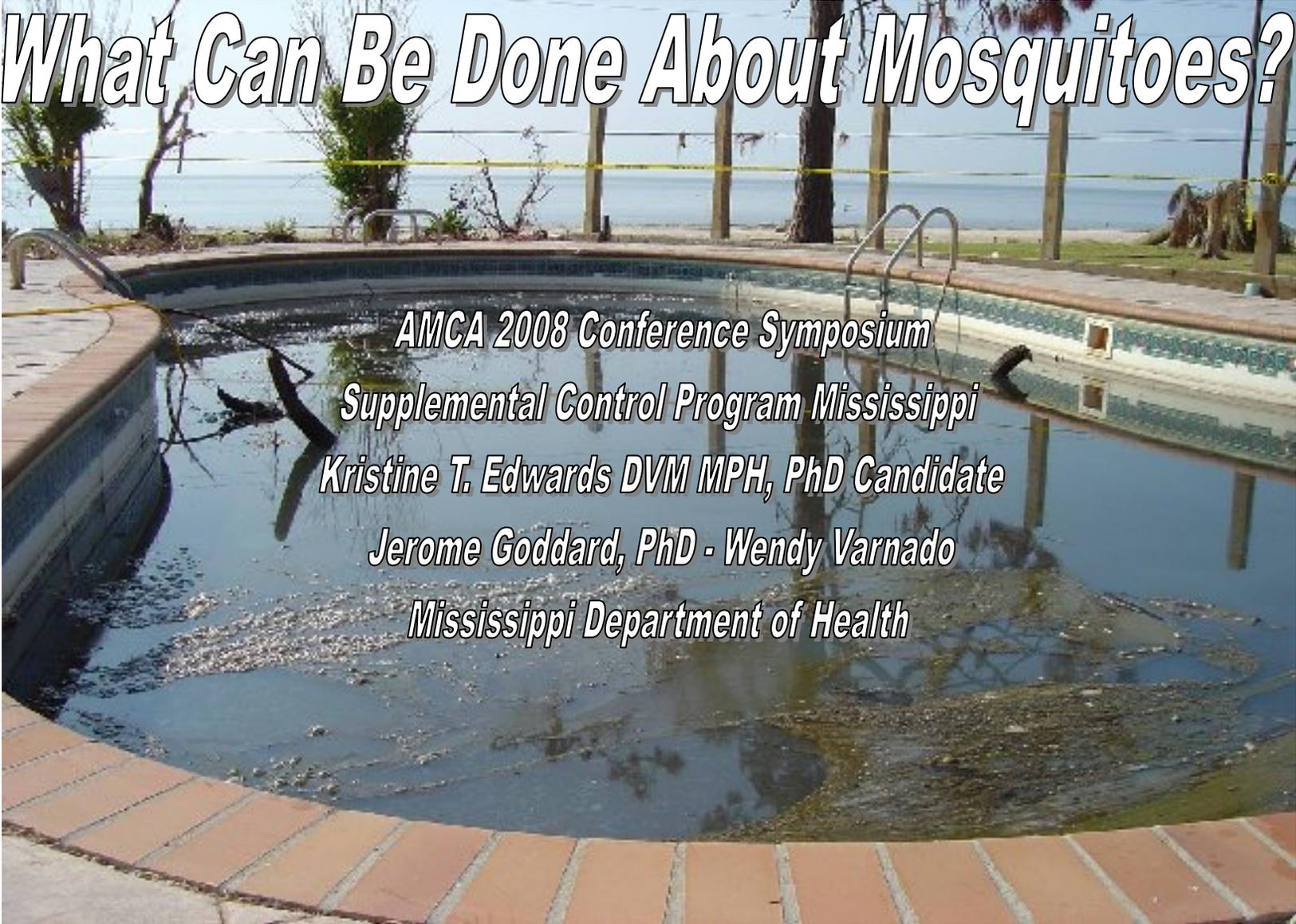


What Can Be Done About Mosquitoes?



AMCA 2008 Conference Symposium

Supplemental Control Program Mississippi

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Mississippi Department of Health

Overview

- Introduction
- Workshop
- Survey design
- Survey results
 - Survey 1 – pre grant
 - Survey 2 – post grant
- Comparison of results
 - Progress made
 - Where to go from here



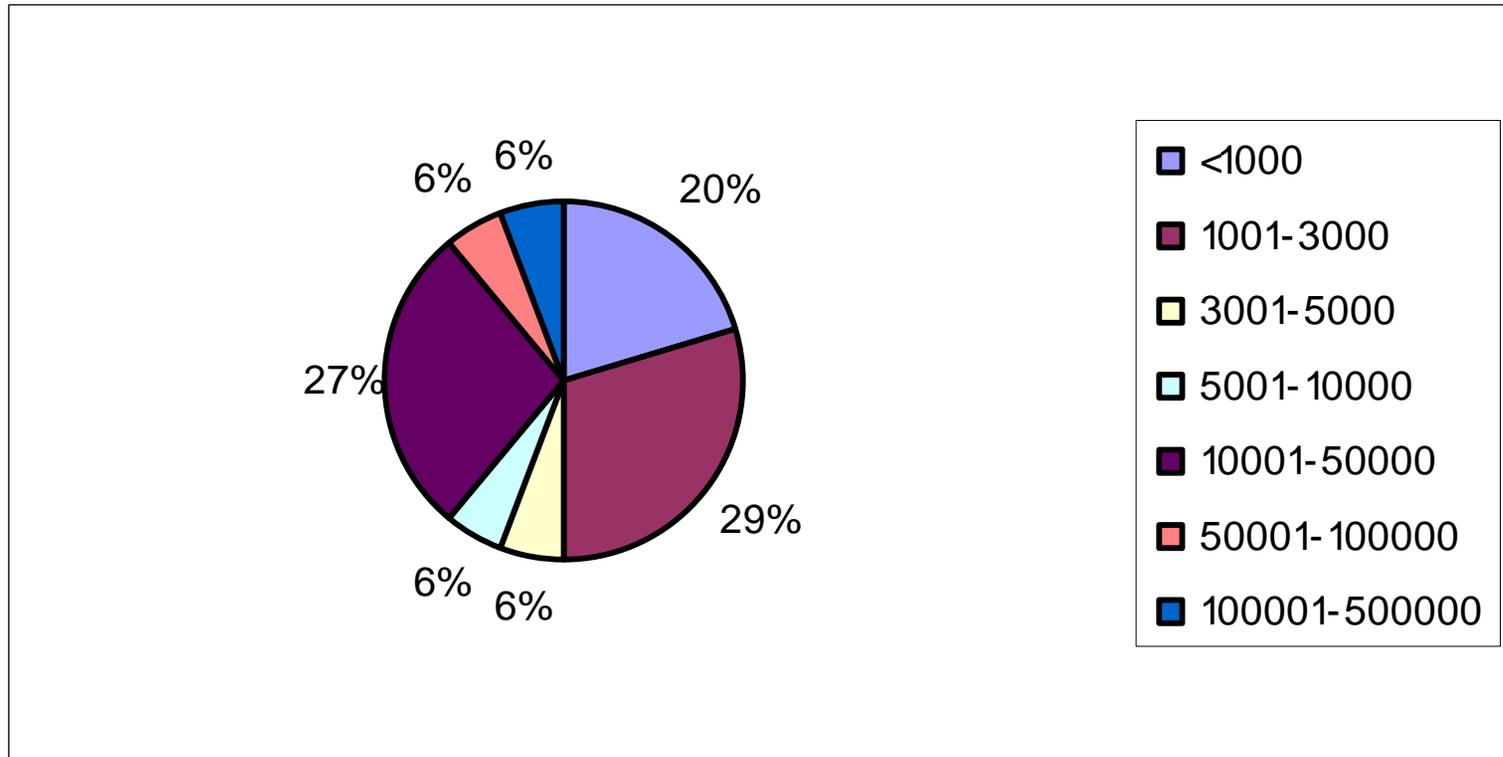
What Can Be Done About Mosquitoes? (Prioritize!)

1. Education about personal protection
2. Source reduction
3. Larvaciding
4. Adulticiding with truck-mounted machines
5. Adulticiding with airplanes

Survey description

- Survey Design
 - Information about their sites
 - Operation specifics/practices
 - Mosquito control personnel
 - Attitudes
- Two surveys
 - Before grant disbursement
 - After grant disbursement
- Response rate ~71%

What is your population?

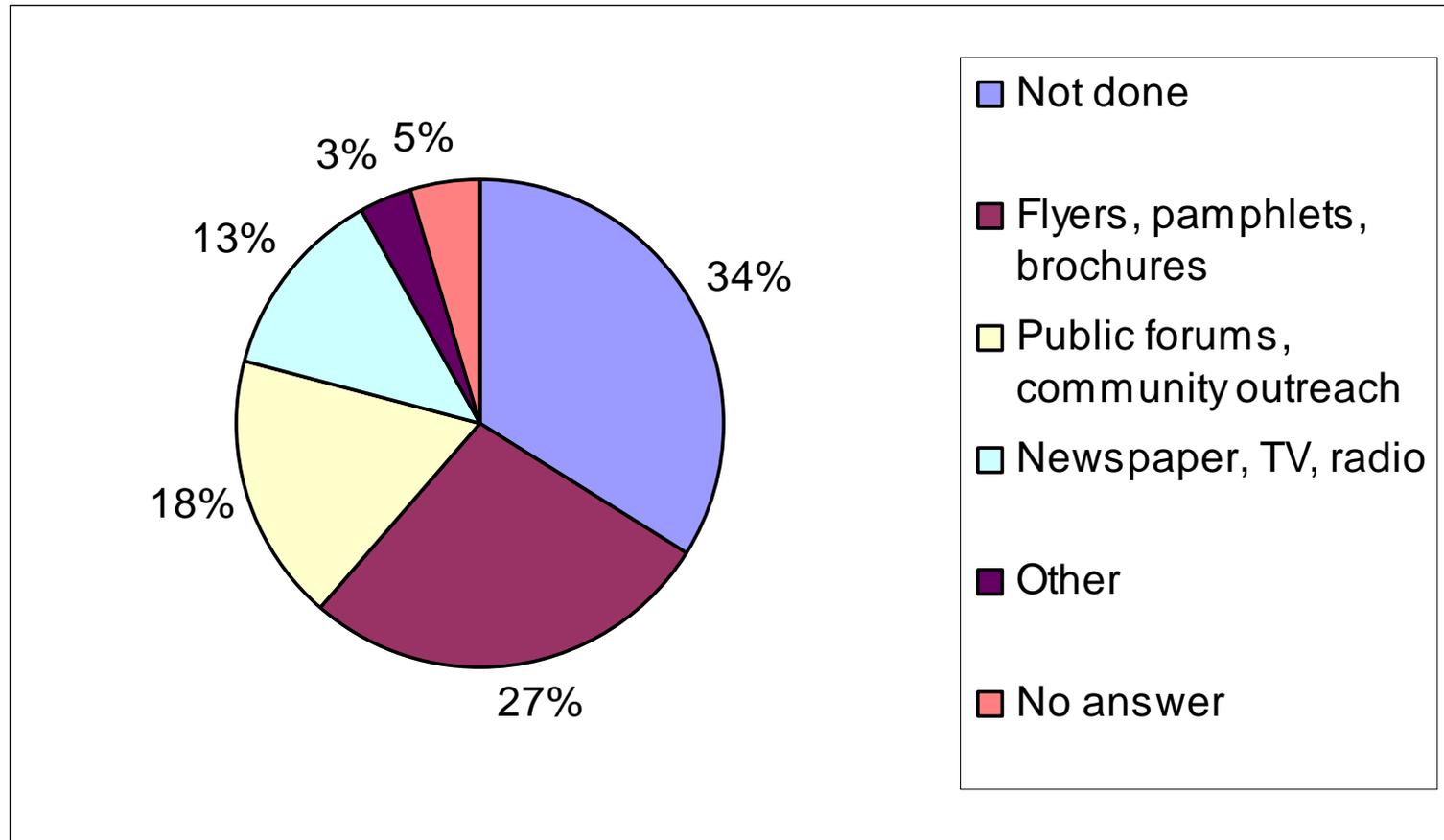


Over 60% of sites have populations <10,000

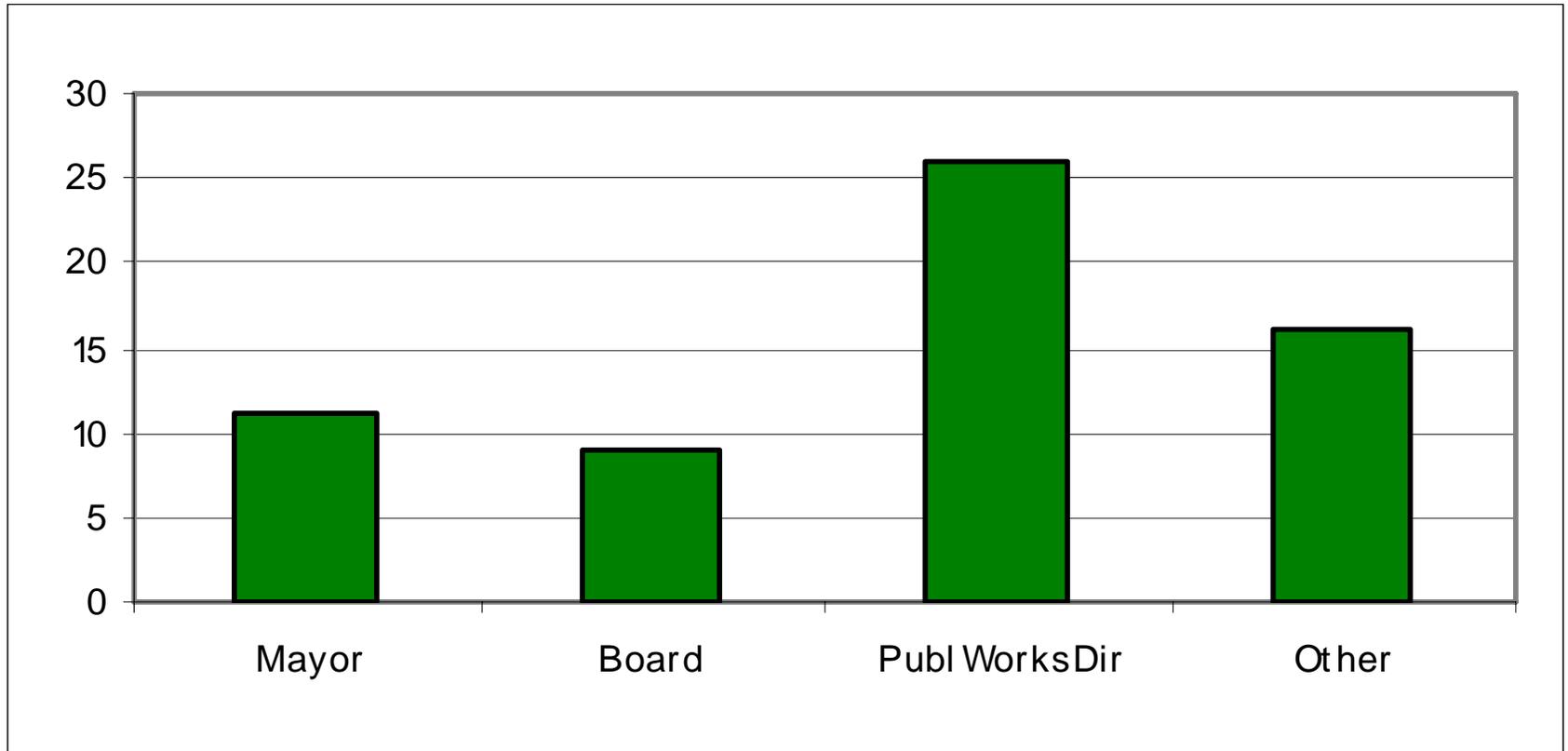
Is mosquito control contracted out in your town, city or county?

- Yes – 2 (3%)
- No – 60 (97%)

Describe your current mosquito control educational efforts

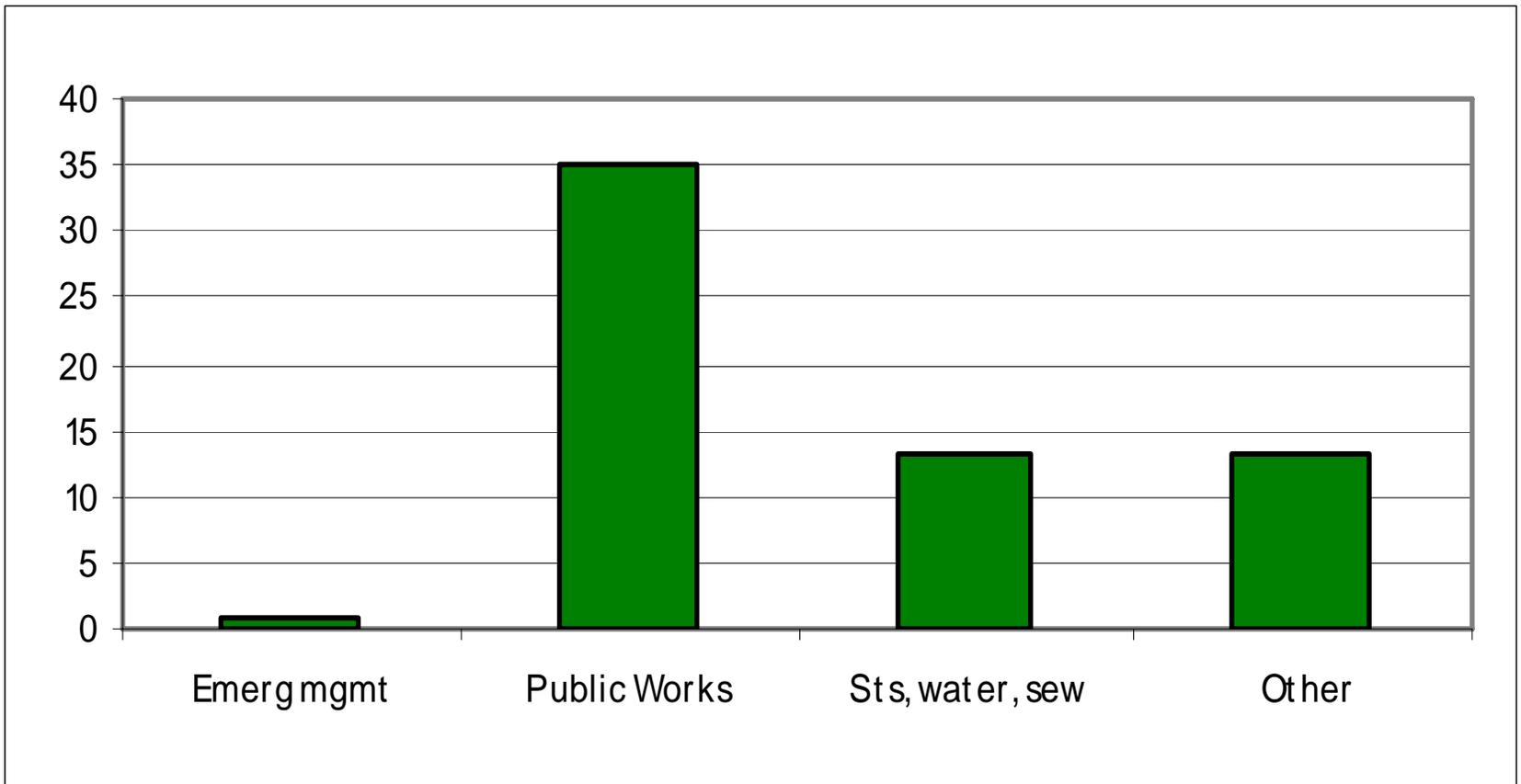


Who is administratively over mosquito control for your site?

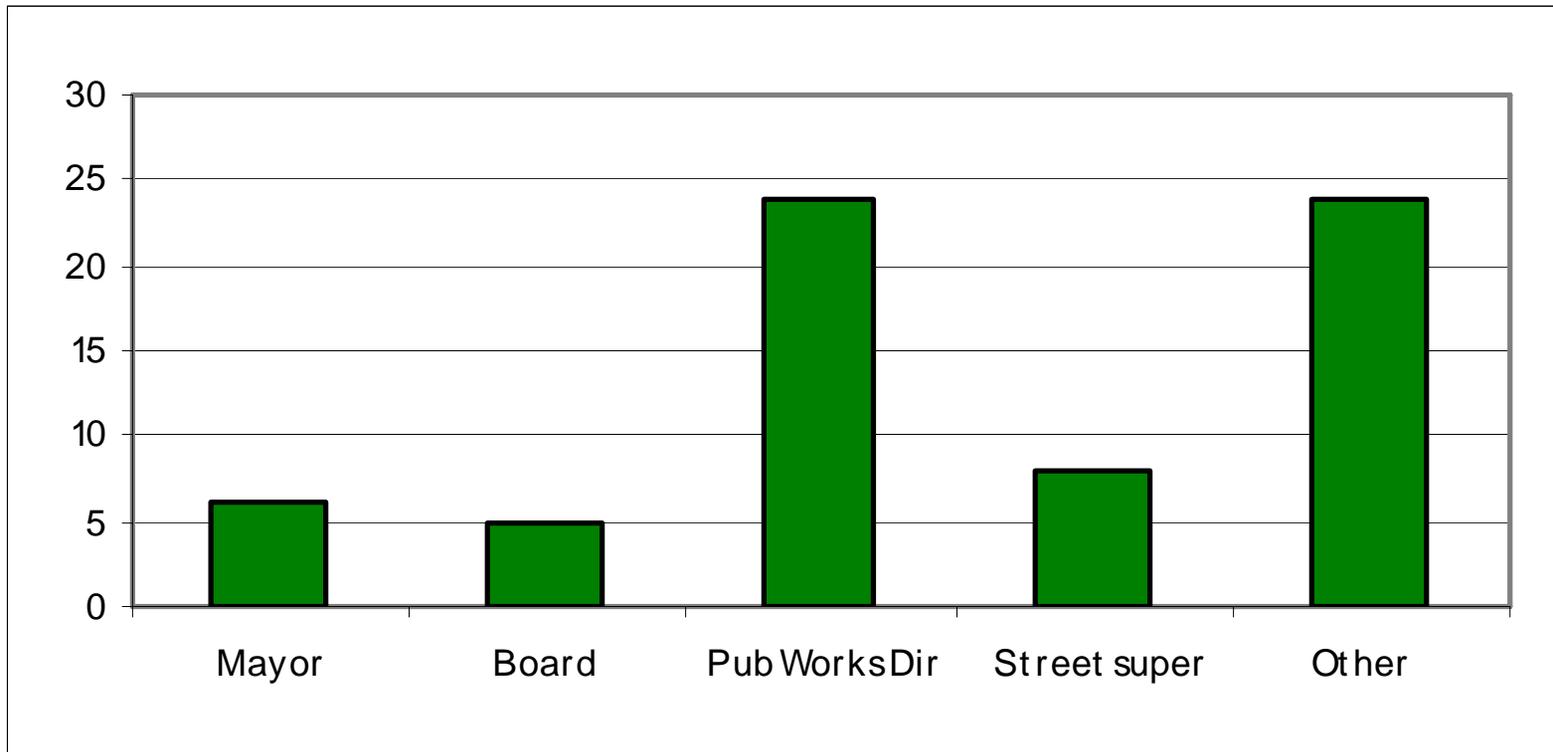


Individual's name

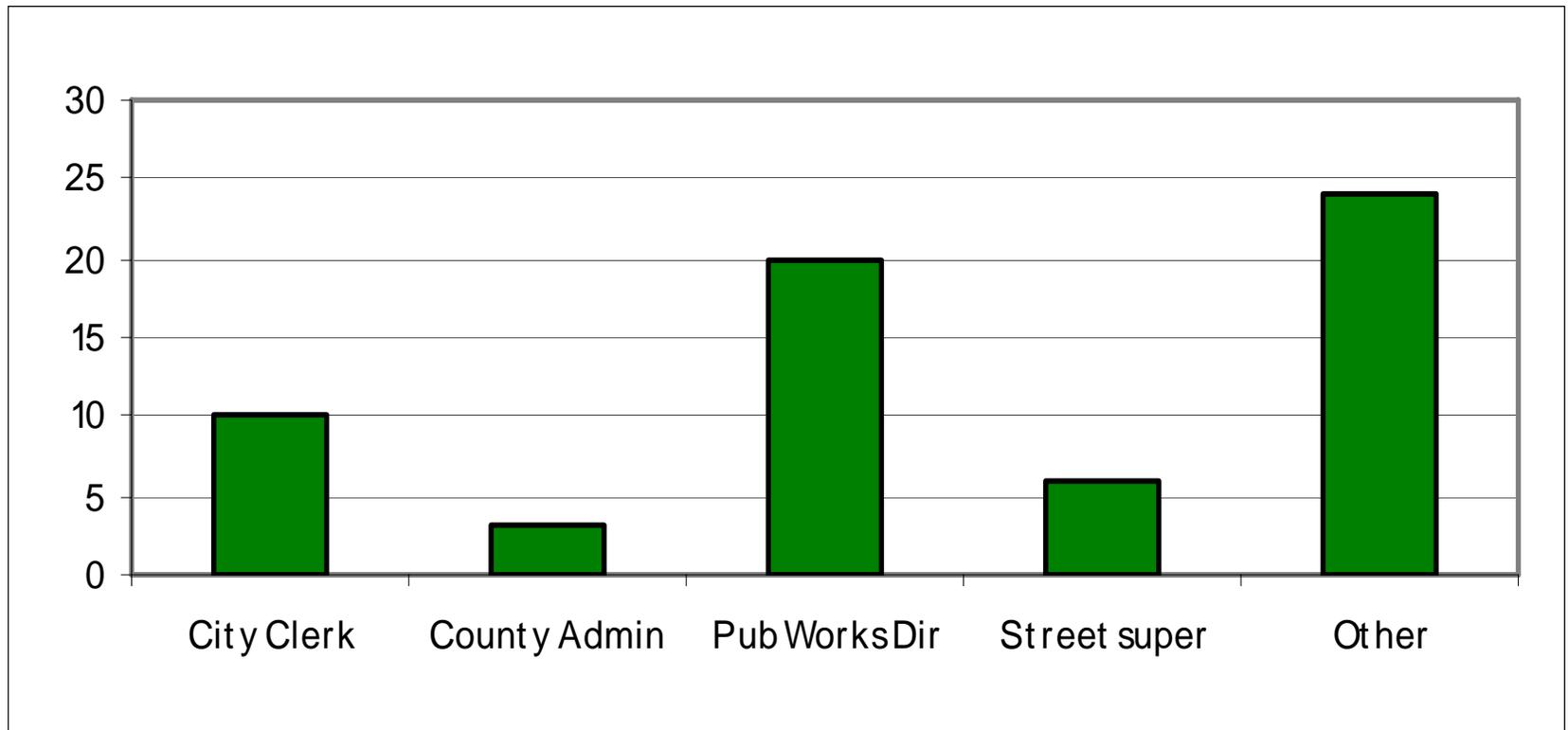
What department does mosquito control fall under?



Who decides which insecticides and equipment to use?

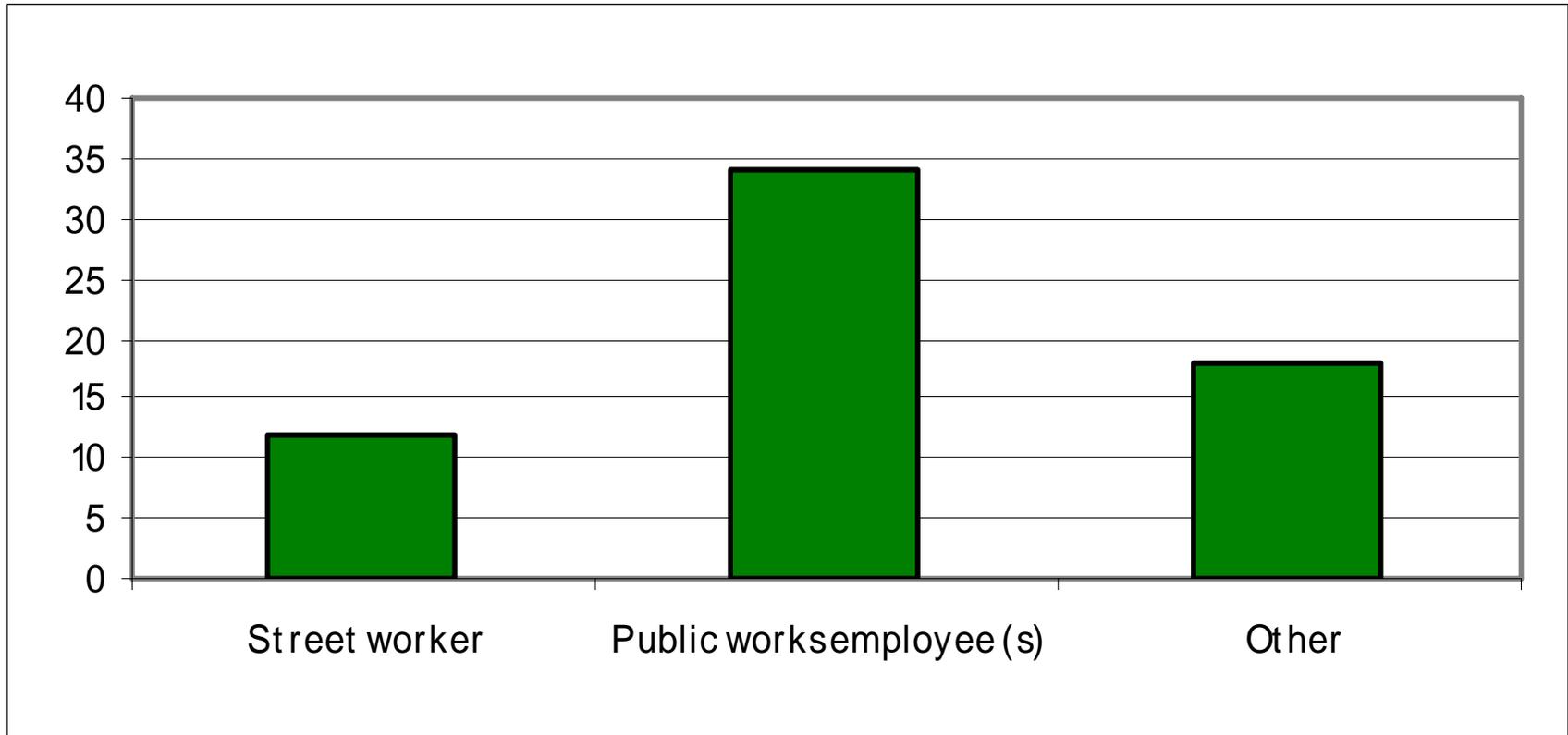


Who purchases insecticides and equipment for your program?

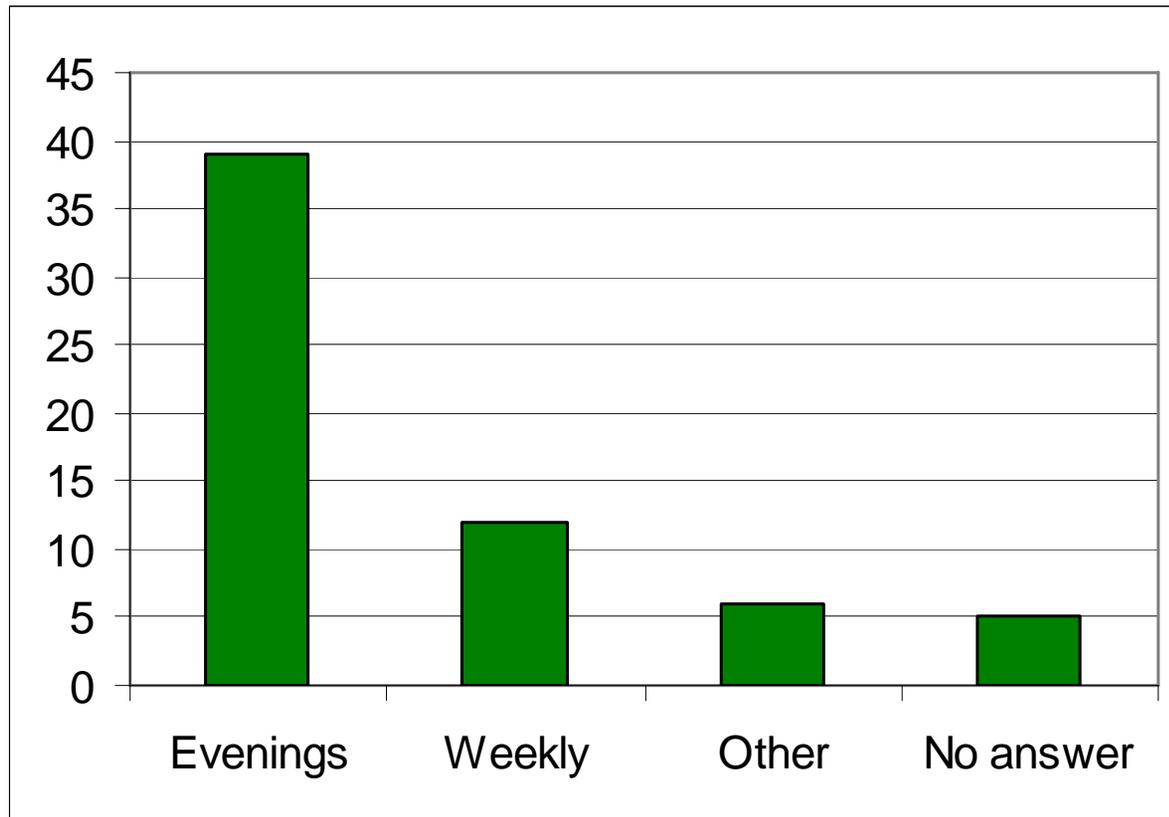


Mayor: pop. = 635, 167

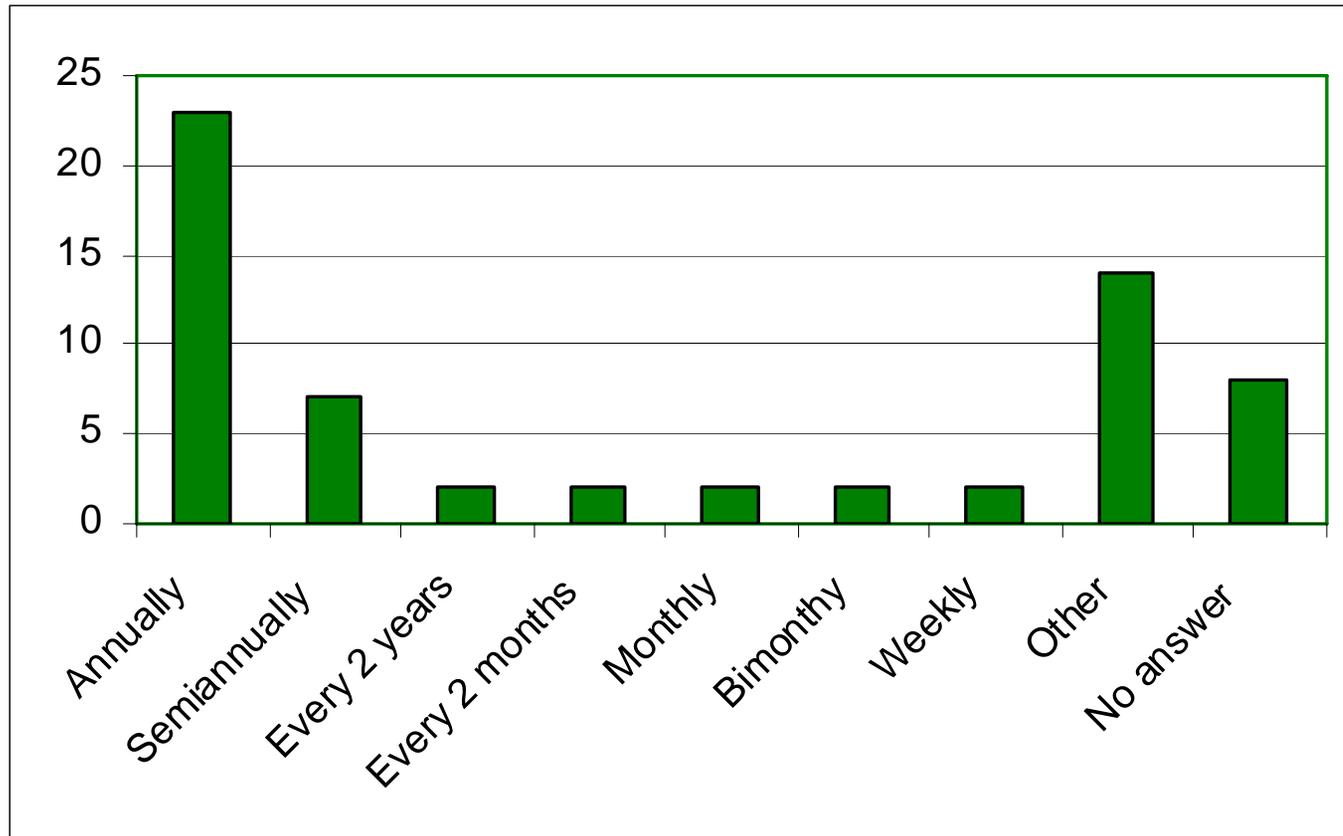
Who actually performs the night-time spraying at your site?



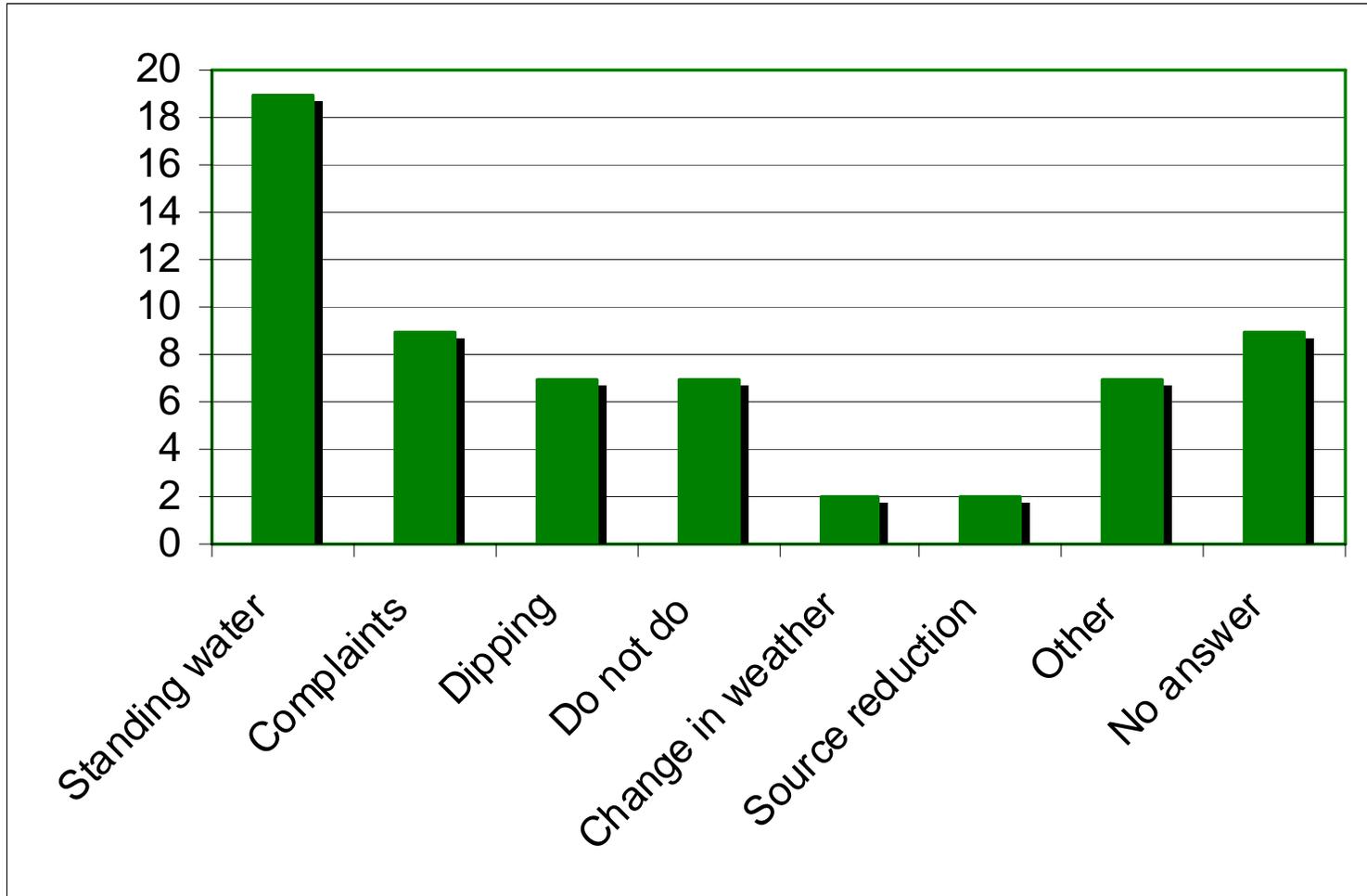
What are your adulticiding (truck-based) hours?



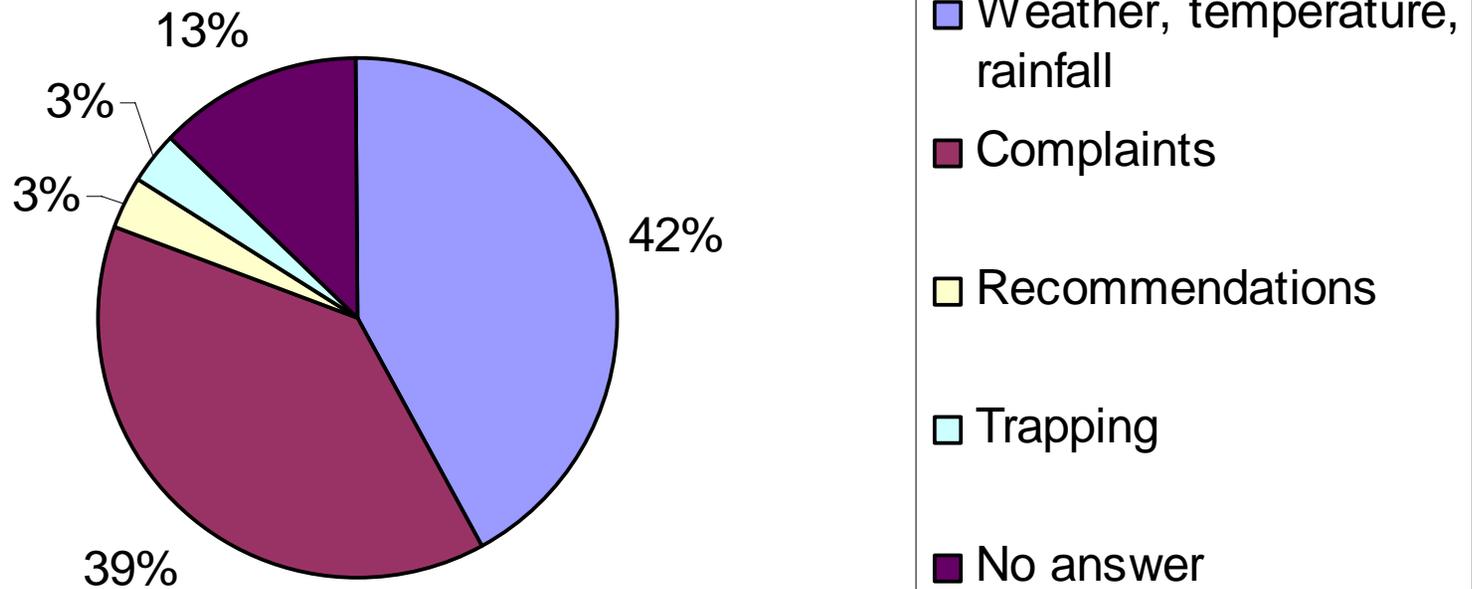
How often do you calibrate your equipment?



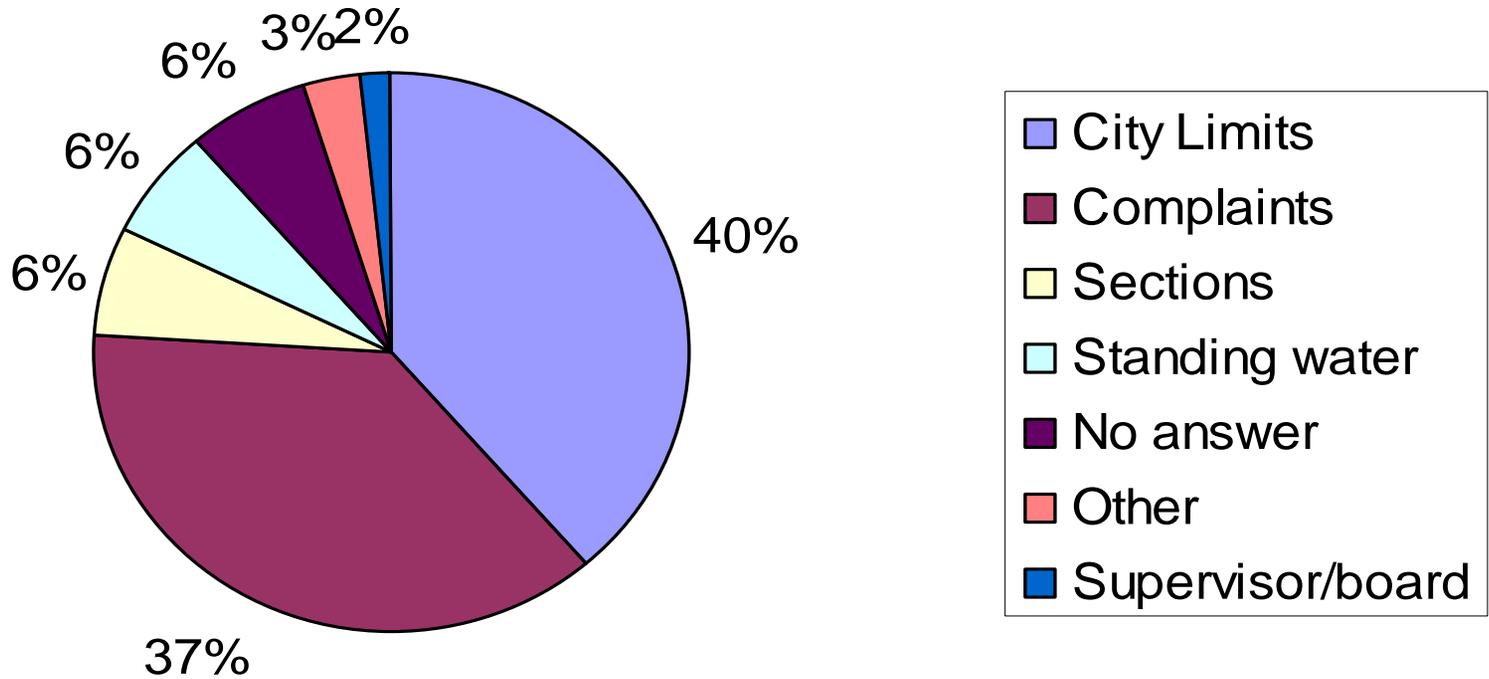
How do you decide when and where to larvacide?



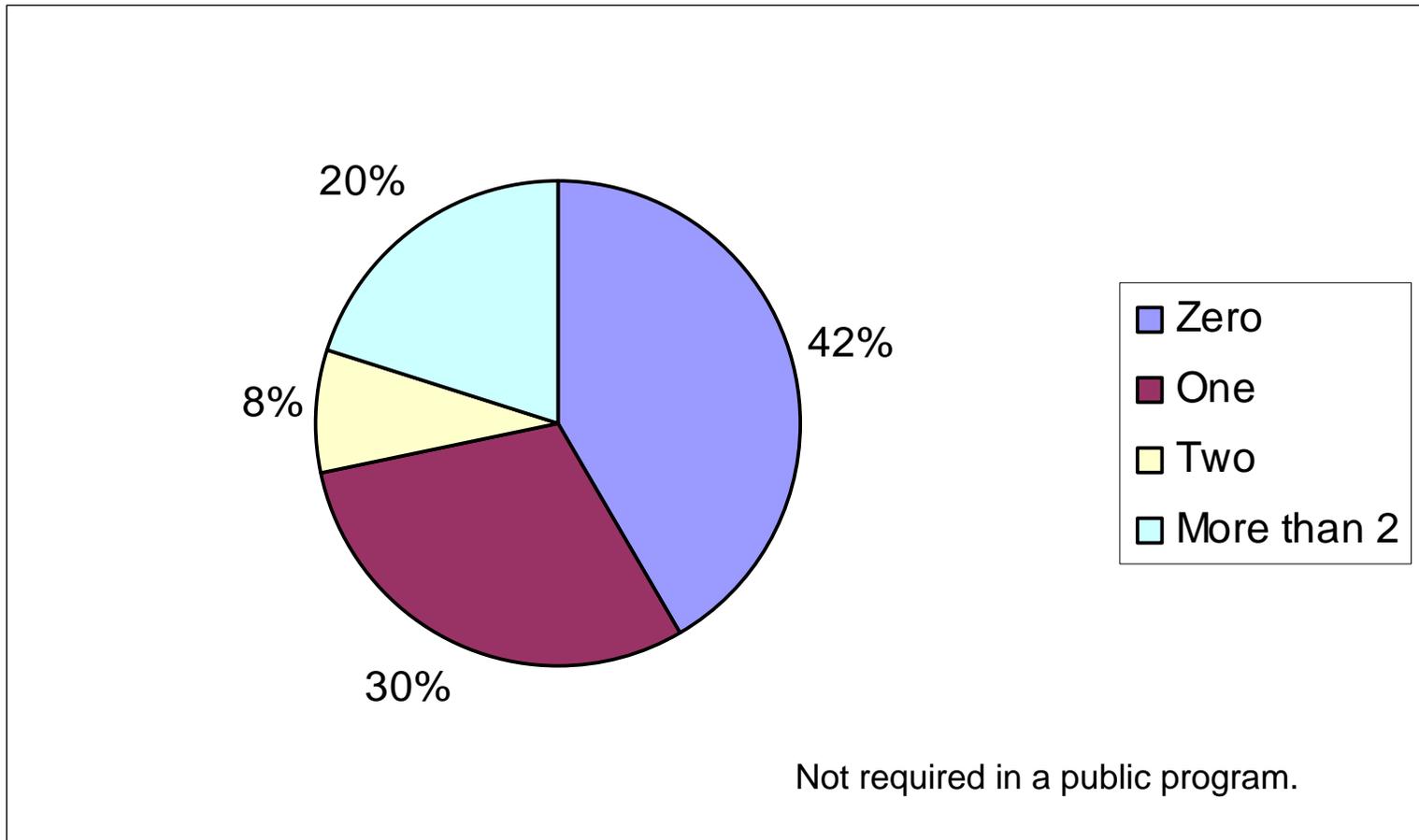
How do you decide when to begin aduaticiding every year?



How do you decide where to spray?



How many people in your program are certified in Public Health Pest Control ?



Operation Specifics

- Does your mosquito program hire employees specifically for night time spraying?
 - Yes **14** (23%)
 - No **48** (77%)
- Do you use a bid process when purchasing insecticides and equipment?
 - Yes **18** (29%)
 - No **44** (71%)

Operation Specifics

- Do you keep records of when and where you apply adulticides?

- | | |
|--|-----------------------|
| <input type="checkbox"/> Yes 41 (65%) | Yes 49 (87.5%) |
| <input type="checkbox"/> No 20 (32%) | No 7 (12.5%) |
| <input type="checkbox"/> Other 2 (3%) | Skipped 4 |

- Do you keep records of when and where you larvacide?

- | | |
|--|---------------------|
| <input type="checkbox"/> Yes 28 (45%) | Yes 33 (75%) |
| <input type="checkbox"/> No 33 (53%) | No 11 (25%) |
| <input type="checkbox"/> Other 1 (2%) | |

Operation Specifics

- Do you keep spill kits in the spray trucks?
 - Yes **28** (45%) Yes **35** (61.4%)
 - No **32** (52%) No **22** (38.6%)
 - Other **2** (3%)

- Do you use any other adulticiding equipment such as hand-held foggers or ULV units? If yes, please specify.
 - Yes **21** (34%)
(ULV = 10, Hand held fogger = 3, Other = 8)
 - No **41** (66%)

Operation Specifics

- Do you keep a complaint log?
 - Yes **35** (56%) Yes **39** (65%)
 - No **26** (42%) No **17** (28%)
 - No answer **1** (2%) No answer **4** (7%)

- Do you keep insecticide labels and material safety data sheets (MSDS)?
 - Yes **52** (84%) Yes **57** (95%)
 - No **10** (16%) No **3** (5%)

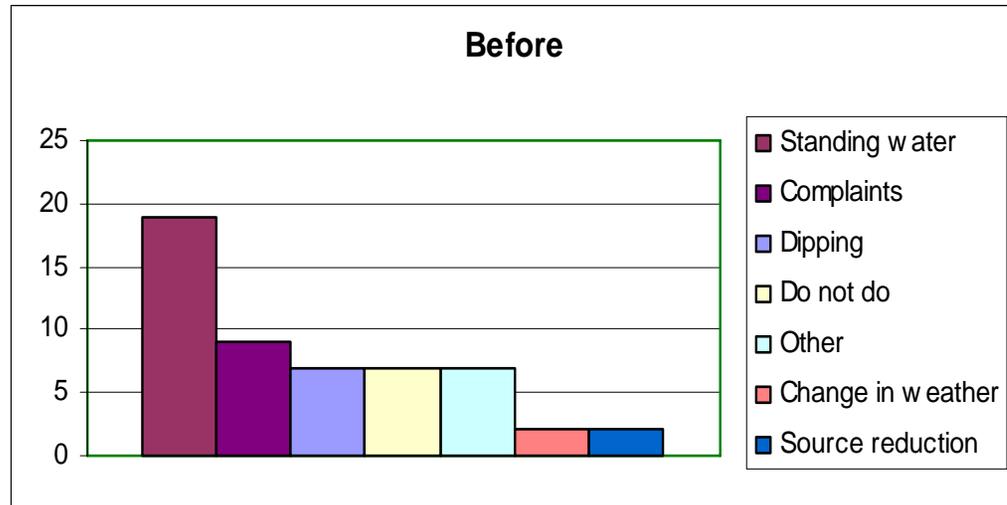
Operation Specifics

- Does your program include larval surveillance (e.g., using a dipper)?
 - Yes **24** (39%) Yes **30** (68.2%)
 - No **34** (55%) No **14** (31.8%)
 - No answer **4** (6%)

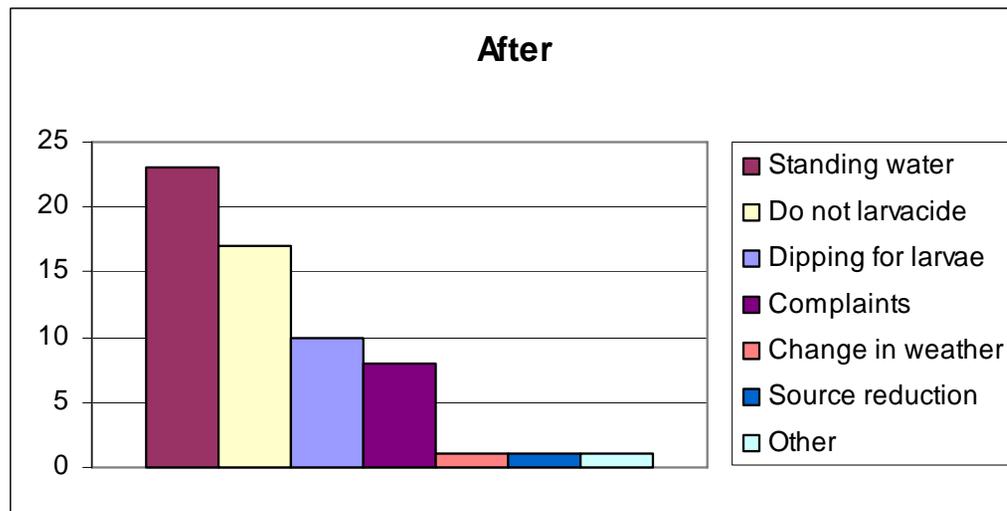
- Do you check for the presence of larvae before applying larvacides?
 - Yes **31** (50%) Yes **30** (68.2%)
 - No **28** (45%) No **14** (31.8%)
 - N/A **3** (5%)

How do you decide when and where to larvacide?

Number of Responses



Number of Responses



Operation Specifics

- Do you do any type of source reduction to prevent mosquito breeding?

Before

- Yes **43** (69%)
- No **19** (31%)

After

- Yes **41** (73.2%)
- No **15** (26.8%)

Description of Surveillance (before)

Rate questions on a scale of 1 to 5.	Always	Almost always	Some times	Rarely	Never	
	1	2	3	4	5	No ans
Do you regularly trap adult mosquitoes?	5	6	5	5	38	3
Do you examine the mosquitoes yourself?	6	5	9	2	37	3
Do you send mosquitoes to be examined?	1	0	5	4	49	3
Do you routinely spray for mosquitoes? How often?	30	17	8	1	3	3
Do you routinely use adulticides?	32	11	7	1	7	4
Do you routinely use larvacides?	26	9	9	3	12	3
Do you routinely employ source reduction?	12	13	12	3	19	3
Do you have at least one individual certified in Public Health Pest Control? Please name all individuals.	20	0	2	1	36	3

Description of Surveillance (after)

Rate questions on a scale of 1 to 5.	Always	Almost always	Some times	Rarely	Never	
	1	2	3	4	5	No ans
Do you regularly trap adult mosquitoes?	6	4	5	4	35	7
Do you examine the mosquitoes yourself?	8	2	4	3	36	6
Do you send mosquitoes to be examined?	1	2	1	1	48	6
Do you routinely spray for mosquitoes? How often?	30	16	3	1	4	7
Do you routinely use adulticides?	33	11	5	1	4	7
Do you routinely use larvacides?	18	12	11	1	12	7
Do you routinely employ source reduction?	13	17	8	5	11	7
Do you have at least one individual certified in Public Health Pest Control? Please name all individuals.	28	1	1	4	20	7

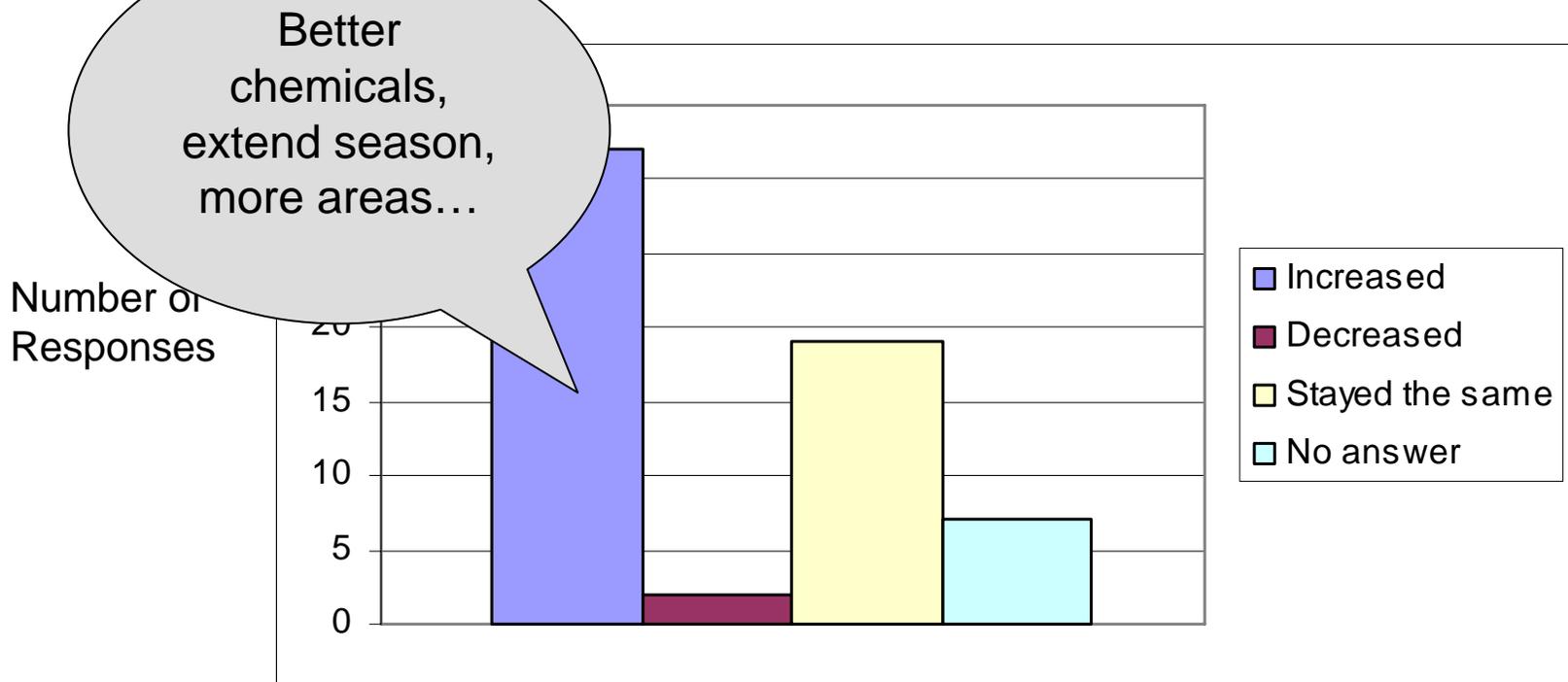
Mosquito Control Staff (before)

Please check the appropriate number:	0	1	2	3	4	5+	No ans
How many full-time mosquito control workers does your program employ?	11	10	15	8	3	5	10
How many part-time mosquito control workers does your program employ?	6	13	12	4	5	5	17
On average, how many days per week does your program include source reduction activities?	5	16	13	9	5	6	8
On average, how many days per week do you apply larvicides?	5	26	5	6	3	4	13
On average, how many days per week do you apply adulticides?	0	5	15	13	11	7	11
How many truck-mounted sprayers do you use?	2	36	11	1	0	9	3
On average (excluding night-time spraying), how many hours per work day are dedicated to mosquito control efforts?	5	13	9	6	7	16	6

Mosquito Control Staff (after)

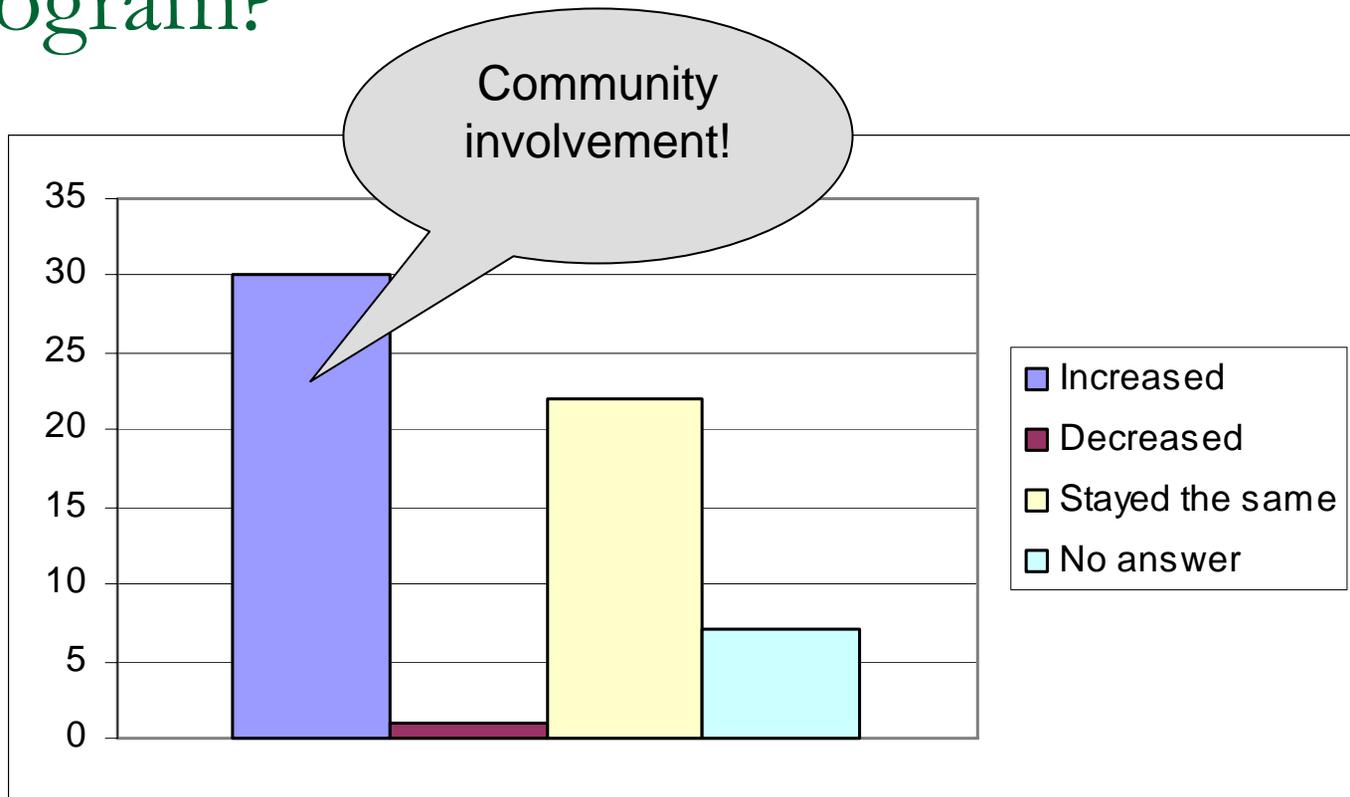
Please check the appropriate number:	0	1	2	3	4	5+	No ans
How many full-time mosquito control workers does your program employ?	19	10	11	4	1	9	5
How many part-time mosquito control workers does your program employ?	15	14	8	11	2	5	5
On average, how many days per week does your program include source reduction activities?	8	13	13	10	5	4	5
On average, how many days per week do you apply larvicides?	13	17	10	5	2	7	5
On average, how many days per week do you apply adulticides?	5	9	14	4	10	12	5
How many truck-mounted sprayers do you use?	1	33	7	1	1	11	5
On average (excluding night-time spraying), how many hours per work day are dedicated to mosquito control efforts?	1	6	7	7	10	22	5

What changes have you made in larvaciding as a result of the program?



What changes have you made in your approach to source reduction as a result of the program?

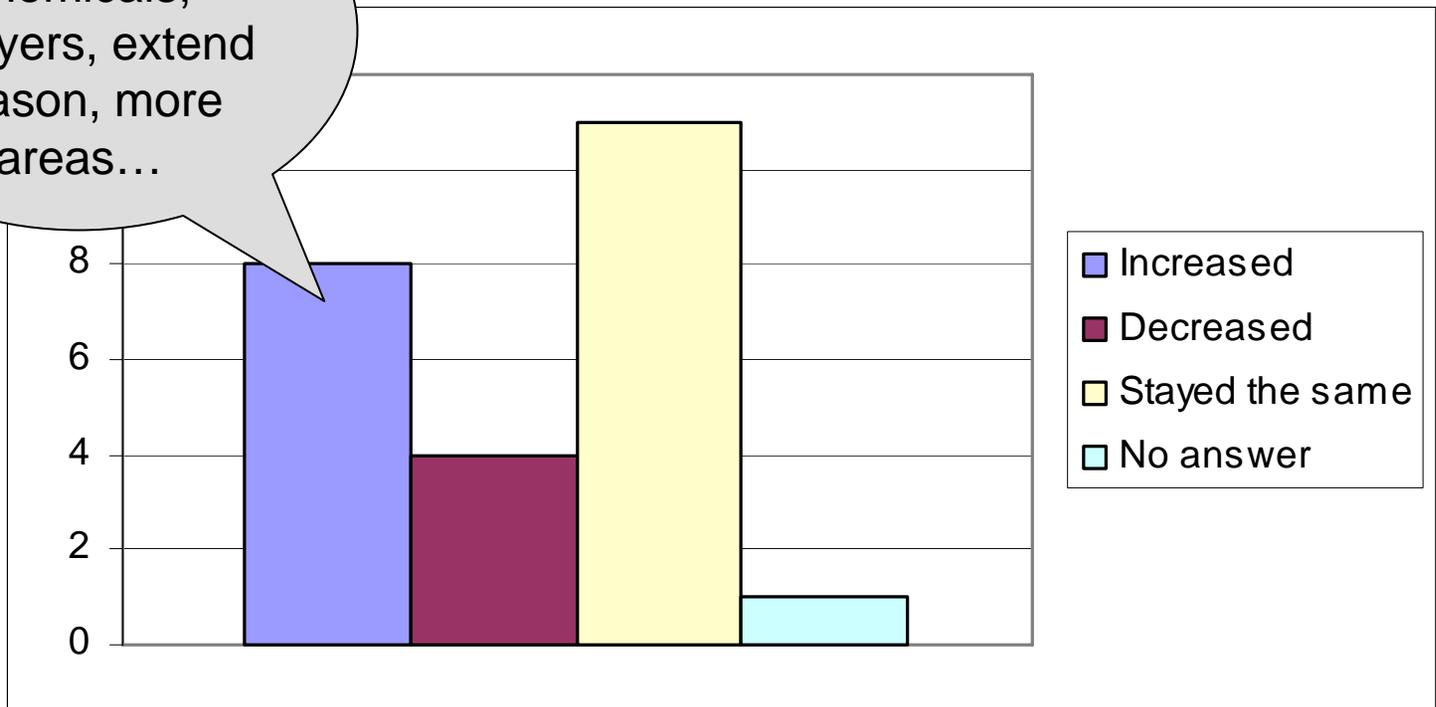
Number of Responses



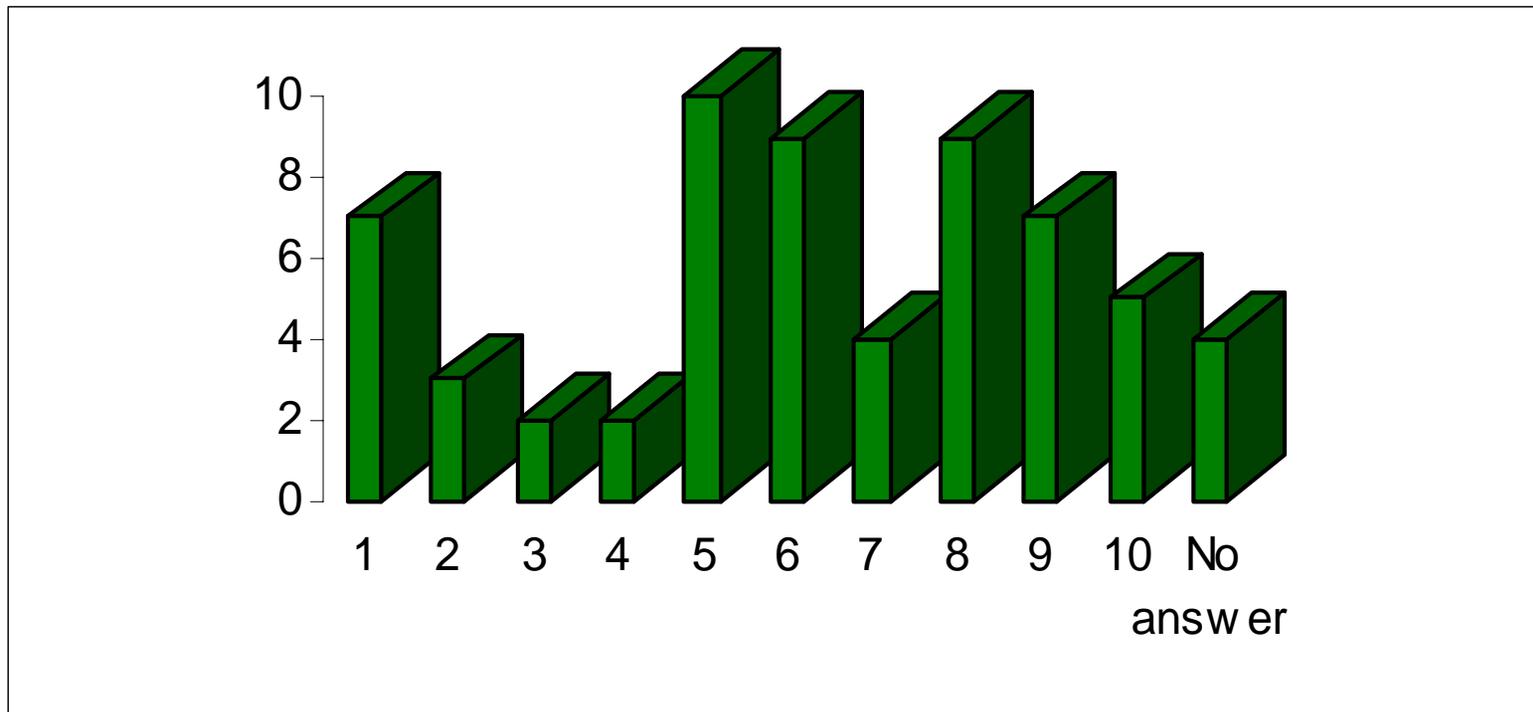
What changes have you made in aduulticiding as a result of the program?

Better chemicals, sprayers, extend season, more areas...

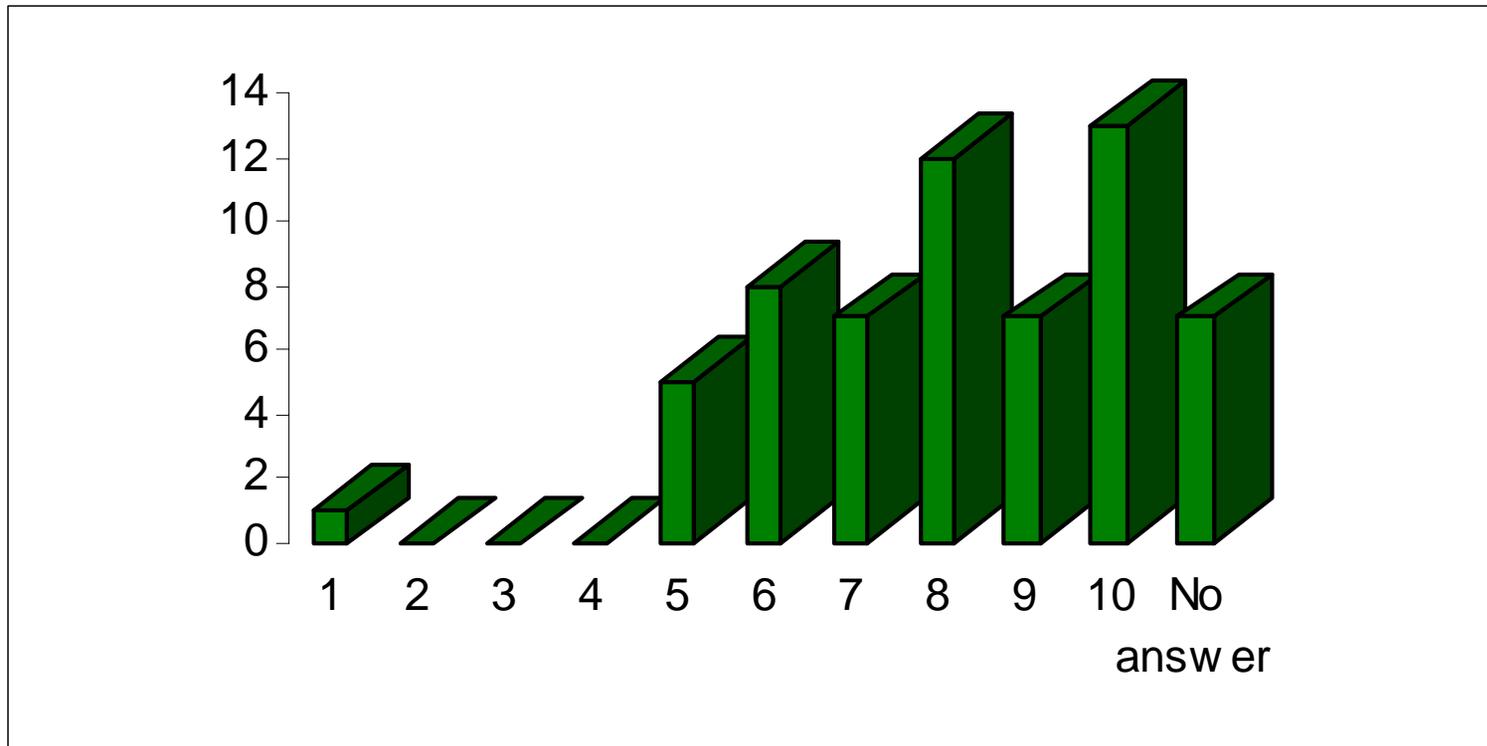
Number of Responses



Rate the effectiveness of mosquito control at your site *before* the grant

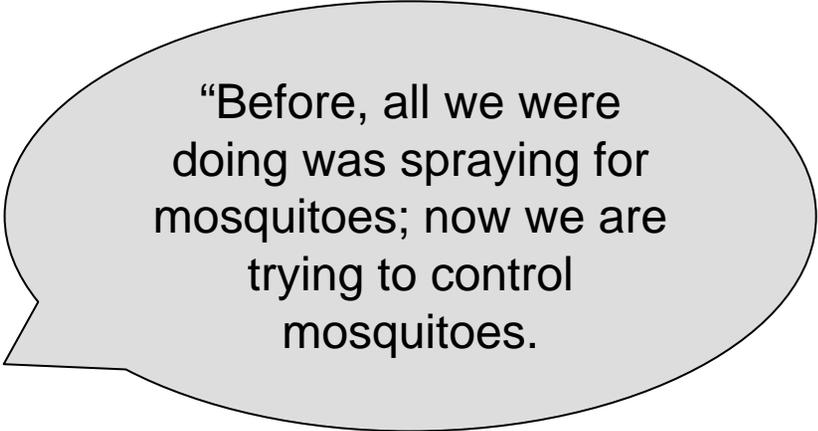


Rate the effectiveness of mosquito control at your site *after* the grant



After the grant

- How many have changed their minds about mosquito control?
 - Yes - 13 (35.8%)
 - No - 19 (24.5 %)
 - Don't know - 21 (39.6%)



“Before, all we were doing was spraying for mosquitoes; now we are trying to control mosquitoes.”