

**Results of Process Evaluation of
National Infant Immunization Week
Media Placement
to
Promote Infant Immunization**

Submitted by:

Westat, Inc.
1650 Research Boulevard
Rockville, MD 20850
(301) 251-1500

Submitted to:

National Immunization Program
Centers for Disease Control and Prevention
Atlanta, GA 30329

October 1997

EXECUTIVE SUMMARY

Purpose

As part of the CDC's Childhood Immunization Initiative (CII), President Clinton designated the last week in April of every year as National Infant Immunization Week (NIIW). The purpose of NIIW is to communicate the problem of under-immunization of children in the United States, and as a result, to raise immunization levels. In 1997, the National Immunization Program at CDC sent out over 35,000 promotional kits to public health organizations, nonprofit organizations, health care providers, private organizations, and other immunization partners to aid them in media advocacy efforts and special event planning for NIIW. The kits provided local options for generating special events geared toward creating media coverage in local communities, thus raising awareness of infant immunization.

In order to track print coverage given to NIIW in 1997 (April 20-26), as well as any extended effects of NIIW in the print media, Westat conducted a media-tracking effort for the 9-week period April 1, through May 31. This time period was selected since it included the 3 weeks preceding NIIW, the week of NIIW, and the successive 5 weeks following NIIW.

Method

Westat contracted with Burrelle's Press Clipping service to gather print media articles that addressed NIIW and as other issues related to childhood immunization. Burrelle's, which scans over 17,000 publications, examined all their English-language publications produced in the United States from April 1 through May 31, 1997. In total, Burrelle's clipped 8,954 usable articles related to NIIW and/or other childhood immunization issues.

Westat then conducted frequency analyses for 73 geographically defined areas, including (1) the United States and its territories as a whole; (2) the 10 regions of the United States as defined by the United States Department of Health and Human Services (HHS); (3) 11 selected cities throughout the

nation that were chosen based on immunization rates; and (4) the 50 states and the District of Columbia. For each geographically defined area, Westat conducted the following eight univariate analyses:

- (1) The number of articles that specifically mentioned NIIW versus those that provided other types of general information about childhood immunization;
- (2) The number of NIIW articles that specifically also discussed promotional strategies, for logistics of, educational information about, and legal requirements of NIIW;
- (3) The number of all articles that were supportive of childhood immunization and/or vaccine safety, the number that were not supportive of these issues, and the number that were neutral;
- (4) The number of supportive letters to the editor versus the number of nonsupportive letters to the editor regarding childhood immunization issues;
- (5) The number of supportive editorial opinions versus those that were not supportive of various childhood immunization issues;
- (6) The number of all childhood immunization-related articles that discussed the epidemiology of vaccination rates and vaccine-preventable diseases, minority issues, and legislation about parental choice;
- (7) The number of articles from publications with small, medium, and large circulation rates^{*} and
- (8) The number of articles appearing on the front page of a publication versus those that appeared on all other pages of the publication.

Key findings from the analyses are discussed below. Some comparisons are made to the results of the media-tracking effort in 1996. The reader is referred to *Results of Process Evaluation of National Infant Immunization Week Media Placement to Promote Infant Immunization* (Westat, Inc., July 1996) for a full report of the 1996 results.

^{*} A publication with a small circulation rate was defined as one with a readership of 0-5,000; 5,001-15,000 defined a medium circulation rate; and 15,001+ defined a large circulation rate.

Key Findings

National Data

- The largest number of all childhood immunization-related articles published during any 1 week of the 9-week tracking period occurred during National Infant Immunization Week (n=1,684). The second largest number of articles, 1,477, appeared the week before NIIW. Although the total number of articles progressively decreased after NIIW, there were still over 300 articles related to childhood immunization published during Week 9. The same trend was seen in 1996, in that the largest number of all articles was published during NIIW (n=2,115), and the second largest was found the week preceding NIIW (n=1,571).
- As expected, the largest number (n=715) of articles that specifically mentioned National Infant Immunization Week was published during NIIW (Week 4); the second largest number of articles mentioning NIIW (n=463) was published the week before NIIW. In total, 17 percent of all articles published over the 9 weeks mentioned NIIW. In comparison in 1996, 29 percent of all articles published over a 7-week tracking period mentioned NIIW.
- Week 1 saw the highest number of articles (n=1,284) published on all other childhood immunization issues besides NIIW. This phenomena was heavily influenced by the immunization of more than 13,000 schoolchildren throughout the United States in response to the Hepatitis A contamination of frozen strawberries served at school lunch programs during the spring of 1997. As the number of illnesses and inoculations around this issue decreased, so did the print coverage of childhood immunization.
- Ninety-eight percent of all articles were supportive of childhood immunization and/or vaccine safety. The remaining percent were equally split among articles that either were not supportive of these issues or took a neutral stance.
- Similar percentages of all articles appeared in publications with small (33 percent), medium (31 percent), and large (34 percent) circulation rates (the remainder of articles were printed in publications with unknown circulation rates). In 1996, approximately 40 percent of all articles appeared in publications with small circulation rates, another 31 percent in publications with medium circulation rates, and the remaining 28 percent of articles were found in large-sized publications.
- Over the 9-week period, approximately 13 percent of all articles were found on the front page of a publication. Approximately 10 percent of articles published in 1996 appeared on the front pages of publications.

The Ten HHS Regions

- Publications in Regions 4 (eight southern states) and 5 (six midwestern states) together printed close to half (48 percent) of all articles during the 9-week tracking period. In 1996,

these two regions also printed the largest portion (42 percent) of all articles clipped during a 7-week tracking period.

- Of all 10 regions, Regions 3 and 8 printed the largest percentage of articles that mentioned National Infant Immunization Week (31 and 26 percent respectively) over the 9 weeks. Twelve to 20 percent of the articles published in the other eight regions mentioned NIIW.
- The majority of articles in five of the 10 regions (Regions 1 through 3, 9, and 10) appeared in publications with large circulation rates. Another four regions (Regions 5 through 8) printed the majority of their articles in small-sized publications, and one region had the largest number of articles in medium-sized publications (Region 4). This was the same pattern that was seen during the 7-week tracking period of 1996.

The Eleven Cities

- A total of 235 articles related to NIIW or other childhood immunization issues were published in all 11 cities over the 9-week tracking period.
- The largest number of articles (n=39) was published during Week 1; however, a similar number (n=35) was issued during the week of NIIW.
- Of the 235 articles, 22 percent (n=51) mentioned National Infant Immunization Week.

Conclusions

The observed trends for national, regional, and city data suggest that the distribution of the NIIW promotional kits played an important positive role in the amount and type of print media coverage that NIIW and other childhood immunization issues received. The amount of negative coverage was negligible.

1. Background

The National Childhood Immunization Initiative (CII), directed by the National Immunization Program (NIP) at the Centers for Disease Control and Prevention (CDC), was designed to marshal and coordinate effort of the public and private health care communities and volunteer organizations to raise infant immunization level in the United States. The current national infant immunization rate is at an all-time high of 76 percent, but, many infants are still vulnerable to vaccine-preventable diseases.

To help communicate the need for infant immunization, President Clinton designated the last week in April of every year as National Infant Immunization Week (NIIW). For 1997, NIIW was planned for April 20-26. This special observance highlighted age-appropriate immunization of children under 2 years old. As part of its health communication strategy, NIP distributed over 35,000 NIIW Promotion Kits to public health organizations, nonprofit organizations, health care providers, private organizations, and other immunization partners to aid them in media advocacy efforts and special event planning for NIIW. The kits provided local options for generating special events geared toward creating media coverage in local communities, thus raising awareness of infant immunization.

The goal of the present study was to conduct a process evaluation of NIP's efforts. The purpose of process evaluation is not to assess behavioral outcomes, but rather to determine whether or not information is reaching the public. Depending on the resources available and the message formats used in the campaign, there are a variety of techniques to track the progress of a health communication campaign. For this study, the evaluation involved the use of a clipping service to track the number of related stories that appeared in print. In addition, the contents of the articles were analyzed to determine what type of information on immunization was being communicated to the public. The following section details these efforts.

2. Method

Westat contracted with Burrelle's Press Clipping Service to gather print media articles that address issues related to childhood immunization. Burrelle's, which scans over 17,000 different publications, clipped only those articles that appeared in press during a 9-week period lasting from April 1 through May 31, 1997. This 9-week period included the 3 weeks before NIIW, the event week itself, and the 5 weeks following NIIW. Burrelle's provided information about the publication date, the circulation rate of the publication, whether or not the article appeared on the front page of the publication, the name of the publication, the city in which it was published, and the frequency of publication.

Burrelle's clipped a total of 8,954 usable articles. Westat then conducted frequency analyses for 72 geographically defined areas: (1) the United States and its territories as a whole; (2) the 10 regions of the United States as defined by the United States Department of Health and Human Services (HHS); (3) 11 United States cities with low childhood immunization rates; and (4) the 50 states and the District of Columbia. For each geographically defined area, Westat conducted the following eight univariate analyses:

- (1) The number of articles that specifically discussed or mentioned NIIW versus those that provided other types of information about childhood immunization.
- (2) The number of NIIW articles that specifically discussed one or more of the following:
 - Strategies: these articles provided information about NIIW and described or at least mentioned promotional strategies designed to encourage parents to have their children immunized. This included strategies such as coalition building, free clinics, health fairs, and workshops;
 - Logistics: articles that provided details about when and/or where parents could have their children immunized during NIIW;
 - Education: articles that provided information that educated the public about specific topics related to childhood immunization. These topics could include the necessity of immunizations information about talking with health care providers; basic facts about the names, types, and uses of individual immunizations; and recommended schedules for immunizing children; and
 - Requirements: articles that provided information about what local and state laws require for immunizations in terms of types, numbers, and timing.
- (3) The number of all articles that were supportive of childhood immunization and/or vaccine safety, the number that were not supportive of these issues, and the number that were neutral. Articles that were supportive explicitly or implicitly encouraged childhood immunization and/or validated the safety of vaccines. This also included any articles that offered a public service information to parents that they could use in taking their children through the immunization process (e.g., times, definitions of vaccines, recommended schedules). Articles that were considered to be nonsupportive provided coverage of any individual or organization that called into question the safety of childhood immunization, the need for immunizations, or the government's right (at any level) to supersede a parent's wishes.
- (4) The number of supportive letters to the editor versus the number of nonsupportive letters to the editor regarding childhood immunization issues.
- (5) The number of supportive editorial opinions versus those that were not supportive of various childhood immunization issues.

- (6) The number of all childhood immunization-related articles that mentioned epidemiology, minority issues, and/or parental choice legislation. More specifically:
- Epidemiology: Any article that provided specific information about immunization rates or incidence of vaccine-preventable disease;
- Minority Issues: Any article that addressed childhood immunization issues as they specifically relate to minority populations; and
- Parental Choice Legislation: Any article that provided information about federal, state, or local legislation aimed at giving parents more authority to determine whether or not their children receive any or all required immunizations.
- (7) The number of articles from publications with small, medium, and large circulation rates¹.
- (8) The number of articles appearing on the front page of a publication versus those that appeared on all other pages of the publication.

Detailed results for the eight analyses are discussed in the next section.

¹ A publication with a small circulation rate was defined as one with a readership of 0-5,000; 5,001-15,000 defined a medium circulation rate; and 15,001 + defined a large circulation rate.

3. Results

Findings from the media tracking project are presented for the nation as a whole, for each of the 10 HHS-designated public health regions, and from 11 selected cities throughout the United States. For all geographic areas, bar graphs show the results of the analyses. In addition, a brief written summary accompanies the graphs for each area. The appendix contains the bar graphs for the 50 states and the District of Columbia; however, no written discussion accompanies those graphs.

3.1 National Data

A total of 8,954 articles written on various issues related to childhood immunization were found during the 9-week tracking period of April 1 through May 31, 1997. This total included articles about National Infant Immunization Week (April 20-26) as well as articles related to other childhood immunization issues. Over the 9 weeks, the largest number of articles ($n=1,684$) was published during NIIW.

Over the entire 9-week tracking period, approximately 17 percent² ($n=1,557$) of all articles mentioned National Infant Immunization Week, with the largest number ($n=715$) appearing during the actual week (Graph 1). Graph 1 also shows that, as expected, NIIW-related articles increased substantially from Week 1 through 4 (NIIW). Coverage of NIIW continued after Week 4, but, it usually focused on broader immunization-related issues while referring back to activities that had been conducted during NIIW.

The remaining 83 percent of articles discussed childhood immunization-related issue, but did not mention National Infant Immunization Week. Graph 1 shows that the largest number of these articles ($n=1,283$) appeared during the first week of the tracking period, with a steady decline occurring over the remaining weeks. The high amount of coverage given to childhood immunization during Week 1 of the tracking period was heavily influenced by the immunization of thousands of schoolchildren throughout the United States in response to possible exposure to Hepatitis A virus (HAV) found in frozen strawberries served at school lunches. As the number of immunizations surrounding the HAV-contaminated strawberries declined, so did coverage of certain childhood immunization issues.

Graph 2 displays the number of articles that discussed promotional strategies, logistics, education, and/or legal requirements related to National Infant Immunization Week. Promotional strategies designed to encourage

² All percentages throughout this report have been rounded.

parents to have their children immunized were mentioned in approximately 97 percent (n=1,517) of all NIIW articles, with educational information for the public appearing in 83 percent (n=1,296). Logistical details about when or where to have children immunized during NIIW was mentioned in a little more than one-third (n=522) of all articles discussing NIIW; information about legal requirements regarding the types, number of, and timing of immunizations related to NIIW was discussed in less than 3 percent (n=42) of these articles. More than half (n=27) of the articles discussing legal requirements were published during Weeks 3 and 4 (NIIW) of the tracking period.

An examination of the articles shows that an overwhelming majority (98 percent) of all articles were supportive. As Graph 3 shows, the greatest number (n=1,656) of articles supporting childhood immunization and/or validating vaccine safety appeared during NIIW itself. In addition to explicitly or implicitly encouraging childhood immunizations and/or validating vaccine safety, these articles may have presented information to parents that they could use in taking their children through the immunization process. The remaining 2 percent of articles in this category were equally divided among articles that were either not supportive or were neutral about childhood immunizations and/or vaccine safety. Articles that were not supportive included those that provided coverage of individuals or organizations that called into question the safety of childhood immunizations, the need for immunizations, or the government's right to supersede a parent's wishes in immunization matters.

Graphs 4 and 5 depict the number of letters to the editor and the number of editorial opinions published throughout the United States that either did or did not support childhood immunizations and/or vaccine safety. Again, the same trend was seen that occurred with the articles discussed above, in that the large majority were supportive. Over the 9-week tracking period, 70 letters to the editor on childhood immunization were seen. Of those, 55 (79 percent) were supportive and encouraged childhood immunizations and/or validated the safety of vaccines. As Graph 4 shows, almost two-thirds (n=44) of the letters to the editor appeared during the week before, the week of, and the week after NIIW. As seen on Graph 5, the editorial opinions were slightly more spread out over the 9-week tracking period, although two-thirds of the editorial opinions appeared during Week 2 through 5 (Week 4 = NIIW). Of the 71 editorial opinions that were seen over the 9-week period, 68 (96 percent) were supportive.

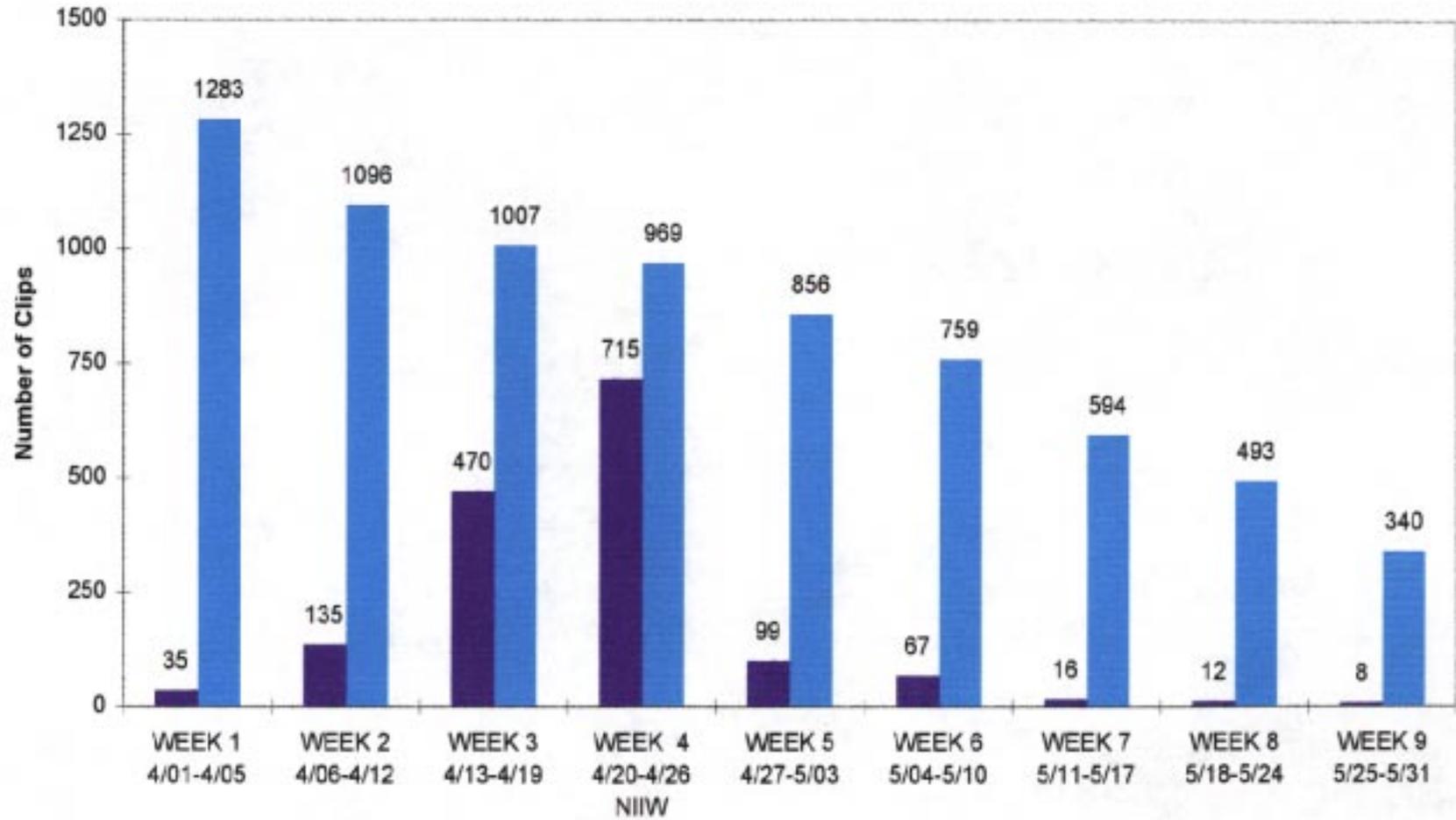
Graph 6 displays print coverage of three specific issues related to childhood immunization: epidemiology surrounding the incidence of vaccine-preventable diseases and vaccination rates, immunization issues specifically related to minority populations, and legislation aimed at giving parents more authority to determine whether or not their children receive any or all required vaccinations. As shown in Graph 6, the topic mentioned most often in all articles was the epidemiology of issues surrounding immunization rates or the incidence of

vaccine-preventable diseases. Almost one-third (n=923) of the articles that discussed epidemiological factors related to immunization appeared during Week 1 of the tracking period. Again, the large amount of coverage at this time was influenced by the HAV-contamination of strawberries. The second largest number (n=487) of articles discussing epidemiology issues around immunization appeared during NIIW. In total, less than 2 percent of all articles published in the United States mentioned minority-related issues or parental choice issues.

Approximately equal percentages of articles were found in small-(33 percent), medium-(31 percent), and large-sized (34 percent) publications over the 9-week tracking period (Graph 7). During NIIW, similar numbers of all immunization-related articles appeared in each type of publication (580 in small-sized publications, 562 in medium-sized publications, and 527 in large-sized publications). The graph also shows the largest number of articles (n=682) that appeared in large-sized publications occurred during Week 1. (Contamination of the strawberries occurred on a national level, therefore it follows that the highest number of articles would appear in publications with *large* circulation rates during Week 1.) After NIIW, the number of articles in all publications progressively decreased for each subsequent week until Week 9. While the number of immunization-related articles did decrease over the period, over 300 articles being published that were related to childhood immunization were published in Week 9

The final graph (Graph 8) displays the number of immunization-related articles that appeared on the front page versus any other pages of a publication. Over the course of the 9 weeks, approximately 13 percent (n=1,175) of all articles appeared on the front page of a publication. The front page articles were at their highest (n=275) during Week 1, with slight declines occurring through Week 4 (NIIW). In contrast, the number of articles appearing on pages other than the front page increased steadily from Week 1 and peaked during Week 4, when 1,493 articles appeared on pages other than the front page. After Week 4, immunization-related articles on both the front page and all other pages decreased continually through Week 9, although Week 9 still shows 30 articles being published on the front page and 318 articles appearing on all other pages.

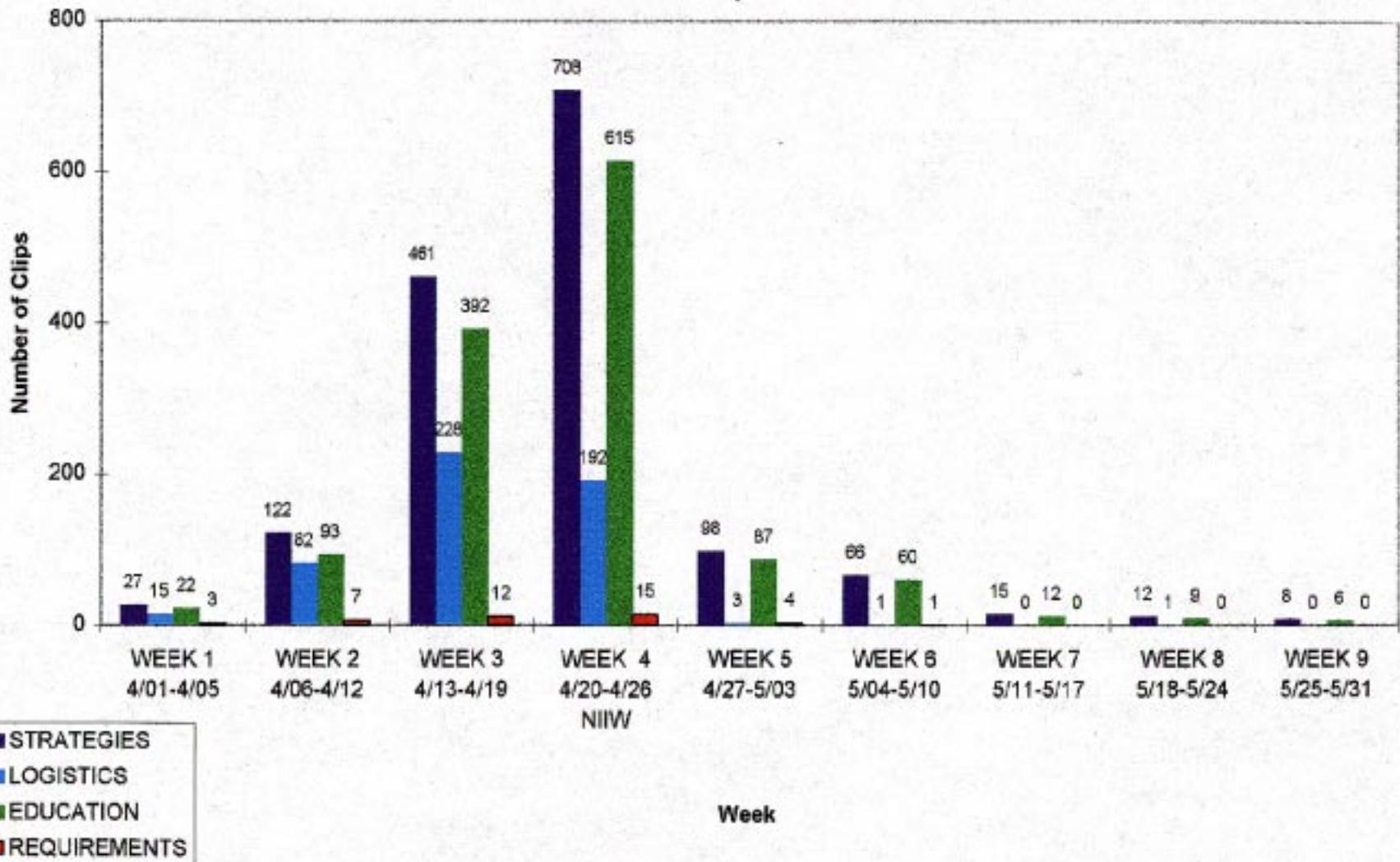
National
NIIW Articles vs. Other Articles
Graph 1



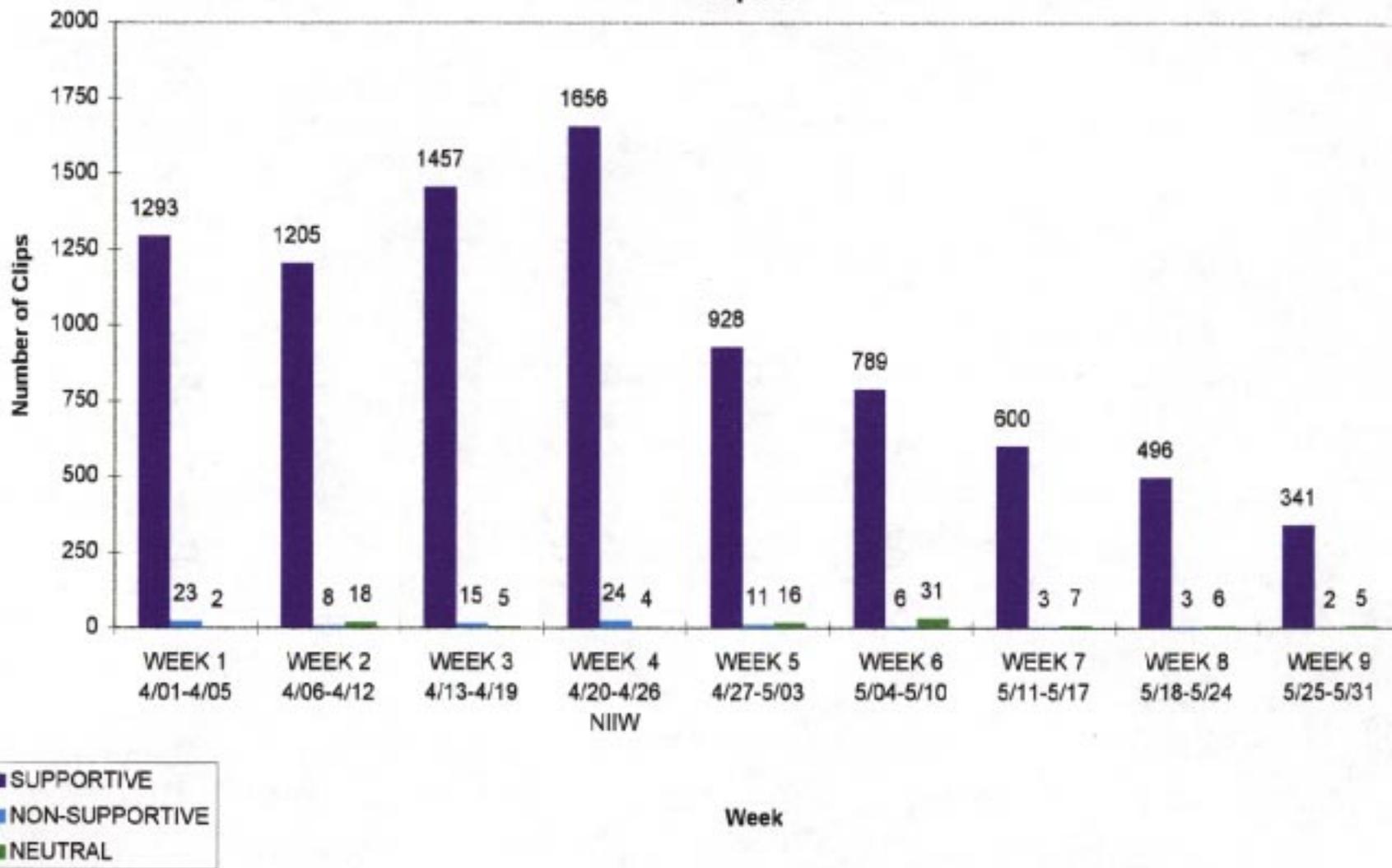
■ NIIW
■ OTHER

Week

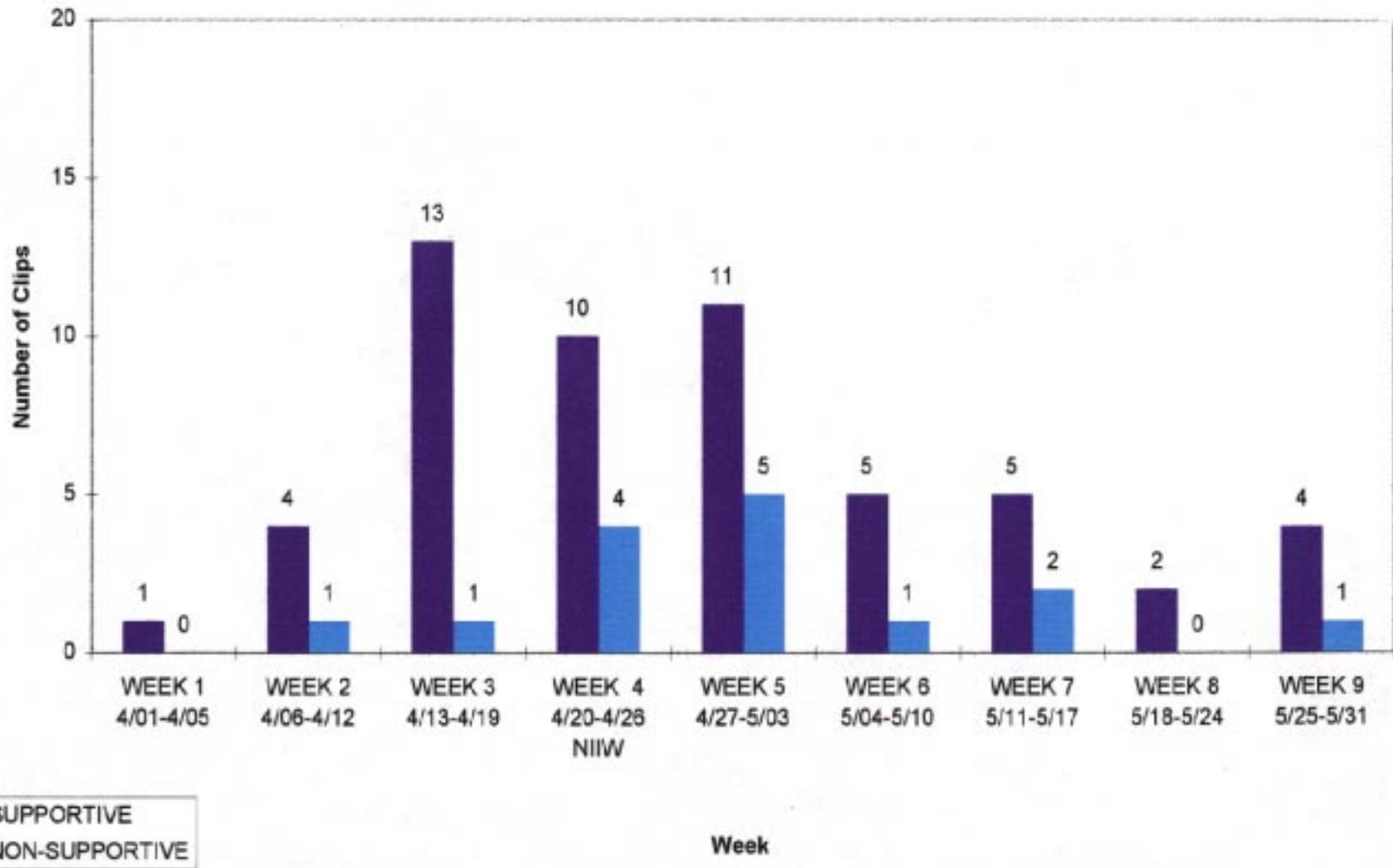
**National
Comparison of NIW Articles Related to
Strategies, Logistics, Education and Requirements
Graph 2**



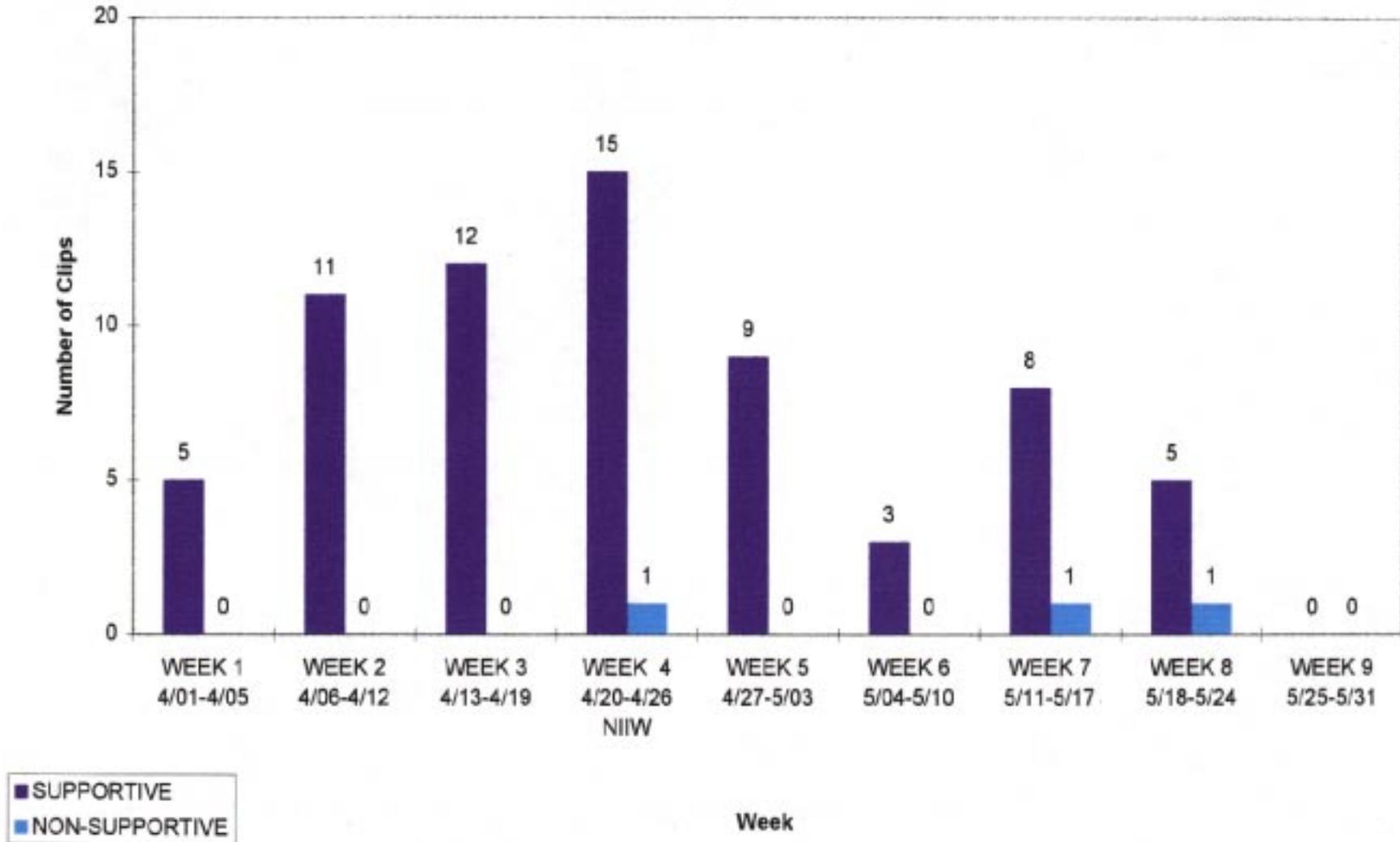
**National
Comparison of Supportive, Non-Supportive
and Neutral Articles
Graph 3**



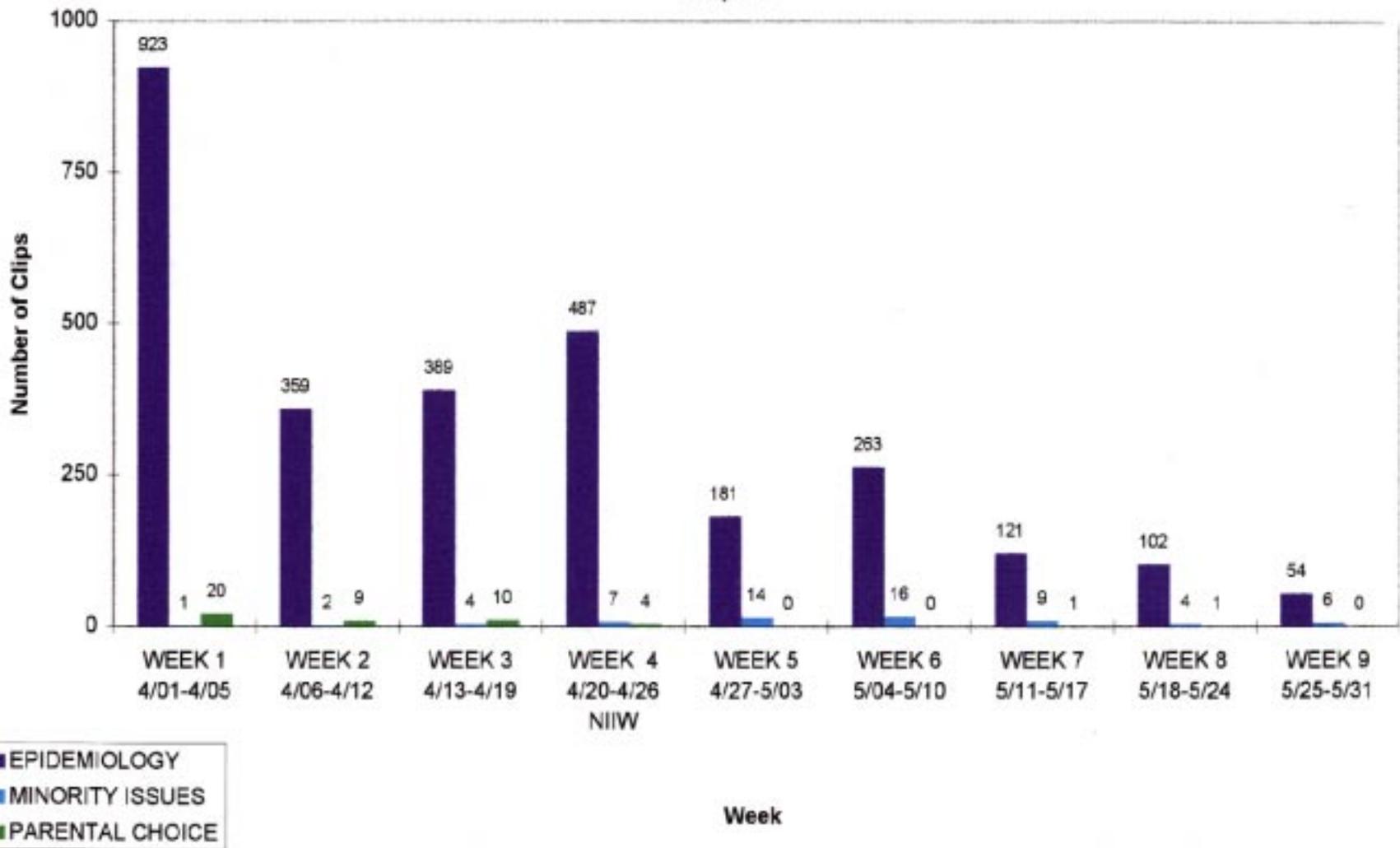
**National
Letters to the Editor
Comparison of Supportive Vs. Non-Supportive
Graph 4**



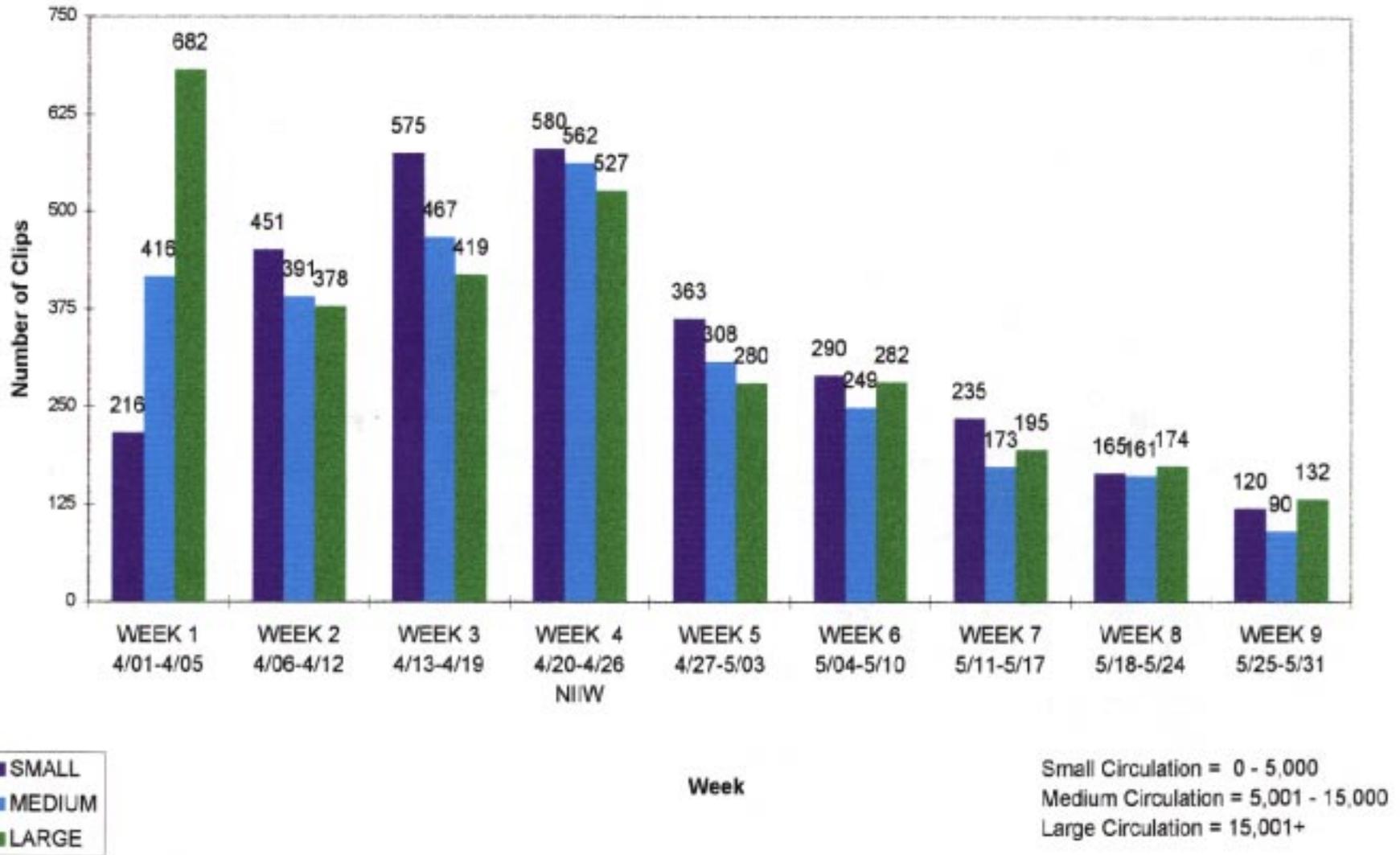
National
Editorial Opinions
Comparison of Supportive Vs. Non-Supportive
Graph 5



**National
Comparison of the Coverage
of Specific Issues
Graph 6**



**National
Comparison of Small, Medium, and Large
Circulation Rates for All Articles
Graph 7**



National
Front Page vs. Non-Front Page Articles
Graph 8

