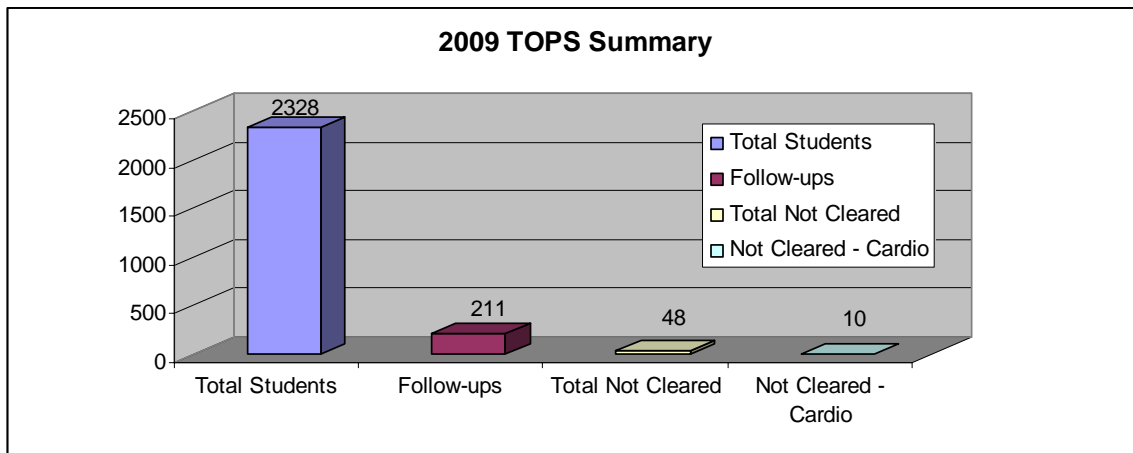


2009 TOPS Screening Results Summary

2,328 students from 64 schools were examined. 211 students required follow-up examinations. Those 211 follow-ups included eye examinations, dental exams, blood pressure rechecks, clearance from their personal physician for current injuries and illnesses, and evaluations by a cardiologist.

48 of the 211 students had issues which were serious enough to deny them clearance, pending further evaluation. Ten of those 48 students who were not cleared, required further evaluation for cardiac related issues.



The ten students who were not cleared due to cardiac related issues represent less than one half, of one percent, of the total students examined. They represent the “needles” in the proverbial haystack that the TOPS program dedicates its efforts to find. These are the students that might never be diagnosed until they become a medical emergency.

When reviewing the attached pages of statistics it is important to keep them in perspective. We endeavor to follow the criteria of the original Italian study. So many of the EKG findings fit that criteria. However, our cardiologists using their knowledge and experience evaluate the totality of information; family history, physical examination and EKG when determining which students need an echocardiogram.

Not all findings that require follow-up are life threatening or keep a student from participating in sports. Some simply need to be evaluated and perhaps monitored over time.

TOTAL FINDINGS 2009

Males	Females	Total
1526	802	2328

Total Schools
64

Followups	High BP	Not Cleared Cardio	Not Cleared Total
211	110	10	48

EKGs Preliminarily Meeting Criteria	Echos	Abnormal Echos
592	309	10

Preliminary EKG Findings 2009

Heart Block		Bundle Branch Block	
1st Degree	0	<i>Left - LBBB</i>	0
2nd Degree	0	<i>Right - RBBB</i>	7
3rd Degree	0	Incomplete Right - IRBB	180
Left Atrial Enlargement	1	Left Axis Deviation	28
Right Atrial Enlargement	26	Right Axis Deviation	206
Bi-Atrial Enlargement	0	Indeterminate Axis	6
Left Ventricle Hypertrophy	52	<i>T-Wave</i>	110
Right Ventricle Hypertrophy	34	<i>D-Wave</i>	0
		<i>U-Wave</i>	0
Supraventricular Tachicardia	1	Short PR	3
Minor Intraventricular Conduction Defect	43	Long PR	0
Ectopic Atrial Rhythms	2	ST Segments	0
Bifascicular Block Anterior	1	Wide QRS	0
		Premature Ventricular Contractions	12

Additional Findings - 2009:

- 6 Bicuspid Aortic Valves (5 new, 1 prior history)
- 2 Left Ventricular Hypertrophy (both mildly concentric)
- 1 Atrial Septal Defect (prior history, defect not closed)
- 1 Congenital Pulmonic Stenosis (Pulmonic Valve Gradient - 41 mmHg)
- 1 Wolff-Parkinson-White Syndrome
- 1 Grossly abnormal EKG