



Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

JUL 25 2018

ADMINISTRATIVE ORDER
No. 2018- 0021

SUBJECT: Guidelines for the Nationwide Implementation of the Enhanced 4S-Strategy against Dengue, Chikungunya and Zika

I. RATIONALE

Dengue continues to cause severe health, social and economic impacts in the country. The fact that dengue is endemic in the 17 regions, 81 provinces, 1,634 municipalities/cities, and 40,086 barangays of the Philippines, and the co-circulation of more than one serotype of dengue in many regions, together with other factors which maybe responsible for an increasing number of severe forms of the disease.

From 2011 to 2015, there was a sixty-nine (69%) percent increase in cases. However, there was a forty-two (42%) percent decrease in the dengue case fatality rate. In addition, almost 50% of death cases come from the 5-14-year-old age group, followed by 0-4 year-old with 29%. Nine (9) out of the seventeen (17) regions in the Philippines contributes 80% of the dengue cases in 2011-2015. It is in 2011, that Department Memorandum 2011-0235 "Immediate Nationwide Implementation of Aksyon Barangay Kontra Dengue (ABKD)" was issued and disseminated where in 4S (Search and destroy breeding sites; Seek early consultation; Self-protection; and Say yes to fogging only in hotspot areas where increase in cases is registered for two consecutive weeks) was implemented as a standard message (or as a communication strategy).

Although there has been progress for some regions in the prevention and control under the proposed 2013-2016 Dengue Prevention and Control Midterm Strategic Plan, the burden of dengue in the country continues to increase. Several factors conducive to disease transmission continue to prevail and even worsen due to rapid economic growth, unplanned urbanization and possibly, climate change. Another challenge is the emergence of other arboviral diseases in the country such as Chikungunya and Zika, which share similar risk factors.

The current dengue situation warrants a shift from focusing primarily on attempting to contain outbreaks to taking steps to reduce the impact in communities. The unprecedented spread of Dengue and Chikungunya viruses and the outbreaks of Zika virus disease in 2015-2016 brought the huge challenge in the country that is why enhancing the 4S from just a standard communication to a strategy that embodies the framework of actions in the prevention of Dengue, Chikungunya and Zika needs to be established. Furthermore, greater efforts are required to strengthen the response to these *Aedes*-borne Viral Diseases present in the country requiring increased collaboration and coordination within and beyond the health sector.

AMENDED by

No. 2018-0021-A
Date December 7, 2018
Posted on/by: Dec. 10, 2018/m

II. OBJECTIVE

This issuance shall provide guidelines in the nationwide implementation of the enhanced 4S-strategy against Dengue, Chikungunya and Zika.

III. SCOPE

This issuance shall apply to:

1. DOH
 - a. Central Office & Regional Offices
 - b. DOH Hospitals
 - c. Accredited Treatment & Rehabilitation Centers
 - d. Attached agencies & other facilities under the administrative jurisdiction of the DOH
2. DOH – ARMM
3. Local Government Units
4. Government and Non-Government Organizations
5. Public and Private Hospitals
6. Private Sectors

IV. DEFINITION OF TERMS

1. **Aksyon Barangay Kontra Dengue (ABKD)** – nationwide campaign for massive clean-up drive starting from the barangay level to mobilize all sectors concerned in reducing dengue morbidity and mortality.
2. **Dengue Fast Lane** – established system in prioritizing dengue patients in different health facilities by administering efficient and prompt case management during dengue season.
3. **Essential containers** – any water-holding container/area wherein it cannot be destroyed/eliminated but may serve as *Aedes* breeding sites.
4. **Food and Drug Administration (FDA)** - (Formerly Bureau of Food and Drugs) was created under the Department of Health to license, monitor, and regulate the flow of food, drugs, cosmetics, medical devices, products and household hazardous waste in the Philippines.
5. **Impending Outbreak** – number of cases in at least one week exceeds 2 standard deviations of the five-year weekly mean number of cases in a particular *barangay*.
6. **Key containers** – type of water holding containers where most *Aedes* breeding sites produce high numbers of larvae and/or pupae even though they are uncommon.
7. **Non-essential containers** – objects considered as trash/rubbish that could collect water and serve as *Aedes* breeding sites.

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8. **Rapid Diagnostic Test (RDT)** – a collection of reagents and other materials for in-vitro diagnostics intended for the detection of either antigen or antibody from clinical samples, usually blood within a shorter period.
9. **Spatial Repellents** – is the general term used to describe delivery formats such as coils, mats and passive emanators which release vaporized chemical actives capable of affecting mosquito behaviour at a distance. Most vapour chemical actives also knock down, kill or inhibit feeding of mosquitoes.
10. **Targeted Residual Spraying** – application of chemical insecticides on walls and other surfaces targeting *Aedes* mosquitoes resting sites inside (Targeted Indoor Residual Spraying or TIRS) and nearby outdoor areas (Targeted Outdoor Residual Spraying or TORS).
11. **World Health Organization Pre-Qualification Team (WHO-PQT)** – WHO Programme which serves as reference for setting norms and standards for public health pesticides and its life-cycle management.

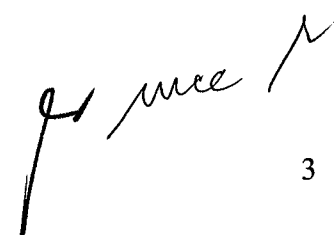
V. GENERAL GUIDELINES

1. The “Enhanced 4S” shall be implemented as a prevention and control strategy against *Aedes*-borne diseases specifically Dengue, Chikungunya and Zika in congruent to the global vector response 2017 of the World Health Organization.
2. The “Enhanced 4S” strategy shall constitute the framework of actions towards sustained reduction of mosquito population, decrease incidence of Dengue, Chikungunya and Zika and prevent deaths from Dengue, Chikungunya and Zika.
3. The 4S in the “Enhanced 4S” strategy stands for; Search and destroy breeding sites; Seek early consultation; Self-protection; and Say yes to fogging only in hotspot areas where increase in cases is registered for two consecutive weeks

VI. SPECIFIC GUIDELINES

1. Search and destroy mosquito breeding sites:

- 1.1 Vector control measures shall be implemented through the coordinated and integrated efforts of the local government units (LGUs) and other stakeholders.
- 1.2 LGUs and other stakeholders shall conduct massive campaign to eliminate key containers and non-essential containers and to manage essential containers and all stagnant water.
- 1.3 The “4 o’clock habit” shall be practiced daily at 4 o’clock in the afternoon. All communities shall search for all water-holding containers and other breeding sites of mosquitoes to be destroyed. In case of water-holding container/areas (including tree holes or plants) that cannot be destroyed/eliminated (i.e. essential container), breeding of mosquito sites shall be prevented by putting cover/lid and/or backfilling or the application of biological/chemical larvicides. Members



of the community both in the public and private sector shall conduct measures to prevent water stagnation at all times.

1.3.1 To monitor and evaluate the “4 o’clock habit”, Ovi-Larval Traps shall be used to validate the absence of mosquitoes and the reduction of mosquito population.

1.4 LGUs shall pass and implement appropriate legislations to institutionalize this “S” (search and destroy mosquito breeding sites) in the locality including the:

1.4.1 Inter-sectoral approaches and community mobilization for year-round source reduction.

1.4.2 Establishment of a public health workforce/team for vector surveillance, risk assessment and response. The public health workforce/team shall draw data from vector surveillance to guide the selection of appropriate vector control interventions to be implemented in a particular barangay/municipality/city.

1.4.3 Funding all activities under this “S” (- search and destroy breeding site).

2. **Secure self-protection:**

Securing self-protection from the bite of mosquitoes shall be facilitated by:

2.1 Use of light-colored clothing and long-sleeves top, long pants and socks during daytime (in areas such as school, workplace, etc.).

2.2 Application of insect repellent (with DEET also known as N,N-diethyl-3-methylbenzamide as active ingredient) on uncovered skin.

2.3 Use of screen door and windows or insecticide-treated screens/curtains for doors and windows (at least full WHO-PQT-certified and FDA-registered) as physical barrier and chemical intervention.

2.4 Use of spatial repellents which release vaporized chemical actives capable of affecting mosquito behavior at a distance. Most vapor chemical actives also knock down, kill or inhibit feeding of mosquitoes.

3. **Seek early consultation:**

Early clinical case detection, diagnosis and management are key factors in reducing dengue morbidity & mortality and shall be facilitated by:

3.1 Encouraging early treatment seeking behavior.

3.2 Reiteration of the AO No. 2016-0043: Guidelines for the Nationwide Implementation of the Dengue Rapid Diagnostic Test (RDT) for early detection of the disease.

3.3 Reiteration and implementation of the AO No. 2012-0006: Revised Dengue Clinical Case Management Guidelines 2011 and case referral.

3.4 Conduct of systematic mortality review as needed.

3.5 Monitor changes in the distribution of dengue cases geographically over time.

3.6 Making sure that dengue fast lanes are established in all hospitals and are functional.

4. Support fogging/spraying only in hotspot areas where increase in cases is registered for two consecutive weeks to prevent an impending outbreak:

Space spray, technically a fog (sometimes referred to as an aerosol) is applied mainly as thermal fog or cold fog.

4.1 The objective of space spraying is the massive, rapid destruction of the adult vector population. Space spraying is recommended to prevent an impending outbreak.

4.1.1 Space spraying either thermal fogging or cold fogging (coupled with clean-up drive and 'search and destroy' of breeding sites of mosquitoes) should be conducted using the right insecticides (WHO-PQT- and FDA-approved and at least tested locally for biological efficacy within 5 years upon purchase), right dilution, right method of application, right timing, conducting it using right personal protective equipment (PPE), and proper community preparation. Fogging/Misting operations must be done for 4 cycles and at least 7 days interval per cycle.

Residual spraying is the application of long-acting chemical insecticides on targeted areas of all houses and domestic animal shelters in a given area in order to kill the adult vector mosquitoes that land and rest on these surfaces. It is a perifocal treatment that has both adulticiding and larviciding effects.

4.2 The objective of Targeted Residual Spraying is to reduce the intra-domiciliary and peri-domestic mosquito infestation.

4.2.1 Targeted Residual Spraying is the application of chemical insecticides on walls and other surfaces targeting *Aedes* mosquitoes resting sites inside enclosed spaces (Targeted Indoor Residual Spraying or TIRS) and nearby outdoor areas (Targeted Outdoor Residual Spraying or TORS).

4.2.1.1 Targeted Indoor Residual Spraying (TIRS) shall be conducted for at least 2-3 times a year.

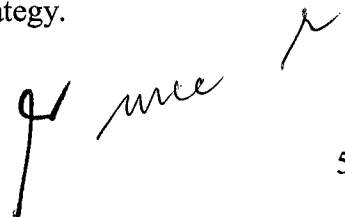
4.2.1.2 Targeted Outdoor Residual Spraying (TORS) shall be conducted as a supplemental control for adult mosquitoes may be done for 2-3 times in a year.

VII. ROLES AND RESPONSIBILITIES

1. Disease Prevention and Control Bureau (DPCB) - Infectious Disease Prevention and Control Division (IDPCD)

1.1 Develop policies and guidelines for the implementation of the Enhanced 4S-strategy.

1.2 Provision of capacity building, technical assistance, and systems strengthening to ensure the implementation of the Enhanced 4S-strategy.

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- 1.3 Budget/ logistical support.
 - 1.4 Coordinate, collaborate, networking with key agencies in the implementation, monitoring and evaluation.
 - 1.5 Monitor and evaluate the nationwide implementation of Enhanced 4S- strategy.
2. **Epidemiology Bureau**
- 2.1 Maintain a case surveillance database through PIDSR.
 - 2.2 Evaluate reports and provides strategic information to the Program under the Infectious Disease Prevention and Control Division of the DPCB on a regular basis and additional data as needed.
3. **Research Institute for Tropical Medicine (RITM)** - serves as a National Reference Laboratory for *Aedes*- Borne Viral Diseases for both entomology and virology. It shall monitor and evaluate the nationwide implementation of Enhanced 4S Strategy.
- A. Entomology Department**
- 3.1 Leads in the mapping and establishment of strategic sentinel sites for vector surveillance.
 - 3.2 Establish and maintain a repository of vector surveillance data.
 - 3.3 Provide technical capacity and technical support to the regional entomologists.
 - 3.4 Provide technical advice, support, and information to program in terms of vector control interventions.
 - 3.5 Regularly analyses entomological data and report to the Program under the Infectious Disease Prevention and Control Division of the DPCB.
 - 3.6 Provision of technical and logistical assistance for the implementation of Enhanced 4S strategy.
- B. Virology Department**
- 3.7 Maintain existing and expand sentinel sites for *Aedes*-Borne Viral Diseases laboratory surveillance.
 - 3.8 Provide technical capacity and technical support
 - 3.9 Regularly analyses virology data and report to the Program under the Infectious Disease Prevention and Control Division of the DPCB.
4. **Health Promotions and Communication Services (HPCS)**
- 4.1 Develop advocacy and communication plan and disseminate for implementation.
 - 4.2 Develop and produce prototype materials in various platforms.
 - 4.3 Regularly evaluate campaigns used in the implementation of the Enhanced 4S- strategy.
 - 4.4 Co-lead in the conduct of campaign related to the Enhanced 4S.
 - 4.5 Provide technical support to the regional HEPOs.
5. **DOH Regional Offices and DOH-ARMM**
- 5.1 Formulate regional action plan to ensure the implementation of the enhanced 4S strategy.
 - 5.2 Provide technical assistance and augmentation of needed logistical requirement for implementing the Enhanced 4S-strategy.
 - 5.3 Coordinate and collaborate with RITM for entomological and virological activities.

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- 5.4 Monitor and evaluate the implementation of the Enhanced 4S-strategy.
- 5.5 Regularly analyze data and submit report to the Program of the Infectious Disease Prevention and Control Division.
6. **DOH Hospitals**
 - 6.1 Maintain a functional Dengue Fast Lane to serve all dengue cases and manage them in accordance to the AO No. 2012-0006: Revised Dengue Clinical Case Management Guidelines 2011.
 - 6.2 Support the Program in the provision of technical support on the aspect of clinical management.
 - 6.3 Coordinate with their DOH regional offices in the implementation of the Enhanced 4S-strategy.
7. **Provincial Local Government Units (PLGU)**
 - 7.1 Ensure the adoption and the implementation of this Administrative Order.
 - 7.2 Collaborate with the various stakeholders in the province for implementation of this Administrative Order.
 - 7.3 Implement appropriate legislation (e.g provincial ordinance) to institutionalized the implementation of the Enhanced 4S-strategy.
 - 7.4 Mobilize resources for the implementation of the Enhanced 4S-strategy.
 - 7.5 Provide technical assistance to the municipality/city in the implementation of the enhanced 4S-strategy.
 - 7.6 Monitor and evaluate the Enhanced 4S implementation.
 - 7.7 Coordinate with the DOH for needed technical assistance in the implementation of the Enhanced-4S.
 - 7.8 Regularly analyze data and submit report to the DOH regional office.
8. **Municipal/City Local Government Units (M/C LGU)**
 - 8.1 Ensure the adoption and the implementation of this Administrative Order.
 - 8.2 Collaborate with the various stakeholders in the municipality or city for implementation of this Administrative Order.
 - 8.3 Implement appropriate legislation (e.g municipal/city ordinance) to institutionalize the implementation of the Enhanced 4S-strategy.
 - 8.4 Mobilize resources for the implementation of the Enhanced 4S-strategy.
 - 8.5 Monitor and evaluate the Enhanced 4S implementation.
 - 8.6 Coordinate with the DOH for needed technical assistance in the implementation of the Enhanced-4S.
 - 8.7 Regularly analyze data and submit report to the Provincial Health Office.
9. **Technical Partners and Developmental Partners:**
 - 9.1 Provide technical assistance and other forms of resources to the Program
10. **Other stakeholders** such as but not limited to government agencies, public and private hospitals, other government organizations, non-government organizations, academe, media, private sectors.
 - 10.1 Coordinate and collaborate with the DOH in the implementation of this Administrative Order.
 - 10.2 Ensure the implementation of the Enhanced-4S for the prevention and control of Dengue, Chikungunya and Zika.

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10.3 Advocate and communicate campaign against Dengue, Chikungunya and Zika.

VIII. REPEALING CLAUSE

Provisions from previous and related issuances inconsistent or contrary with the provisions of this Administrative Order are hereby revised, modified, and rescinded accordingly. All other provisions of existing issuances which are not affected by this Administrative Order, still remain valid and in effect.

IX. EFFECTIVITY

This Administrative Order shall take effect immediately upon approval.


FRANCISCO T. DUQUE III, MD, MSc
Secretary of Health