

## A survey of potentially pathogenic-incriminated arthropod vectors of health concern in Botswana

### Survey summary

Arthropods play a critical role as disease vectors causing morbidity and mortality globally. The current global change projections are likely to proliferate vectors and associated pathogens, exacerbating arthropod-borne infection risks. Common vectors of medical importance include; cockroaches, lice, bedbugs, fleas, ticks, flies and mosquitoes. This survey is a baseline scoping of potential arthropod vectors of health concern in Botswana. The main aim is to ascertain spatio-temporal patterns in knowledge and perceptions of these potential vector arthropods by the public. This will bridge knowledge gaps for improvement in health, well-being and livelihoods across the country. The survey is voluntary and can be completed by individuals above  $\geq 16$  years of age.

### Household Questionnaire

Interviewer ID:

Date: \_\_\_\_\_ / \_\_\_\_\_ / 2020

Respondent Name:

Surname:

1. Do you agree to participate in this survey?

Yes=1

No=2

2. Do you know if any arthropods carry/ cause diseases to;	Yes=1 No=2 Not sure=3
(i) Humans?	
(ii) Livestock?	
(iii) Wildlife?	

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Arthropod vectors	3. Do you know	4. Are there different types of this vector?	5. Have you seen the vector?	6. What feature(s) do you use to identify the vector?	7. Last time seen?	8. Have you ever experienced infestation in your household?	9. What attracts this vector in homesteads? Pit latrines=1 Sewage systems=2 Rubbish=3 Food=4 Warm places=5 Suitable refuge space=6 Hosts=7 I don't know=8 Other=9	10. How concerned are you about its burden?	11. Do they transmission pathogens causing diseases?	12. Name of diseases transmitted/ caused	13. Season of abundance.	14. When are vectors more active?	15. How do you control the vectors?
(i) Cockroaches	Yes=1 No=2 Not sure=3	Yes=1 No=2 Not sure=3 I don't know=4	Yes=1 No=2 Not sure=3	Shape=1 Movement=2 Colour=3 Sound=4 Bites=5 I don't know=6 Other=7	0-7days=1 1-3months=2 4-12months=3 1-5yrs=4 6-10yrs=5 ≥10years=6 Not sure=7 Never seen it=8	Yes=1 No=2 Not sure=3		Not concerned=1 Little Concerned=2 Concerned=3 Strongly Concerned=4 I don't know=5	Yes=1 No=2 Not sure=3		Summer=1 (Nov-Jan) Autumn=2 (Feb-Apr) Winter=3 (May- Jul) Spring=4 (Aug-Oct) All year round=5 I don't know=6	Morning=1 Afternoon=2 Evening=3 Night=4 All day=5 Not Sure=6 I don't know=7	Insecticides=1 Physical kill=2 Improved hygiene=3 Electrical devices=4 Sticky pads=5 Seal/ close entry points=6 Nothing=7 Other=8
(ii) Lice													
(iii) Ticks													
(iv) Flies													
(v) Mosquitoes													
(vi) Bedbugs													
(vii) Fleas													

**16. Why do you think arthropod vectors bite?**

To transmit parasites=1      For feeding (food)=2      Seek refuge=3      Not sure=4      I don't know=5      Other=6 \_\_\_\_\_

**17. Which other arthropod vector(s) do you think are of public health concern in Botswana?****18. In which district do you live?**

North-West=1      North-East=2      South-East=3      Southern=4      Ghanzi=5      Chobe=6  
Kgatleng=7      Kweneng=8      Central=9      Kgalagadi=10

**19. Describe your locality (area of residence).**

Rural=1      Semi-urban=2      Urban=3      Peri-urban=4

**20. What is your source of income?**

Employee=1    Entrepreneur=2    Self-employed=3    Student allowance=4    Farmer=5    Pension fund=6  
Government poverty alleviation funds=7    Nothing=8    Family=9    Other=10 \_\_\_\_\_

**21. Marital status**

Single=1    Married=2    Divorced=3    Widowed=4    Staying together=5    Prefer not to say=6

**22. Are you literate?**

Yes=1      No=2      Prefer not to say=3

**23. What is your highest level of education?**

None=1    Primary=2    BGJC (form 3)=3    BGCSE (form 5)=4    Vocational=5    Tertiary=6

**24. Age**

16- 19=1      20- 29=2      30- 39=3      40- 49=4      50- 59=5      60+ years=6

**25. Gender**

Female=1      Male=2      Prefer not to say=3