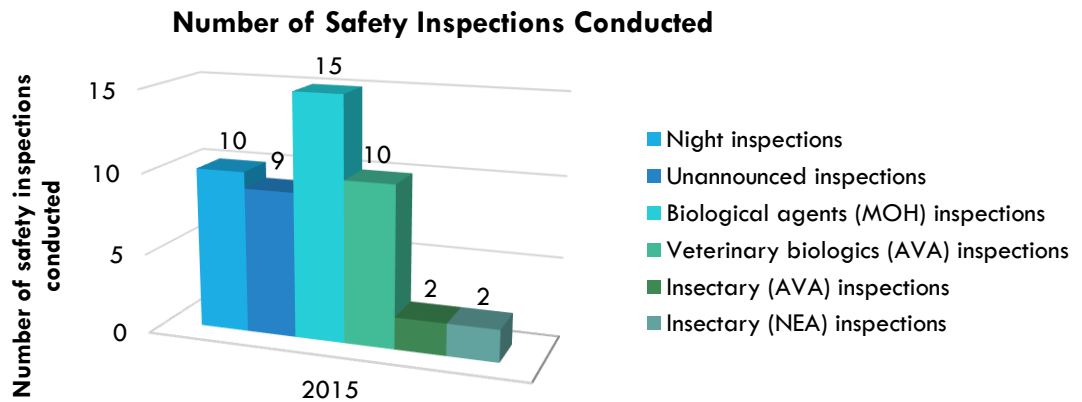


Figure 75. Number of safety inspections conducted in 2015

vi. Number of Articles Published in SHAPEing Campus Safety & Health Newsletter

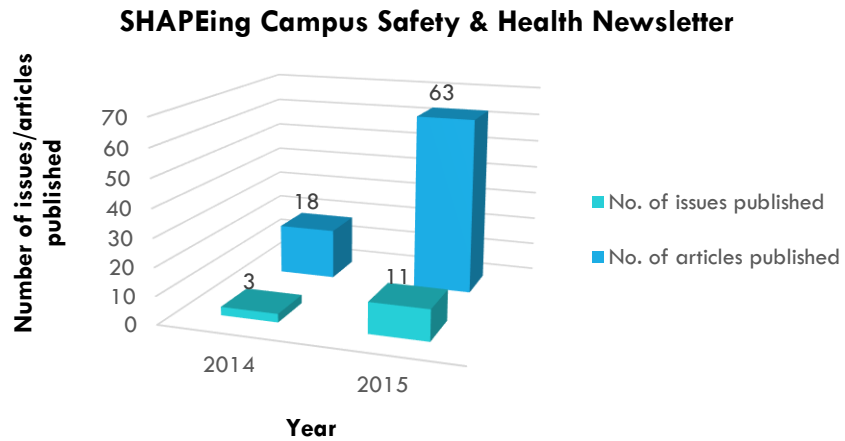


Figure 76. Number of issues or articles published in SHAPEing Campus Safety & Health newsletter

vii. Biosafety Programme

Biosafety Programme	2011	2012	2013	2014	2015
No. of GMAC proposal reviewed	51	85	87	73	116
No. of Material Transfer Agreement (MTA) Questionnaire reviewed	100	122	99	42	54
No. of IACUC submissions reviewed	61	414	414	168	294

Table 18. Number of GMAC proposal, MTA Questionnaire and IACUC submission reviewed

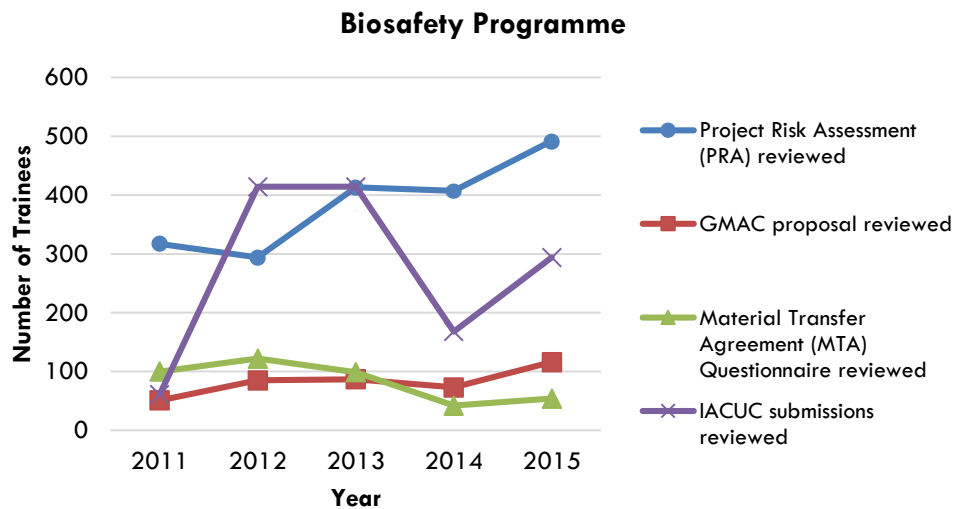


Figure 77. Number of PRA, GMAC proposal, MTA Questionnaire and IACUC submission reviewed

viii. Chemical Safety Programme

Chemical Safety Programme	2011	2012	2013	2014	2015
No. of Indoor Air Quality cases	10	4	10	10	15
No. of Industrial Hygiene monitoring conducted	4	7	11	4	1

Table 19. Number of IAQ cases and IH monitoring conducted

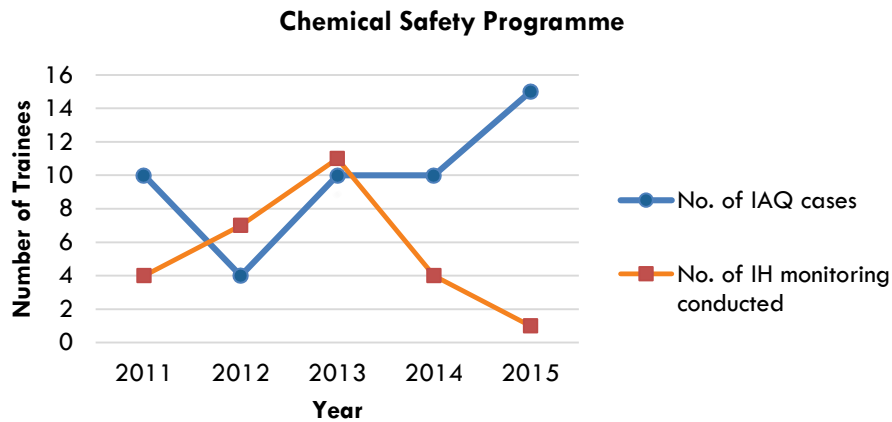


Figure 78. Number of IAQ cases and IH monitoring conducted

ix. Radiation Safety Programme

Radiation Safety Programme	2013	2014	2015
No. of Safety Consultations on Radiation Safety	29	80	18
No. of bags of radiation waste disposed	188	270	301
Weight of radioactive waste disposed (kg)	430	510	770

Table 20. Radiation Safety Programme

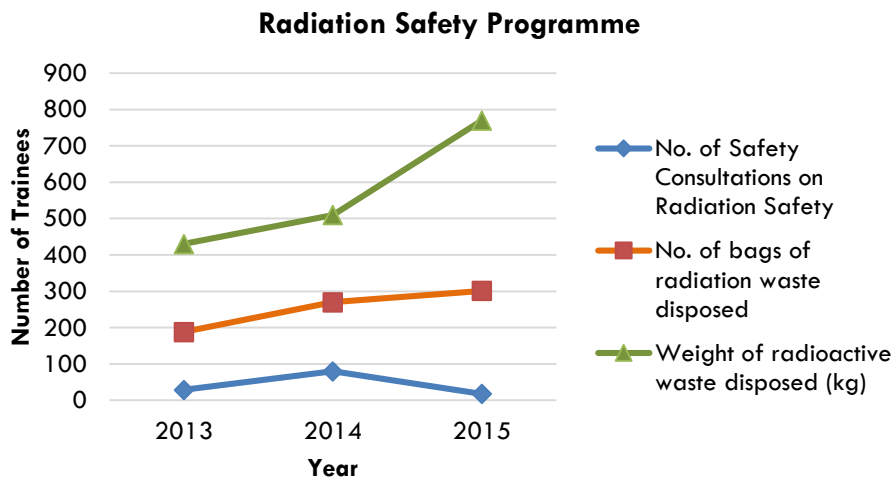


Figure 79. Radiation Safety Programme

x. Occupational Health Programme

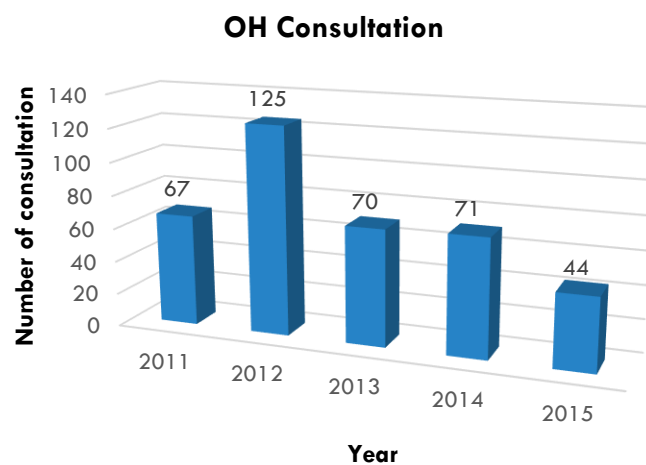


Figure 80. Occupational Health Consultations

OH Caseload	2010	2011	2012	2013	2014	2015
Animal Work Questionnaire Reviews	226	609	610	566	636	522
BSL 2 Work Questionnaire Reviews	-	-	-	16	143	58
BSL 3 / ABSL 3	9	46	36	16	34	64
Statutory Medical Examination	21	420	193	186	221	174
Ionising Radiation	124	142	209	156	124	120
Laser	16	115	120	190	262	265
Respirator fitness	37	530	320	230	196	279
Research divers	22	56	61	25	14	17
Others (Misc.)	7	67	125	70	71	44
Total	462	1985	1674	1455	1701	1543

Table 21. Occupational Health Caseload

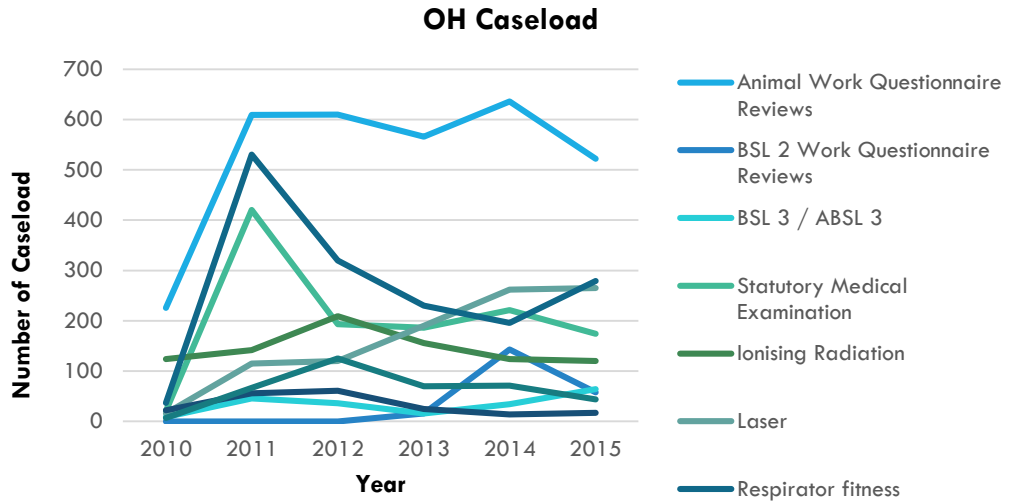


Figure 81. Occupational Health Caseload

xi. Audit Programme

Description	2011	2012	2013	2014	2015
No. of PIs undergone certification audits	343	41	33	48	31
No. of PIs undergone surveillance audits	142	232	160	115	173
Total No. of PIs certified	655	645	657	673	655
Total No. of PIs	658	670	658	680	664
% PIs certified	99.5%	96.3%	99.8%	99.0%	98.6%

Table 22. Audit & PI Certification Programme

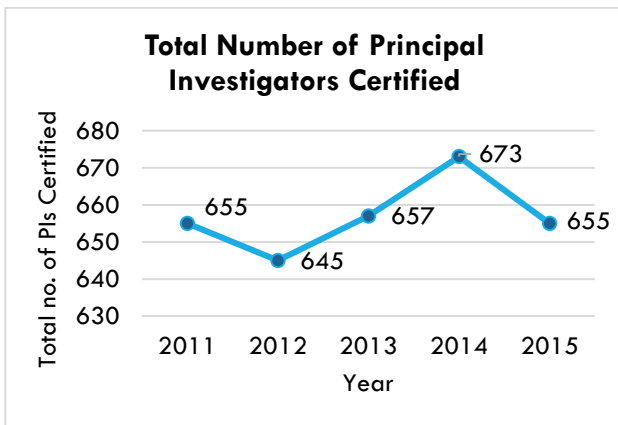


Figure 82. Total number of Principal Investigators certified

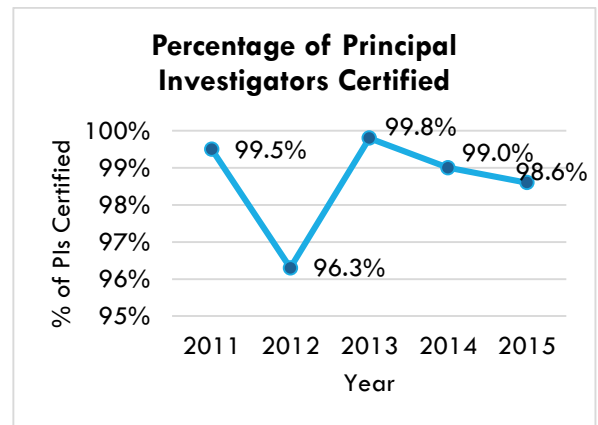


Figure 83. Percentage of Principal Investigators certified

xii. Fire Safety Programme

Fire Drills & Exercises	2011	2012	2013	2014	2015
• Announced	95	81	73	62	75
• Unannounced	9	28	39	45	34
Total	104	109	112	107	109
Fire Safety Compliance Inspections	2011	2012	2013	2014	2015
• Announced Inspection	91	96	70	104	153
• Unannounced Inspection	0	10	4	14	4
• Re-inspection	2	2	1	0	0
• SCDF Enforcement Checks	0	0	95	50	42
Total	93	108	170	168	199

Table 23. Fire Safety Programme

Concerning the NUS Building Fire Safety Excellence Awards, the number of buildings attaining either the silver, gold or platinum awards has increased over the years - from 60% in 2012 to 72% in 2013 and 77% in 2014. The number of NUS buildings receiving the Platinum Award, which is the highest award, has risen substantially from 31% in 2013 to 49% in 2014.

Award	2008		2009		2010		2011		2012		2013		2014	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Platinum	-	-	-	-	7	8%	29	31%	29	30%	46	31%	49	49%
Gold	23	29%	52	58%	39	43%	27	29%	24	25%	18	29%	22	22%
Silver	11	14%	4	4%	14	16%	11	12%	5	5%	5	12%	6	6%
No Award	44	56%	34	38%	30	33%	26	28%	38	40%	26	28%	24	24%
Total	78	100%	90	100%	90	100%	93	100%	96	100%	95	100%	101	100%

Table 24. NUS Building Fire Safety Excellence Award

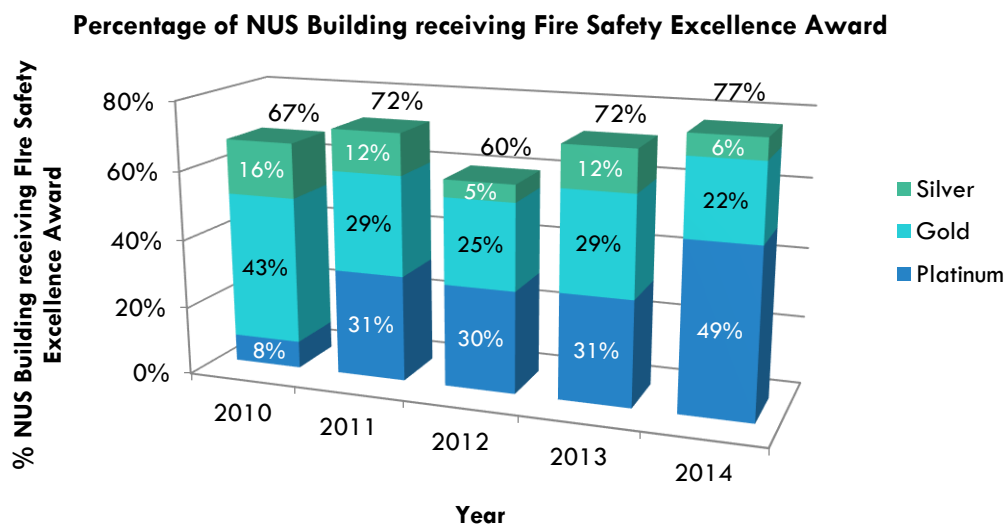


Figure 84. Percentage of NUS building receiving the Fire Safety Excellence Award

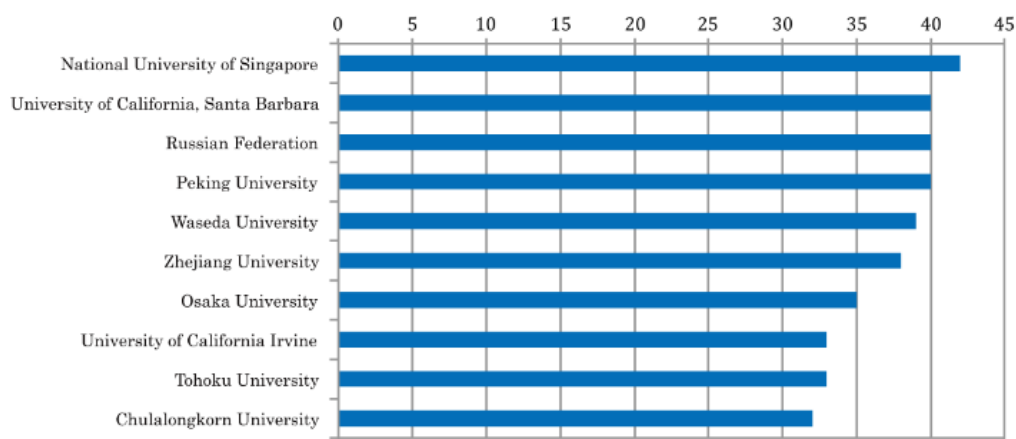
xiii. Emergency Management

Emergency Management - Advisory & Consultation	No. of Advisories & Consultations				
	2011	2012	2013	2014	2015
Death, serious illness or mental health-related cases	31	17	22	3	4
Travel advisory	-	6	50	24	18
Pandemic preparedness	6	5	20	21	26
Infrastructure-related cases	2	2	12	14	27
Others (Misc.)	-	-	76	50	101
Total	39	30	180	112	176

Table 25. Number of advisory and consultation in emergency management

The National University of Singapore together with 21 other universities responded to a Campus Safety Survey conducted by Multi-Hazards Program Hub established by Association of Pacific Rim Universities (APRU) and Tohoku University. The purpose of the survey was to self-evaluate the disaster preparedness capacity of each university. The results² showed that National University of Singapore emerged the top in disaster preparedness capacity by university. The 22 universities are: Chulalongkorn University, Far Eastern Federal University, Fudan University, Keio University, National Taiwan University, National University of Singapore, Osaka University, Peking University, The Australian National University, Tohoku University, University of Auckland, University of California, Irvine, University of California, Los Angeles, University of California, Santa Barbara, University of Hawaii at Manoa, University of Oregon, University of Tokyo, University of Washington, the University of New South Wales Australia, Waseda University, Yonsei University and Zhejiang University.

Higher-ranking Universities in disaster preparedness capacity



The points were calculated on the basis of their answers – “Already exists/implemented” (3 points), “Discussion is on-going” (2 points), and “Not yet started” (1 point).

Figure 85. Disaster preparedness capacity in University

² APRU-IRIDeS Multi-hazards Program: Campus Safety Report 2015 by IRIDeS, Tohoku University. Full report is available at https://drive.google.com/file/d/0B_jAHbSBkoa1M01paDNyRkIXQVk/view

D. FINANCIAL & MARKET RESULTS

i. Expenditure Per Capita

OSHE continues to keep the expenditure per capita low, with \$2,119 in FY2015 (Figure 86).

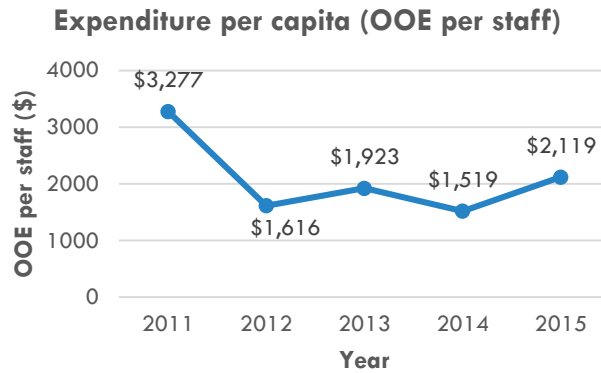


Figure 86. Expenditure per capita (OOE per staff)

ii. Training Budget

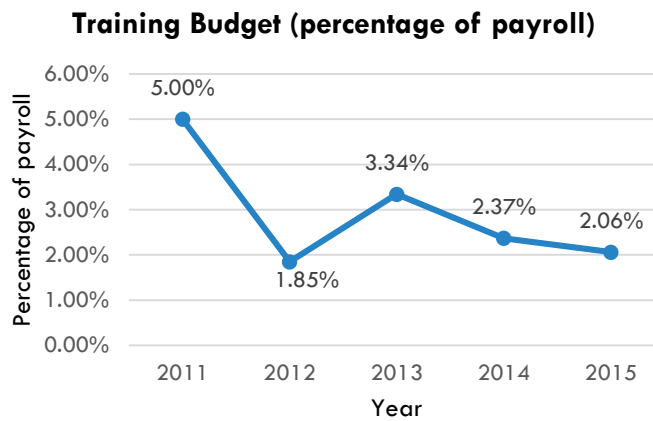


Figure 87. Training budget (percentage of payroll)

iii. Cost Savings achieved through OSHE's projects

Project Title	Cost Saving
Revised Standard for Hepatitis B Screening and Vaccination within NUS	\$79,310
Revised Standard for Medical Surveillance in BSL2 Laboratories	\$64,075
13 new online course modules	\$125,800
Total Cost Saving	\$269,186

Table 26. Estimated cost savings for projects completed in 2015

iv. International Collaboration

12 INTERNATIONAL COLLABORATIONS & VISITS BY OTHER UNIVERSITIES

International Collaborations & Visits by Other Universities
1. Visit by Mr Lou DiBerardinis and Dr Marissa Cardwell, Office of Environment, Health & Safety (OEHS), Massachusetts Institute of Technology (MIT)
2. Visit by Dr Soe Ohnmar Khin, Dr Aung Zaw & Dr Lwin Oo Hlaing, Myanmar
3. Visit by Prof Robert Emery, The University of Texas Health Science Center at Houston & University of Texas School of Public Health
4. Signing of Agreement for Collaboration with Nagoya University
5. Signing of Agreement for Collaboration with Universitas Indonesia
6. Attendance of NUS SHE Conference by The University of Tokyo, Nagoya University, Ehime University, Okayama University, Universitas Indonesia, Universiti Brunei Darussalam
7. Visit by Mr Andrew Knights, University of Brighton
8. Study visit by 37 delegates led by Prof Dra Fatma Lestari from Universitas Indonesia
9. Study visit by Mr. RHEE Gyeujin, Mr. MIN Byoung Kwan, Mr. KOWN Jungil, Mr. KIM Kisung, Mr. NA Kyoungwon and Professor KO Kil Kon from Seoul National University
10. Visit by Dr Toshinori Tanaka, Mr Fumiki Moriyama, Mr Atsuo Kai and Mr Atsushi Hakii from Okinawa Institute of Science and Technology Graduate University (OIST) & Prof Shizuaki Murata, A/Prof Ning Chen and Dr Kentaro Takahama from Nagoya University
11. 2 nd ACSEL Pre-Conference Meeting between Japan-Singapore
12. Visit by Mr Colin Chua, The University of Sydney

Table 27. International collaborations and visits by other universities



Figure 88. Group photo with Mr Louis DiBerardinis and Dr Marissa Cardwell at Ventus (University Campus Infrastructure)



Figure 89. Visit by Dr Soe Ohnmar Khin, Dr Aung Zaw & Dr Lwin Oo Hlaing, Myanmar



Figure 90. Prof Robert Emery delivering a seminar on “Experience in tackling and managing Ebola in US and how it can be done in Singapore”. The seminar was attended by safety & health professionals at NUS



Figure 91. Signing of Agreement between NUS and Nagoya University by Dr Peck Thian Guan and Professor Shizuaki Murata



Figure 92. Dr Peck Thian Guan, Prof Dra Fatma Lestari and representatives from NUS and Universitas Indonesia at the Agreement ceremony between both universities



Figure 93. Seminar by Mr Andrew Knight, University of Brighton



Figure 94. Visit by Universitas Indonesia's top management



Figure 95. Group photo of visitors from Seoul National University with NUS staff



Figure 96. Group photo of delegates from Okinawa Institute of Science and Technology Graduate University (OIST) & Nagoya University with OSHE staff



Figure 97. Mr. David Green explaining the cyclotron operations & facility services to the OIST and Nagoya University delegates at the Clinical Imaging Research Centre (cyclotron facility)

v. **New Programmes / Manuals / Policies / Standards / Guidelines**

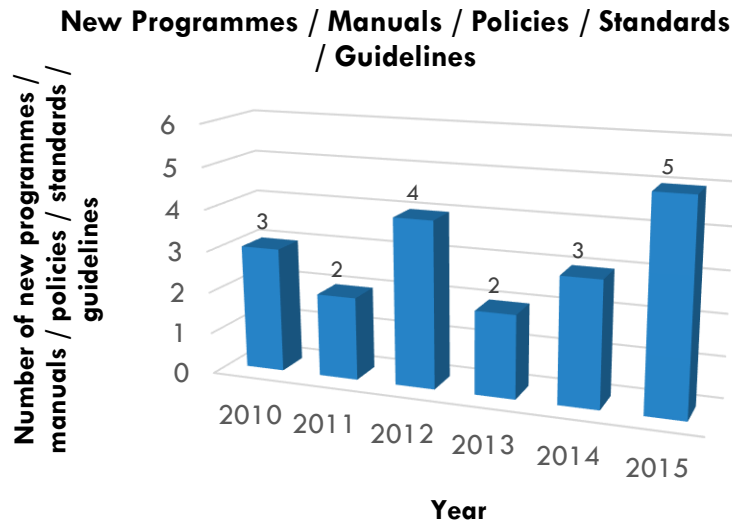


Figure 98. New programmes/manuals/policies/standards/guidelines developed and launched

AWARDS



OSHE was presented the Outstanding Award for Service Excellence at the 6th NUS Excellence Day on 4 Feb 2015

OSHE / OSHE staff received 12 awards in 2015 and is summarised below.

S/N	Award Recipients	Awarded by	Name of Award	Date	Significance
1	OSHE	Organisational Excellence Office, NUS	Outstanding Award for Service Excellence, NUS Service Class 2014	Award presented during the NUS Excellence Day on 4 Feb 2015	Winning Outstanding for Service Excellence for NUS Service Class 2014. OSHE is one of the only 3 offices in NUS who have won the Outstanding Service Excellence since its inception of the NUS Service Class
2	OSHE	Organisational Excellence Office, NUS	Outstanding VOICE Participation (2nd Prize)	Award presented during the NUS Excellence Day on 4 Feb 2015	Winning 2 nd Prize for most VOICE submission
3	006 Safety Agents: <ul style="list-style-type: none"> • Team Facilitator: Mr Saravanan Gunaratnam • Team Leader: Dr Lim Cheh Peng • Team Members: Ms Alicia Huang, Ms Tang Fenglin, Ms Louise Ng, Mr Hairulnizam bin Ishak 	Learning Institutions Quality Conference	Gold Award	Award presented during the NUS Excellence Day on 4 Feb 2015	Winning Gold for the project entitled, "Safer Chemical Transportation"
4	Mr Gabriel Chen	Organisational Excellence Office, NUS	Service Advocate Award 2014	Awarded at NUS Excellence Day on 4 Feb 2015	The award affirms individuals in their superb service attitude
5	Dr Lim Cheh Peng	Organisational Excellence Office, NUS	Service Advocate Award 2014	Awarded at NUS Excellence Day on 4 Feb 2015	The award affirms individuals in their superb service attitude
6	Ms Sania Binte Nader	Organisational Excellence Office, NUS	Service Advocate Award 2014	Awarded at NUS Excellence Day on 4 Feb 2015	The award affirms individuals in their superb service attitude
7	Mr Saravanan Gunaratnam	NUS	Long Service Award	25 Feb 2015	15-Year Long Service Award
8	Ms Joyce Ng	NUS	Long Service Award	25 Feb 2015	10-Year Long Service Award
9	Mr Gabriel Chen	Sports Singapore	SEA games medal & Certificate of Recognition	2 July 2015	Volunteers were presented with a SEA games medal and Certificate of Recognition in appreciation of their commitment and dedication for ensuring the safety of over 30,000 spectators and 4,000 athletes who attended the SEA game events.
10	Mr Ang Seng Tiong	Sports Singapore	SEA games medal & Certificate of Recognition	2 July 2015	
11	006 Safety Agents: <ul style="list-style-type: none"> • Team Facilitator: Mr Saravanan Gunaratnam • Team Leader: Dr Lim Cheh Peng • Team Members: Ms Alicia Huang, Ms Tang Fenglin, Ms Louise Ng, Mr Hairulnizam bin Ishak 	Gold Award, International Convention for Quality Control Circles 2015 (ICQCC)	Gold Award, International Convention for Quality Control Circles 2015 (ICQCC)	7 Oct 2015	Winning Gold for the project entitled, "Safer Chemical Transportation". One of the four NUS teams (out of 7 NUS teams) who won Gold, and one of the six Singapore teams who won Gold (out of 22 Singapore teams).
12	Ms Tan Bee Guan	The President of the Republic of Singapore	The Long Service Medal (Pingat Bakti Setia)	18 Nov 2015	National Day Honours 2015. In recognition for her dedicated service.

Table 28. OSHE and OSHE staff awards

A. OUTSTANDING AWARD FOR SERVICE EXCELLENCE

OSHE received the Outstanding Award for Service Excellence, NUS Service Class 2014 at the 6th NUS Excellence Day on 4 Feb 2015.



Figure 99. Dr Peck Thian Guan receiving the Outstanding Award for Service Excellence from Provost, Prof Tan Eng Chye

B. OUTSTANDING VOICE PARTICIPATION (2ND PRIZE)

OSHE received the Outstanding VOICE Participation (2nd Prize) at the 6th NUS Excellence Day on 4 Feb 2015.



Figure 100. Dr Peck Thian Guan receiving the Outstanding VOICE Participation (2nd Prize) Award from Vice President (Human Resources), Ms Aileen Tan

C. GOLD AWARD FOR LIQC 2014

006 Safety Agents team from OSHE received the Learning Institutions Quality Conference (LIQC) Gold Award at the 6th NUS Excellence Day on 4 Feb 2015 for their winning project, “Safer Chemical Transportation”.



Figure 101. 006 Safety Agents team from OSHE receiving the LIQC Gold Award from Gold Award from Prof Barry Halliwell, Deputy President (Research & Technology).
From L-R: Ms Alicia Huang, Mr Hairulnizam bin Ishak, Ms Tang Fenglin, Ms Louise Ng, Dr Lim Cheh Peng and Professor Barry Halliwell.

D. SERVICE ADVOCATE AWARD 2014

Three OSHE staff, Mr Gabriel Chen, Dr Lim Cheh Peng and Ms Sania Binte Nader, were awarded the Service Advocate Award 2014 at the 6th NUS Excellence Day on 4 Feb 2015, for their superb service attitude.



Figure 102. Service Advocate Award 2014 were awarded to Mr Gabriel Chen, Dr Lim Cheh Peng and Ms Sania Binte Nader

E. LONG SERVICE AWARDS

Mr Saravanan Gunaratnam and Ms Joyce Ng were both awarded the Long Service Awards for their contributions to NUS for 15 years and 10 years respectively.



Figure 103. Dr Peck Thian Guan presented the Long Service Awards to Mr Saravanan Gunaratnam for 15 years of service to NUS



Figure 104. Dr Peck Thian Guan presented the Long Service Awards to Ms Joyce Ng for 10 years of service to NUS



Figure 105. OSHE celebrates with Mr Saravanan Gunaratnam and Ms Joyce Ng for their Long Service Awards

F. SEA GAMES MEDAL & CERTIFICATE OF RECOGNITION

For their important contribution from 8 months leading up to and throughout the 28th SEA Games on 5-16 June 2015, Mr Gabriel Chen and Mr Ang Seng Tiong were presented with the SEA games medals and Certificate of Recognition by Sport Singapore. They were responsible for conducting risk assessments and identifying potential hazards at the SEA game venues. During the games, they conducted daily walkabouts at the venues to ensure safety controls were

implemented, to oversee the safety of over 30,000 spectators and 4,000 athletes. They are excellent examples of how NUS staff can use their professional skills for a national purpose.



Figure 106. Mr Gabriel Chen receiving his SEA games medal and certificate from Sport Singapore, ActiveSG Chief, Mr Lai Chin Kwang



Figure 107. Mr Ang Seng Tiong receiving his SEA games medal and certificate from Sport Singapore, ActiveSG Chief, Mr Lai Chin Kwang

G.GOLD ILLUMINATION AWARD FOR ICQCC 2015

006 Safety Agents from OSHE was one of the seven teams selected to represent NUS at the International Convention for Quality Control Circles (ICQCC) 2015 held on 5-8 October 2015 at Changwon Exhibition & Convention Centre (CECC), Changwon-si, Gyeongsangnam-do, Korea. Representing the team were Dr Lim Cheh Peng (Team Leader) and Ms Alicia Huang, who emerged winner of Gold Illumination Award for the project entitled, “Safer Chemical Transportation”.



Figure 108. Led by NUS Organisational Excellence Office, seven NUS teams including 006 Safety Agents from OSHE, participated in the ICQCC 2015 in Korea



Figure 109. Dr Lim Cheh Peng and Ms Alicia Huang, representing 006 Safety Agents from OSHE, were recipients of Gold Illumination certificate and plaque at ICQCC 2015

H. THE LONG SERVICE MEDAL (PINGAT BAKTI SETIA)

In recognition for her dedicated service, Ms Tan Bee Guan was awarded The Long Service Medal (Pingat Bakti Setia) in conjunction with the National Day Honours 2015.

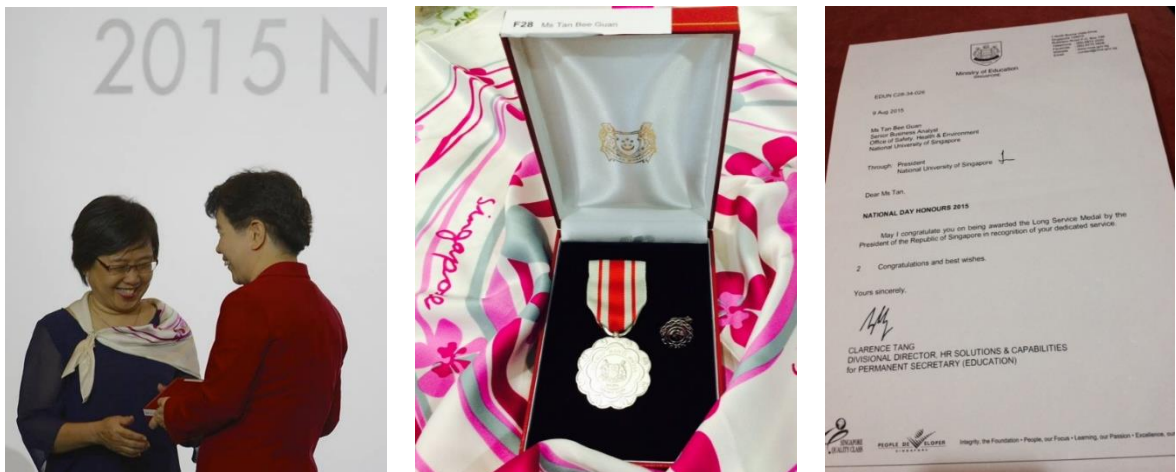


Figure 110. Ms Tan Bee Guan was a recipient of The Long Service Medal (Pingat Bakti Setia) of the National Day Honours 2015



OSHE staff at the 6th NUS Excellence Day receiving the Outstanding Award for Service Excellence

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