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REPORT TO THE CONGRESS

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BY THE COMPTROLLER GENERAL
OF THE UNITED STATES

The Urban Rat Control Program Is In Trouble

Center for Disease Control

Department of Health, Education,
and Welfare

Although HEW has reported progress in the Nation's fight to control rats, problems affecting this federally supported program not only impede further advances but may also negate some of the earlier reported gains.

GAO's review of the program included six rat control projects located in cities in Georgia, Maryland, Pennsylvania, Tennessee, and Virginia.

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SEPT. 29, 1975



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-164031(5)

To the President of the Senate and the
Speaker of the House of Representatives

We reviewed the Urban Rat Control Program to ascertain whether Federal funds were being used effectively to reduce the health, economic, and psychological problems caused by rats in United States urban centers.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget, and to the Secretary of Health, Education, and Welfare.

Thomas B. Heath

Comptroller General
of the United States

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ABBREVIATIONS

CDC Center for Disease Control

GAO General Accounting Office

HEW Department of Health, Education, and Welfare

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

THE URBAN RAT CONTROL PROGRAM
IS IN TROUBLE
Center for Disease Control
Department of Health,
Education, and Welfare

D I G E S T

The Urban Rat Control Program is in trouble. Although some progress has been made, problems affecting this federally supported program not only impede further advances but may also negate some of the earlier gains.

Progress

According to Department of Health, Education, and Welfare (HEW) reports, the program has achieved:

- A 54-percent reduction, from 710 to 330, in the annual number of confirmed rat bites in areas originally covered by the program. (See p. 4.)
- A steady increase in the number of city blocks, about 20,500 at June 30, 1974, where rat control was considered effective. (See p. 6.)
- Greater public and local government understanding of the rat problem and actions needed to solve it. (See p. 6.)

Problems

Despite this reported progress, accomplishment of the program goal is doubtful.

- Although the number of city blocks considered to have effective rat control has substantially increased, the overall achievement level falls far short of what was targeted. None of the 19 rat control projects in their sixth year of Federal funding has reported attaining maintenance in all target area blocks within the targeted 5-year operational period. (See p. 7.)

- There are indications that rat control projects are unable to sustain reported achievements. (See p. 8.)
- Many cities have reduced rat control efforts because grantees are not supplying the money needed to offset phased reductions in Federal support. (See p. 11.)
- The criteria for measuring program accomplishments may understate current or potential rat problems in the target areas. (See p. 17.)

In addition, progress was impeded by

- sanitation codes that were either inadequate or not being enforced (see p. 20) and
- the inability of most project managers to gain effective community support. (See p. 21.)

Recommendations

The Secretary, HEW, should require the Director, Center for Disease Control, to reassess the Center's role in funding urban rat control programs.

The Director needs to improve implementation of the "seed" money concept to make it more effective in promoting and maintaining urban rat control programs. Specifically, he should make the annual award of Federal funds conditional on the grantee's firm commitment of financial support. (See p. 23.)

To improve program performance and to adequately measure accomplishments, the Secretary should also require the Director to

- revise the criteria for establishing maintenance in target areas (see p. 23) and
- help rat control projects to (1) strengthen and enforce sanitation codes and (2) obtain optimum community support. (See p. 23.)

Agency comments and unresolved issues

HEW supports the concept that rat control programs developed with Federal grants should, in the long run, be sustained by State or local governments. However, HEW did not agree to obtain a grantee's firm commitment for a specific local financial support level before the annual Federal grant is awarded. (See pp. 23 and 24.)

HEW agreed to provide technical assistance to States and local grantees to improve the effectiveness of sanitation codes and to help grantees develop techniques designed to increase community participation and support in achieving rat control objectives. (See p. 24.)

Other HEW comments will be found on page 24.

CHAPTER 1

INTRODUCTION

The rat, abounding in the inner city, has become a symbol of America's urban blight. Rats contaminate food with the filth they carry about, damage buildings with their gnawings, outrage or frighten many people whose paths they cross, and may even attack the young and the aged. Man, through indifference and carelessness in maintaining his environment, has perpetuated their existence, and only man can control them.

SERIOUSNESS OF THE PROBLEM

The Department of Health, Education, and Welfare (HEW) estimates there are 100 million rats in the United States--approximately 1 for every 2 citizens. Although rats bite more than 45,000 persons each year and create various health, economic, and psychological problems, their full impact has never been completely documented.

Rats transmit disease directly, by bite or by contaminating food with urine, feces, and filth, or indirectly, by way of rodent-borne fleas or mites. Diseases associated with rodents include plague, murine typhus, rat-bite fever, leptospirosis, and salmonella food poisoning. These diseases have occurred in the United States within the past 5 years; however, it is impossible to prove rats were the cause in each instance.

Although the incidence of reported death and illness from rodent-borne disease has generally been minimal during the past 5 years, failure to adequately control rodents could have serious consequences. Plague, for example, which once devastated Europe, Asia, and Africa but has not appeared to any great degree in this country since 1924, is well established in the rural rodent population of the western United States. Thus, were the diseased rodents to come into contact with urban rodents, the possibility exists that plague could be transmitted to populated areas. Rats bearing plague-carrying fleas were trapped on the outskirts of a major western city in 1971--evidence of the potential hazard.

Rats consume or contaminate quantities of food and feed, and their gnawing and burrowing destroy other property. For example, the board of health of a large midwestern city impounds approximately \$1 million worth of food each year because of rodent defilement. HEW has estimated that rats

may cost the United States as much as \$1 billion annually in direct economic losses. The psychological and social impact of rats cannot be measured financially.

THE FEDERAL GOVERNMENT'S ROLE

On December 5, 1967, the Partnership for Health Amendments (Public Law 90-174) became law. This legislation amended section 314(e) of the Public Health Service Act (42 U.S.C. 246) to extend and expand the funding authorization for health services development project grants. Although not specifically authorized by the act, rat control activities were funded under this legislation as health services development projects.

HEW has administrative responsibility for the Federal Urban Rat Control Program which evolved from this legislation. The program, initially administered by HEW's Health Services and Mental Health Administration, became the administrative responsibility of HEW's Center for Disease Control (CDC) on July 1, 1973.

From fiscal year 1969, when the initial rat control grants were awarded, through fiscal year 1974, government and private agencies have received approximately \$85.4 million in "seed" money to initiate or stimulate comprehensive rat control programs. Although the authorizing legislation for rat control project grants expired on June 30, 1974, the Congress has provided rat control grant funds until the end of fiscal year 1975 through a series of joint resolutions. At June 30, 1974, HEW was administering 41 rat control grants with 52 projects in 59 communities serving approximately 6.8 million residents. (See app. I for list of rat control grantees and projects receiving Federal funds as of June 30, 1974, and app. II for list of rat control grantees and projects no longer receiving Federal funds.)

PROGRAM GOALS

HEW's goal for the Federal Urban Rat Control Program is to reduce rat populations and alter conditions conducive to rat infestations, so that they no longer significantly affect the health and economy of the target area. HEW measures the program's progress by the reduction in the number of confirmed rat bites and by the increase in the number of city blocks in maintenance. Maintenance is attained when 2 percent or less of the premises on a target block exhibit exterior signs of active rat infestations and either (1) 15 percent or less of the premises have exposed garbage or (2) 30 percent or less of the premises have refuse storage which does not meet HEW's criteria.

Major emphasis is placed on improving the physical and social environment and on the "people aspect" of rat control--communicating with people, winning their cooperation, and motivating them to properly maintain their environment. Projects are expected to implement comprehensive rat control programs focusing on permanent, long-range solutions. Individual rat control projects are to include such elements as (1) providing health education and community outreach programs to educate residents in rat control and environmental sanitation, (2) encouraging residents to participate in block or neighborhood associations to improve community sanitation, (3) providing maximum employment and educational opportunities for target area residents, (4) promoting, developing, improving, and enforcing appropriate housing, rat control, and sanitation codes and ordinances, (5) establishing coordination with local health and housing departments and other local agencies related to rat control, (6) inspecting and ratproofing garbage storage and eliminating rat harborage from private and public premises, (7) providing intensive and diversified rat killing activities to supplement permanent control measures, and (8) establishing a self-evaluation system.

Rat control project operations have three phases:

- Preattack, involving preliminary planning and community information efforts but no direct operational activities.
- Attack, involving comprehensive operations to rid the area of rats and conditions conducive to rats.
- Maintenance, the program's apex, when the rat control goal has been reached and reduced resources and activities can sustain the condition.

CHAPTER 2

THE PROGRAM IS IN TROUBLE

The Urban Rat Control Program is in trouble. Although some progress has been made, problems affecting the program not only impede further advances but may also negate some of the earlier gains.

Controlling rats and the conditions conducive to rats is a continuing effort requiring the cooperation of all citizens. A city block may actually be in maintenance one week and out of maintenance the next because of the rapidity with which environmental conditions can deteriorate. There are various reasons for this lack of environmental stability, including (1) insufficient funds for conducting all phases of operations; (2) weak or difficult-to-enforce sanitation codes; and (3) lack of community cooperation.

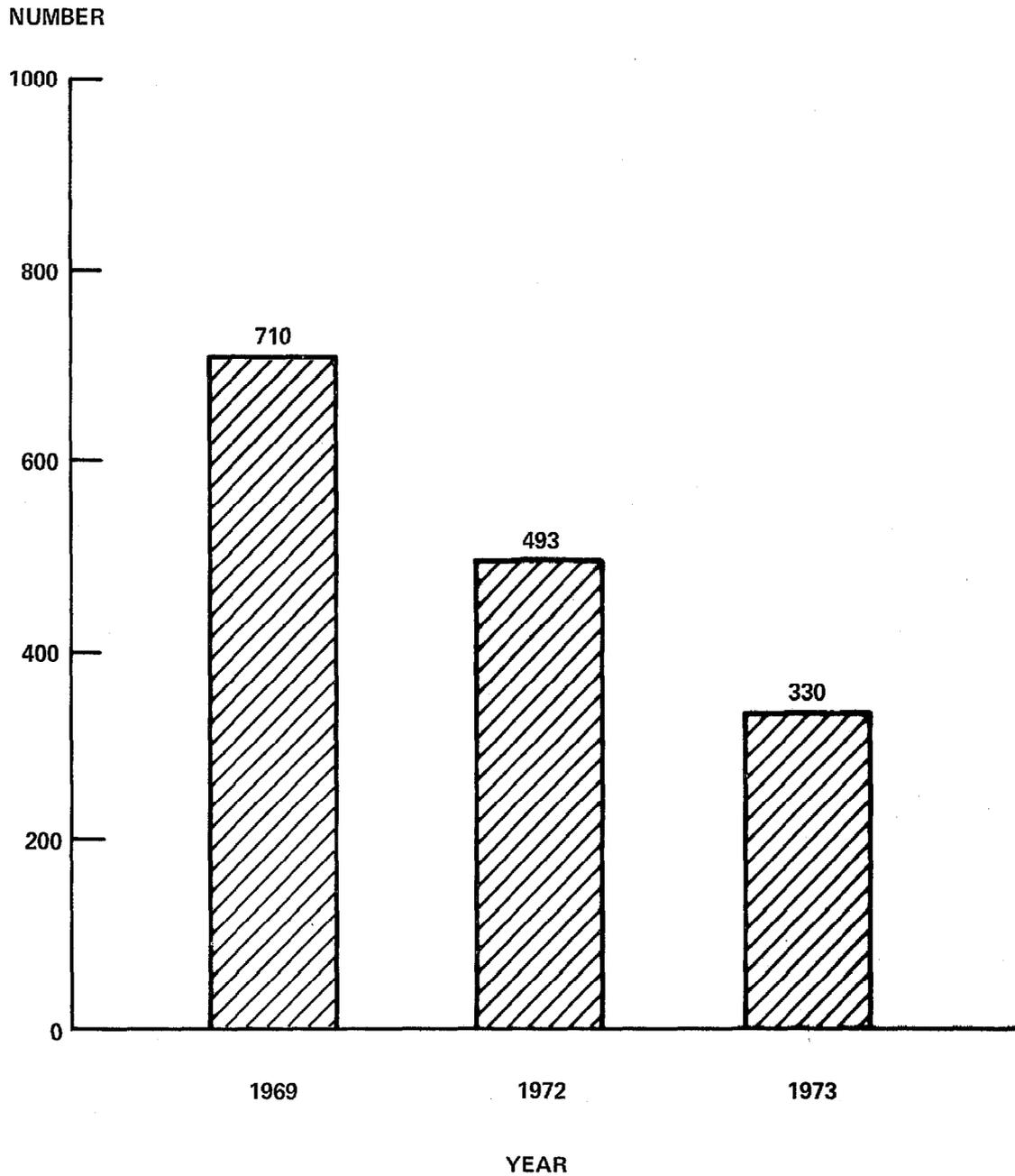
SOME PROGRESS HAS BEEN MADE

HEW obtains statistical data from each project on the number of (1) confirmed rat bites and (2) target area blocks classified in maintenance. Such data shows that rat control projects have had some success in accomplishing program goals.

Reduction in number of rat bites

Rat bites, besides causing physical injury which could lead to permanent disfigurement, cause psychological harm. They occur most commonly in crowded urban centers, in sub-standard housing, in areas with poor sanitation, or in neighborhoods where rat-infested buildings are being demolished.

According to HEW, the number of confirmed rat bites in the 20 original project cities dropped about 54 percent--from 710 to 330--between 1969 and 1973, as shown by the graph on the following page.



Increase of blocks in maintenance

Before April 1972, program accomplishments were measured by the decrease in the number of target area premises (1) showing exterior signs of active rat infestations such as burrows, tracks, feces, and gnawings and (2) having inadequate storage for garbage, rubbish, and other refuse. Data using these criteria show that the program initially achieved some success in the 20 original project city target areas, as shown on the following page.

<u>Type of problem</u>	<u>Percentage of premises with problems</u>				<u>Percentage of decrease between 1969 and 1972</u>
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	
Exterior signs of active rat infestation	16	11	8	6	63
Unapproved refuse storage	63	57	51	46	27

In April 1972, HEW initiated a new method to measure program success. This method recognizes individual blocks reaching maintenance and provides a better basis for geographically determining problem areas.

Rat control projects first reported statistics using these criteria in September 1972. The progress reported since then is shown below.

<u>Report period ending</u>	<u>Number of projects</u>	<u>Number of target area blocks</u>	<u>Number of target area blocks in reported maintenance</u>	<u>Percentage of target area blocks in maintenance</u>
9-30-72	39	33,253	9,530	28.7
6-30-73	41	40,769	16,080	39.4
12-31-73	47	45,524	18,312	40.2
6-30-74	52	45,193	20,558	45.5

Other program accomplishments

According to HEW, the program has been successful in other ways. It has increased awareness and understanding of rat control concepts and the need for good sanitation habits by target area residents, some of whom participated in community and home improvement projects. Municipal officials in project cities have been made increasingly aware of the need to upgrade refuse storage and collection practices.

ACCOMPLISHMENT OF PROGRAM GOAL DOUBTFUL

Despite this progress, it is doubtful that the program goal will be accomplished because (1) although the number of blocks considered to have effective rat control has substantially increased, the overall achievement level falls far short of what was targeted; (2) there are indications that

rat control projects cannot sustain reported achievements; (3) many cities are decreasing their rat control efforts because most grantees are not supplying the money needed to offset phased reductions in Federal support; and (4) the criteria for measuring program accomplishments may understate the actual or potential rat problems. In addition, sanitation codes that were either inadequate or not being enforced and the inability of most project managers to gain effective community support have impeded progress.

Rat control projects not reaching maintenance within targeted time

HEW policy for rat control grants is predicated, in part, on the expectation that rat control projects will reach target area maintenance within the first 5 years of operation. CDC officials said that this expectation had no technical basis but was based on an initial administrative decision to limit the funding for section 314(e) grants to 5 years. However, current policy calls for an additional 3 years funding after the projects reach maintenance.

None of the rat control projects receiving fiscal year 1974 Federal funds, and only one no longer receiving Federal funds, had reported attaining maintenance in all target area blocks within the initial 5-year operational period. The table below shows, as of June 30, 1974, the level of maintenance reached by the active rat control projects together with the number of years they were funded. Only 10 of the 19 projects in their sixth year of operation have attained maintenance in 51 percent or more of the blocks in their target areas.

Project year	Number of projects (note a)	Number of projects by percentage range of maintenance					Percent of total blocks in maintenance	
		100	76-99	51-75	26-50	1-25		0
1	6	-	-	-	-	-	6	-
2	9	-	2	-	-	3	4	27.9
3	10	-	-	5	2	2	1	38.8
4	3	-	-	1	1	1	-	40.9
5	5	-	1	-	1	2	1	43.2
6	<u>19</u>	-	<u>3</u>	<u>7</u>	<u>7</u>	<u>1</u>	<u>1</u>	57.3
Total	<u>52</u>	-	<u>6</u>	<u>13</u>	<u>11</u>	<u>9</u>	<u>13</u>	

a/Binghamton, N.Y., the only project to report reaching a 100-percent level of maintenance within its initial 5-year operational period, is not included because it was not funded during fiscal year 1974.

A CDC official said that some projects have been slow in attaining maintenance because the projects' target areas have been expanded from their initial size. The 45 respondents to a questionnaire we sent to the 47 rat control projects funded in fiscal year 1973 generally thought that they would probably not reach total maintenance within 5 years but that maintenance could probably be achieved in at least 85 percent of their target area blocks within this period. Most believed that, once reached, maintenance could probably be sustained:

Reported progress not sustained

To ascertain if rat control projects were able to sustain maintenance, we accompanied HEW regional representatives on inspections of randomly selected blocks classified as being in maintenance by six projects. On the basis of our sample, we estimate that, at the time of the inspections, 1,847 of the 5,531 blocks, or 33 percent, ¹/ could not be classified in maintenance because (1) more than 2 percent of the premises showed exterior signs of active rat infestations or (2) the blocks exceeded HEW-prescribed limits for both unapproved refuse storage and exposed garbage. The percentage of blocks reported but not actually in maintenance at the time of our inspection ranged from 50 percent--648 blocks of 1,297 blocks--at 1 project to 13 percent--42 blocks of 318 blocks--at another.

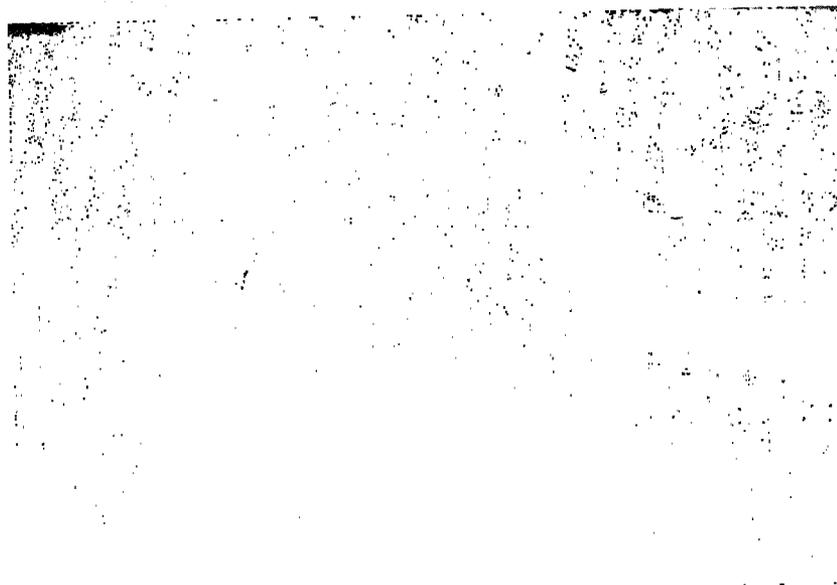
The following photographs illustrate the types of conditions observed during the inspections.

¹/The estimated percentage of blocks not in maintenance is subject to a sampling error of 9.4 percent at the 95-percent confidence level. This means that, if all blocks reported to be in maintenance were inspected, the chances are 19 in 20 that the percentage of blocks found not to be in maintenance would be between 23.6 percent and 42.4 percent; i.e., 33 percent plus or minus 9.4 percent.

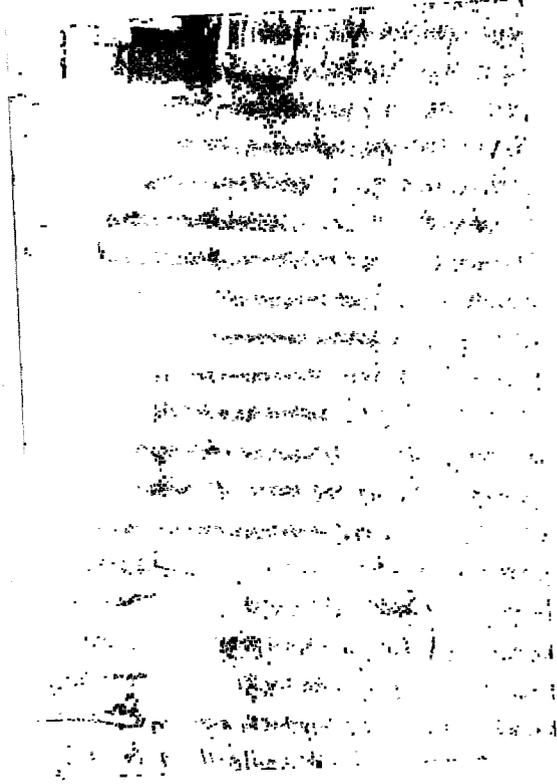
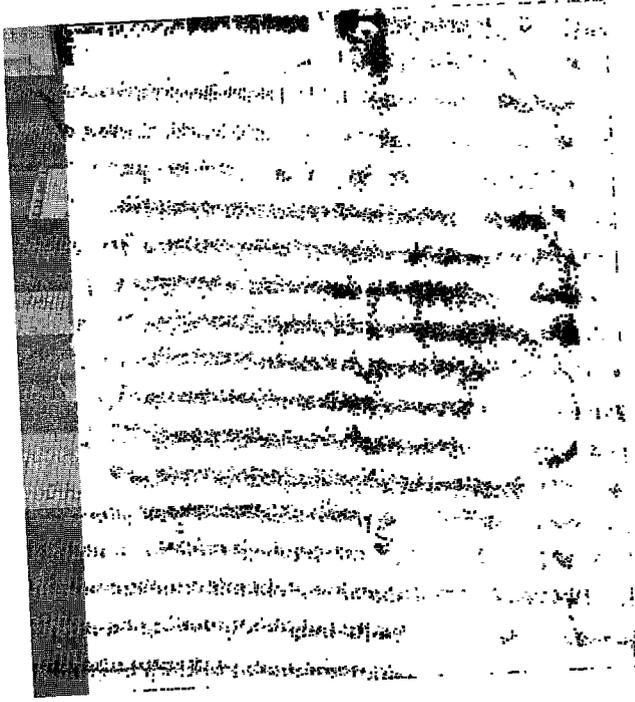
**Exterior signs of rats--rat burrows underneath
concrete slab**



Exterior signs of rats--rat droppings outside of rat burrow



Unapproved refuse storage and exposed garbage



Regarding blocks which had at one time attained maintenance, project officials said that maintenance was very difficult to sustain without a concentrated and continued effort by the rat control project and the community residents. They generally stated that decreased funding has resulted in reduced manpower levels which has in turn resulted in less effort in all project functions including inspection, health education, and rat killing.

Decreasing efforts because
of insufficient funding

Insufficient funding is one reason why federally funded rat control projects have been unable to reach and sustain maintenance. Project grants for urban rat control have been made available under section 314(e) of the Public Health Service Act since fiscal year 1969. These grants have always been viewed as stimulatory with a planned scaledown and eventual termination of Federal grant support to individual projects. Current funding policy calls for (1) an initial attack phase lasting a maximum of 5 years with a recommended 10- to 15-percent annual reduction in funds after the second year of operation and (2) a subsequent 3-year maintenance phase with steadily declining support of 23, 34, and 50 percent, respectively, from the fifth year funding level. As previously stated, this policy is based on an administrative decision.

HEW's policy statement for section 314(e) grants states that, "* * * grantees are expected to increase the proportion of support from non-Federal funds each year of the approved project period to ensure continuation of the program upon termination of Federal support." While no specific matching percentage is required for health services development project grants, grantees must assume some project costs and, in effect, be self-supporting after the presently contemplated 8-year Federal funding cycle.

Overall, the non-Federal share of program funding increased from about 27 percent in 1969 to an estimated 59 percent in 1974. However, information we obtained showed that some grantees are not substantially increasing their local contributions as grants get older.

During the first 5 years of the program, the 15 grantees originally funded in 1969 (see p. 12) contributed about 36 percent of the total funding for their projects; Federal grants constituted the remaining 64 percent. For their sixth year of funding, 14 grantees were not planning to totally offset reductions in Federal funds with corresponding increases in