



**CALIFORNIA STATE SCIENCE FAIR  
2006 PROJECT SUMMARY**

<b>Name(s)</b> <b>Gina Grace Catalano</b>	<b>Project Number</b> <b>S1407</b>
<b>Project Title</b> <b>Investigating Dispersion Patterns of Leukemia and Seizure Disorder in Monterey Co. Public Schools by Geographic Location</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of this study was to investigate health issues in the public school student population by investigating whether cases of cancer, specifically leukemia, and seizure disorders were distributed throughout Monterey County or clustered in certain areas. If a link between geographic location and the likelihood of a child to have cancer or a seizure disorder is found and can be proven, further investigation would be strongly advised.</p> <p><b>Methods/Materials</b> Specific ailments and school districts were selected. Letters were sent out to districts asking them for their seizure and cancer data. Data analysis, calculations, and comparisons between the data were then made.</p> <p><b>Results</b> From these results, seizure disorders in the student population appear to be well distributed throughout Monterey County. However, there is an evident disparity in leukemia cases in the student population between the Salinas Valley and the Monterey Peninsula.</p> <p><b>Conclusions/Discussion</b> With such a small population being studied, proving clustering in one area over another is problematic. There is the possibility that the clustering of leukemia and other childhood cancer cases in the Salinas area could be attributed purely to chance. Other possibilities include the socio-economic differences between the two areas, as well as the fact that the Salinas Valley is a predominantly agricultural region with heavy pesticide use. A longer time frame along with a more complex design and the cooperation of all districts is needed to do a more extensive study.</p>	
<b>Summary Statement</b> This study was designed to determine if, within Monterey County, there was any clustering by area in incidences of cancer, specifically leukemia, and seizure disorders within the public school student population.	
<b>Help Received</b> My mentor critiqued my project design and provided helpful insight.	