Domestic Health Visitors to improve access to care for people with epilepsy in Lao PDR (DHeVELoP)


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Vientiane, Lao PDR

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University of Limoges, France

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Vientiane, Lao PDR

Access to Medicines department - Sanofi
Paris, France

Swiss Tropical and Public Health Institute
Basel, Switzerland
Epilepsy in Lao PDR:

• Prevalence: 7.7‰, around 50 000 PWEs estimated

• Treatment gap > 90%  
  (Number of PWE not receiving the appropriate treatment)

• Misbeliefs: epilepsy is a communicable disease by saliva

• Low availability of antiepileptic drug (AED):  
  - Available in only 53% pharmacies in Vientiane  
  -Annual quota of raw material can provide the treatment for only 680 PWEs

• Poor knowledge on epilepsy of health worker:  
  - 82% of physicians do not know the duration of AED treatment
Access to treatment for PWE initiative in Laos (Barennes et al, 2008)

1) Advocacy and awareness
2) Epilepsy clinics: Outpatient Departments (OPD)
3) Training of health staff
4) Local availability of antiepileptic drugs (AED)
5) Research

Launched in 2009
IFMT and partners (IENT, Swiss TPH and Sanofi) conducted research on epilepsy in Lao PDR till several years.

The results highlighted the challenges related to this neurological disorder in Lao PDR.

Strategy to improve access to treatment for PWE in Lao PDR:

- Increase availability of drugs
- Increase access to diagnosis of PWE
- Ensure affordability of drugs
- Increase the compliance to treatment
- Reduce stigma
Main:
To test the effectiveness of domestic health visitors (primary healthcare staff) to improve access to diagnosis, treatment and management of people living with epilepsy.

Specific:
1. To evaluate the efficiency of PHC staff to identify PWE and ensure their treatment
2. To reduce the physical, social, personal, family, and economic burden of epilepsy
   (to reduce treatment gap, stigma, fatality rate, and to increase compliance to treatment, and personal and family incomes)
3. To improve the social and public environment of PWE
Base-line KAP (general population, PWE and family members)

IEC Tools available  \( \rightarrow \) Short training  \( \rightarrow \) AEDs available

Sangthong + Naxaythong

Estimate number of PWE treated T0

no intervention

Estimate number of PWE treated (T0 + 18 months)

Pakgnum

Long training for DHV
Information in community
Treatment in villages
Microfranchisee

Final-line KAP (general population, PWE and family members)
• **Information Education and Communication Campaign**
  – Target population: Community
  – Public meetings conducted by DHVs

• **Identification of suspected cases of epilepsy by DHV:**
  – Target population: PWE
  – Location: villages covered by the health centre
  – Method: key informant interview
  – Confirmation and prescription of PWE by medical doctor and neurologists

• **Follow-up:**
  – Home/community delivery of AED by DHV every months
  – Neurologist’s support by mobile phone

• **Micro-franchisee:**
  – Target population: PWE + family
  – Health improvement
  – Information in the public area of the village
Study site: intervention district

PAK-NGUM (district d'intervention)
53 434 habitants - 411 épileptiques attendus

Les personnels de santé vont dans les villages informer sur l'épilepsie, identifient les cas suspects, assurent le suivi et livrent les traitements à domicile.
Study site: control districts

DHEVELOP

Districts contrôle du programme DHEVELOP

SANGTHONG 28 727 habitants - 221 épileptiques attendus
NAXAITHONG 69 244 habitants - 533 épileptiques attendus

Les épileptiques doivent se rendre dans les centres de soins de proximité souvent à plusieurs km de leurs villages.

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Zones résidentielles

centre de soins
Hôpital de district

Rivière
Lac
Circulation facile
Circulation perturbée pendant la pluie
Circulation difficile

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0 5 km
Preliminary results
1) Baseline evaluation KAP on general population, PWE and family member

During may 2014 – 4 interviewers

138 villagers
32 PWE known
64 family members
in control zone

2 PWE not found
5 PWEs excluded
2 PWEs died
2 PWEs moved

150 villagers interviewed
23 PWE interviewed
35 family members interviewed

138 villagers
23 PWE known
46 family members
in intervention zone

1 PWE not found
7 PWEs excluded
1 PWE died
2 PWEs moved

150 villagers interviewed
12 PWE interviewed
15 family members interviewed
2) Mass media and information Education Communication (IEC) tools

✓ Design adapted to the local context
✓ IEC tools now available
  1) Poster
  2) Brochure
  3) Quizz
  4) Cartoon
  5) Flipchart
  6) Follow-up book
Support of **3 antiepileptic drugs (AED) through revolving drug funds** at district hospital in the three districts:

Imported and now available:
1. Sodium valproate
2. Phenobarbitone
3. Phenytoin

**Distribution:**

- Every two months from centre to district
- Amount of AED depends on number of PWE treated at district hospitals and health centres
4) Training on epilepsy:

1) **Short training: 3 days**
   - Participants: Health worker of three districts

2) **Long training: September 1\textsuperscript{st} - October 10\textsuperscript{th} 2014**
   - **Increase basic knowledge on epilepsy, required for tasks of DHVs**
     - Participants: Health worker of intervention district
     - **Modules:**
       - Basic knowledge on epilepsy (9h)
       - DHV missions (tasks) (20h)
       - Practical work with real patients and case discussions (25h)
       - Training on screening and data collection tools (12h)
       - Technical counselling (3h)
Work plan of DHVs in area of competence

Between
November 2014 and April 2016

One visit/village/month
Public meeting IEC / contact key informant
Identification suspected cases
Diagnosis at district hospital
Follow-up and delivery AEDs at home

<table>
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<tr>
<th>id map</th>
<th>PHC place</th>
<th>n DHV</th>
<th>n villages</th>
<th>Total population</th>
<th>n PWE expected</th>
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Visit of Sanofi’s delegation (October 4, 2014)

Ministry of Health

District hospital

Public meeting

Demonstration of DHV
Next steps

January 2015

• **Program of microfranchise**
  (requires PWE under treatment since 3 months)

Between now and June 2016

• **Continuous recording of program indicators**
  during 18 months

• **Final evaluation KAP** April–May 2016.
  • on general population
  • PWE and family member
  • PHC staff

• **Analysis of effectiveness of intervention** Follow-up with TOC, lastly
  *Epidemiological approach [control / intervention]*
  • Clinical (Report *efficiency on access to care for PWE*)
  • Public Heath (Report *evolution of KAP, knowledge and skills for epilepsy in system of care and general population*)

• **Cost effectiveness approach** Follow-up with TOC, lastly
  Report of socioeconomical impacts…
  • capacities for a scaling-up?
Expected results

 ✓ Reduce the treatment gap by 25%
   (Number of PWE treated in PHC per number of PWE estimated)

 ✓ 70% of PWE adherent to their treatment
   (Evaluation by Morisky scale)

 ✓ 60% of PWE, their families and the communities with positive knowledge, attitudes and practices

 ✓ 80% in knowledge and skills among DHVs

 ✓ Reduce by 60% the stigma regarding epilepsy among PWE, their families and the communities
   (Evaluation by Jacoby scale)
Conclusion

- Epilepsy is a public health problem
  - > 51,000 PWEs in Lao PDR

- There is a physical, psychological and social impact on PWE and their families (households)

- This is the first intervention study in Laos:
  - to reduce the epilepsy treatment gap
  - to increase access and compliance to treatment

- Criteria of effectiveness of this intervention:
  - DHV: improved skills and knowledge
  - PWE: more PWE treated, better compliance
  - Family: increased income, reduced stigma
  - Community: improved KAP
Acknowledgements

- Lao central and regional health authorities
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- Organizer of the meeting IMPACT EPILEPSY