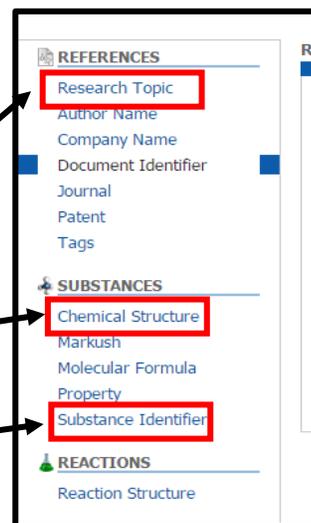


**What is SciFinder?** A comprehensive and authoritative database created by the Chemical Abstracts Service (CAS) for scholarly publications relating to chemistry. It covers biomedical science, chemistry, engineering, materials science and agricultural science.

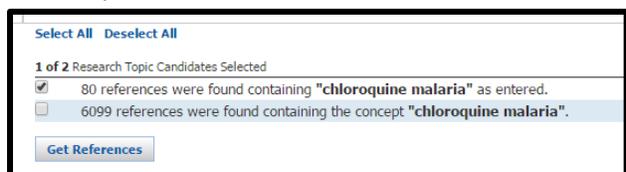
**How to access SciFinder:** Click SciFinder link on [the ENV 470 guide](http://the ENV 470 guide) (bit.ly/ENV470). **Before using SciFinder, you need to register for an individual account** (bit.ly/OU\_SciFinder\_reg). *When registering, use your OU email address!*

### How to Search SciFinder

1. If you're searching on a specific topic, **search by Research Topic** (under References).
2. If you have a chemical structure, **search by Chemical Structure** (under Substances). You can also **search by reaction** using this method.
3. If you have a chemical name, trade name or CAS number, **search by Substance Identifier** (under Substances). You can also **search by reaction** using this method.

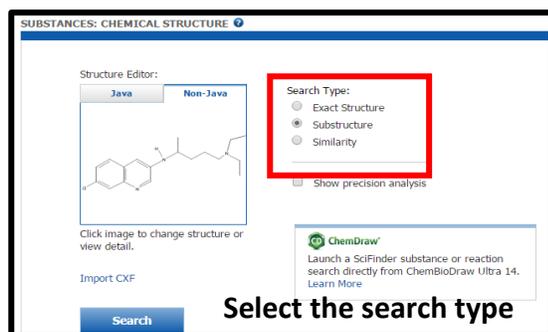
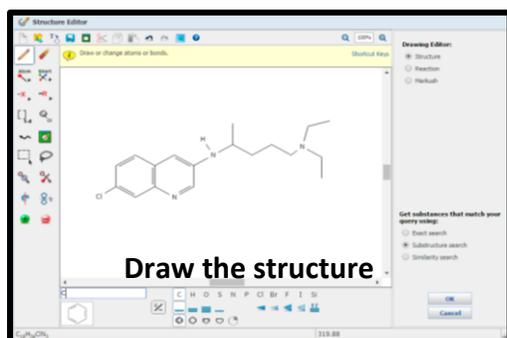


**Search by Research Topic:** type your research topic in the search box (example: chloroquine malaria)



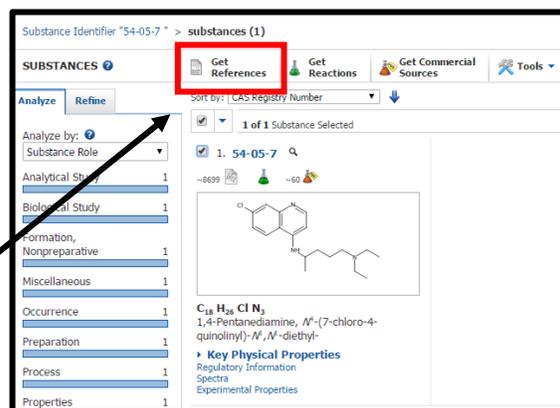
Select the top option of references containing your research topic; click 'Get References'

**Search by Chemical Structure:** click on the drawing pane image and draw the structure. Select the Search Type: exact structure, substructure or similarity (similar compounds with a different arrangement of atoms). On the results page, check the box next to the correct structure and click 'Get References' (on the top toolbar).



## Search by Substance Identifier

Type one or more for the same chemical into the search box: chemical name, trade name or CAS number. (example: chloroquine [chemical name], Arlen [trade name], 54-05-7 [CAS number]) Avoid using complicated, systematic names. On the results page, check the box next to the correct structure and click 'Get References' (on the top toolbar).



Substance Identifier "54-05-7" > substances (1)

Get References Get Reactions Get Commercial Sources Tools

Sort by: CAS Registry Number

1 of 1 Substance Selected

1. 54-05-7

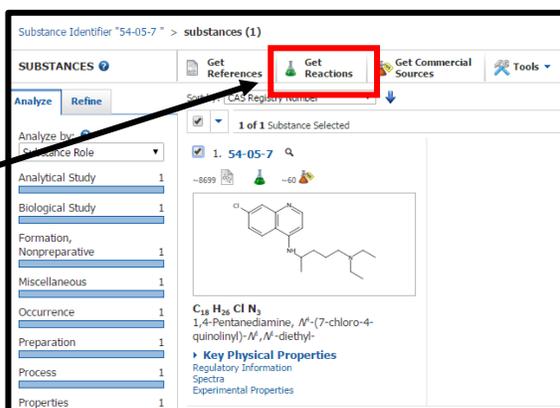
CCN(CC)C1=CC=C2C(=C1)N=CN=C2Cl

**C<sub>18</sub> H<sub>26</sub> Cl N<sub>3</sub>**  
 1,4-Pentanediamine, N<sup>+</sup>-(7-chloro-4-quinolinyl)-N',N'-diethyl-

Key Physical Properties  
 Regulatory Information  
 Spectra  
 Experimental Properties

## Search by reaction

Either draw the structure (using the Chemical Structure feature) or search by Substance Identifier. On the results page, check the box next to the correct structure and select 'Get Reactions' (green flask icon) on the top toolbar and then select the substance's role in the reaction (product, catalyst, etc.). Click on 'View Reaction Detail' to see more information about the reaction. Select 'Get References' on the top toolbar to see publications with this reaction.



Substance Identifier "54-05-7" > substances (1)

Get References Get Reactions Get Commercial Sources Tools

Sort by: CAS Registry Number

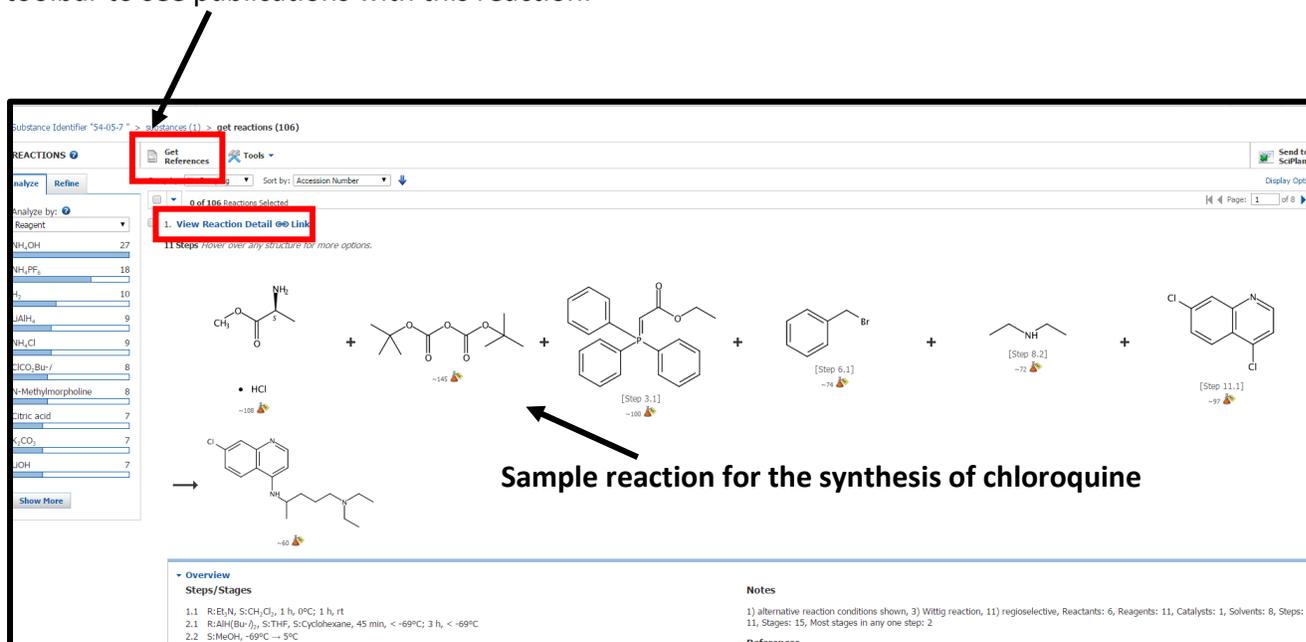
1 of 1 Substance Selected

1. 54-05-7

CCN(CC)C1=CC=C2C(=C1)N=CN=C2Cl

**C<sub>18</sub> H<sub>26</sub> Cl N<sub>3</sub>**  
 1,4-Pentanediamine, N<sup>+</sup>-(7-chloro-4-quinolinyl)-N',N'-diethyl-

Key Physical Properties  
 Regulatory Information  
 Spectra  
 Experimental Properties



Substance Identifier "54-05-7" > substances (1) > get reactions (106)

Get References Tools

Sort by: Accession Number

0 of 106 Reactions Selected

1. View Reaction Detail Link

11 Steps Hover over any structure for more options.

CCN(CC)C1=CC=C2C(=C1)N=CN=C2Cl

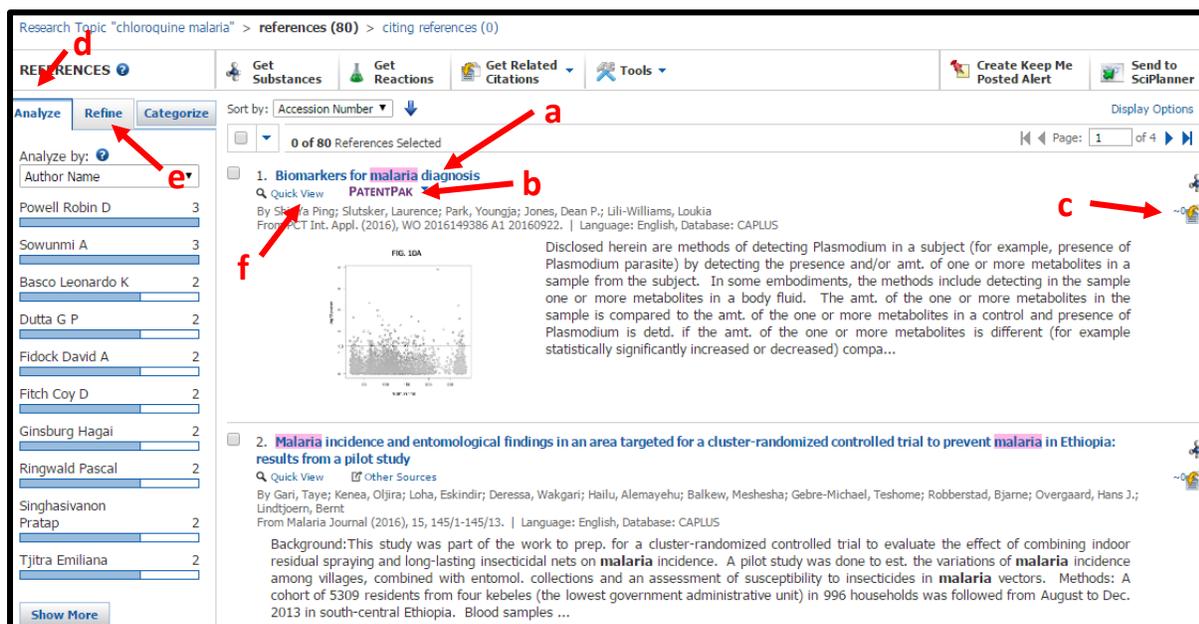
**Sample reaction for the synthesis of chloroquine**

Overview  
 Steps/Stages

1.1 R:Et<sub>3</sub>N, SiCl<sub>4</sub>, 1 h, 0°C; 1 h, rt  
 2.1 R:AlH(Bu)<sub>3</sub>, S:THF, S:Cyclohexane, 45 min, < -69°C; 3 h, < -69°C  
 2.2 S:MeOH, -69°C → 5°C

Notes  
 1) alternative reaction conditions shown, 3) Wittig reaction, 11) regioselective, Reactants: 6, Reagents: 11, Catalysts: 1, Solvents: 8, Steps: 11, Stages: 15, Most stages in any one step: 2

## References page



Research Topic "chloroquine malaria" > references (80) > citing references (0)

REFERENCES

Get Substances Get Reactions Get Related Citations Tools

Create Keep Me Posted Alert Send to SciPlanner

Analyze Refine Categorize

Sort by: Accession Number

0 of 80 References Selected

1. **Biomarkers for malaria diagnosis** **PATENTPAK**

By Shikha Ping; Slutsker, Laurence; Park, Youngja; Jones, Dean P.; Lili-Williams, Loukia  
From PCT Int. Appl. (2016), WO 2016149386 A1 20160922. | Language: English, Database: CAPLUS

FIG. 10A

Disclosed herein are methods of detecting Plasmodium in a subject (for example, presence of Plasmodium parasite) by detecting the presence and/or amt. of one or more metabolites in a sample from the subject. In some embodiments, the methods include detecting in the sample one or more metabolites in a body fluid. The amt. of the one or more metabolites in the sample is compared to the amt. of the one or more metabolites in a control and presence of Plasmodium is detd. if the amt. of the one or more metabolites is different (for example statistically significantly increased or decreased) compa...

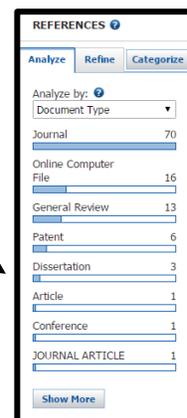
2. **Malaria incidence and entomological findings in an area targeted for a cluster-randomized controlled trial to prevent malaria in Ethiopia: results from a pilot study**

By Gari, Taye; Kenea, Oljira; Loha, Eskindir; Deressa, Wakgari; Hailu, Alemayehu; Balkew, Meshesha; Gebre-Michael, Teshome; Robberstad, Bjarne; Overgaard, Hans J.; Lindtjoern, Bernt  
From Malaria Journal (2016), 15, 145/1-145/13. | Language: English, Database: CAPLUS

Background: This study was part of the work to prep. for a cluster-randomized controlled trial to evaluate the effect of combining indoor residual spraying and long-lasting insecticidal nets on malaria incidence. A pilot study was done to est. the variations of malaria incidence among villages, combined with entomol. collections and an assessment of susceptibility to insecticides in malaria vectors. Methods: A cohort of 5309 residents from four kebeles (the lowest government administrative unit) in 996 households was followed from August to Dec. 2013 in south-central Ethiopia. Blood samples ...

Author list (left sidebar): Powell Robin D (3), Sowunmi A (3), Basco Leonardo K (2), Dutta G P (2), Fidock David A (2), Fitch Coy D (2), Ginsburg Hagai (2), Ringwald Pascal (2), Singhasivanon Pratap (2), Tjitra Emiliana (2)

- Click on the title for more details about the publication
- The purple 'PatentPak' name means that the document is a patent, not a journal article
- Citing references: click this button to find other articles that have cited this article as a reference
- Analyze: gives metrics on various aspects of search results, example: document types
- Refine: narrow down your search results, example: by publication year
- Quick View: view the abstract and substance structures



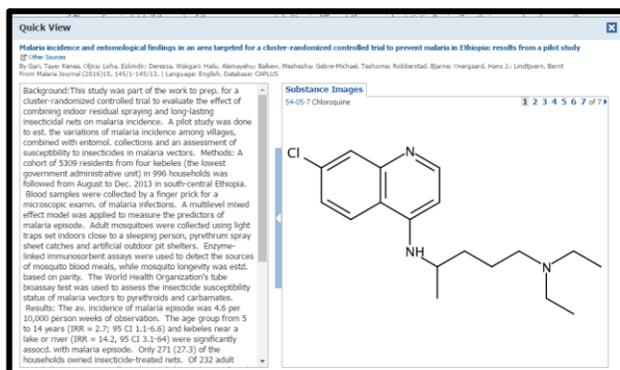
REFERENCES

Analyze Refine Categorize

Analyze by: Document Type

Journal	70
Online Computer	
File	16
General Review	13
Patent	6
Dissertation	3
Article	1
Conference	1
JOURNAL ARTICLE	1

Show More



Quick View

Malaria incidence and entomological findings in an area targeted for a cluster-randomized controlled trial to prevent malaria in Ethiopia: results from a pilot study

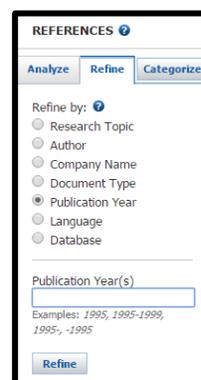
By Gari, Taye; Kenea, Oljira; Loha, Eskindir; Deressa, Wakgari; Hailu, Alemayehu; Balkew, Meshesha; Gebre-Michael, Teshome; Robberstad, Bjarne; Overgaard, Hans J.; Lindtjoern, Bernt  
From Malaria Journal (2016), 15, 145/1-145/13. | Language: English, Database: CAPLUS

Background: This study was part of the work to prep. for a cluster-randomized controlled trial to evaluate the effect of combining indoor residual spraying and long-lasting insecticidal nets on malaria incidence. A pilot study was done to est. the variations of malaria incidence among villages, combined with entomol. collections and an assessment of susceptibility to insecticides in malaria vectors. Methods: A cohort of 5309 residents from four kebeles (the lowest government administrative unit) in 996 households was followed from August to Dec. 2013 in south-central Ethiopia. Blood samples were collected by a finger prick for a microscopic exams. of malaria infections. A multilevel mixed effect model was applied to measure the predictors of malaria episode. Adult mosquitoes were collected using light traps set indoors close to a sleeping person, pretreatment spray sheet catches and artificial outdoor pit shelters. Enzyme-linked immunosorbent assays were used to detect the sources of mosquito blood meals, while mosquito longevity was estd. based on parity. The World Health Organization's tube bioassay test was used to assess the insecticide susceptibility status of malaria vectors to pyrethroids and carbamates.

Results: The av. incidence of malaria episode was 4.6 per 10,000 person weeks of observation. The age group from 5 to 14 years (IRR = 2.7; 95 CI 1.1-6.6) and kebeles near a lake or river (IRR = 14.2; 95 CI 3.1-64) were significantly assoc. with malaria episode. Only 271 (27.3) of the households owned insecticide-treated nets. Of 232 adult

Substance Images

54-05-7 Chloroquine

CCN(CC)CCCCNC1=NC=C(Cl)C=C1


REFERENCES

Analyze Refine Categorize

Refine by:

- Research Topic
- Author
- Company Name
- Document Type
- Publication Year
- Language
- Database

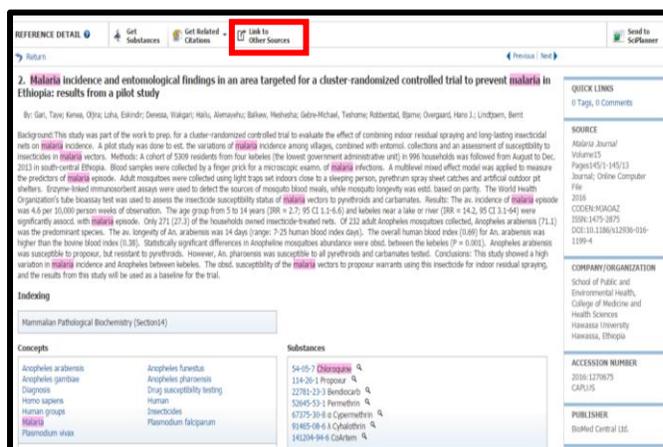
Publication Year(s)

Examples: 1995, 1995-1999, 1995-, -1995

Refine

**How to get the full text of articles:** On the references page, click on the title of the article. To access the full text, click 'Link to Other Sources' on the top toolbar. Then click 'Get This Article from Oakland University Libraries.' If the OU Libraries has access, you will be direct to the full text of the article.

\*\* If the OU Libraries doesn't have online access to the full text of the article, you can submit an interlibrary loan request via ILLiad ([library.oakland.edu/services/materials/ill/](http://library.oakland.edu/services/materials/ill/)). We will find the article at another library and send you an email once it's available.



REFERENCE DETAIL | Get Substances | Get Related Citations | **Link to Other Sources** | Send to SciPlanner

Return

**Malaria incidence and entomological findings in an area targeted for a cluster-randomized controlled trial to prevent malaria in Ethiopia: results from a pilot study**

By: Garl, Taye; Kenea, Olfira; Loha, Eskindir; Dereessa, Wakgari; Hallu, Alemayehu; Balkew, Meshesha; Gebre-Michael, Teshome; Robberstad, Bjørn; Overgaard, Hans J.; Lindtjorn, Bert

Background: This study was part of the work to prep. for a cluster-randomized controlled trial to evaluate the effect of combining indoor residual spraying and long-lasting insecticidal nets on malaria incidence. A pilot study was done to est. the variations of malaria incidence among villages, combined with entomol. collections and an assessment of susceptibility to insecticides in malaria vectors. Methods: A cohort of 5309 residents from four kebeles (the lowest government administrative unit) in 996 households was followed from August to Dec. 2013 in south-central Ethiopia. Blood samples were collected by a finger prick for a microscopic exam. of malaria infections. A multilevel mixed effect model was applied to measure the predictors of malaria episode. Adult mosquitoes were collected using light traps set indoors close to a sleeping person, pyrethrum spray sheet catches and artificial outdoor pit shelters. Enzyme-linked immunosorbent assays were used to detect the sources of mosquito blood meals, while mosquito longevity was estd. based on parity. The World Health Organization's tube bioassay test was used to assess the insecticide susceptibility status of malaria vectors to pyrethroids and carbamates. Results: The av. incidence of malaria episode was 4.6 per 10,000 person weeks of observation. The age group from 5 to 14 years (IRR = 2.7; 95 CI 1.1-6.4) and kebeles near a lake or river (IRR = 14.2; 95 CI 3.1-64) were significantly assoc. with malaria episode. Only 271 (25.1) of the households owned insecticide-treated nets. Of 232 adult Anopheles mosquitoes collected, Anopheles arabiensis (71.1) was the predominant species. The av. longevity of An. arabiensis was 14 days (range: 7-25 human blood index days). The overall human blood index (0.69) for An. arabiensis was higher than the bovine blood index (0.38). Statistically significant differences in Anopheline mosquitoes abundance were obsd. between the kebeles (P = 0.001). Anopheles arabiensis was susceptible to propoxur, but resistant to pyrethroids. However, An. pharoensis was susceptible to all pyrethroids and carbamates tested. Conclusions: This study showed a high variation in malaria incidence and Anopheles between kebeles. The obsd. susceptibility of the malaria vectors to propoxur warrants using this insecticide for indoor residual spraying, and the results from this study will be used as a baseline for the trial.

Indexing  
Mammalian Pathological Biochemistry (Section 4)

Concepts  
Anopheles arabiensis  
Anopheles gambiae  
Diagnosis  
Human sapiens  
Human groups  
Malaria  
Plasmodium vivax  
Anopheles funestus  
Anopheles pharoensis  
Drug susceptibility testing  
Human  
Insecticides  
Plasmodium falciparum

Substances  
54-05-7 Chloroquine  
114-26-4 Propoxur  
22782-23-3 Bendiocarb  
53045-53-1 Permethrin  
67275-39-4 Cupressines  
81465-98-4 Chlorthalidon  
141204-94-6 Calixtem

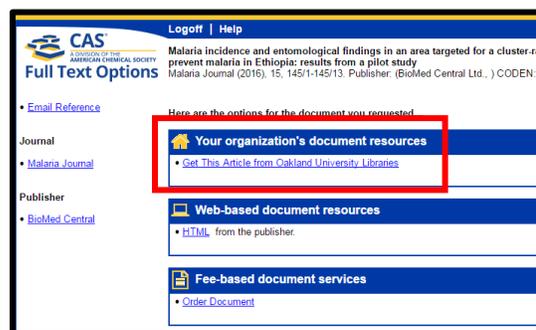
QUICK LINKS  
0 Tags, 0 Comments

SOURCE  
Malaria Journal  
Volume 15  
Pages 145/1-145/13  
Journal, Online Computer  
File  
2016  
CODEN: MJAQAZ  
ISSN: 1475-2875  
DOI: 10.1186/s12936-016-1199-4

COMPANY/ORGANIZATION  
School of Public and Environmental Health, College of Medicine and Health Sciences, Hawassa University, Hawassa, Ethiopia

ACCESSION NUMBER  
2016:127675  
CAPUS

PUBLISHER  
BioMed Central Ltd.



Logoff | Help

CAS  
Full Text Options

Malaria incidence and entomological findings in an area targeted for a cluster-randomized controlled trial to prevent malaria in Ethiopia: results from a pilot study  
Malaria Journal (2016), 15, 145/1-145/13. Publisher: BioMed Central Ltd., J CODEN: MJAQAZ

• Email Reference

Here are the options for the document you requested:

**Your organization's document resources**

- Get This Article from Oakland University Libraries

**Web-based document resources**

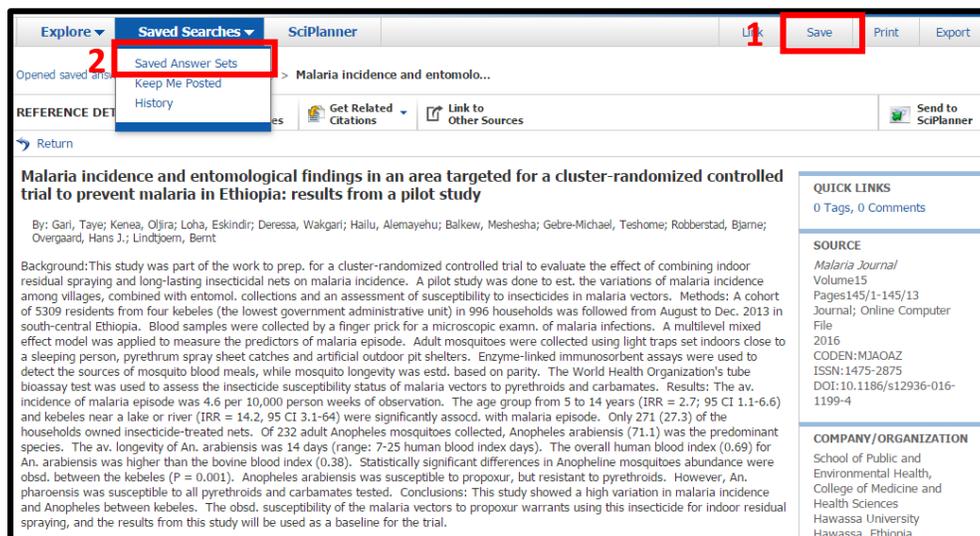
- HTML from the publisher.

**Fee-based document services**

- Order Document

## How to save references

1. In the article summary, click Save on the top toolbar
2. To view saved articles, click 'Saved Answer Sets' (under Saved Searches on the top toolbar)



Explore | **Saved Searches** | SciPlanner | **Save** | Print | Export

2 Saved Answer Sets | Keep Me Posted | History

Opened saved articles | Malaria incidence and entomolo...

REFERENCE DETAIL | Get Related Citations | Link to Other Sources | Send to SciPlanner

Return

**Malaria incidence and entomological findings in an area targeted for a cluster-randomized controlled trial to prevent malaria in Ethiopia: results from a pilot study**

By: Garl, Taye; Kenea, Olfira; Loha, Eskindir; Dereessa, Wakgari; Hallu, Alemayehu; Balkew, Meshesha; Gebre-Michael, Teshome; Robberstad, Bjørn; Overgaard, Hans J.; Lindtjorn, Bert

Background: This study was part of the work to prep. for a cluster-randomized controlled trial to evaluate the effect of combining indoor residual spraying and long-lasting insecticidal nets on malaria incidence. A pilot study was done to est. the variations of malaria incidence among villages, combined with entomol. collections and an assessment of susceptibility to insecticides in malaria vectors. Methods: A cohort of 5309 residents from four kebeles (the lowest government administrative unit) in 996 households was followed from August to Dec. 2013 in south-central Ethiopia. Blood samples were collected by a finger prick for a microscopic exam. of malaria infections. A multilevel mixed effect model was applied to measure the predictors of malaria episode. Adult mosquitoes were collected using light traps set indoors close to a sleeping person, pyrethrum spray sheet catches and artificial outdoor pit shelters. Enzyme-linked immunosorbent assays were used to detect the sources of mosquito blood meals, while mosquito longevity was estd. based on parity. The World Health Organization's tube bioassay test was used to assess the insecticide susceptibility status of malaria vectors to pyrethroids and carbamates. Results: The av. incidence of malaria episode was 4.6 per 10,000 person weeks of observation. The age group from 5 to 14 years (IRR = 2.7; 95 CI 1.1-6.6) and kebeles near a lake or river (IRR = 14.2; 95 CI 3.1-64) were significantly assoc. with malaria episode. Only 271 (27.3) of the households owned insecticide-treated nets. Of 232 adult Anopheles mosquitoes collected, Anopheles arabiensis (71.1) was the predominant species. The av. longevity of An. arabiensis was 14 days (range: 7-25 human blood index days). The overall human blood index (0.69) for An. arabiensis was higher than the bovine blood index (0.38). Statistically significant differences in Anopheline mosquitoes abundance were obsd. between the kebeles (P = 0.001). Anopheles arabiensis was susceptible to propoxur, but resistant to pyrethroids. However, An. pharoensis was susceptible to all pyrethroids and carbamates tested. Conclusions: This study showed a high variation in malaria incidence and Anopheles between kebeles. The obsd. susceptibility of the malaria vectors to propoxur warrants using this insecticide for indoor residual spraying, and the results from this study will be used as a baseline for the trial.

QUICK LINKS  
0 Tags, 0 Comments

SOURCE  
Malaria Journal  
Volume 15  
Pages 145/1-145/13  
Journal, Online Computer  
File  
2016  
CODEN: MJAQAZ  
ISSN: 1475-2875  
DOI: 10.1186/s12936-016-1199-4

COMPANY/ORGANIZATION  
School of Public and Environmental Health, College of Medicine and Health Sciences, Hawassa University, Hawassa, Ethiopia

Contact [Joanna Thielen, Librarian for Biological Sciences, Chemistry & Physics,](mailto:jthielen@oakland.edu)  
for assistance | [jthielen@oakland.edu](mailto:jthielen@oakland.edu) | 248-370-2477