Achievements in 2020 Key priorities for 2021

Climate Chane, Environment and Health

Objective 2 Effective decision-making for health interventions is enabled through generation of information and improved surveillance and/or early warning systems

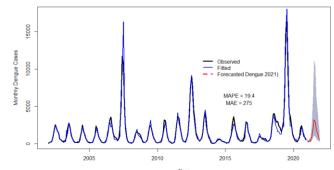
Dr CHAN Vibol, Dengue & NTDs Focal Point NHL&MTD

Forecasts from ARIMA(1,0,2)(0,1,1)[12]

1. Key achievements and lessons learned in 2020

Objective 2: Effective decision-making for health interventions is enabled through generation of information and improved surveillance and/or early warning systems

 MOU on data sharing between MoWRAM and MoH



Forecasted Dengue Burden in 2021

Point estimate: 15179

ORGANISATION MONDIALE DE LA SANTE WORLD HEALTH ORGANIZATION MAKUREN PACIFIC POCKO REGION DE PACIEIDUE OF CIDENEA OFFICE OF THE WHO REPRESENTATIVE IN CAMBRIDA BUREAU DU REPRESENTANT DE L'OMS AU CAMBRIDGER BARL ICOMET \$1305, Sandial Bureng Keng Kang I, Khan Chercler Sn 61-64, Prest Spredeca Bod

to crysty please order to: CAM/HAB Private de réporter la célécier et

13 March 2020

His Excellency Professor Eng Hust Secretary of State Ministry of Hosith Phase Penh

Excelliency

Subject: Request for phoring available Climatic and Meteorological Data from the Ministry of Water Resource and Meteorology for the surveillance and Rarly Waxaing Eystem on Dengue

The Global Environment Facility (GTP) project "Suifting "cat('anno of enable hystoms in failur LFGs to Clistle Change," is being implemented by the Ministry of Health (MAG) and MHO gince July 2019, the of the three with outcomes is:

Quitoome 2: Effective decision making for health interventions is eached through generation of intermetion and incroved surveillance and/or softy verning System.

Within this Cutcome outlines the identification of information staring wechnicss of the meteorological and hydrological data between the Metiocal Dengue Centrol Program of the NeW and Las Department of Meteorology and Department of Hydrology and Alver while of Lee Ministry of Maler Resources and Meteorology, including,

- maximum and minimum temperatures
- average incremental changes · climatic variables related to suisfully, floads and
- extreme precipitation incidence of large-scale phenomena (e.g. 2850 El Fiño)

The climatic data will forther support the MoD to develop an Early Herris- System and rolated moderline of county (rvs), and mutanow have Dowestion, Preparateses and Reporter Activities for climato colovent disocsto score as Despute Activities for early project as exposited serval liferances. Hereing an end of project and a support despute liferance. Hereing are of provide to the state of the state of the state of the state of climato sympe and herein envelopment of the Resentive Medicine Deparatesia to the Medi.

Co: Dr Kol Hero, Divector of Preventive Medicine Department

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รูกะกอ้าณภาธรุกกษอ้า ខាតិ សាសនា គ្នោះមហាតុត្រ 2**

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ដ្ហេមន្ត្រីក្រសួចសុខាអិបាល ពោរពជន ឯកទ្ធត្តមខ្លេមន្ត្រីក្រសូទនឧតរឧត័គ និទទ្ធគុនិយម

សំណើសុំផ្តល់ទិន្នន័យជាគុអាកាស អាកាសធាតុសម្រាប់ប្រើប្រាស់ក្នុងការតាមដាន និងប្រកាស កម្មទត្ត៖ អាសនជាមនជំងឺគេនឈាម។

សេចក្តីដូចមានចែងក្នុងកម្មវត្ថុខាងលើ ខ្ញុំសូមគោរពជម្រាបជូន**ឯអន្វត្តមះជួមផ្ត្រំ** មេត្តាជ្រាបថា ក្រសួងសុខាភិបាល តាមរយៈនាយកដ្ឋានការពារសុខភាព និងកិច្ចសហការជាមួយអង្គការសុខភាពពិភពលោក បាននិងកំពុងអនុវត្តន៍គម្រោង ពង្រឹងភាពធន់ប្រព័ន្ធសុខាភិបាលក្នុងបណ្តាប្រទេសអាស៊ីអាគ្នេយ៍ ដែលមានការ អភិវឌ្ឍតិច ទៅនឹងការប្រែប្រលអាកាសជាត (Building Resilience of Health System in Asian LDCs to Climate Change)។ ក្នុងការអនុវត្តគម្រោងនេះ ក្រសួងសុខាភិបាលមានតម្រូវការចាំបាច់នូវទិន្នន័យជាតុអាកាស អាកាសធាតុ ដើម្បីប្រើប្រាស់ក្នុងការតាមដាន និងប្រកាសអាសន្នជាមុនជំងឺគ្រនឈាម។ ទិន្នន័យធាតុអាកាស អាកាស ធាតុសំខាន់១ ដែលត្រវស្នើសុំ រួមមានរបបទីកញ្លៀង សំណើមបរិយាកាស ស័តុណូភាពបរិយាកាស ចំនួនភ្លៀងប្រចាំឆ្នាំ ពេញខ្មែរ តាមខេត។

អាស្រ័យហេតុនេះ សូមឯកទទួកខេះខ្លួមខ្លើមន្ត្រី មេត្តាផ្តល់ទិន្នន័យជាតុអាកាស អាកាសធាតុ ដូចបានរៀបរាប់ ខាងលើតាមការផ្ទា

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៩រត់ សាសនា ព្រះមហាត្យត្រ soso traca

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អាស្រ័យហេតុដូចបានជម្រាបជូនខាងលើ សូមឯកឧត្តមរដ្ឋមន្ត្រីមេត្តាតិនិត្យ និងសម្រេច តាមការគួរ

សូមឯកឧត្តមរដ្ឋមន្ត្រី ទទួលនូវការរាប់អានដំស្មោះត័ន្នំ ។🗲 🖗 🛣 sacts : - ថ្នាក់ដឹកនាំក្រសួងធនធានទឹក និងឧត្តន័យម អត្ថានិការ - ពុទ្ធកាល័យឯកឧត្តមរដ្ឋមន្ត្រី នាយកដ្ឋានឧតុន័យម



«អាការលេខៈ ៣៦៤ មហាវិថី ព្រមមុធិវង្ស សង្កាត់ ផ្សារដើមថ្កូវ ខណ្ឌ ទំការមន រាជជាដីភ្នំពេញ ទូរស័ព្ទលេខៈ (៨៩៩)២៣ ២១៦ ៦៨៩

Lower limit: 5856 Upper limit: 47829 Mean Absolute Percentage Error (MAPE): 19.4%) Mean Absolute Error (MAE): 275 Dengue burden may increase by 27% in 2021 compared to that in 2020

Spectral Analysis: Outbreak cycle is 5 years

Key achievements (CDC/MoH)

- Training workshop on Mapping Surveillance Stakeholders and Presenting case definitions and surveillance indicators for Diarrheal
- 45 of RRT/Health care providers from Phnom Penh were training on diarrhea report







Key achievements (CDC/MoH)

- Two training for health-care providers on reporting surveillance indicators for Diarrheal and COVID-19 prevention and control measures
- 90 Health professional staffs from health centers and districts referral hospitals from (13 provinces) were trained on diarrhea reporting

H.E.Dr Ly Sovann, Director of Communicable Disease Control (CDC /MoH) joined the opening for all the training



Key achievements (NDCP/CNM/MoH)

 Developed rapid diagnostic test usage guidelines

(Strengthening dengue diagnostic: 2,300 tests were provided during the outbreak in 2019, but there were no clear instruction)

Dr Huy Rekol, Director of National Center for Parasitology, Entomology and Malaria Control (CNM) and **Dr. Leang Rithea**, Dengue Program manager (NDCP/CNM) joined the opening for the workshop.



KINGDOM OF CAMBODIA



Ministry of Health

Rapid Diagnostic Test Usage Guidelines (RDTUG)

2020



National Centre for Parasitology, Entomology and Malaria Control

Key achievements (NDCP/CNM/MoH)

- Training on reporting at new sentinel sites and Develop SOP for a rapid response plan integrated with the dengue surveillance system and the early warning system
- There were 70 participants from 21 different provinces (Dengue Supervisors, Data Entry, Nurses, and Laboratories from each province).

Dr. Leang Rithea, Dengue Program manager (NDCP/CNM) joined and facilitated for the training

KINGDOM OF CAMBODIA Ministry of Health



SOP for Dengue Surveillance in Cambodia

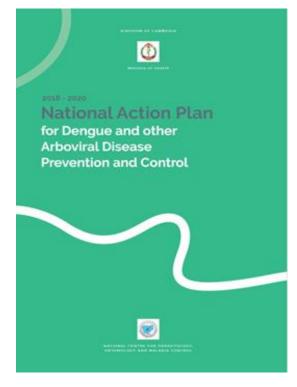


National Centre for Parasitology, Entomology and Malaria Control



Key achievements (NDCP/CNM/MoH)

- Training on reporting at new sentinel sites and SOP for a rapid response plan integrated with the dengue surveillance system and the early warning system
- The SOP for the dengue surveillance was developed, the dengue sentinel surveillance sites were expanded to another five new sentinel sites in addition to the existing five sentinel sites, which will improve the accuracy and generalizability of the surveillance system and provide a good foundation of the climate informed early warning system implementation.



List of Dengue Sentinel Sites in Cambodia Old dengue sentinels:

- 1. Siem Reap
- 2. Takeo
- 3. Kampong Cham
- 4. Battambang
- 5. Kampot

New Dengue Sentinels Sites selected in 2020:

- 6. Kampong Thom
- 7. Kampong Chhnang
- 8. Kratie
- 9. Tbong Khmom
- 10. Preveng

Propose New Dengue Sentinels Sites in 2021:

- 11. Pailin
- 12. Banteay Meanchey
- 13. Ratanakiri
- 14. Phrea Vihea
- 15. Svay Rieng

2.3 Develop a strong disease surveillance and outbreak response plan (**Sentinel Surveillance Sites**)

The disease surveillance system will be enhanced with development of an operational guide and establishment of an online hospital based notification system in 10 selected Provinces to regularly send out of disease outbreak alerts. To expedite and streamline the activities staff will be recruited on locum basis.

Lessons learnt and Recommendations

Successful approach

- National Program Focal Point competent and committed
- Excellent coordination, collaboration and interaction with Dengue National Program
- Excellent technical support from RO, MTD and strategic collaboration with WHE/HIM Programs
- The rapid diagnostic test usage guidelines were developed on time
- Develop capacity of medical professionals and supportive staff at national level
- Develop a strong disease surveillance and outbreak response system

2. Key Priorities for 2021

Objective 2: Effective decision-making for health interventions is enabled through generation of information and improved surveillance and/or early warning systems

- Continue strengthening and monitoring on improvement of diarrheal disease surveillance
- Build data analysis capacity for provincial dengue supervisors
- Continue monitoring on standard operating procedures of dengue sentinel surveillance
- Continue strengthening and following up on expansion plan and select new sentinel sites.