

出國報告（出國類別：參訪）

106 年度出國考察計畫 「世界溺水防治研討會」



服務機關：教育部體育署

姓名職稱：葉丁鵬組長、張維倫專員

派赴國家：加拿大（溫哥華）

出國期間：106 年 10 月 14 日至 10 月 21 日

報告日期：106 年 12 月 13 日

摘要

世界衛生組織(WHO)統計，全世界因為溺水原因而死亡之人數每年高達 36 萬人，而且兒童占多數，預防溺水事件已然成為全球關注議題，並制訂相關水域安全教育政策。為使每年因溺水死亡之人數降低，加強各國在水域安全教育及救生技能之交流分享，國際救生聯盟每二年均會舉辦一次全球防溺研討會，介紹及討論預防溺水、救生、水域安全教育政策等相關議題，以減少全球民眾在所有水域環境的死亡和傷害。

本署歷年積極推動學生水域活動安全教育及減少學生溺水人數，其做法包括水域活動安全宣導、辦理師資培訓課程提升游泳教學師資人力質量、補助購置親水體驗池及辦理游泳與自救能力巡迴教學計畫等，本次除藉由參加世界防溺研討會瞭解國際作法外，並參訪相關單位了解水域課程教學、安全教育與游泳池場地設施，作為我國未來推動各級學校學生游泳教學及水域安全教育後續規劃之借鏡及參考。

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壹、緣起與目的

- 一、 預防溺水事件已是全球關注議題，地球面積有 70% 是海洋，陸地只有 30%，又，世界衛生組織(WHO)統計，全世界因為溺水原因而死亡之人數每年高達 36 萬人，而且兒童占多數 (2017，大紀元)。又世衛組織在 2014 年公布數據顯示，溺水成為世界每個地區兒童或者年輕人的十大主要死因之一（麥克·沃爾德里奇，BBC，2014）。也因此世界各國亦開始逐漸重視預防溺水之課題，也多有制訂各國之水域安全教育政策。
- 二、 基於上述，我國歷年亦積極推動學生水域活動安全教育及減少學生溺水人數，其做法包括(1)推動學生水域活動安全宣導（如建置學生水域運動安全網、電臺及無線電視臺宣導、召開水域安全會報與記者會）(2)修訂「全國中、小學學生游泳與自救能力基本指標」（共分為 5 級），兼重游泳與自救能力(3)辦理師資培訓課程提升游泳教學師資人力質量(4)補助高級中等以下學校游泳教學經費(5)補助直轄市及縣（市）政府購置親水體驗池及辦理游泳與自救能力巡迴教學計畫；透過上述相關行政作為， 97-105 年學生溺水死亡人數逐年降低，97 年度為 64 人，其後依序為 56 人、43 人、41 人、41 人、40 人、33 人、22 人、22 人；相較 96 年的 60 人，已下降 38 人，降幅為 63.33%。
- 三、 為使每年因溺水死亡之人數降低，加強各國在水域安全教育及救生技能之交流分享，國際救生聯盟 International Life Saving Federation（簡稱國際救總，ILS），每二年均會舉辦一次全球防溺研討會 World Conference on Drowning Prevention（簡稱世界防溺研討會，WCDP），召集全球各國救生組織、救生防溺有關之領導者、研究人員及從業人員，介紹及討論預防溺水、救生、水域安全教育政策等相關議題，以減少全球民眾在所有水域環境的死亡和傷害。本次世界防溺研討會主題為「全球各國家地區降低溺水事件發生之作法與挑戰」，子題涵蓋溺水之預防、數據、拯救、氣候變化的災害與影響、醫療、游泳和水域安全及教育合作夥伴等議題。
- 四、 此外，利用參加世界防溺研討會會議期間，赴加拿大溫哥華參訪相關單位，了解水域課程教學、安全教育與游泳池場地設施，作為我國未來推動各級學校學生游泳教學及水域安全教育後續規劃之借鏡及參考。

貳、過程

一、參訪人員

服務單位	性別	姓名	備註
教育部體育署(學校體育組)	男	葉丁鵬	組長
教育部體育署(學校體育組)	男	張維倫	專員

二、參訪行程

日期	地點	行程內容
10/14 (六)	桃園>溫哥華	加航 AC12 1555 起飛，10/14 11:25 抵達
10/15 (日)	溫哥華	參觀溫哥華社區運動設施與活動
10/16 (一)	溫哥華	1. 拜會駐溫哥華辦事處 2. 參訪 Hillcrest Center
10/17 (二)	溫哥華	世界防溺研討會 World Conference On Drowning Prevention 2017 (Day1)
10/18 (三)	溫哥華	1. 世界防溺研討會 World Conference On Drowning Prevention 2017 (Day2) 2. 參訪 UBC Aquatic Center
10/19 (四)	溫哥華	1. 世界防溺研討會 World Conference On Drowning Prevention 2017 (Day3) 2. 參訪 St. George School
10/20 (五)	溫哥華>桃園	加航 AC11 11:10 起飛
10/21 (六)	溫哥華>桃園	10/21 14:15 抵達
備註	加拿大溫哥華較臺灣時差夏季有 15 小時(慢)	

三、參訪單位及過程

(一) Hillcrest Center

1. 拜會人員：Hillcrest Center 營運經理 Lily
2. 交流重點：瞭解加拿大溫哥華公立運動中心提供學校游泳教學之環境與設備，前透過我國駐溫哥華臺北經濟文化辦事處協助洽詢溫哥華 Hillcrest Center，以利參訪其運作模式、設施設備與課程內容。
3. 內容簡述：
 - (1) 市屬單位：Hillcrest Center 為加拿大溫哥華市之公園休閒文化設施之一，而溫哥華市總共有 28 個地方社區中心，其主管機關為該市的 Vancouver Board of Parks and Recreation。
 - (2) 多元運動設施：位處溫哥華伊莉莎白女王公園附近，此一中心包含

多樣設施，有圖書館、水上運動中心、健身房、滑冰場、飛輪教室、韻律教室、托兒所及咖啡廳，是屬於複合式經營型態之公立設施。

- (3) 行政運作： Hillcrest Center 正職人員皆屬市府員工，屬公辦公營之社區運動中心，目前正式人員約 26 人，享有市府人員之待遇及福利，薪資待遇頗為優渥穩定，另有兼職人員若干名，待遇以時薪計算，依其工作屬性給予不同薪資待遇，該中心現階段共有 160 名員工。
- (4) 救生員待遇：依據場館經理 Lily 表示，加拿大溫哥華基本薪資為 12CAD/HR，依該地區法規，年滿 16 歲可考取救生員證照，該中心聘有 6 位正式救生員、10-15 位兼職救生員（依淡旺季而定，多由大學生擔任），兼職救生員因工作責任較重，中心提供時薪為 26 元加幣，除救生戒護工作外，亦擔任水域安全自救課程之講授。
- (5) 游泳池計價標準：（擷取自該中心官網）

a. 單次入場費（未稅）

Type	Price	Details and exceptions
Adult (19-64 years)	\$5.98	19-54 years at Britannia Pool
Youth (13-18 years)	\$4.27	
Child (3-12 years)	\$3.01	6-12 years at Britannia Pool
Preschooler (0-2 years)	Free	0-5 years at Britannia Pool Must be accompanied by an adult
Senior (65+ years)	\$4.27	55+ years at Britannia Pool
Family	at child rate	Minimum 2 people Valid for 1-2 adults of same household and their children (3-12 years) or youth (13-18 years)
Discount dip	50% off above prices	Find discount dip activities

b. 團體入場費（未稅）

Type	Price	Details and exceptions
Adult (19-64 years)	\$4.49 per person	19-54 years at Britannia Pool
Youth (13-18 years)	\$3.20 per person	
Child (3-12 years)	\$2.26 per person	6-12 years at Britannia Pool
Senior (65+ years)	\$3.20 per person	55+ years at Britannia Pool

- (6) One Card 優惠措施：溫哥華市推出 One Card 服務，讓民眾利用此卡，使用相關設施及場館中，該卡具備普及性、便利性、客制化、免費、補貼性等特色，包括免會費、整合 20 張以上的會員卡系統、

可購買自己想要的相關優惠方案、免費申辦，另低收入者免費使用公共泳池，及使用健身房、壁球場及高爾夫球場與相關運動課程打5折的優惠。

a. 月票、季票及年票優惠(加幣)

對象	1 個月	3 個月	12 個月
成人 (19-64 years)	\$45.28	\$120.05	\$382.67
青年 (13-18 years)	\$31.70	\$84.05	\$267.86
孩童 (3-12 years)	\$22.64	\$60.05	\$191.33
銀髮族(65+ years)	\$31.70	\$84.05	\$267.86

b. 10 次使用優惠(加幣)

對象	10 次使用費率
成人 (19-64 years)	\$46.86
青年 (13-18 years)	\$33.52
孩童 (3-12 years)	\$23.62
銀髮族(65+ years)	\$33.52

(7) 游泳課程（擷取自該中心官網）：該 Hillcrest Center Aquatic Centre 提供民眾線上預約各項游泳課程，包含游泳基礎班、進階班、水上救生、親子游泳、學前教學、泳池慶生等多樣選擇，其課程詳細內容、地點、招生人數、費用、預約日期、每日活動均一併公告於官網，方便民眾自行查詢。

a. 課程預約

Swimming - Adult Basic 1 & 2	146103	November 8, 2017 to December 20, 2017	We	10:30am - 11:10am	Vancouver Aquatic Centre	5	3	Check details for fees Add to Cart In progress. Get involved now!
Swimming - Adult Strokes 3	133862	November 3, 2017 to December 22, 2017	Fr	11:45am - 12:25pm	Vancouver Aquatic Centre	5	5	Check details for fees Add to Cart In progress. Get involved now!
Swimming - National Lifeguard Instructor	136128	January 7, 2018 to January 28, 2018	Su	9am - 6pm	Vancouver Aquatic Centre	0	12	\$377.00 Add to Cart

b. 每日活動公告

	Sun 3	Mon 4	Tue 5	Wed 6	Thu 7	Fri 8	Sat 9
All Day	[Dive Tank - 1:30pm - 4:00pm and 5:00pm - 9:30pm]	[Dive Tank - 7:00am-4:00pm, 7:30-9:30pm] [Lengths 3 X 50 m]	[Dive Tank - 7:00am - 1:00pm and 2:00pm - 3:30pm]	[Dive Tank - 7:00am-4:00pm, 7:30-9:30pm] [Lengths 3 X 50 m]	[Dive Tank - 7:00am - 1:00pm and 2:00pm - 3:30pm]	[Dive Tank - 8:00am - 4:00pm and 7:30pm - 9:30pm]	[Dive Tank - 1:30pm - 9:30pm]
	[Public Swim, 3 lanes X 50 m - 1:30pm - 9:30pm]	[Public Swim 7:00am-9:30pm]	[Public Swim, 3 lanes X 50 m - 7:00am - 3:45pm]	[Public Swim 7:00am-9:30pm]	[Public Swim, 3 lanes X 50 m - 7:00am - 3:45pm]	[Lengths 3 X 50 m 7:00am-9:30pm]	[Public Swim, 3 lanes X 50 m - 1:30pm - 9:30pm]
	[Short Course Lengths 10:00am-1:15pm]	[Public Swim -7:00am-4:00pm]	[Short Course Lengths 4:00pm-8:00pm]	[Public Swim -7:00am-4:00pm]	[Short Course Lengths 4:00pm-8:00pm]	[Public Swim -7:00am-4:00pm]	[Short Course Lengths 10:00am-1:15pm]
	[Teach Pool 12:00pm-6:00pm]	[Teach Pool - 10:30am - 7:00pm]	[Teach Pool - 12:00pm-7:00pm]	[Teach Pool - 10:30am - 7:00pm]	[Teach Pool - 12:00pm-7:00pm]	[Teach Pool - 10:30am - 7:00pm]	[Teach Pool 12:00pm-6:00pm]
6 AM							
7 AM							
8 AM							8am [Public Swim, 3 lanes X 50 m]
9 AM		9:30am [Aquafit -]	9:30am [Aquafit -]	9:30am [Aquafit -]	9:30am [Aquafit -]	9:30am [Aquafit -]	8:00am-9:45am
10 AM			10:30am - [Aquafit -]		10:30am - [Aquafit -]		10:05am [Aquafit -]
11 AM							
12 PM							
1 PM			1pm [Aquafit - Deep]		1pm [Aquafit - Deep]		
2 PM							
3 PM							
4 PM	4pm [Aquafit - Deep]						

(8) 游泳池機房：該中心聘請 12 位正職員工使機房 24 小時運轉，並採用紫外線(UV)殺菌機確保水質，另化學藥劑設有獨立運送通道，避免與一般動線重疊；各公立運動中心關閉游泳池月份均有交錯，確保民眾使用權利，Hillcrest Center Aquatic Centre 訂於每年 5 月關閉，進行整月維修保養作業。

(9) 該中心營運狀況良好，除開放給民眾使用外也有許多運動健身課程供民眾報名參與，課程範圍多元豐富，且涵蓋各年齡及族群，且善用離峰時段開設銀髮族社團活動，參與情況踴躍。



圖 1 Hillcrest Center 營運經理 Lily (圖中) 與我國參訪人員合影



圖 2 Hillcrest Center 外觀



圖 3 接待櫃台



圖 4 游泳池



圖 5 游泳池 SPA 區



圖 6 紫外線(UV)殺菌機



圖 7 化學藥劑獨立運送通道

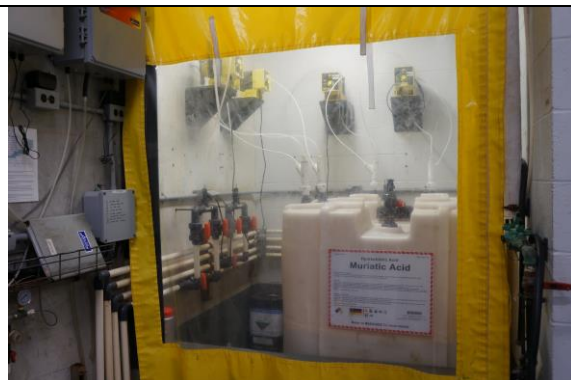


圖 8 游泳池機房設備

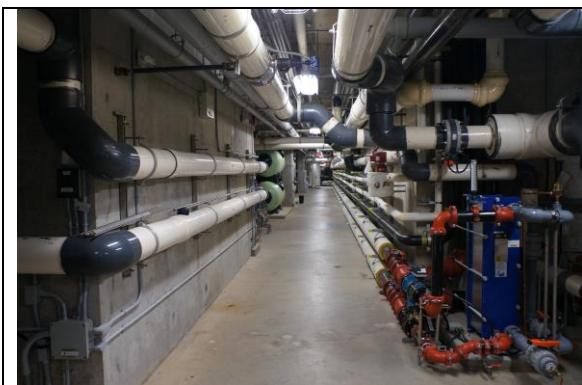


圖 9 游泳池機房管線通道

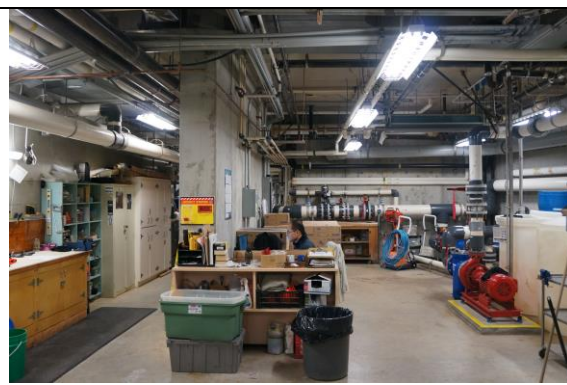


圖 10 游泳池職員辦公處



圖 11 多功能球場



圖 12 飛輪教室



圖 13 冰壺場

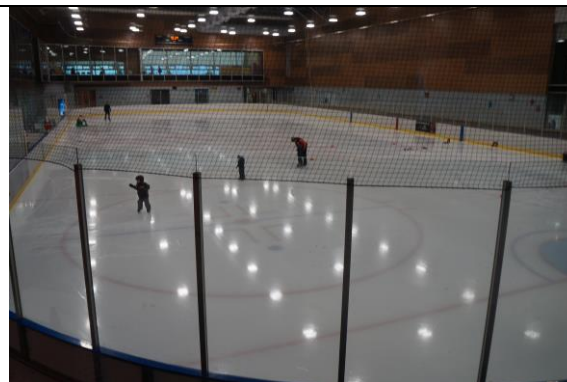


圖 14 滑冰場



圖 15 托嬰中心



圖 16 室外足球場

(二) UBC Aquatic Center

1. 拜會人員：UBC Aquatic Center 營運經理 Stephane Delisle

2. 交流重點：英屬哥倫比亞大學（University of British Columbia 簡稱 UBC），簡稱卑詩大學或卑大，是一所位於加拿大卑斯省的公立大學。UBC 於 1908 年創校，現在總共有兩個主要校區，主校區緊鄰溫哥華市西端的大學保留地，為卑斯省最古老的大學，起初為研究性合作機構，後來逐漸發展為聞名國際的綜合大學；另外該校位於基隆拿市 (Kelowna) 的新校區成立於 2005 年，稱為英屬哥倫比亞大學奧肯拿根分校，取代原奧肯拿根大學學院，其 new Aquatic Center 於 2016 年落成使用，結合校內游泳教學與社區開放之用。為瞭解 UBC new Aquatic Center 提供學校游泳教學之環境與設備，亦透過我國駐溫哥華臺北經濟文化辦事處協助洽詢，以利參訪其運作模式、設施設備與課程內容。

3. 內容簡述：

(1) Aquatic Center 設施概況：包含 25 米休閒池（可提供水上芭蕾、潛水社團用）、普通休閒池、50 米競技池（採 Omega Swiss Timing System）、1 米及 3 米跳板、熱池區（可同時容納 34 人）、無障礙入池水道、蒸氣與桑拿室、緩水道(lazy river)，該中心可容納近 1,000 名泳客，座位區可容納多達 460 名觀眾。

UBC AQUATIC CENTRE

newpool.ubc.ca | [#newUBCpool](https://twitter.com/newUBCpool)

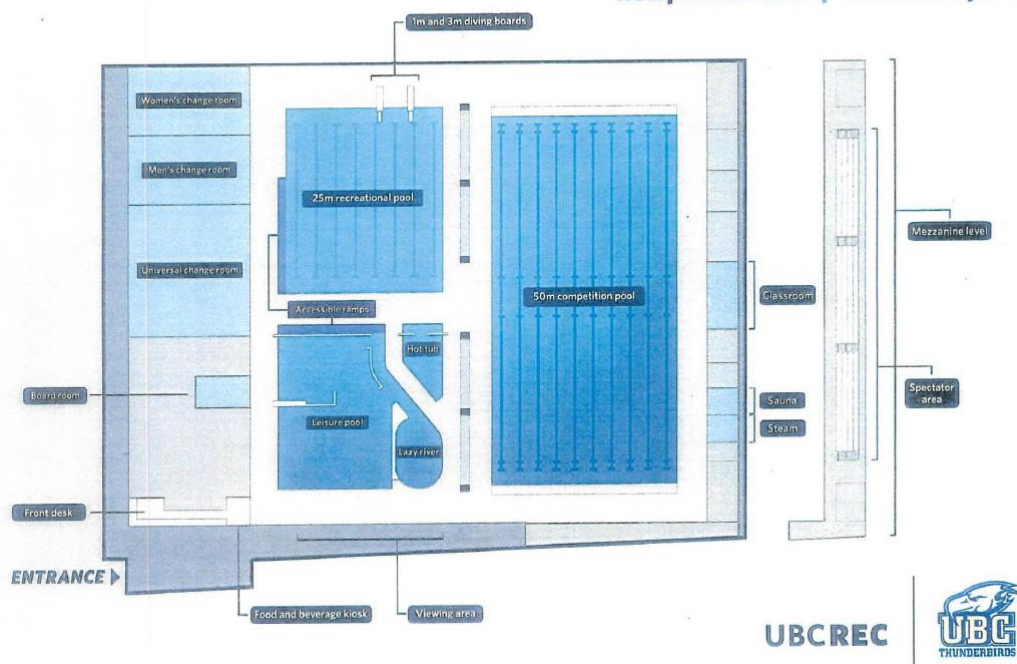


圖 17 UBC Aquatic Center 平面圖

- (2) 綠建築：*UBC Sustainability: Our water is blue, the our pool is green*，Aquatic Center 目標是成為節水與水循環利用的先驅者，透過該建築物屋頂水循環與蒐集系統，這座建築物每年可以節省大約 270 萬升的水，而且每天通過節水的噴頭可以節約 7,000 升的水，此外，學校設有熱水供應站，藉電腦監控統一輸送至學校各大樓，另透過屋頂自然採光與室內燈光反射設計減少能源消耗，均為達成綠建築之手段。
- (3) 收費標準：UBC 學生免費，另區分 UBC 校方（含校友、職員、學院）、一般民眾、家庭等不同使用期間票價。UBC 校方 10 次使用票為 57CAD/HR、1 個月使用票為 67.25CAD/HR、4 個月使用票為 165.5CAD/HR、1 年使用票為 397.25CAD/HR，另家庭費率（1-2 位家長與孩童）於離峰時段為每人 4CAD/HR，尖峰時段為 4.5CAD/HR；成人（19 歲以上）費率於離峰時段為每人 6CAD/HR，尖峰時段為 6.75CAD/HR；年長者（65 歲以上）於離峰時段為每人 3.75CAD/HR，尖峰時段為 4.25CAD/HR。

a. 成人與年長者費率(加幣)

	成人 (19 歲以上)	成人 (19 歲以上) UNA/CSC	年長者 (65 歲以上)	年長者 (65 歲以上) UNA/CSC
單次（尖峰）	\$6.75	\$5.75	\$4.25	\$3.50
單次（離峰）	\$6.00	\$5.25	\$3.75	\$3.25

b. 家庭費率(加幣)

	家庭 (每人)	年長者 (每人) UNA/CSC
單次（尖峰）	\$4.50	\$4.00
單次（離峰）	\$4.00	\$3.75

c. UBC 學生、職員、學院及校友費率(加幣)

	UBC 學生 (具效期識別卡)	UBC 校友 (具效期識別卡)	UBC 職員與學院 (具效期識別卡)
10 次使用卡	N/A	\$57.00	\$57.00
1 個月通行券	N/A	\$67.25	\$67.25

4 個月通行券	N/A	\$165.50	\$165.50
1 年通行券	N/A	\$397.25	\$397.25

d. 一般與會員方案匯率表（擷取自該中心官網）

	Child (3-12 Years) ¹	Child UNA/CSC (3-12 Years) ¹	Youth (13-18 Years)	Youth UNA/CSC (13-18 Years)	UBC Student ²	UBC Faculty, Staff, or Alum	Adult Public (19+)	Adult Public UNA/CSC (19+)	Senior (65+)	Senior UNA/CSC (66+)	Family Rate (Per Person) ₃	Family Rate UNA/CSC (Per Person) ₃
Single Drop-In (Peak Hours) ⁴	\$3.75	\$3.25	\$5.00	\$4.50	FREE	\$6.25	\$6.75	\$5.75	\$4.25	\$3.50	\$4.50	\$4.00
Single Drop-In (Non-Peak Hours) ⁵	\$3.00	\$2.75	\$4.50	\$4.25	FREE	\$5.75	\$6.00	\$5.25	\$3.75	\$3.25	\$4.00	\$3.75
10 Visit Card	\$34.00	\$28.50	\$45.00	\$38.25	N/A	\$57.00	\$61.00	\$52.74	\$38.25	\$32.50	N/A	N/A
1 Month Pass	\$40.50	\$34.50	\$55.00	\$45.75	N/A	\$67.25	\$72.50	\$61.50	\$45.75	\$38.75	N/A	N/A
4 Month Pass	\$92.50	\$78.75	\$120.00	\$102.00	N/A	\$165.50	\$190.00	\$161.50	\$100.00	\$82.00	N/A	N/A
1 Year Pass	\$220.00	\$188.75	\$295.00	245.00	N/A	\$397.25	\$459.00	\$387.75	\$275.00	\$196.75	N/A	N/A

e. 特定課程方案匯率表（擷取自該中心官網）

	UBC Student	UBC Faculty, Staff, or Alum	UNA/CSC	Adult Public (19+)	Senior (65+)
Fit4Two Aquacize	\$17.00	\$17.00	\$17.00	\$18.75	\$17.00
Aqua Zumba	\$9.75	\$9.75	\$9.75	\$10.75	\$9.75
SwimFit	\$9.75	\$9.75	\$9.75	\$10.75	\$9.75
Parent & Baby Aquafit	\$15.00	\$15.00	\$15.00	\$16.75	\$15.00
River Walking	\$9.75	\$9.75	\$9.75	\$10.75	\$9.75
Aqua Rehab	\$9.75	\$9.75	\$9.75	\$10.75	\$9.75
Coached Express Workout	\$9.75	\$9.75	\$9.75	\$10.75	\$9.75

(4) 游泳課程：該中心提供之游泳課程以對象做區分，分為成人與青少年（含幼兒）。於各季節提供不同課程，包含初階、進階及健身 3 種，內容多元與豐富，並提供青少年辦理生日派對，此外，社區運動社團、學校代表隊亦有特定使用時段，發揮場館最大使用效益。該中心提供秋、冬季課程內容整理如下：

a. 成人課程

進階班（秋季）		
BCRPA Pool Operators Level2	CPR C (Basic Rescuer) + AED	CPR C (Basic Rescuer) + AED Recertification
Lifesaving Instructor	Lifesaving Instructor Recertification	National Lifeguard
National Lifeguard Combined Pre/	Red Cross Water Safety Instructor	Red Cross Water Safety Instructor Recertification

Recertification		
Standard First Aid	Standard First Aid Recertification	
健身班 (秋季)		
Aqua Zumba	Aqua Therapy	BCRPA Aquacize Module
Coached Express Workout	Fit 4 Two	Mom and Baby Aquafit
River Walking	Swim Fit	Water Play
初階班 (秋季)		
\$2 Student Lessons	Adult 100	Adult 100 Women's Only
Adult 200	Adult 300/400	Private Lesson
Private Lessons SK4 and Under	Private Lessons SK4 and Over	Learn to Scuba Dive
Springboard Diving		
進階班 (冬季)		
BCRPA Pool Operators Level1	BCRPA Pool Operators Level2	CPR C (Basic Rescuer) + AED
CPR C (Basic Rescuer) + AED Recertification	Life Instructor Recertification	National Lifeguard
National Lifeguard Combined Pre/Recertification	Red Cross Water Safety Instructor Recertification	Standard First Aid
Standard First Aid Recertification		
健身班 (冬季)		
Aqua Therapy	Aqua Zumba	Coached Express Workout
Fit 4 Two	Hydro Board Fitness	Hydro Board Yoga
Parent and Baby Aquafit	Performance Personal Swim Coaching	River Walking
Swim Fit		
初階 (冬季)		
\$2 Student Lessons	Adult 100	Adult 100 Women's Only
Adult 200	Adult 300/400	Private Lesson
Private Lessons – Deep End	Springboard Diving	

b. 青少年課程

進階班 (秋季)		
Bronze Medallion	Bronze Cross	Junior Lifeguard Club
健身班 (秋季)		
Mom and Baby Aquafit	Water Play	
初階班 (秋季)		
Preschool Starfish	Preschool Duck	Preschool Sea Turtle
Preschool Sea Otter	Preschool Salamander	Preschool Sunfish
Preschool Whale	Swim Kid 1	Swim Kid 2
Swim Kid 3	Swim Kid 4	Swim Kid 5
Swim Kid 6	Swim Kid 7	Swim Kid 8
Swim Kid 9	Swim Kid 10	Junior Coached Workout
Private Lesson	Private Lessons SK4 and	Private Lessons SK4 and

	Under	Over
Learn to Scuba Dive	Springboard Diving	
進階班 (冬季)		
Bronze Medallion	Bronze Cross	Junior Lifeguard Club
健身班 (冬季)		
Parent and Baby Aquafit	Water Play	
學前班 (冬季)		
Preschool Starfish	Preschool Duck	Preschool Sea Turtle
Preschool Sea Otter	Preschool Salamander	Preschool Sunfish
Preschool Crocodile	Preschool Whale	
幼兒班 (冬季)		
Swim Kids 1	Swim Kids 2	Swim Kids 3
Swim Kids 4	Swim Kids 5	Swim Kids 6
Swim Kids 7	Swim Kids 8	Swim Kids 9
Swim Kids 10		
青少年班 (冬季)		
NEW Youth 100	NEW Youth 200	NEW Youth 300
NEW Youth 400		
青少年進階班 (冬季)		
Coached Workout Junior	Springboard Diving	
個別課程 (冬季)		
Private Lessons – Swim Kids 4 and Under	Private Lesson	



圖 17 Aquatic Center 內部透過光線折射減少用電



圖 18 緩水道

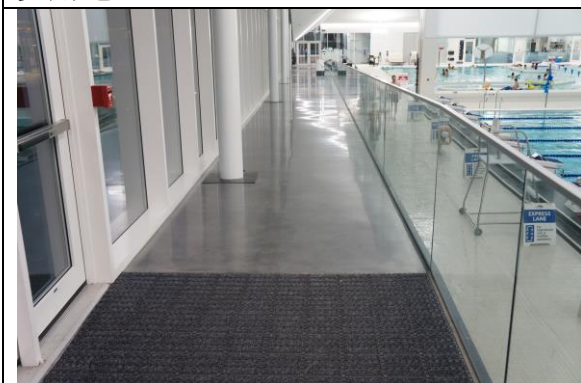


圖 19 無障礙坡道



圖 20 二樓寬敞看臺區



圖 21 無障礙入水道



圖 22 熱水儲存器



圖 23 紫外線(UV)殺菌機



圖 24 游泳池機房設備

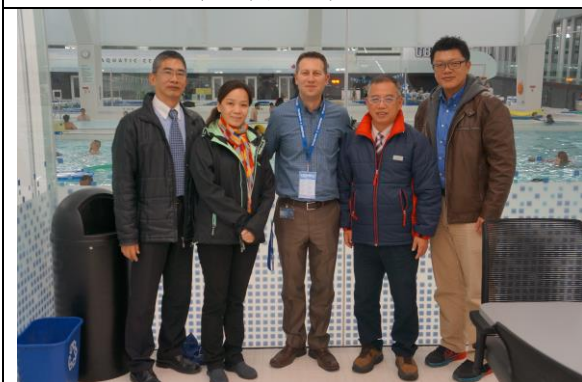


圖 25 UBC Aquatic Center 營運經理
Stephane Delisle (圖中) 與我國參訪人員
合影



圖 26 Aquatic Center 外觀

(三) St. George School

1. 拜會人員：體育主任 Chris Blackman (Head of Athletics)
2. 交流重點：St. George School 為溫哥華少數具有游泳池之私立學校，為瞭解學校自行設計游泳課程之教學規劃與目標、師資配置、學生游泳能力培養機制等，亦透過我國駐溫哥華臺北經濟文化辦事處協助洽詢。
3. 內容簡述：

(1) 沿革與現況：*Building Fine Young Men. One Boy At A Time* 為該校使命，核心價值為培養學生具備同情、謙卑、正直、尊重、責任及堅韌等特質；學校成立於 1930 年，現為世界頂尖男子大學先修學校，提供 1-12 年級的課程和 8-12 年級的城市寄宿課程，計有 1,150 名學生，其中 109 名是來自全球 20 多個國家的寄宿生，於 2007 年被加拿大評選為頂尖學校之一。學生在數學、科學、社會科學及人文科學上具有優異表現，並常參與國際競賽，此外，學校也強調道德品格的培養，並強制要求 1-10 年級的學生參與戶外教育計畫，國中階段以認識周遭環境為主，高中階段導入戶外探索活動，包括遠足、露營、獨木舟及攀岩等，以培養學生領導能力和人際交往技巧。

(2) 游泳教學：

- a. 學生學習游泳自救及防溺水為加拿大家庭深化觀念，家長均會自主帶領孩子至公立運動中心、鄰近社區活動中心或大學校院報名相關游泳課程，於求學階段中，游泳課僅為學校體育課程一部分，並由體育老師自行設定節數後自行授課，該校並無強制設定年級目標與學生游泳能力指標，游泳課由學校外聘鐘點制救生員，依據學期授課節數與 UBC 合作聘請大學生擔任。游泳係為培養學生多元運動參與手段之一。
- b. 該校游泳池啟用至今已近 30 年，僅供校內學生游泳課使用，並無對外開放，非屬與社區民眾共用之場地，該校雖有整建游泳池之規劃，惟於校內屬競爭型計畫，仍待多方評估使用率及用途。



圖 27 游泳課前暖身



圖 28 打水練習



圖 29 體育主任 Chris Blackman (圖中) 與我國參訪人員合影



圖 30 游泳池安全規範

(四) 2017 年世界防溺水研討會(World Conference on Drowning Prevention, WCDP)

1. 會議簡介：世界防溺水研討會是由國際救生總會(International Life Saving Federation, ILS)所主辦，是一全球性之專題會議。會議主要目的是彙集全世界重要防溺水學者專家齊聚一堂，針對預防溺水、救援、救生及水域安全等方面之技術、研究、訊息資料分析等進行研討與交流，從而達到減少全球在水域環境中傷亡的意外發生。
2. 歷屆會議：首次世界防溺水大會於 1997 年在美國聖地牙哥舉辦，當時會議名稱為「世界醫療與救生研討會」由美國救生協會主辦該次會議。第 2 次會議於 2007 年在葡萄牙波多舉行，當時會議名稱為「世界水域安全研討會」。第 3 次會議在 2011 年於越南峴港市舉行，會議從該屆開始每二年舉辦一次，且定名為「世界防溺水研討會」，第 4 次會議在 2013 年於德國波茨坦舉行，第 5 次會議在 2015 年於馬來西亞檳城舉行。
3. 第 6 屆會議：2017 年於加拿大溫哥華舉辦，計有來自全球 60 個國家 1,200 多名與會者。大會統計共有 805 名註冊人員，150 多位參展商，75 位志願者和工作人員及 150 餘名陪同人員。會期為 2017 年 10 月 17 日至 19 日三天，由加拿大（不列顛哥倫比亞省）救生協會主辦，並由世界衛生組織共同主辦，可見本次會議頗受國際間之重視，下一屆會議將於 2019 年 10 月在南非德班辦理。
4. 本次議題重點：本次研討會主題為「全球各國家地區對防溺水之責任與

挑戰」，大會議題涵蓋預防、數據分析、拯救、氣候變化的災難和影響、醫療、游泳和水上安全教育及合作夥伴等七個主題領域。

5. 內容簡述：

- (1) 本次會議的特色為鼓勵全球對本次會議主題有興趣之學者專家針對這些主題的交叉問題，以反映當前的水域安全與防溺政策、研究或實踐理論加以探討，另鼓勵並延續世界衛生組織所發布之「全球溺水報告」內容主題發表各項論文以及提供建議。
- (2) 上述七個主題領域計有 335 篇文章發表（口頭發表 226 篇，海報發表 109 篇，發表主題如附件）及 5 場工作坊，讓來自各地的專家學者們可以交流研究成果與學習最新的防溺觀念與作為；本次會議除過去傳統之防溺面向外，特別因應目前全球環境變遷，將洪水風險管理與洪水防溺觀念特別開闢講題分享最新的做法，針對洪水的特質與不可預期性來做描述、統計，進而分析到提出預測及預防之具體作為，對於身處亞熱帶海島型氣候的臺灣而言，颱風與暴雨所造成的洪水與土石流的天然災害日漸增多，應針對該新興面向多加注意。
- (3) 我國學者臺北市立大學許瓊云教授與陳伯儀副教授以「臺灣推動學生水域安全政策之研究」為題，於大會期間發表口頭報告，針對國內目前之防溺作為與政策向世界各國的與會代表介紹，不只在專業作為上引起各國的興趣與討論，也對臺灣之特殊海島型環境提出很多想法與討論，透過口頭之專業報告，也更讓各國的與會代表更認識臺灣。在會場展示部分有救生救援動力器材、游泳教學教育及水域安全相關書籍、CPR 器材、救生浮載具等物品之展示與體驗。



圖 31 會議報到



圖 32 會場展示(1)



圖 33 會場展示(2)



圖 34 會場展示(3)



圖 35 大會會場



圖 36 開幕祈福儀式

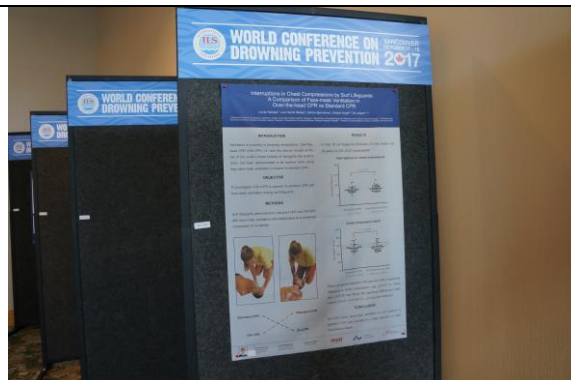


圖 37 海報發表

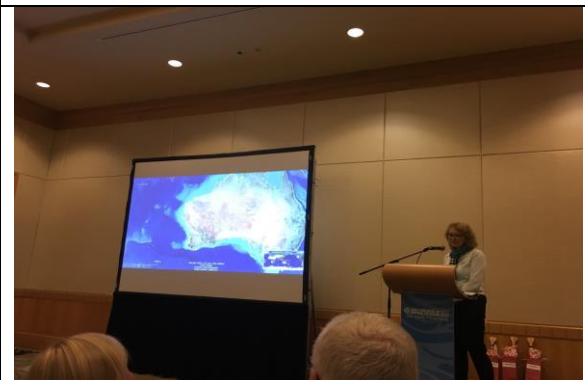


圖 38 分組發表



圖 39 我國學者發表

參、心得

「2017 年世界防溺水研討會」性質相當專業且目標明確，全世界在水域領域之學者專家齊聚一堂，共同研討交流有關游泳防溺水之政策制定、課程教育、研究分析、防洪措施、救溺救援技術、組織系統、器材研發、書籍發表、醫療措施等議題，均圍繞在水域領域的框架做充分的討論分享。同時，世界衛生組織亦是本次研討會的主辦機構之一，可見全球防溺水的議題是越來越受重視，從各國參與熱絡的情況來看，也是一個非常重要吸取他國作法經驗的平台。ILS 每二年舉辦一次防溺水研討大會，選辦在各大洲各城市舉辦，想必主要目的亦是想透過研討會的舉辦，讓更多的國家與地區能重視防溺水議題，促使各國政府重視此一問題，制定國家層級的水域安全計畫，減少因溺水而造成的傷亡。此外，水域的環境及活動豐富多元，地球環境氣候的變遷，科技的進步，水域運動的普及，更加突顯游泳教育及水域安全的重要，因此世界衛生組織亦編訂發布「防溺水手冊(Preventing drowning: an implementation guide)」供各國及與會人員參考。

本署於民國 102 年公布之「體育運動政策白皮書」中提及，為達到「活絡校園體育增進學生活力」，其核心指標之一為「建構精緻多元及整合體育課程與營造體育教學友善環境」，且長程目標為「逐年提升學生會游泳人數比率達 70%」。另為提升國人游泳知能及水上自救能力，改善各地區學校游泳池相關設施、設備以資源共享之概念。

「泳起來專案」計畫於民國 99 年起分階段以紮根期、成長期及永續期三個期程實施，依期程目前已進入成長期階段(103-106 年)，主要執行內容之一為「推

廣水中安全教育」，且延續上一期程之「強化自救知能教學」，持續推動與落實提升學生游泳能力、水中安全知能與自救技能及降低學生溺水死亡率為目標。

在其他先進國家，游泳均是各國學校教育積極建構的基本能力之一，且我國是一環海國家，又處亞熱帶氣候地區，國人親水戲水的環境與機會頗多，故教育部相當重視學生游泳能力的養成，自民國 89 年開始推動「提升學生游泳能力計畫」，又在 90 年至 93 年的「提升學生游泳能力中程計畫」中，除持延續之前的政策持續推動學生的游泳能力外，亦加入學生水上安全認知教育及自救能力的養成，主要目的乃是為了降低青少年的溺水死亡率。但在政府的重視及長期的推動政策下，學生的戲水溺斃事件還是頻繁發生，以 94 年為例，學生溺水死亡人數就高達 80 人之多，與其他國家的學生溺水死亡率相比，我國居高。遂此，教育部於 98 年起修訂游泳能力分級，將早期所訂的十級簡化成五級，強調學生的水中自救能力。此外，在國民中小學及高中課綱中均納入學會游泳基本技能及具備安全自救能力等。

教育部長年推動游泳教學政策至今，學生溺水死亡率已有逐年下降趨勢(103 年 33 人、104 年 22 人、105 年 21 人)，可見此一政策之重要性。而立法院前通過「泳起來專案」自民國 102 年起不得新建游泳池之決議，又目前在實施過程中常面臨問題為偏鄉及小型學校無游泳池，國小學生多須至高年級以上才有機會上游泳課，而錯過習泳及親水的最佳年齡時機。故為能持續實施學生游泳及水中自救教學，免去為至校外學習游泳、節省租車、入場費等額外支出等因素，本署於 104 年起由臺東縣及嘉義縣試辦「簡易式游泳與自救能力教學用體驗池」及 105 年實施補助各縣市國小購置親水體驗池計畫，以解決無游泳池之國小學校學生水中自救能力之養成與受教權益 105 年由各縣市政府及學校申請，以解決游泳及水安教育等諸多問題。

反觀溫哥華公立學校自有游泳池者極少，多數學校游泳教學課程均與鄰近公立運動中心結合辦理，而游泳教學費用由學生家長自行負擔，與我國各級學校辦理游泳教學模式不同，爰此，藉研討會之期間，參訪加拿大溫哥華市立 Hillcrest 中心，透過中心營運經理的導覽介紹，參觀相關設施及中心運作方式，其形態與我國之國民運動中心頗為類似，不同之處為工作人員部分為市府機構人員，而非

營運廠商。中心設施相當豐富，且結合圖書館及托兒所，故每日進館人潮踴躍，每日每一時段都有不同組群使用各場地，充分使用設施。中心課程亦相當多元，涵蓋各年齡層及族群之運動課程，提供溫哥華市居民優質運動休閒遊憩場所，成為民眾生活重心。

而 UBC Aquatic Center 提供四季多樣化的游泳課程，以學齡前孩子為例，就包含海星、鴨子、海龜、海獺、蝶鯨、曼波魚及鯨魚等 7 種能力課程，讓家長可依據學習能力與游泳技能高低選擇適合孩子的課程，另外針對幼童部分，亦設計 10 種不同階段之游泳教學目標，讓學習者逐步發展游泳能力，提高對游泳運動的興趣與愛好。簡而言之，溫哥華市所屬公立學校透過與公立運動中心及大專院校合作，藉由其提供之優良游泳場館設施設備、課程活動與救生防溺訓練，讓學生逐步具備游泳技能，培養運動習慣。

肆、建議事項

一、 持續推動我國游泳教學及自救能力

我國目前所推動之游泳及水域安全教育政策方向正確，儼然已與國際趨勢同步，WHO 在「防溺手冊(Preventing drowning: an implementation guide)」中亦提到，6 歲以上兒童的游泳及水域安全教育重點在學校教育，故現行各級學校之游泳教學及自救能力的培養應持續推動及進行不可中斷。

二、 因地制宜，持續推動辦理親水體驗池計畫

對於無游泳池之學校，學生的水域安全知能與技能可利用親水體驗池方式推動，此一作法亦為 WHO 在「防溺手冊(Preventing drowning: an implementation guide)」中述及，我國目前已經採行此一政策，因我國學校有游泳池學校比例僅 11% 左右，故應持續加強推廣，讓更多學童受惠。

三、 加強防溺相關研究

鼓勵國內水域領域學者專家多參與相關會議，增加國際能見度，或於國內辦理類似世界防溺研討會之會議，增加研究論文，提出更多數據及建議，供各政府機關制定政策參考。

四、 加強水域安全防溺政策宣導

持續透過廣播電臺、跑馬燈、防溺短片等多樣管道，強化防溺資訊與措施宣導，讓各級學校教師、行政人員、學生、家長及縣市政府人員建立正確的游泳戲水觀念外，並結合有關單位增加危險場域之告示，以防範於未然，逐年降低學生溺水人數。

DAY ONE – TUESDAY, OCTOBER 17, 2017

Opening Plenary Day 1 - 9:00 - 10:30am

*Master of Ceremonies: Mr Justin Scarr, RLSA**Ceremonies:**Location: Salon DEF*

PRESENTER	PRESENTATION
Mr. Alec Dan	First Nations Welcome
The Honourable Judith Guichon	Welcoming Address – Lieutenant Governor of British Columbia, the Honourable Judith Guichon
Dr. David Meddings	World Health Organization (WHO) Welcome
Ms. Kelly Larson	Welcome on behalf of Mike Bloomberg
John Bankes	Welcome address on behalf of the hosts, Lifesaving Society Canada
Miss Schuyler Bankes	Youthful Perspective on Drowning Prevention
Dr. Stephen Beerman	Prevention of Drowning Canada; Issues, Challenges, Successes
Mr. Aquil Virani	Introduction to Interactive Conference Artwork

MORNING BREAK

Concurrent Session 1 - 11:00 – 12:30pm

PREVENTION 1- Marginalized Communities*Chair: Mrs. Yasuko Nakagawa, JLA**Location: Salon DE**Format: 15 minutes per speaker including Q & A*

PRESENTER	PAPER
Mr. Kevin Paes	Addressing Indigenous Drowning Rates in Canada
Ms. Barbara Byers	A Study of Examine the influence of Ethnicity on Pre-teens Swimming and Water Safety in Canada
Miss Lauren Nimmo	Remote Aboriginal Swimming Pools – Photovoice Research
Ms. Samantha Jackson	Investigation of Why Maori Are Drowning Despite the Important Cultural Connection to the Water
Ms. Teresa Stanely	Developing Water Competence for Youth in Marginalised Populations Within Community Groups

RESCUE 1 – Factors Impacting Rescue

Chair: *Mr. Peter George, SLSA*

Location: *Salon F*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Linda Quan	What Factors Known at the Scene Predict Drowning Outcome?
Professor Michael Tipton	Examining Lifeguard Expertise: The Impact of Shift Duration on the Effectiveness of Hazard Detection
Miss Victoria Laxton	Drowning detection: The effect of Lifeguard in the visual search for a drowning swimmer
Dr. Francesco Pia	Spotting a drowning person using LgHIP [©] ™ Training System to Swiftly Recognize Psycho-Physiological Bio-Medical Determinants of the Instinctive Drowning Response (IDR)
Mr. Nick Mulcahy	Implementing an Evidence-Based Surf Lifeguard Supervision Model for New Zealand Beaches

SWIMMING 1 – Water Competence

Chair: *Dr. Shayne Baker, RLSSA*

Location: *Salon 1*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Kevin Moran	Dying to help? Bystander Perception and Knowledge of Safe Rescue Assistance
Ms. Stacey Pidgeon	Benchmarking Children’s Swimming and Survival Skills in Australia
Associate Professor Jennifer Biltvich	Self-Reported Perceptions of Swimming Competency: Who is Most Accurate, the Child or the Parent?
Mrs. Connie Harvey	The American Red Cross Holistic Approach to Water Competency
Dr. Robert Keig Stallman	The influence of Age, Gender and Starting Skill Level on Learning Beginning Swimming Skills

DATA 1 – Research

Chair: *Dr. Tessa Clemens, CDPC*

Location: *Salon 2*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Richard Franklin	Examining the Classification of Drowning: An Australian Exemplar
Dr. Ana Catarina Queiroga	Drowning Timeline: A New Systematic Model of the Drowning Process
Dr. Leilei Duan	Disease Burden of Drowning in China, 1990-2013

Miss Alison Mahony	Young Men and Drowning: An Analysis of Drowning Deaths Among Men Aged 25-34 Years
Dr. Colleen Saunders	Determination of the Research Priorities for a National Drowning Prevention Organisation In South Africa

MEDICAL 1 – ILS Medical Position Statements

Chair: *Dr. Peter Wernicki, USLA*

Location: *Salon 3*

Format: *15 minutes per speaker including Q & A*

PAPER

ILS Medical Position Statements

PANELIST

Dr. Joost Bierens

Dr. Natalie Hood

Dr. Patrick Morgan

Dr. David Szpilman

Mr. Jonathon Webber

PARTNERSHIP 1 – Innovation in Partnership

Chair: *Dr. Harald Vervaecke, ILS*

Location: *Oak*

Format: *15 minutes per speaker including Q & A*

PRESENTER

PAPER

Mr. Paul Reynolds Improving the Safety of Backyard Swimming Pools in Australia – The Passing of River Parry will not be in Vain

Mrs. Di Steer Changing Organizational Culture to Prevent Drowning

Mr. Roger Sweeney Marketing as an Educational Tool – A Drowning Prevention Perspective

Mr. Marcelo Ulysea Volunteer SAR Implementation & Safety Boating Education

Mr. Alex Reynolds ISA/ILS Surf & SUP Instructor Water Safety Accreditation: Promoting Surf & SUP Instructor Water Safety World-Wide

LUNCH BREAK

Concurrent Session 2 - 1:30 – 3:00pm

PREVENTION 2 – Risk Factors

Chair: *Mrs. Yasuko Nakagawa, Japan LSA*

Location: *Salon DE*

Format: *15 minutes per speaker including Q & A*

PRESENTER

PAPER

Ms. Amy E. Peden Challenges Around the Prevention of Alcohol-Related Fatal River Drowning

Mr. Lee Heard Targeted campaigns to impact at risk groups – Don't Drink and

	Drown
Mr. Craig Roberts	Men, Alcohol and Risk Taking – A strategy to Reduce Drowning in Men in Rivers in Australia
Professor Joan Ozanne-Smith	Built Environments and Drowning Mortality: Historical Study of the Development of the Built Environment and its Impact on Drowning
Dr. Kevin Moran	Rock-Based Fisher Safety: A Decade on

PESCUE 2 – Rip Currents

Chair: *Dr. Robert Brander, UNSW*

Location: *Salon F*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Bruno Castelle	Rip Current Types and Beach User Hazard
Dr. Jooyong Lee	Calculation of Rip Current Warming Index by a Vector Rose Diagram
Mr. Chris Brewster	Calculating the Hazard Presented by Rip Currents
Mr. Allan Mundy	Informing Searches for Missing Persons: Dynamics of Topographic Headland Rip Currents Around New Zealand Coastlines
Mr. Shane Daw ESM	The Facts about Rips Campaign: A Five-Year Strategy to Change Awareness and Behaviour of High-Risk Demographics

SWIMMING 2 – Water Competence

Chair: *Dr. Linda Quan, University of Washington*

Location: *Salon 1*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Ms. Barbara Byers	ISL Position Statement – Basic Swimming, Water Safety and Self Rescue
Ms. Elizabeth Bennett	Developing A Successful Single Gender Swim Policy and Program
Ms. Cherry Bailey	Learning to Swim: What Influences Success? An Examination of Data from Australia
Miss Hannah Calverley	Examining the Difference Between Lifeguard's and Swimmers' Precompetitive Anxiety and Emotion Regulation
Mr. Michal Kosinski	Changes of Anxiety Feeling by Swimmers Born in Year 2000. Analysis for The Period 2014-2016

DATA 2 – Non-fatal Drowning

Chair: *Dr. David Meddings, WHO*

Location: *Salon 2*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Ms. Alison Mahony	Non-Fatal Drowning in the Australian Context
Dr. Tessa Clemens	The Epidemiology of Non-Fatal Drowning in Canada
Dr. Jagnoor Jagnoor	The Burden of Non-Fatal Drowning in Barisal, Bangladesh

Ms. Amy E. Peden	Developing a National Non-Fatal Drowning Action Plan
Dr. David Meddings	Outcome of the International Non-Fatal Drowning Working Group

MEDICAL 2 – CPR and AEDS

Chair:	<i>Dr. Patrick Morgan, SLS GB</i>
Location:	<i>Salon 3</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
Professor Bo Lofgren	Layperson Surf Lifeguard Deliver High-Quality Ventilations Compared with Experience Nurse Anaesthetists
Mr. Jonathon Webber	Paediatric Cardiopulmonary Resuscitation: Knowledge and Perceptions of Surf Lifeguards
Dr. Francesco Pia	Lessening Lifeguards' Vulnerability to CPR Errors Through Individual and Team Acute Stress Sit/Set Countermeasures
Dr. John Fitz-Clarke	Optimizing Drowning Resuscitation Using Physiological Simulation
Mr. Jeroen Seesink	Evaluation of 6 Years of Automated External Defibrillators (AED) at Lifeboats

PREVENTION 3 – Prevention

Chair:	<i>Dr. Harald Vervaecke, ILS</i>
Location:	<i>Oak</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
Mr. Francois Lepine	Supervision of Aquatic Activities for groups of Children: Raising Awareness About Close and Constant Supervision
Mr. Motlatsi Thomas Mokala	Raising the profile of RLLA: Water Safety Awareness Campaigns Through Radio and Newspaper in Lesotho
Mr. Tony Gomez	Local Health Department Leadership and Involvement in Drowning Prevention – Experience from 30 Years in the Field
Dr. Ana Dominguez Pachón	Drowning Prevention in Campaigns in Spain
Dr. Deborah Girasek	Novel Sign Reduces Aquatic Risk-taking Among National Park Visitors

AFTERNOON BREAK

Concurrent Session 3 - 3:30 – 5:00pm

PREVENTION 4 – Campaigns and Communication

Chair:	<i>Dr. Amy E. Peden, RLSS</i>
Location:	<i>Salon DE</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
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Professor Michael Tipton	Surviving Cold Water Immersion: from Lab to Public Awareness Campaign
Miss Lauren Nimmo	Watch Me Not Your Phone – A New Campaign Targeting Distracted Parents
Dr. Justine Leavy	How Much? Using Formative Research and Behavioural Theory to Develop a Child Drowning Prevention Campaign
Ms. Madeleine Dodd	Getting evidence into policy: An analysis of drowning prevention activities in Bangladesh and their impact on national health policy
Dr. Kyra Hamilton	Changing People’s Attitudes and Beliefs Toward Driving Through Floodwaters: Evaluation of a Video Infographic

RESCUE 3 – Lifeguard Skills

Chair: *Mrs. Pamela Simon, SLSA*

Location: *Salon F*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Francesco Pia	Saccade sweep scanning ^{©™} : A Critical Signal Equal Frequency Distribution Countermeasure to Inattentive Blindness
Dr. Thorsten Wutscher	Data Based Requirements for a Rescue Swimmer in Germany
Mr. Michael Dunn	Q CPR Live Feedback During Lifeguard CPR Training. Measuring the Effect on CPR Performance & Changes to Learning Experiences
Mr. Pete De Quincy	Improving the Effectiveness of Seasonal Lifeguards Through Automaticity, Overlearning and Deliberate Practise
Dr. Robert Keig Stallman	The Surveillance Behaviour of Lifeguards: An Observational Analysis

SWIMMING 3 – At Risk Communities

Chair: *Dr. Elizabeth Bennett, Seattle Childrens*

Location: *Salon 1*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Mrs. Paula Thulin	Canadian Red Cross Swimming and Water Safety Program – Water Competency
Mrs. Mahruba Khanam	Feasibility of Teaching First Response to Children Below 10 Years of Age in Rural Bangladesh
Dr. Christopher Love	A Twelve Year Retrospective on Manitoba’s Northern & Remote Water Smart Program
Mrs. Sarah Stempski	Water Safety Education Program Design & Pilot Evaluation
Ms Beth Kreitl	Water Safety Education – Evaluating the Benefits and Effectiveness of Classroom – Based Training
Ms. Jeewanthika Ekanayaka	Adapting a Survival Swimming Programme: Challenges and Solutions for Successful Delivery of “Swim for Safety” in Sri Lanka

DATA 3 – National Data

Chair: *Dr. Richard Franklin, JCU*
Location: *Salon 2*
Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Detlev Mohr	Analysis of Two Types of Statistics Drowning in Germany
Dr. Aminur Raham	Importance of Data to Prevent Drowning – Experience From Bangladesh
Dr. Ana Catarina Queiroga	Did Drowning Water Safety Actions Make Any Difference? A 35 Year's Evaluation on Brazil
Dr. Colleen Saunders	Keeping Our Heads Above Water: A Systematic Review of Fatal Drowning Surveillance in South Africa
Miss Yesica Pino Espinosa	Drowning Data in Spain: Knowledge to Prevent – Comparative Analysis During Summer of 2015, 2016 And 2017

MEDICAL 3 – CPR and Lifeguards

Chair: *Mr. Jonathan Webber, SLSNZ*
Location: *Salon 3*
Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Natalie Hood	Pro Con Debate over Training Lifeguards to do Pulse Checks in Drowning Resuscitation Scenarios
Dr. Joost Beirens	
Professor Bo Lofgren	Interruptions in Chest Compression by Surf Lifeguards: A Comparison of Face-mask Ventilation in Over-the-head CPR vs Standard CPR
Ms. Renae Jackson	Musculoskeletal Injuries in California Ocean Lifeguards

PREVENTION 5 – Prevention

Chair: *Mr. Michael Bassett-Foss, SLSNZ*
Location: *Oak*
Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Adam Katchmarchie	Myths about Drowning Behaviour Created and Perpetuated by the Movie and TV Industry
Dr. David Szpilman	The Five Water Safety Messages Customized for Different Aquatic Scenarios
Miss Tanya Wolsegger	Family Swim to Survive in Canada
Mr. Adrian Cossu	The Problem with Too Much Fear: Testing the Interaction Between Fear Appeals, Message Framing, And Visual Metaphors
Dr. Peter Barss	How Did We Achieve Multisectoral Surveillance-based Reduction in Toddler Immersions in the 1990s: Lessons for the future?
Dr. May Ann Sta.	Violence and Injury Prevention Alliance: Unleashing the Power of

Lucia	Collaboration, Coordination, Cooperation for Drowning Initiatives in Western Visayas, Philippines
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POSTER DAY 1 - 8:30am – 5:00pm

Location: *Poster Foyer*

PRESENTER	PAPER
Mr. Michael Iwersen	“The Lifeguards” a unique TV-series for kids
Dr. Rebecca Sindall	Emerging Leaders: Equipping Lifesaving Organizations with Project Management Skills to Improve Prevention Programmes
Miss Lauren Nimmo	Alcohol and Water Don’t Mix – Don’t Drink and Drown
Dr. Tomaz Zalewski	Characteristics of Drowning in Poland
Dr. Kyra Hamilton	Investigating the Correlates of Alcohol Use and Aquatic Injury and Drowning: a Systematic Review
Ms. Shelley Dalke	Deaths by Immersion in and Around Cottages in Canada, Twenty three Years of Epidemiology And Policy
Associate Professor Jennifer Blitvich	Developing Educational Objectives for Water Competency Components
Dr. Alexander Skaliy	The analyse of the economic efficiency of the boat “Laura” in comparison with other boats in Polish WRS
Dr. David Szpilman	Demystifying Drowning as a Mere Mater of Resuscitation
Dr. John Schorr	Using an International Service Organization to Develop a City-Wide Children’s Water Safety and Drowning Prevention Program in Chiang Mai, Thailand
Miss Karin Brand	Everyday Lifesaver education programme
Mr. John Leech	Irish Water Safety’s online Primary Aquatics Water Safety Programme (PAWS) for Primary Schools
Mr. Milton Nelms	Long Duration Swimming and How To Teach it in Very Few Encounters
Mrs. Anne Porteau	Millennials: A New Generation of Learning
Mr. Andrew Ingram	The WaterWise Academy: Teaching Water Safety to underprivileged children in South Africa
Mr. Job Kania	Survival Swimming PilotPilot Project in Kilifi-Kenya
Ms. Kathleen Finn	Safeguard – A Drowning Prevention Training Couse that Provides Safety Supervision Training for Guardians who Accompany Children in Aquatic Settings
Mr. Shane Daw ESM	Pocket Patrol – Augmented Reality Surf Safety Education
Miss Sofie Koch	Perceived Water Competencies in Danish School Children
Mr. Milad Parpouchi	Occupational Respiratory Symptoms and Disease Among Indoor Swimming Pool Staff
Mr. Mark Lindsay	Big Data and Advanced Analytics – New Tools for Drowning

Prevention	
Mr. Shane Daw ESM	A 12-year review of the National Coastal Safety Report
Mrs. Shane Gould	Why people drown in Fiji?
Mr. Giuseppe Andreana	Drowning and near-drowning in Italian swimming pools: websites as a primary resource for injury surveillance (2008-2016)
Mr. Michael Shane	Aquatic Safety Audits – A Software Application
Mr. Mats Melbye	Water Safety Management Model
Dr. Ana Catarina Queiroga	Older People Drowning, More Work Required: A Systematic Review of Published Literature
Dr. David Szpilman	“You can lead horse to water, but you can’t make it drink” – Drowning Risk Perception Table
Mr. Giuseppe Andreana	Flooding and Guidelines to protect the population – Italian proposal
Mr. Gareth Jenkin	Successful Use of Extracorporeal Membrane Oxygenation Post Drowning in New Zealand. A case study and literature review
Mr. Tom Mecrow	How Much Can We Learn About Drowning in Tanzania From Secondary Data Sources?
Dr. William Ramos	The American Red Cross Aquatics Centennial Campaign
Mr. Christoph Müller	Towards a Standard in Water Competence for Teachers
Ms. Ana Ortiz Olivar	The Development of Preventive Water Competences Through Creativity and Experience
Mr. Paul Wechselberger	Creation of an International Drowning Data Standard
Mr. João Pereira	Anaphylactic Reaction and Angioedema Associated with Jellyfish Sting
Dr. John Fitz-Clarke	Pulmonary Mechanics of Rescue Ventilation
Dr. Bernadette Matthews	Using SMR maps to Visualize Geographically varying Drowning Risk

DAY TWO – WEDNESDAY, OCTOBER 18, 2017

Wednesday Plenary Day 2 - 9:00 – 10:30am

Master of Ceremonies *Mr. Justin Scarr, RLSA*

Location: *Salon DEF*

Format: *15-20 minutes per speaker followed by panel discussion*

PRESENTER	PAPER
Dr. David Meddings	WHO Global Report and Implementation Guide
Dr. Aminur Rahman	Drowning – a Neglected but Preventable Health Issue
Ms. Tima Kurdi	Personalizing the Refugee Crisis
Dr. Wendy Lai	Front Line Experience from Refugee Tragedy

Concurrent Session 4 - 11:00 – 12:30pm

PREVENTION 6 – Safe Boating and Watercraft

Chair: *Mr. Amy E. Peden, RLSSA*

Location: *Salon DE*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Ms. Jean Murray	The Canadian Safe Boating Council: Improving Boating Safety in Northern Canada
Dr. Thomas Mangione	Factors Associated with Life Jacket Use Among Adult Sailors in the US: Assessing Additive Impact Of Risk On Wearing Behaviour
Ms. Barbara Byers	Start Boating – A Boating Course for New Canadians
Ms. Stacey Pidgeon	A 10 Year Analysis of Boating and Watercraft Drowning Deaths in Australia
Ms. Wendy Chow	Factors Associated with Life Jacket Wear among Adult Canoeers and Kayakers in the United States

RESCUE 4 – Bystander Rescue

Chair: *Mr. Shane Daw ESM,SLSA*

Location: *Salon F*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Tessa Clemens	Characteristics of Bystander Recue Attempts in Fatal Drowning Incidents
Mr. Guido Reijnen	Drowning Fatalities and Rescue Attempts in The Waters of Amsterdam: Who, When and Where
Dr. Robert Brander	Saving bystanders who are attempting to rescue others
Mrs. Bridget	Public Rescue Tube Station in Kuai, Hawaii: Beach Goer and First

Velasco	Responder Perceptions and Use
Mr. Ingvar Berg	The Characteristics of Surfers as Bystander Rescuers in Europe

SWIMMING 4 – Swimming Research

Chair:	<i>Dr. Kevin Morgan, UA</i>
Location:	<i>Salon 1</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
Ms. Kate Simpson	Victorian Survival Swimming Program; Addressing A Lack of Child Swimming Competency
Professor Kristine De Martelaer	Comparison of Water Safety and Traffic Safety Education in Flanders and the Netherlands
Mr. Eunho Shin	A Study on the Effectiveness of the public Safety Swimming Education on the Prevention of the Drowning Accidents
Dr. Adam Katchmarchi	A Delphi on Drowning Prevention Education Research in the United States
Dr. Chris Button	Assessing the Impact of a Survival-Skills Education Program Upon Aquatic Competency of Children
Mrs. Bente W. Laakso	The Decrement in Skill with the Added Burden of Swimming with Clothing: A Cohort Study Over Four Years

GLOBAL DROWNING 1 – National Data - LIMCs

Chair:	<i>Dr. Steve Beerman, UBC</i>
Location:	<i>Salon 2</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
Ms. Mariela De Los Angeles Hernandez-Sanchez	Mortality by Accidental Drowning and Submersion. Cuba, 1987-2014
Ms. Bhagabati Sedain	The Drowning Situation in Nepal: A Study of Central Police Database
Dr. Akm Fazlur Rahman	Drowning Burden from 2002 to 2015: Is there any Progress in Preventing Deaths by Drowning Over 13 Years in Bangladesh?
Mr. Tom Mecrow	A Community-Based Assessment of Drowning Risks in the Rural Village of Butri, Sudan
Dr. Kulanthayan KC Mani	Drowning in Malaysia: What We Know?

MEDICAL 4 – Medical

Chair:	<i>Dr. Natalie Hood, SLSA</i>
Location:	<i>Salon 3</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
Miss Joanna Talbot	Advancements in the Medical Aspects of Rescue, First Aid and

	Resuscitation
Ms. Hyemi Kim	Analysis of Lifesaving Society Korea CPR and FA Training Trends
Mrs. Pamela Simon	Don't Forget to Treat the Patient – An Analysis of Beach Related Injuries 2010 to 2015
Dr. Patrick Morgan	Infrared tympanic thermometers perform poorly in Clinical Assessment of Hypothermia in a Post Drowning Casualty
Profess John Pearn	Hypoxic Blackout: A Review of Fatal Drowning Cases from Australia
Mr. Mike Espino	Hypoxic Blackout – A Partnership to Raise Awareness

WORKSHOP 1 – Drowning Chain of Survival

Chair: *Dr. Joost Bierens, MRD*

Location: *Mackenzie Room*

Format: *15 minutes per speaker including Q & A*

PRESENTER

Mr. Reto Abacherli Drowning Chain of Survival for Educational Purposes

PANELIST

Dr. Joost Bierens

Dr. David Szpilman

LUNCH BREAK

Concurrent Session 5 - 1:30 – 3:00pm

PREVENTION 7 – Escape from Vehicles

Chair: *Ms. Barbara Byers, Lifesaving Society Ontario*

Location: *Salon 3*

Format: *15 minutes per speaker including Q & A*

PRESENTER

PAPER

Dr. Gordon Giesbrecht	Operation ALIVE (Automobile Submersion: Lessons in Vehicle Escape): Public Education to Prevent Drowning in Submersed Vehicles
Dr. Gordon Giesbrecht	Prevention of Drowning in Sinking Vehicles: A New Automatic Window Opening Device
Dr. Kyra Hamilton	The Lived Experience of Rescuing People Who Driven Through Floodwater: Understanding Challenges & Identifying Areas for Support
Mr. Ted Rankine	Cold Water Boot Camp: A Public Education Prevent Drowning in Clod Water
Dr. Thomas Mangione	The Effectiveness of Life Jacket Loaner Boards in the Presence of Risky Conditions in Washington State

RESCUE 5 – Rescue Tehnology

Chair: *Mr. Adam Weir, SLS-NSW*

Location: *Cypress*

Format: *15 minutes per speaker including Q & A*

PRESENTER

PAPER

Mr. Joe Bailey	Lifeguard Drone Use: The Implementation of Drones for Shark Tracking and Swimmer Safety
Mr. Eddie Bennet	Drones to the Rescue: of a Two Year Trial into UAV Operations in Lifesaving
Dr. Andreas Claesson	Drones May be Used to Save Lives in Cardiac Arrest Due to Drowning
Mr. Aitor Chertudi	Open Water Lifeguarding Applied Technologies: Analysis of Jet-Powered Rescue Boards

SWIMMING 5 – Program Innovations

Chair: *Dr. Shayne Baker, RLSSA*

Location: *Salon 1*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Bernadette Matthews	Lifesaving in Schools: Generating Policy Change in Water Safety
Mr. Jonty Mills	Water Skills for Life – Future Proofing Drowning Prevention
Mrs. Annette (Floss) Roberts	Remote Swim, Survive & Strive: Aimed at Reducing Indigenous People Drowning in Remote Location of the Northern Territory
Dr. Dean Dudley	A Physical Literacy Framework to Design, Implement and Evaluate Drowning Prevention Education Programs and Policy
Ms. Kathleen Finn	Train the Trainers Leadership System – A Research Project to Modernize Aquatic Instructor, Trainer & Coaching Courses

GLOBAL DROWNING 2 – Global Drowning

Chair: *Dr. Steve Beerman, UBC*

Location: *Salon 2*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Mr. Jonathon Passmore	Priorities and Actions for Drowning Prevention in WHO's Western Pacific Region
Mr. Jonathon Guevarra	Status of Drowning Prevention in the Philippines
Mrs. Suchada Gerdmongkolgan	A Decade of Action on Child Drowning Prevention in Thailand
Professor Joan Ozanne-Smith	Scale-Up of Drowning Prevention Interventions
Dr. Olakunle Alonge	Saving Lives from Drowning in Bangladesh: Intervention Analysis in a Cohort Study

PARTNERSHIP 2 – Innovation in Partnerships

Chair: *Dr. Ana Dominguez Pachón, RFESS*

Location: *Oak*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Mr. Fabio Braga Martins	An Alliance on Lifesaving Sport Can Make all the Difference – CDMB and SOBRASA
Ms. Sabrina Kashif	Water Safety as a Vehicle for Peace-Building in Sudan’s IDP/Refugee
Ms. Rebecca Wear Robinson	Dissecting Successful Partnerships in the For-Profit and Not-for-Profit Worlds
Ms. Vanessa Mirander Eugene	Swim to Survive and Parental Educational Campaigns to Prevent Child Drowning Deaths in St. Lucia
Miss Som Ekchaloemkiet	A Merit Maker: Child Drowning Prevention Program in Thailand

WORKSHOP 2 – Emerging Researchers

Chair: *Dr. Joost Bierens, MTRVD*

Location: *Mackenzie Room*

Format: *Workshop*

PRESENTER	PAPER
Dr. Ana Queiroga	Workshop for Emerging Drowning Researchers
PANELISTS	
Dr. Justin Sempsrott	
Mr. Jonathan Webber	

AFTERNOON BREAK

Concurrent Session 6 - 3:30 – 5:00 pm

RESCUE 6 – Aquatic Facility Safety

Chair: *Mr. Erik Bech, ILS*

Location: *Cypress*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Tom Griffiths	Life Jackets in Swimming Pools? What Note & Float Data Reveals
Mr. Roy Fielding	Update on the Model Aquatic Health Code Lifeguarding and Bather Supervision Section
Mr. Michael Shane	Aquatic Facility Incidents – Lessons Learned, Twenty Years and Counting
Ms. Wendy Chow	Use of Floatation Devices by Swimmers in Designated Swim Areas in Washington State, USA
Mr. Rafael Oliveira	Poor Accident/Incident Report Form – Template for Brazilian Collective Pools

SWIMMING 6 – Teacher Training

Chair: *Mr. Hafthor Gudmundsson, University of Iceland*

Location: *Salon 1*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Mr. Tom Mecrow	Teaching School Age Children Swimming, Water Safety & Rescue Skills; Opportunities & Challenges – A Case Study from Tanzania
Ms. Sabrina Kashif	Working with the Ministry of Education to Promote Water Safety in Schools: Lessons from Khartoum, Sudan
Mrs. Jennifer Schembri-Portelli	Impacting Indigenous Swimming and Water Safety
Mr. Marcelo Vasconcellos	Swim+Safe: Test for Diagnostic Evaluation and Monitoring of Water Skills of Beginner Students
Miss Joanne Stewart	The Collective Results of International Drowning Prevention Efforts in Vietnam
Mr. George Amado	Swimming and Water Education

GLOBAL DROWNING 3 – Global Drowning

Chair: *Mr. Jonathon Passmore, WHO*

Location: *Salon 2*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Ms. Caroline Lukaszuk	Burden of Drowning and Opportunities for Drowning Reduction in India and Vietnam
Dr. Olakunle Alonge	Cost Effectiveness of Interventions for Childhood Drowning Prevention in Bangladesh
Ms. Caroline Lukaszuk	Understanding the Health System Characteristics that Influence that Implementation of Drowning Program in Barisal, Bangladesh
Mr. Dan Ryan	Making Sense of Global Drowning Data with Data Visualization Tools
Mr. Daniel Graham	Drowning Prevention and the SDGs: Contributions, Synergies and Indirect Benefits

RESCUE 7 – Lifeguard Systems

Chair: *Mrs. Pamela Simon, SLSA*

Location: *Salon 3*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Mohammad Jahangir Hossain	Impact of a Lifeguard Project Development in Low Resource Setting – Experiences from SeaSafe Project Bangladesh
Mr. John Powell	Rescued by Design: Providing Low Resource Communities Access to Affordable & Sustainable Equipment to Reduce Drowning

Dr. Dario Pezzini	Artificial Beaches: Hard Defences and Bathing Safety
Mr. Leonardo Manino	What are the Benefits and Barriers to Building an Intraregional Alliance?
Mr. Felix Uzor	Developing and Sustaining a Low Resource Rescue Unit in Ghana, West Africa

WORKSHOP 3 – Water Competency

Chair:	Associate Professor Jennifer Blitvich, FUA
Location:	Mackenzie Room
Format:	Workshop

PRESENTER	PAPER
Dr. Linda Quan	Workshop to Develop Educational Objectives for Water Competency Components

POSTER DAY 2 | 8:30am – 5:00pm

Location:	Poster Foyer
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PRESENTER	PAPER
Mr. Jon Glenn	Water Safety and Self Rescue
Mr. Ebbe Horneman	The Vikings and Cold Water: A Multi-Disciplinary Educational Drowning Prevention Intervention
Mr. Tom Mecrow	Water Use and Water Safety Knowledge Among School Aged Children in Ghana
Dr. Kevin Moran	Can You Float? An Exploration of Essential Water Competency
Dr. Robert Keig Stallman	Assessing Personal Competence – A Link in Drowning Prevention: The Role of the Teacher
Dr. Stephanie Jull	Drowning Prevention for Individuals with Autism
Mrs. Rannei Grimstad	With Lake Mjosa as our Dining Room: Living Off of the Lake
Mrs. Bente W. Laakso	The Vingrom School Polar Bear Swimming Club: Swimming in Cold Water in a Survival Context
Mr. Ebbe Horneman	Life Jacket Use and Boating: A Pedagogical Teaching Module
Mrs. Bente W. Laakso	Going Against the Stream: A Pedagogical Exercise in Water Safety
Dr. Angela Beale	Review of Lifejacket and Clothing Policies at Aquatic Venues
Mr. Mike Espino	The Lifeguard Shortage in the United States and the Impact on Safety
Mr. Evangelos Tsampazis	Rescue Equipment: Its Contribution to a More Efficient, Faster and Safer Surf Rescue
Mr. Fabio Braga Martins	Hand Signals for Lifeguards – How SOBRASA are working in Brazil?
Mr. Mike Melenchuk	Hiring Waterfront and Surf Lifeguards
Mr. Rafael Oliveira	A Model of Brazilian Surf Clubs
Mr. Cody Dunne	Development of a Training Module for the Management of Cold Water Induced Hypothermia Delivered Via a Mobile Tele-Simulation

	Unit
Mr. Alexandre Tadeia	Development of a New Rescue Tube
Dr. Olakunle Alonge	Understanding Stakeholders' Perception to Child Drowning Prevention Interventions in Rural Bangladesh
Mr. Nick Mulcahy	Evidence-Based Community Water Safety Education: Beach and Surf Conditions Reports for Titahi Bay, New Zealand
Mr. Chanchai Superwerakul	Success project about drowning prevention by volunteers in the community, Nakhon Ratchasima Province, Thailand
Miss Som Ekchaloemkiet	Evaluation of Measures for Management of High-risk Water Sources in Communities for child Drowning Prevention in Thailand
Mrs. Helen Hallett	Drowning Prevention Beyond the Red and Yellow Flags
Mrs. Rabbya Ashrafi	Anchal (community creche) a measure for preventing drowning among early aged children in Bangladesh: challenges and measure for improvement
Mr. Brendan McGarth	The Development of Permanent Community Based Life Saving Training Centers in the West of Ireland through Local Partnerships
Mrs. Saluckjit Sakulral	Situations of Child Drowning and Prevention by MERIT MAKER team in Surin Province
Miss Lauren Nimmo	Swim and Survive for All – Working with At-Risk Communities
Dr. Animesh Biswas	Urban tragic manmade disaster drowning of a four year old child in Bangladesh: Findings from case study report
Dr. Olakunle Alonge	Epidemiology of Drowning in Bangladesh: An Update from a Million-Household Survey
Mr. Kabir Hossen	“Feasibility of utilizing digital collection for community survey in a low resource setting: Experience from BHASA project.”

DAY THREE – THURSDAY, OCTOBER 19, 2017

Thursday Plenary Day 3 - 9:00 – 10:30am

Master of Ceremonies *Mr. Justin Scarr, RLSA*

Location: Salon DEF

Format: 15-20 minutes per speaker followed by panel discussion

PRESENTER	PAPER
Dr. Joost Bierens	Highlights and Remarkable Observations during 250 years of Drowning Prevention, Rescue, and Treatment
Dr. Olive Kobusingye	How is Africa poised to take advantage of the GRD? Examples from Eastern Africa
Ms. Elizabeth Bennett	Results of a Multi-Sectoral Approach to Drowning Prevention in Washington State, USA

Concurrent Session 7 - 11:00 – 12:30pm

PREVENTION 8 – Inland Waterways

Chair: *Mr. Michael Dunn, RLSS – UK*

Location: Salon DE

Format: 15 minutes per speaker including Q & A

PRESENTER	PAPER
Dr. Bernadette Matthews	Utilizing Spatial Analysis to Determine Geographic Areas with Excess Risk of Drowning in Inland Waterways in Victoria, Australia
Mr. Craig Roberts	Respect the River – A National Inland Waterways Drowning Prevention Program
Ms. Rhiannon Birch	Adapting to Local Issues: Evaluation of Water Safety Educ. Programs Modified for Inland Waterways Drowning Prevention Project
Mr. Tony Bennett	Dam Drowning – The Canadian Case for Public Safety Around Dams
Mr. Antonio Schinda	RIVERS+SAFE Prevention Campaign: A New Strategy

RESCUE 8 – Coastal Safety

Chair: *Mr. Nick Mulcahy, CR Ltd*

Location: Salon F

Format: 15 minutes per speaker including Q & A

PRESENTER	PAPER
Mr. Adam Weir	How a Statewide Coastal Risk Assessment is Informing Next Generation of Drowning Prevention Strategies in New South Wales
Mr. Ralph Goto	Development of the Use of Personal Watercraft in Surf Environments in Hawaii

Mr. William Koon	The Association of Wave Heights, Water Levels, and Ocean Lifeguard Rescues in Newport Beach, California
Ms. Olga Marques	Portuguese Lifeguards Performance in Aquatic Rescue. Exploration Study
Dr. Jamie Falcon	Evaluating Near Shore Spinal Injuries and Alternatives to Reduce their Occurrence

SWIMMING 7 – School Sector Policy

Chair:	<i>Ms. Kate Simpson, LSV</i>
Location:	<i>Salon 1</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
Mr. Hafthor Gudmundsson	Does the Icelandic School Swimming System Make Elementary Students Water Competent?
Mrs. Chiung Yun Hsu	Government Policy of Promoting Water Safety to Students in Taiwan
Miss Sofie Koch	Learning to Swim – A Mapping of Challenges and Opportunities Associated with Swimming Lessons in Danish Public Schools
Ms. Fran Wood	Water Safety and Swimming Education
Miss Corry Floor	The Added Value of Swimming Education During School Hours for Children in Primary School

DATA 4 – Child Drowning

Chair:	<i>Dr. Colleen Saunders, UCT</i>
Location:	<i>Salon 2</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
Dr. Richard Franklin	Children with Known Pre-Existing Medical Condition and its Role in Drowning Fatalities
Professor John Pearn	Child Bath Drowning Deaths in Australia
Ms. Heather Dykstra	Unintentional Infant Drowning: A Descriptive Analysis of Characteristics & Risk Factors from National Child Death Review Cases
Professor Don Voaklander	Child Drowning on Farms in Canada
Mrs. Louise Kublick	Autism: Re-Thinking Drowning Prevention

PARTNERSHIP 3 – Water Safety Plans

Chair:	<i>Mr. Norm Farmer, ILS</i>
Location:	<i>Salon 3</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
Dr. Stephen	The Canadian Drowning Prevention Coalition: A Framework for

Beerman	Action
Dr. Tessa Clemens	The Canadian Drowning Prevention Plan
Ms. Chris Wagg	Saving Lives Through Community Collaboration
Mr. Michael Bassett-Foss	New Zealand Water Safety Strategy – A Chequered but Fruitful Journey
Mr. Lee Heard	Delivering Local & National Water Safety Plans Via a Multi-Agency Approach. Delivering Local Actions from a National Plan - UK

DISASTER 1 – Disaster and Refugees

Chair: *Dr. Joost Bierens, CGMTRVD*

Location: *Oak*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Dr. Rebecca Sindall	Disaster Risk Reduction: Drowning Prevention and the Sendai Framework
Professor John Clague	Sea-Level Rise, Superstorms and Drowning
Miss Venetia Vichou	Reception, Assistance & Rescue Operation to Refugees Crossing the Aegean Sea
Dr. Maurice Stierl	Activist and Humanitarian Interventions to Prevent Migrant Death in the Mediterranean Sea
Dr. Rebecca Sindall	DRAT: Developing a Community-Level Drowning Risk Assessment Toolkit

LUNCH BREAK

Concurrent Session 8 - 1:30 – 3:00pm

PREVENTION 9 – Prevention

Chair: *Miss Yesica Pino Espinosa, RFESS*

Location: *Salon DE*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Mrs. Pamela Simon	Behavioural Insights: Case Studies Highlight How Evidence is Used to Shape Drowning Prevention Strategy
Dr. Justin Leavy	‘I Saw it on the News Last Night’: A Content Analysis of Drowning in Western Australian News Media
Mrs. Jill Dowd	Water Safety Awareness Program: Working with Parents to Keep Under 5’s Alive – 15 Years of Success!
Mr. Renan Mendes Zanela	Shake it Up: RAP Music as a Drowning Prevention Tool
Mr. Luciano Messias Lauro Vieira	Lifeguards in Primary Schools in Itapemirim (Brazil)

RESCUE 9 – Lifeguard Surveillance

Chair: *Mr. Kelly Carter, Lifesaving Society Canada – Alberta & Northwest Territories*

Location: *Salon F*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Mr. Juan Achutegui	A Comparison Between Lifeguard Certification Programs Across the World: Are Lifeguards Adequately Trained?
Dr. Toshinori Ishikawa	Contribution Regarding Enhancement of Ability in Self and Mutual Rescue by JLA After Great Tsunami in 2001
Mr. Adam Weir	Developing a Reliable Solution for Remote Emergency Alarm
Dr. Tobias Uhing	Spinal Column Immobilization in Water Rescue by Lifeguards
Dr. Claudia Coutinho	Olympic Aquatic Marathon: Safety from a Brazilian Lifeguard and Medical Perspective

SWIMMING 8 – Knowledge and Behaviours

Chair: *Ms. Teresa Stanley, WaterSafe Auckland*

Location: *Salon 1*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Miss Chanel Phillips	Haumaru I te wai ki uta, ki tai: An Indigenous Perspective To Understanding Water Safety in Aotearoa, New Zealand
Ms. Lindsay Mondick	YMCA Safety Around Water: A Community Based Drowning Prevention Program
Ms. Rannei Grimstad	Creating a Water Safety Culture: a Case Study – Vingrom School, Norway
Mr. Pedro Cruz	School Lifeguarding Club – An Innovative Curriculum Teaching Experience in Portugal – Case Study
Mr. Jared Wilson	Building RIP Current Awareness in Swimming and Water Safety Education

DATA 5 – Coastal Research

Chair: *Dr. Ana Catarina, Queiroga, IDRA*

Location: *Salon 2*

Format: *15 minutes per speaker including Q & A*

PRESENTER	PAPER
Mr. Shane Daw ESM	SLSA's National Coastal Safety Survey: Analysis of Public Perceptions & Practices is Used to Inform Drowning Prevention Strategies
Mr. Peter Kamstra	GIS-Based Analysis of the Relationship Between Risk Perceptions and Behaviour on High-Risk Rocky Coasts
Dr. Eric Tellier	Modelling and Predicting Drowning Risk Along the Gironde's

	Oceanic Coast: Retrospective and Prospective Observational Studies
Dr. David Szpilman	Drowning – An Unrecognized Silent Daily Disaster
Mr. William Koon	Real-time Lifeguard Activity Reporting: Analysis of a Linked Computer-Aided-Dispatch Dataset of Lifeguard Activity from Newport Beach, California

PARTNERSHIP 4 – Water Safety Plans

Chair:	Mr. Norm Farmer, ILS
Location:	<i>Salon 3</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
Mr. Jonathan Guevarra	Developing of a National Multisectoral Action Plan on Drowning Prevention in the Philippines
Mr. Steve Wills	Creating a community and good practice for the design and implementation of drowning prevention plans

DISASTER 2 – Flood Safety

Chair:	Mr. Daniel Graham, Nile Swimmers
Location:	<i>Oak</i>
Format:	<i>15 minutes per speaker including Q & A</i>

PRESENTER	PAPER
Mr. Tom Mecrow	Designing Evidence-Based Flood Safety Interventions for Sudan
Dr. Mohammad Jahangir Hossain	Impact of Flood a Rescue Training in Low Resource Setting – Experiences from Bangladesh
Ms. Amy E. Peden	Causal Pathways of Flood Related Deaths in Australia
Dr. Kyra Hamilton	To Drive or Not to Drive: Understanding People’s Bahavioural Decision Making in Vehicles Around Floodwater
Mr. Adrian Mayhew	SLSGB, UK Disaster Response; How a Third Sector Lifeguard Service Responded

AFTERNOON BREAK

Closing Plenary 4 & Closing Ceremony - 3:30 – 5:00pm

Master of Ceremonies:	Mr. Justin Scarr, RLSA
Location:	<i>Bayshore Grand Ballroom</i>

PRESENTER	PAPER
Ms. Kimberly Jarvis	Thank you from the Princess Charlene of Monaco Foundation
Ms. Barbara Byers	Prevention Theme Highlights and Outcomes
Mr. Daniel Graham	Rescue Theme Highlights and Outcomes
Dr. Richard Franklin	Data Theme Highlights and Outcomes
Dr. Peter Wernicki	Medical Stream Highlights and Outcomes

Associate Professor Jennifer Blitvich	Swimming Theme Highlights and Outcomes
Dr. Joost Bierens	Disaster Theme Highlights and Outcomes
Dr. Graham Ford	ILS and Conference Awards
Dr. Robert Campbell	Canadian Closing Address
Mrs. Helen Herbert	WCDP 2019 Durban, South African Invitation to Attend
Mr. Graham Ford	International Life Saving Federation

POSTER DAY 3 | 8:30am – 5:00pm

Location: Poster Foyer

PRESENTER	PAPER
Mr. Antonio Schinda	Drowning Resilient City: A New Strategy
Mr. Adrian Mayhem	Can One Country Deal with a Flood Disaster? A Look at What has been Achieved with Competent Volunteers
Miss Joanne Stewart	Swim Vietnam Water Safety Swim Program
Mr. Gerry Seghers	IFSTA Standards in an Open Water Context in Vietnam – A Sustainable Model
Mr. Reto Abächerli	“Water safety at school” – How water safety become part of Switzerland’s National syllabus and how it is being Taught.
Mr. Romano Grandi	A Card Game Called “Little Captain” to Promote the Prevention of Drowning Among Children
Professor Roberto Barcala-Furelos	A Clinical Debriefing with a Cartoon using the Drowning Timeline
Ms. Michelle Lukas	Proposed Adaptations to the Lifesaving Society’s Swim to Survive Program
Mrs. Emily Carswell	Sharing Drowning Prevention Education With
Ms. Anita Sharma	The Changing World of Baby Swimming in China: Neck Rings to Noodles
Miss Lauren Nimmo	Swim for Fruit – Healthy Eating Through Swimming
Mr. Asanka Nanayakkara	Swim for Safety in Sri Lanka
Ms. Olga Marques	Variation of CPR quality over summer season by Portuguese Lifeguards
Mr. Hiran Ukwatte	Tourism Based Beach Safety in Sri Lanka
Mr. Salvador Diniz Filho	The Importance of the Use of Protective Equipment by Personal Watercraft Conductors
Mr. Toshinori Ishikawa	Proposal of Beach Risk Assessment Method of Japan
Dr. Ivan Tengbjerg Herrmann	Proposal for a Standard for Measuring the Average Time in Surf Lifesaving
Mr. Takahiro Kazama	Multilateral Bathing Area Risk Assessment for 2 Beaches in Japan
Mr. Jeferson Luiz Da Rosa França	Project of Costal Management to Prevent Drowning: Guarita Beach and State Park

Mr. Alexander Tadeia	Methodology “Five Steps” for Lifeguard Communication of Safety Rules to Bathers
Mr. Michael Melenchuk	Lifeguard Judgement: Use of Fins
Dr. Stephen Leatherman	Lifesaving Beach Bag for Water Rescue
Mr. António Mestre	Instructional Effectiveness, Evidence Based Techniques – “Helping Lifeguards Visualize the ERC2015 Task Flowchart”
Mr. John Leech	How we Incentivise Local Communities to Operate their Own Inshore Rescue Boats in Ireland
Dr. John Porter	Stereo Camera System for Measuring Coastal Currents and Other Processes
Ms. Rhiannon Birch	Using Gamification to Make Learning Water Safety and Emergency Response More Engaging: Evaluation of the Everyday Lifesaver App
Ms. Nathalie Vallieres	The Implementation of Admission Standards in Public Swimming Pools
Mr. Neal From	Swimdo: Child Drowning Prevention in Indonesia
Mr. Chanchai Superakul	Success Project and Drowning Prevention by Volunteers in the Community, Nakhon Ratchasima Province, Thailand.
Mr. Kelly Carter	Improving Signage at Supervised Aquatic Facilities Through Design
Dr. Mohammed Jahangir Hossain	Impact of the Community Based First Responder Development for the Management of Drowning Casualties in Rural Areas of Bangladesh
Mr. Felix Uzor	Drowning Prevention Approach in Ghana
Mr. Heubert Guimaraes	Dermatological Injuries Caused by Solar Radiation in Military Lifeguards and Associated Risk-taking Behaviour
Mrs. Annette (Floss) Roberts	Northern Territory Water Safety Strategy – Get the Heads Up on The NT Water Safety Advisory Council
Mr. Nick Mulcahy	Lesson from Tragedy: Reporting on Fatal Drowning Incidents in New Zealand
Ms. Rebecca Wear Robinson	Integrating Research, Action, and Emotion into a Global Strategy
Dr. Ivan Tengbjerg Herrmann	Result from Denmark Measuring the Average Rescue Time in Surf Lifesaving
Ms. Teresa Stanley	Real and Perceived Water Competencies Among Adults – a Reality Gap in a High-Risk Group
Miss. Jessica Pino Espinosa	National Drowning Report in Spain – Statistics to Help Drowning Prevention Measure
Mr. Job Kania	Kenya Drowning Data 2010 to 2017
Dr. Dario Pezzini	Drowning Causes on Italian Beaches: Towards a National Water Safety Plan



Ubuntu: Sharing Within a community, because what affects you, affects all.

Growing on the knowledge and relationships gained in Vancouver, Lifesaving South Africa now invites you to the beautiful Kingdom of Kwa Zulu Natal for the ILS World Conference on Drowning Prevention 2019 in Durban, South Africa.

Lifesaving South Africa was established in 1913 and has recorded over 122 000 rescues by the growing number of voluntary clubs across the country. The World Conference on Drowning Prevention sets the standards for research, experience and strategies to which Lifesaving South Africa subscribes and aids in reducing the burden of drowning throughout the world. A consistent worldwide strategy grows with each WCDP as the message spreads through these congresses.

Durban, South Africa is a dynamic subtropical city, with warm sea waters all year round, surrounded by some of the most spectacular scenery and world heritage sites. Durban offers an amazing array of hotels, restaurants, attractions, outstanding arts and culture, wonderful shopping and warm friendly people.

With direct flights on Emirates, Qatar, Ethiopian and British Air Airlines as well as SAA, Durban is easy to get to, easy to get around and hard to forget. It is a 35-minute flight from Johannesburg and a 2-hour flight from Cape Town. After arriving at the King Shaka International Airport, travelling downtown to the conference hotel (Tsogo Sun, Elangeni/Maharani) is as easy as taking an airport shuttle, taxi or hiring a vehicle from one of the many service providers based at the airport, the drive takes less than 20 minutes. Once settled at the hotel, you're on the beaches of the Golden Mile of the Durban Beachfront and a 5-minute walk from the Inkosi Albert Luthuli, International Conference Centre (ICC).

Durban and the ICC is consistently rated as the top meeting destination in South Africa as well as being ranked as the most liveable and healthiest city. Its unbeatable location makes it the perfect gateway to the rest of South Africa and beyond, allowing you to enjoy a wide range of outstanding opportunities for pre-and post-conference travel. A wide range of reasonably priced and high-quality accommodations are also available.

With 12 official languages in South Africa, the cultural diversity seen across Durban, Kwa Zulu Natal and South Africa creates a rich and welcoming destination.

Lifesaving South Africa looks forward to welcoming you to Durban in 2019 and providing the perfect setting for information exchange and camaraderie to ensure we ...

‘Grow global drowning prevention capacity.’