

MERIT MAKER


Thai National Drowning Prevention Strategy



Bureau of Non-Communicable Diseases,
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Note:

Department of Disease Control restructured its organization in 2019 by separating the tasks related to Injury, including drowning prevention, from the Bureau of Non-communicable Disease and established the Division of Injury Prevention.



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Merit Maker Thai National Drowning Prevention Strategy

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Foreword

Drowning is the number one cause of death among Thai children aged under 15 years. On average, nearly 1,000 children in this age group die from drowning each year; and the trends rose steadily from 1999 to 2005, but began to drop after that period when the Department of Disease Control of the Ministry of Public Health (MOPH) and its network members began implementing various drowning prevention measures.

Major factors related to drowning include personal and environmental factors; so the measures for preventing child drowning should cover all such factors and their implementation has to be thorough and continuous. The efforts should also be made to use local resources through multi-sectoral coordination; thereby a “Merit-Maker” process has been devised for its implementation.

As a developing country, Thailand has limited resources and budget. Thus, some good measures cannot be carried out in a short period of time. For example, the inclusion of the “Survival Swimming Curriculum” into the compulsory education system and the enforcement of related laws and rules cannot be accomplished if public awareness and support is not raised or provided. Without people’s awareness, despite passing many laws, the people would neither cooperate nor abide by. Therefore, an emphasis has to be placed on enhancing community participation and self-reliance. The “Merit-Maker” approach focuses on community-based drowning prevention in a sustainable manner as it establishes a foundation for all community members to be aware of the common problem, work together in a multidisciplinary manner, and use local resources for such a programme.

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Section 1

Introduction

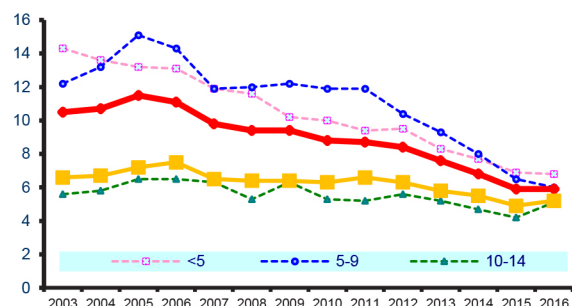
Globally, each year 135,585 children under-15 years lose their lives from drowning – 372 per day on average; i.e. 32,744 per year or 90 per day in Southeast Asia.¹

In Thailand, among under-15-year-olds, drowning is the number one cause of death; the rate is higher than those due to other causes, even infectious and non-infectious diseases.²⁻⁵ Over the past 10 years (2007–2016), 10,165 children in this age group died from drowning – 1,017 per year or 3 per day on average.^{2, 6} The number of child-drowning deaths constantly rose during 1999–2005 and a downward trend of more than 50% has been noted since late 2006 when the MOPH's Department of Disease Control and its network members began implementing various drowning prevention measures. (Ten years ago the number of child-drowning deaths was 1,500 per year and in 2016 it dropped to 713.) (Figure 1).^{3, 6}

Drowning deaths among children under-15 years is the leading cause of disability-adjusted life years (DALYs): ranked third at 26,000 for boys and sixth at 10,000 for girls.⁷ The case-fatality rate due to drowning is 31.9%; 21.9% occurred among under-15-year-olds. By age group, before 2015, the age group 5–9 years had the highest death rate per 100,000 child population (<15 years), followed by the under-5 age group, but after 2015 the under-5 age group has had a higher death rate per 100,000 child population (Figure 1).⁶

Drowning deaths in boys were about two-fold higher than in girls (Figure 2). The month of April was the period with the highest number of child drownings, followed by March and May, as it was a school summer break (Figure 3). Highest drowning deaths were found on Saturdays and Sundays and in the Northeast, followed by the South, the Centre (excluding Bangkok) and the North (Figure 4).^{3, 6} The water bodies or sources with highest drownings were natural water bodies (39.2%), followed by bathtubs (6.8%) and swimming pools (2.7%).⁸

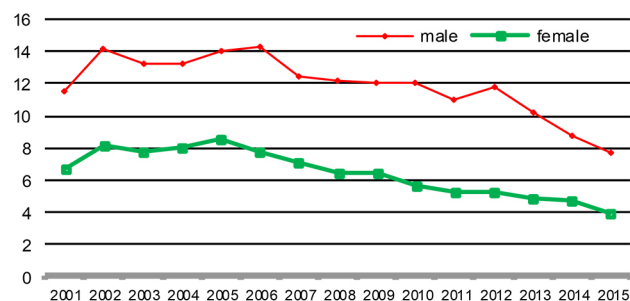
Figure 1: Number and Mortality Rate (per 100 000 children <15 years) from Child Drowning in Thailand by age group, 2003-2016



Source: Data from death certificates. Division of Strategy and Planning, Office of the Permanent Secretary, Ministry of Public Health.

Analyzed by the Bureau of Non-Communicable Diseases, Department of Disease Control, Ministry of Public Health.

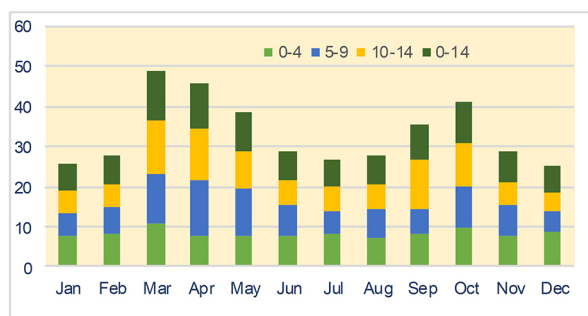
Figure 2: Mortality Rate (per 100 000 children <15 years) from Child Drowning in Thailand by sex, 2001-2015



Source: Data from death certificates. Division of Strategy and Planning, Office of the Permanent Secretary, Ministry of Public Health.

Analyzed by the Bureau of Non-Communicable Diseases, Department of Disease Control, Ministry of Public Health.

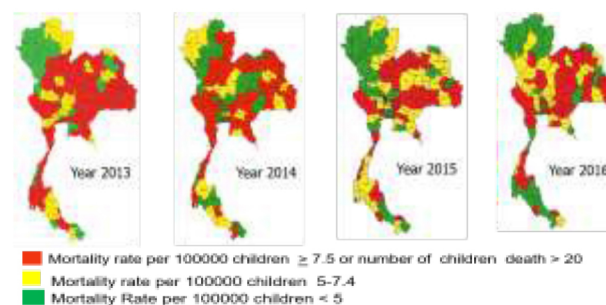
Figure 3: Percentage of drowning death in children <15 years in Thailand by month, 2012-2016



Source: Data from death certificates. Division of Strategy and Planning, Office of the Permanent Secretary, Ministry of Public Health.

Analyzed by the Bureau of Non-Communicable Diseases, Department of Disease Control, Ministry of Public Health.

Figure 1: Deaths due to drowning in children <15 years in Thailand by risky areas, 2013–2016



Source: Data from death certificates. Division of Strategy and Planning, Office of the Permanent Secretary, Ministry of Public Health.

Analyzed by the Bureau of Non-Communicable Diseases, Department of Disease Control, Ministry of Public Health.







Children of different age groups have different risk factors. Drowning in under-5 children tends to occur due to negligence of parents or guardians, whereas in older children it occurs while they are playing in the water. Several of them tend to drown in the same incident as they lack the knowledge of water safety and not knowing about water survival and correct rescue procedures. So they usually jump into the water to help a drowning person.

An evaluation conducted in 2013 by the Bureau of Non-Communicable Diseases, Department of Disease Control, found that 23.7% of Thai children (aged 5–14) were able to swim and 4.4% could swim for survival (knowing about water safety, swim/survival skills and water rescue skills).⁹ The children who had taken the Survival Swimming Course would be more knowledgeable about water safety, swimming/surviving and water rescue skills than non-course-takers by 7.4-fold, 20.7-fold and 2.7-fold, respectively.¹⁰ Another survey by the same bureau in 2015 on lifejacket use showed that Thailand had a rather low rate of lifejacket use. Only 6.0% of child respondents could demonstrate correct use while it was only 4.2% for all age groups.¹¹

Drowning can be attributable to two major groups of factors: (1) personal factors or vulnerability of the child such as physical condition, development, behaviours and chronic illnesses and (2) environmental (physical and social) factors. The physical environments include not having a fence around the water source to prevent children from entering the water, and designating a suitable playpen (water-playing area) for children. The social environments that affect drowning include family's economic status, children/caretakers or community not being aware of child-drowning risk, nearby helpers not knowing of water rescue or using a wrong first-aid procedure, and a medical facility near the community not being ready to assist during emergency.¹²

Previously, many local agencies undertook only one drowning prevention measure, i.e. survival swimming training for children, especially for grown-up children. So young children missed the chance to be protected; and no actions were taken to tackle environmental factors. Actually, drowning prevention measures should cover risk factors related to both personal and environmental aspects, not only one measure as such one action could not properly deal with the problem. Thus, in fiscal year 2015, MOPH's Department of Disease Control established a "Merit Maker" strategy to push for the implementation of all measures, in collaboration with all relevant agencies, using local resources, rather than always relying on government support.¹³

In 2017, the World Health Organization (WHO) launched a guidebook "Preventing drowning: an implementation guide" that covers 6 measures and 4 strategies on drowning prevention for interested agencies to review and implement. In comparison with Thailand's "Merit Maker" approach, it has been found that the Thai principles are in line with those of the WHO guidelines as shown in the figure.

6 KEY DROWNING PREVENTION INTERVENTIONS					
Provide safe places for pre-school children	Install barriers controlling access to water	Teach school-age children (aged over 6 years) swimming and water safety skills	Build resilience and manage flood risks	Train bystanders in safe rescue and resuscitation	Set and enforce safe boating, shipping and ferry regulations
					
MERIT MAKER 5: Kindergarten/ Daycare	MERIT MAKER 4: Environment 6: Education	MERIT MAKER 7: Training (Survival Swimming)	National Drowning Prevention Plan	MERIT MAKER 8: Resuscitation	National Drowning Prevention Plan

Strategies to support drowning prevention interventions			
	MERIT MAKER 6: Education 9: Media		MERIT MAKER 2: Management
Strengthen public awareness of drowning through strategic communications		Promote multisectoral collaboration	
	MERIT MAKER 1: Advocacy/Policy National Drowning Prevention Plan		MERIT MAKER 3: Information 10: Research/Evaluation
Develop a national water safety plan		Advance drowning prevention through data collection and well-designed studies	

For drowning prevention purposes in Thailand, in 2018, MOPH's Department of Disease Control has prepared and published a manual in the Thai language titled, "Preventing drowning: an implementation guide" with funding from WHO for the English-Thai translation.¹⁵

Section 2

Implementing the “Merit Maker” strategy

The “Merit Maker” or *Phu Ko-kahn-dee* strategy is intended for drowning prevention; it urges all local agencies to carry out all relevant measures with local resources in a multi-sectoral and continuous basis.¹³

The Merit Maker strategy has ten elements: policy, management, situation and data, risky water-body management, child development centre operation, knowledge dissemination, survival swimming training, cardiopulmonary resuscitation (CPR) training, public communications and research/evaluation.



Objectives

- 1) To stimulate the creation of a drowning prevention programme at local communities.
- 2) To encourage the continual operation of drowning prevention efforts.
- 3) To encourage the implementation of all measures for drowning prevention.
- 4) To ensure that drowning prevention activities are undertaken with multi-sectoral collaboration and local resources.

Definitions

- *Merit Maker team* means a team that implements various measures for drowning prevention
- *Certified Merit Maker team* means the team that has implemented various measures and met the specified criteria in all 10 elements.
- *Drowning prevention operations* means the implementation of drowning prevention measures related to policy, management, situation and data, risky water-body management, child development centre operations, knowledge dissemination, survival swimming training, cardiopulmonary resuscitation (CPR) training, public communications and research/evaluation.
- *Resource sharing in a locality* means any local actions related to the sharing of resources including manpower, money and materials for drowning prevention efforts.
- *Support for operations in other localities* means a Merit Maker team's provision of support to other localities or communities in their drowning prevention efforts at the district, provincial, regional and national levels, which are not in the team's own area.
- *Innovations for drowning prevention operations* means any new thing or action that has been devised or different from an old one, not duplication with other person's; it may be a procedure or equipment that is useful for drowning prevention.
- *High-risk water body in community* means an agricultural water body, a dug well, a swamp, a marsh, a canal, a river, a reservoir, a swimming pool, etc. commonly deemed by the community as a risky location, including a water body within a household's compound, such as a water body into which humans can go down and play, a waterway for transport, a water source for aquatic activities (fishing, vegetable collection, or water sports).
- *Environmental management in a high-risk water body* means a high-risk water body that has (1) installed a fence and/or a warning signboard and (2) put in place water safety/rescue equipment such as a rescue wooden pole, plastic gallon-tanks with rope, and plastic water-bottles with rope. In case of a large water body, the supplies must be placed at several places, a certain distance apart depending on suitability and risks.

- *Teaching children at a child development centre about risky water bodies* means teaching such children to know about the water bodies with high risks and focus on “Don’t be near; Don’t collect; Don’t stoop” and shouting for help.
 - Don’t Pass By – teaching children not to walk near the water body, and not to follow any animal into the water.
 - Don’t Pick Up – teaching children not to get into the water body to collect a ball, a doll or any other toys.
 - Don’t Bend Down – teaching children not to stoop down to see anything in any water container or water body.
- *Environmental management within and outside the child development centre* means the centre (1) has made arrangements for all risky water bodies within or around the building and the toilets to ensure safety, for example, covering up all unused water bodies, pouring away the water from all unused containers, placing lids on all water containers (in such a way that children are unable to open them), putting up a fence around the water body or to prevent children from entering the water body, closing the door of the toilet every time after use and installing the bolt at a higher spot so that children will not unbolt it by themselves, taking away a water container from the toilet and changing to the flush-tank system for children (if feasible financially and mechanically) and (2) has a playpen for children in a fenced area to keep the children away from the water body or to reduce the risk of children easily accessing the water body.
- *Public education at health-care facilities, communities or schools* means disseminating the knowledge of drowning prevention in all relevant aspects, emphasizing health-care settings such as hospitals, subdistrict (*tambon*) health promoting hospitals (THPHs); in case of operational constraints, such activity can be carried out in the communities or schools.
- *For children aged 0–2 years, using a child safety fence or a playpen* means the family or community having a safe fenced area a playpen for infants and children up to 2 years old.
- *Survival Swimming Curriculum* means a curriculum aimed at providing learners with the knowledge of water safety, swimming and survival, and water rescue skills.
- *Teaching the Survival Swimming Curriculum to have local resource persons* means the personnel or local residents aged 20 years or over have attended the course to become trainers in such a programme.

- *Teaching the Survival Swimming Curriculum for children and the people* means children aged 6–14 years and adults have attended the curriculum, covering both theoretical and practical aspects; especially, all members of the gold-level and silver-level Merit Maker teams must have been trained in the real water body. The proportion of the children who have attended the course must be larger than that for the general public.
- *Practical training on CPR* means CPR practical training for the target group – local residents aged over 20 years. So their proportion must be at least 50%.
- *Public communications via various channels on a wider scale* means organizing public education or communications on a wider scale for the general public, especially those in the target communities or areas, via television, radio, and newspaper, community public address systems, and mobile broadcast vehicles. (In case of online media, their operations will be continuous, but will be counted only once for silver-level and twice for gold-level contesting teams.)

Characteristics of the team applying for certification as a Merit Maker team and conditions

1. Sending performance reports and asking for certification only on behalf of the team.
2. The implementation area must be the subdistrict (tambon) level or above.
3. The performance or achievements submitted for recognition:
 - must have been undertaken for 1 year;
 - must have been made by themselves or with their collaboration;
 - must not be repetitive with those submitted by other teams;
 - must not be repetitive, for each element, with those of other elements.
4. In case of two teams submitting repetitive achievements, the provincial public health office has the right to make final decision to which team the achievements will belong.

Levels of Merit Maker teams and elements implemented

- Levels of certification: 3 levels – Bronze, covering 6 elements, and Silver & Gold, covering 10 elements.
- National-level contesting teams: Merit Maker teams that have been certified at the silver and gold levels from each province will be selected to take part in the national-level contest.

Elements of the Merit Maker strategy

The Merit Maker strategy includes 10 elements: policy, management, situation and data, risky water-body management, child development centre operations, knowledge dissemination, survival swimming training, cardiopulmonary resuscitation (CPR) training, public communications and research/evaluation. To be certified at the Gold and Silver levels, a Merit Maker team has to cover all 10 elements, while for the Bronze level, a Merit Maker team has to cover at least six elements.

M Management*

E Environment

R Resuscitation*

I Information

T Training (Survival Swimming) **

M Media

A Advocacy/Policy*

K Kindergarten/Day-care center

E Education

R Research*

Note: * Not required for the Bronze level.

** The Survival Swimming Curriculum emphasizes the training approach for the learner is be able to have (1) knowledge about water safety; (2) swimming and survival skills; and (3) water rescue skills.

Assessment method

- Check the data to verify that they are actually correct.
- Assess from the facts that really occur while the assessment is underway.
- Examine and interpret with no bias, and make decisions not based on personal opinions.
- Make evidence-based conclusions according to technical principles.

Roles of “Merit Maker” assessment teams

The teams include those at the provincial, regional and central levels.

- **The provincial assessment team** is a group of people appointed by the provincial authorities comprising representatives from the Provincial Public Health Office, the Education Service Area Office, local agencies and other relevant agencies numbering no fewer than 3 persons.

- **The regional assessment team** is a group of people appointed by the regional offices comprising representatives from the regional Office of Disease Prevention and Control, the Regional Education Service Office, and other relevant agencies numbering no fewer than 3 persons.
- **The central assessment team** is a group of people comprising representatives from the Department of Disease Control, the Ministry of Education, academic agencies/universities, private sector agencies and other relevant agencies.

Assessment steps

- **For Bronze-level “Merit Maker” team**

The assessment team:

1. Reviews documents/evidence of Merit Maker teams as per the elements and indicators for Bronze-level certification.
2. Holds a meeting to seek opinions and makes suggestions for making decisions.
3. Makes conclusions on each of the elements and indicators, makes an overall summary, and makes suggestions for improvements for the contesting teams that do not meet the established criteria.

- **For Silver- and Gold-level “Merit Maker” teams and random assessments**

The assessment team:

1. Reviews documents/evidence of Merit Maker teams according to the elements and indicators for the Silver- and Gold-level “Merit Maker” teams.
2. Reviews/assesses all elements and indicators by collecting empirical information from relevant evidence/documents, interviewing relevant persons, and conducts actual site surveys and quality testing (using an assessment form).
3. Analyzes the data collected from documents or empirical evidence, interviews, actual site visits/surveys and quality testing.
4. Holds a meeting to express opinions and makes suggestions for making decisions.
5. Makes overall conclusions and makes suggestions of improvements.
6. Gives an opportunity to “Merit Maker” teams to ask questions and for all parties to give opinions and suggestions for further improvements.

Steps of contest consideration

The assessment team:

1. Reviews documents/evidence of Merit Maker teams according to the elements and indicators for each level of contest.
2. Reviews/assesses all elements and indicators by collecting empirical information from relevant evidence/documents, interviewing relevant persons, and conducting actual site surveys and quality testing (using an assessment form).
3. Analyzes the data collected from documents or empirical evidence, interviews, actual site visits/surveys and quality testing according to the assigned elements and indicators.
4. Holds a meeting to express opinions and makes suggestions for making decisions.
5. Makes overall conclusions and makes suggestions of improvements.
6. Gives an opportunity to “Merit Maker” teams to ask questions and for all parties to give opinions and suggestions for further improvements.

Steps for making conclusions

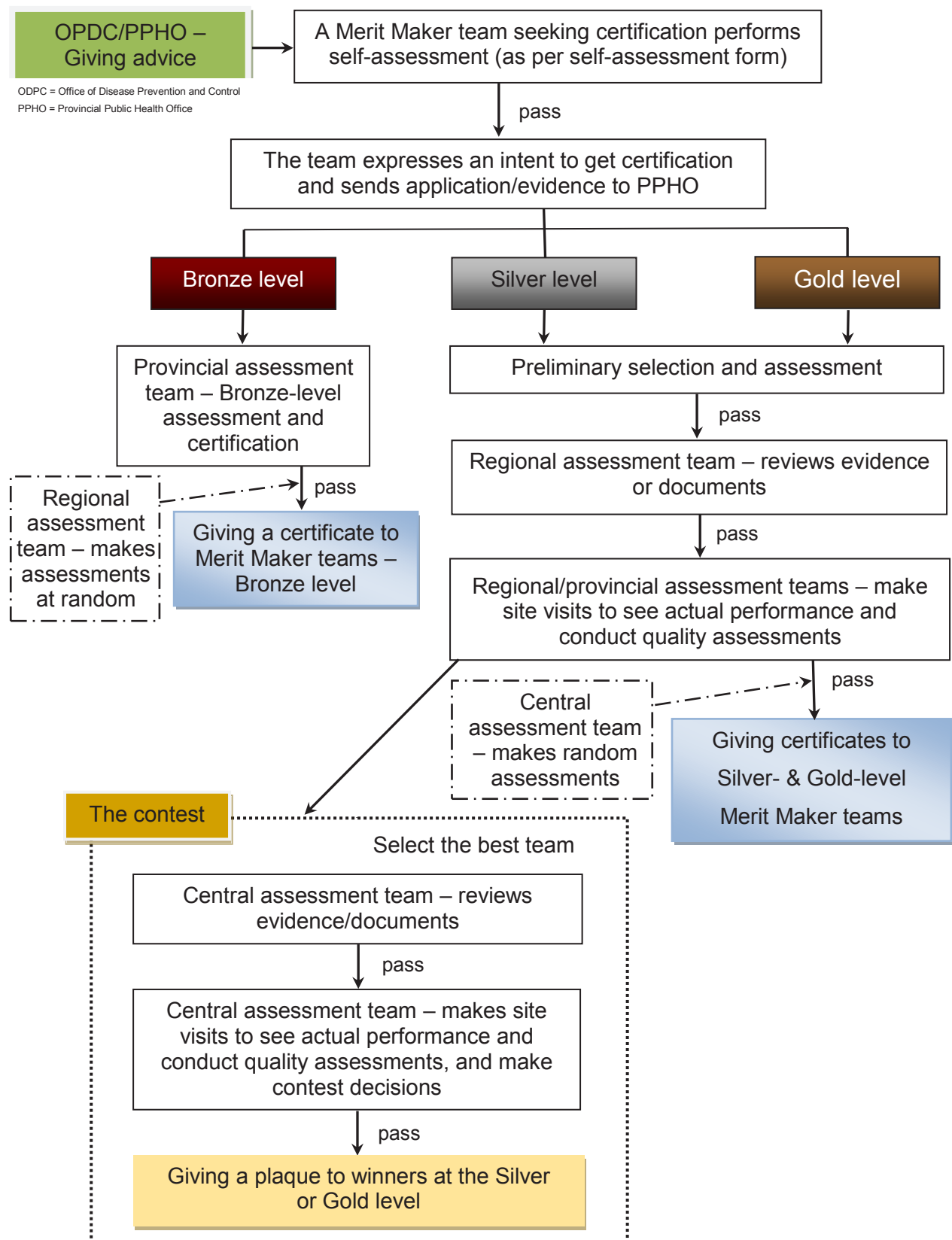
▪ Assessment steps

- Bronze-level assessment: The provincial assessment team makes an official conclusion of the assessment.
- Silver- and Gold-level assessments: The provincial assessment team makes a preliminary conclusion of the assessment; and the regional assessment team makes an official conclusion of the assessment.

▪ The contest

- Silver- and Gold-levels: The central assessment team makes the official conclusion of the assessment.

Steps for certification and contest of Merit Maker teams in the drowning prevention programme



Notes: The regional assessment team assesses and certifies “Merit Maker” teams at the Bronze level in case the contesting teams are located in Bangkok.

Criteria for assessing Merit Maker team's performance on drowning prevention

The Merit Maker team must have implemented drowning prevention activities according to the specified criteria. The team applying for Bronze-level certification must have covered at least 6 elements, namely situation and data, risky water-body management, child development center operation, knowledge dissemination, survival swimming training, and public communications, whereas the team applying for Silver- and Gold-level certification must have covered all 10 elements.

Criteria for assessing Merit Maker team's performance on drowning prevention (10 elements)

Element	Indicators
1. Policy	<ul style="list-style-type: none"> Plans/projects Operational continuity
2. Management	<ul style="list-style-type: none"> Multi-disciplinary operations Local resource sharing Expansion of operations and innovations
3. Situation and data*	<ul style="list-style-type: none"> Data collection and usage When a case occurs, there are investigations and problem-solving Number of child drowning deaths
4. Management of risky water bodies*	<ul style="list-style-type: none"> Surveys of risky water bodies Environmental management at/around risky water bodies
5. Operations at a child development centre*	<ul style="list-style-type: none"> Teaching and giving advice to child-care teachers Teaching children about risky water bodies Environmental management in and outside the centre
6. Knowledge dissemination*	<ul style="list-style-type: none"> Giving knowledge about drowning prevention at health-care facilities, or in communities or schools Using a child safety fence or playpen
7. Using the Survival Swimming Curriculum*	<ul style="list-style-type: none"> Offering the Survival Swimming Curriculum to train more trainers or resource persons at the community level Offering the Survival Swimming Curriculum to train children and the general public
8. Training CPR	<ul style="list-style-type: none"> Offering CPR training for community residents and children
9. Public relations or communications*	<ul style="list-style-type: none"> Campaigns on child-drowning prevention Public relations via various channels
10. Research and monitoring/evaluation	<ul style="list-style-type: none"> Results of research or monitoring/evaluation of programme implementation at the local level

Note: * The Merit Maker team at the Bronze level must have implemented at least 6 elements

CPR: cardiopulmonary resuscitation

Section 3

Conclusions

The Merit Maker team approach for drowning prevention is a strategy to stimulate local authorities to implement the drowning prevention programme on a multi-disciplinary and continual basis, covering all measures and using locally available resources.

The Merit Maker strategy for drowning prevention was launched in 2015 by MOPH's Department of Disease Control. Its aim is to resolve the operational problem in the localities that used only one measure for drowning prevention, which was carried out by only one agency, and there was no visible picture of its operations as it was a new issue. Thus, the Merit Maker strategy was devised as a mechanism that would strengthen local agencies to design a clear operational guideline through community strengthening. That is because the programme success is attributable to multi-sectoral cooperation of public and private sector networks, voluntary networks and community participation.

The Merit Maker teams for drowning prevention are classified into three levels: Gold, Silver and Bronze. To become a Merit Maker team, the application has to be sent to the provincial public health office, which will assign a provincial assessment team to review and make a decision on the team at the Bronze level; while the regional disease prevention and control office and the regional assessment team will review and make a decision for the Silver and Gold levels. Then the team with the best performance in each province will be sent for contesting at the national level.

The criteria for assessing Merit Maker teams on drowning prevention are to cover all 10 elements that are important measures for preventing drowning, including policy, management, situation and data, risky water-body management, child development centre operations, knowledge dissemination, survival swimming training, cardiopulmonary resuscitation (CPR) training, public communications and research/evaluation. The assessments of Gold-level and Silver-level teams will cover all 10 elements, but only at least 6 elements for Bronze-level teams.

However, the assessment criteria for each of the 10 elements of a Merit Maker team are just basic operational guidelines. If any local agency has got enough capacity, it may implement other activities beyond the specified criteria or elements.

Based on the implementation of the Merit Maker strategy for drowning prevention in fiscal years 2015 through 2017, the numbers of Merit Maker teams for drowning prevention that have passed the criteria at various levels in each fiscal year are as follows:

- FY 2015: 335 Merit Maker teams for drowning prevention covering 227 districts in 35 provinces¹⁷
- FY 2016: 749 Merit Maker teams for drowning prevention covering 376 districts in 65 provinces¹⁸
- FY 2017: 1,093 Merit Maker teams for drowning prevention covering 384 districts in 67 provinces¹⁹

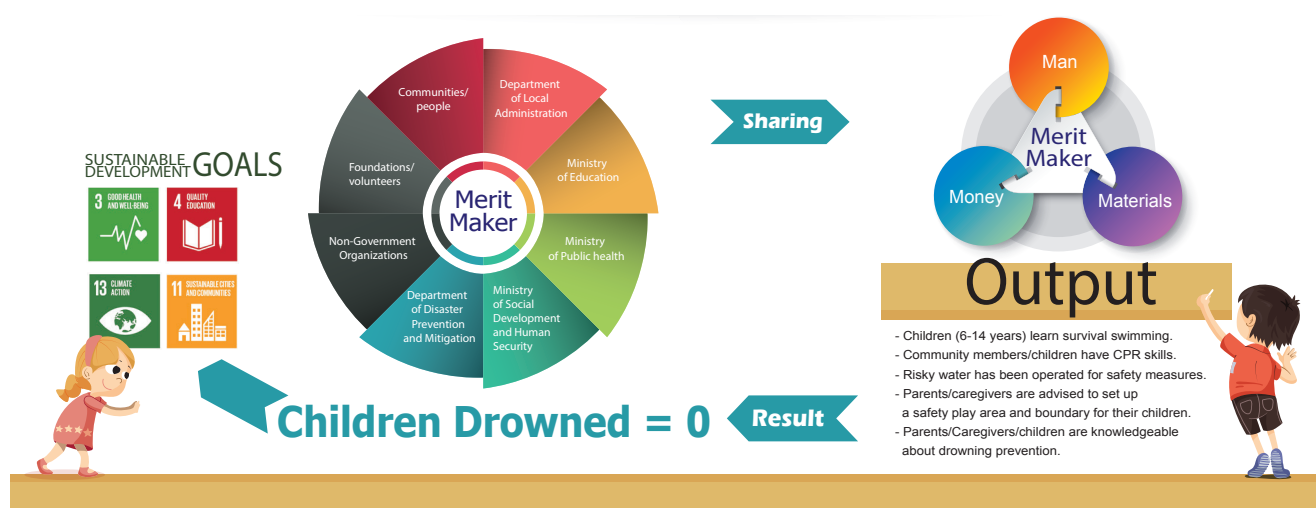
Overall, by level of Merit Maker teams, for the past three years there have been 1,906 Bronze-level teams, 171 Silver-level teams and 100 Gold-level teams.

The operations of the Merit Maker approach have benefited a lot of people; over the past three years, the achievements are the following:

- The management of 10,344 risky water bodies – installing fences or warning signboards and having in place water-rescue equipment to prevent drowning.
- The improvement of 7,862 child development centres – disseminating knowledge to child-care teachers, caregivers, and children, undertaking environmental management activities within and outside the centres, and setting up safe playpens.
- Holding knowledge dissemination sessions at 7,913 health-care facilities, communities and schools on child drowning prevention for the general public and children in the localities at least once a month.
- 17,881 local trainers or resource persons have been trained in the Survival Swimming Curriculum.
- 391,587 children aged 6–14 years have been trained in the Survival Swimming Curriculum.
- 18,696 people or children at the community level have been trained in cardiopulmonary resuscitation (CPR).
- 358 campaigns have been organized on child drowning prevention.
- 8,343 events related to public communications have been held via various media channels.
- 358 research studies or monitoring/evaluation actions have been undertaken at the local level.

With such efforts, local residents and children have gained not only knowledge about drowning prevention and got safe water bodies, but also essential life skills on water survival, water rescue and CPR. Such skills are useful for drowning victims and other people with cardiac arrest due to other causes.

Public-private sector cooperation and outcomes of the operations



The Merit Maker strategy is the process for implementing a drowning prevention programme at the local level on a sustainable basis. The strategy encourages all community members to realize the common problem, implement the programme through multi-sectoral cooperation with local resources. That is different from other programmes that are carried out with funding from international organizations or government agencies, resulting in their unsustainability – programmes ending when no additional funding is available.

As a developing country, Thailand has limited resources; many good measures cannot be undertaken in a short period of time. For instance, the survival swimming course cannot be included in the compulsory education system. As a result of such constraints, the programme operations cannot proceed rapidly; and if no efforts are made for the people to realize the importance of this programme, despite passing so many laws, they will not cooperate or follow such rules. Therefore, the focus is on urging as many people as possible to actively participate in programme operations through community's self-reliance.

The Merit Maker mechanism is in line with the government's *pracharat* or civil-state policy as it is implemented through multi-sectoral and community collaboration with the people playing a key role. All the achievements are really beneficial to the people. A programme evaluation has revealed that the numbers of drowning deaths in the provinces with Merit Maker teams are twofold lower than in those without such teams

References

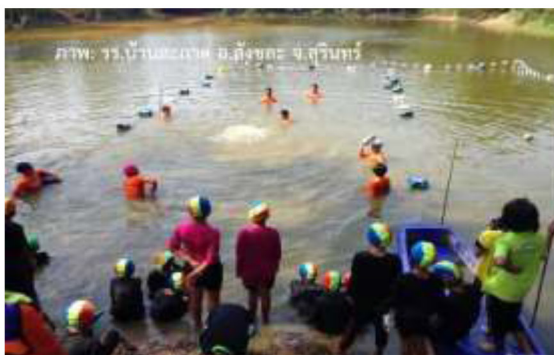
1. World Health Organization. The global burden of disease: 2004 update. Available from: http://www.who.int/healthinfo/global_burden_disease/2004_report_update/en/index.html [2009 Sep 15].
2. Bureau of Non-Communicable Diseases. Situation Analysis of Child Drowning Surveillance in Thailand. Bangkok: Printing Press of the War Veterans Organization of Thailand, 2009.
3. Gerdmongkolgan S. Number, percentage and rate of deaths due to injuries. 2003–2017 [unpublished]. Bureau of Non-Communicable Diseases, Department of Disease Control, Ministry of Public Health, 2018.
4. Ekchaloenkiet S. The first literature review of childhood drowning. Bangkok: Printing Press of the War Veterans Organization of Thailand, 2007.
5. Sitthi-amorn C, Chaipayom O, Udomprasertgul V, Linnan M, Dunn T, Beck, et al. The Thai National Injury Survey. Bangkok: Institute of Health Research, Chulalongkorn University; 2006.
6. Division of Strategy and Planning, Number and rate of drowning deaths. 2002–2015 [unpublished]. Office of the Permanent Secretary, Ministry of Public Health. 2016.
7. International Health Policy Program, Thailand. Disability-Adjusted Life Year: DALY 2013. Bangkok: The Graphico System Co.,Ltd; 2016.
8. Bureau of Epidemiolog. Injury Surveillance System: IS. 2007-2015 [File]. Department of Disease Control, Ministry of Public Health; 2016.
9. Suchada Gerdmongkolgan, Som Ekchaloenkiet, Kingkan Jonsukkai, et al. A survey on swimming ability of children of MOPH officials (unpublished). Bureau of Non-Communicable Diseases, Department of Disease Control, Ministry of Public Health, 2013.
10. Suchada Gerdmongkolgan, Som Ekchaloenkiet, Kingkan Jonsukkai, et al. Evaluation of child drowning prevention operations. "Child Drowning Vaccine Project". Bureau of Non-Communicable Diseases, Department of Disease Control, Ministry of Public Health, 2013.
11. Suchada Gerdmongkolgan, Som Ekchaloenkiet, Kingkan Jonsukkai, et al. A survey on lifejacket used in Thailand. Bureau of Non-Communicable Diseases, Department of Disease Control, Ministry of Public Health, 2015.

12. Adisak Plitponkanpim. Child drowning and prevention [Online], Available form: www.csip.org [Accessed 2007 Nov 10].
13. Suchada Gerdmongkolgan, Som Ekchaloenkiet, et al. Guidelines of Merit Maker for Drowning Prevention 2016. Bangkok: Ramthai press; 2016.
14. Preventing drowning: an implementation guide. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.
15. Bureau of Non-Communicable Diseases. Preventing drowning: an implementation guide (Thai language). Nonthaburi, Thailand; 2018.
16. Suchada Gerdmongkolgan, Som Ekchaloenkiet, et al. Guidelines of Merit Maker for Drowning Prevention 2017. Bangkok: Ramthai press; 2560.
17. Bureau of Non-Communicable Diseases. 1st step of Merit Maker: Drowning Prevention. Bangkok: Ramthai press; 2015.
18. Bureau of Non-Communicable Diseases. 2nd step of Merit Maker: Drowning Prevention. Bangkok: Ramthai press; 2016.
19. Bureau of Non-Communicable Diseases. 1rd step of Merit Maker: Drowning Prevention. Bangkok: Ramthai press; 2017.

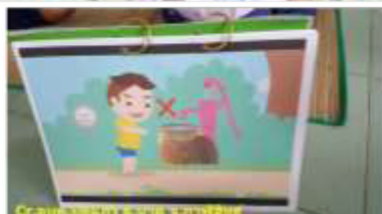
Example photos of Merit Maker operations in local communities (risky water-body management)



Example photos of Merit Maker operations in local communities (survival swimming training)



Example photos of Merit Maker operations in local communities (child development centre operations)



Example photos of Merit Maker operations in local communities (knowledge dissemination)



Example photos of Merit Maker operations in local communities (public communications)





MERIT MAKER



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Note:

Department of Disease Control restructured its organization in 2019 by separating the tasks related to Injury, including drowning prevention, from the Bureau of Non-communicable Disease and established the Division of Injury Prevention.

