



# Martin County Health Department

## 2009-2010 Influenza Season Summary Report

Surveillance Time Period: October 4, 2009 - May 29, 2010

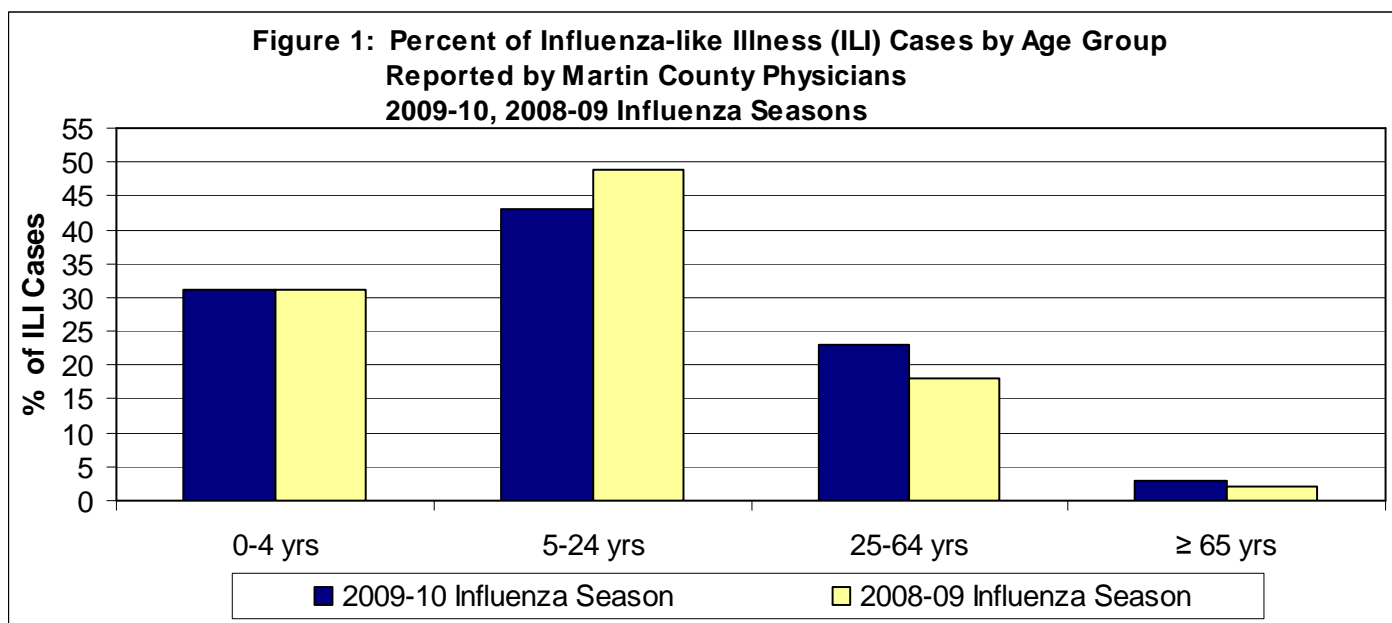
Jenneh Shannen Burphy, MPH, Syndromic Surveillance Specialist

### Martin County Influenza Surveillance Systems

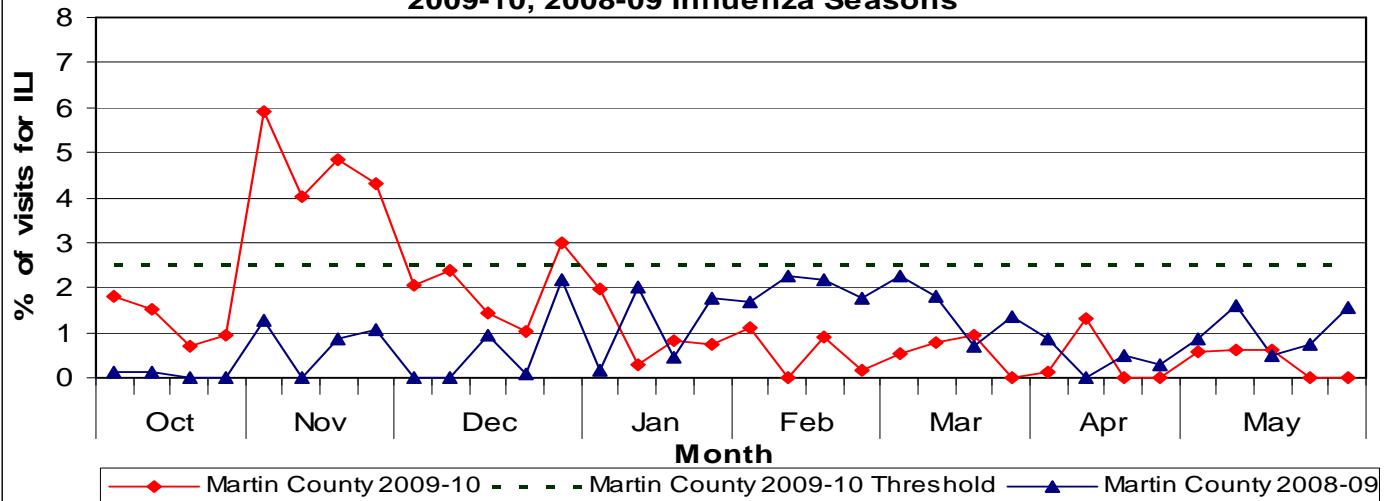
Influenza surveillance in Martin County is conducted by the Martin County Health Department's Division of Epidemiology and is comprised of three surveillance components: 1) Influenza-like illness (ILI) reported by physicians, long-term care facilities, schools, and hospital emergency departments, 2) school absenteeism, and 3) laboratory surveillance. ILI is defined as a fever  $\geq 100^{\circ}\text{F}$  and cough and/or sore throat. The surveillance data is collected throughout the traditional influenza season (i.e. October-May) and is used to assess the impact of influenza in Martin County.

### Physicians Influenza-like Illness (ILI) Surveillance

During the influenza season, physicians voluntarily report the total number of patient visits each week and the number of patient visits for ILI. During the 2009-2010 influenza season, physicians reported a total of 541 ILI cases. This is 52% higher than that reported during the 2008-2009 influenza season. As shown in Figure 1, during the 2009-2010 influenza season, the 5-24 year old age group had the largest percentage of ILI cases (43%) and adults age 65 and over had the smallest (3%). A similar trend was observed during the 2008-2009 influenza season. The percentage of patient visits to physicians for ILI averaged 1.33% for the 2009-2010 influenza season. This average is below Martin County's 2009-2010 ILI threshold for moderate activity (2.50%) but is higher than that observed during the 2008-2009 influenza season (0.94%). This influenza season, ILI activity reported by physicians peaked in November (Figure 2). This is in contrast to the 2008-2009 influenza season which did not show a distinct peak, although sporadic increases in ILI activity were observed in December and January and a prolonged increase in ILI activity was observed from February through mid March (Figure 2).



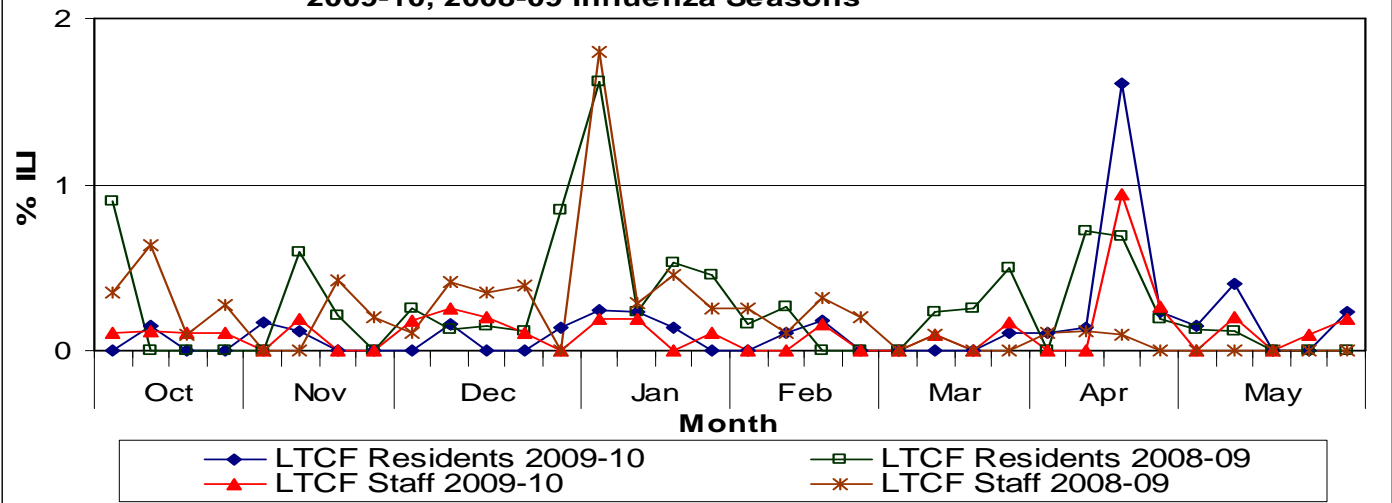
**Figure 2: Percent of Visits for Influenza-like Illness (ILI) Reported by Martin County Physicians 2009-10, 2008-09 Influenza Seasons**



**Long-Term Care Facilities Influenza-like Illness (ILI) Surveillance**

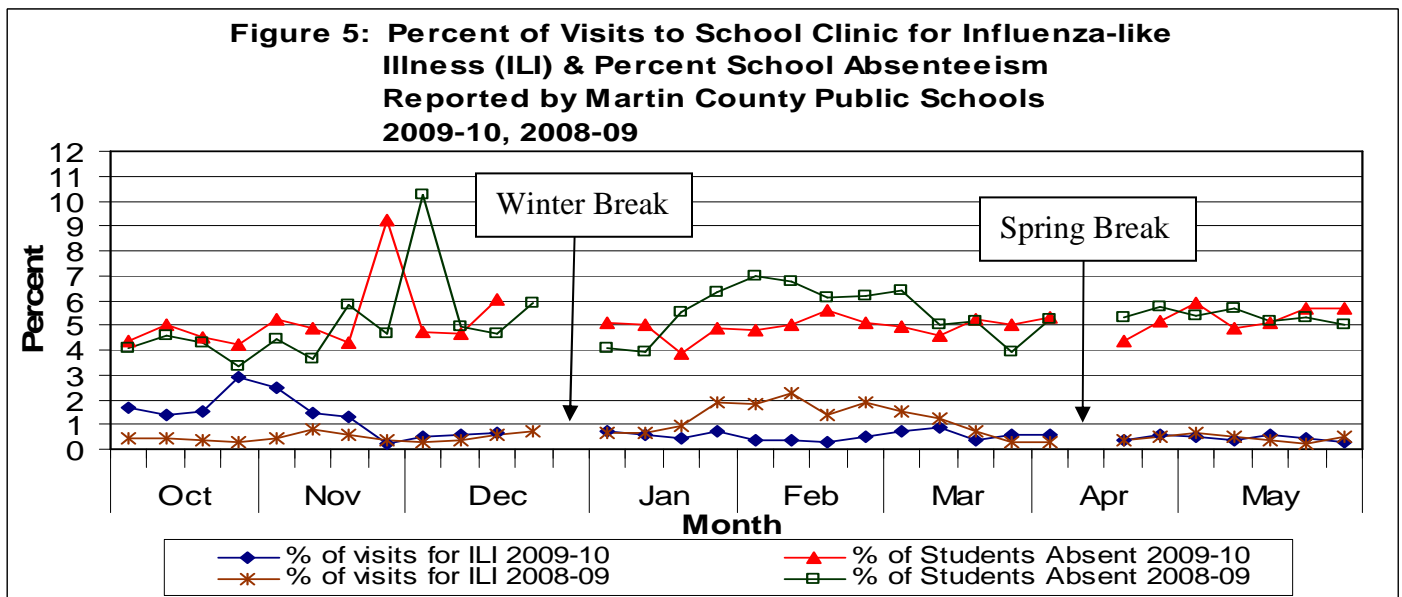
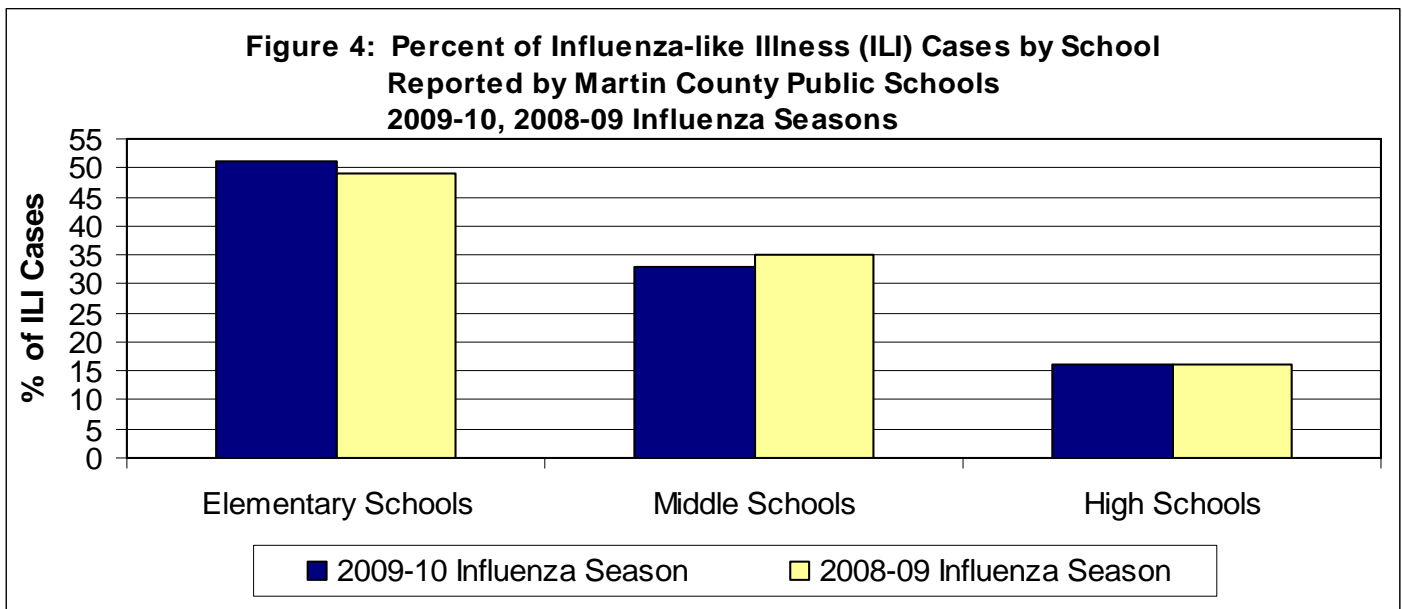
During the influenza season, long-term care facilities (i.e. nursing homes, assisted living facilities, and independent living facilities) voluntarily report the total number of residents and staff at the facility each week and the number of residents and staff with ILI. During the 2009-2010 influenza season, long-term care facilities reported a total of 38 residents with ILI and 41 staff with ILI. The number of residents with ILI this influenza season is 56% lower than that reported during the 2008-2009 influenza season. The number of staff with ILI this influenza season is 49% lower than that reported during the 2008-2009 influenza season. The percentage of residents and staff with ILI averaged 0.14% and 0.12% respectively for the 2009-2010 influenza season. This is lower than that observed during the 2008-2009 influenza season. The sharp increase in ILI activity for week ending April 17, 2010 is attributed to an increase in the number of ILI cases reported by one nursing home (Figure 3).

**Figure 3: Percent of Residents & Staff with Influenza-like Illness (ILI) Reported by Martin County Long-Term Care Facilities 2009-10, 2008-09 Influenza Seasons**



## Schools Influenza-like Illness (ILI) and Absenteeism Surveillance

During the influenza season, Martin County Public Schools' health technicians report the total number of student visits to the school health clinic each week and the number of student visits for ILI. During the 2009-2010 influenza season, Martin County Public Schools reported a total of 566 students with ILI. This is 8% lower than that reported during the 2008-2009 influenza season. As shown in Figure 4, during the 2009-2010 influenza season, elementary school students had the largest percentage of ILI cases (51%) and high school students had the smallest (16%). The percentage of student visits to the school health clinic for ILI averaged 0.80% for the 2009-2010 influenza season. This average is higher than that observed during the 2008-2009 influenza season (0.76%). This influenza season, ILI activity among students peaked during the month of October (Figure 5). In addition to ILI data, daily all-cause school absenteeism and enrollment data is collected from all Martin County Public Schools during the influenza season. The absenteeism rate in all Martin County Public Schools combined averaged 5.1% for the 2009-2010 influenza season. This is slightly lower than that observed during the 2008-2009 influenza season (5.3%).



## Laboratory-Confirmed Influenza Surveillance

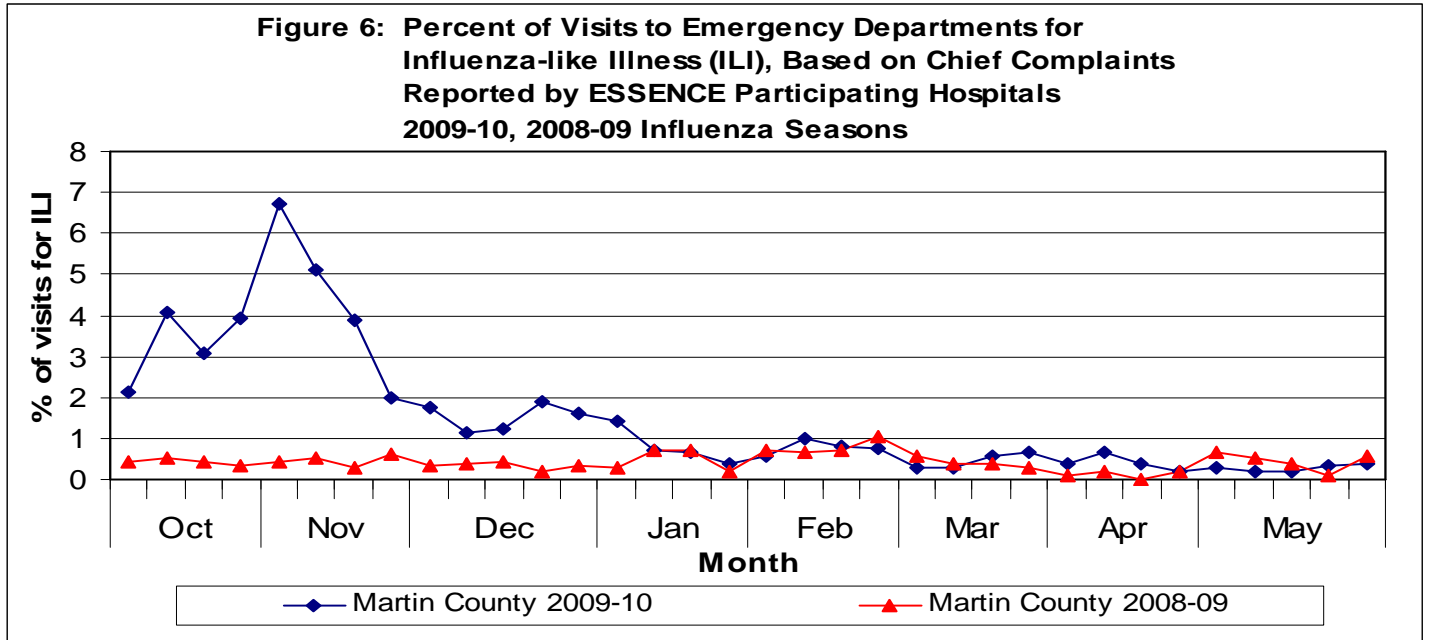
The Division of Epidemiology collects laboratory-confirmed influenza cases from Martin Memorial Hospital year-round. A total of 190 laboratory-confirmed influenza cases were reported during the 2009-2010 influenza season (Table 1). This is nearly six times higher than that reported during the 2008-2009 influenza season and well above normally expected levels as a result of the 2009 influenza A (H1N1) pandemic (Table 1). The majority (82%) of the laboratory-confirmed influenza cases reported during the 2009-2010 influenza season occurred in October and November with peak activity occurring during the first week of November. 85% of the laboratory-confirmed influenza cases reported during the 2009-2010 influenza season were influenza A viruses (Table 1). The majority (53%) of the laboratory-confirmed influenza cases reported during the 2009-2010 influenza season were between the ages of 5 and 24 years (Table 1). This is in contrast to prior influenza seasons (i.e. 2008-2009, 2007-2008, and 2006-2007) where adults age 65 and older were the predominant group affected (Table 1).

	<b>2009-10</b>	<b>2008-09</b>	<b>2007-08</b>	<b>2006-07</b>
<b>Number of Cases</b>	190	32	25	4
<b>Influenza Type (count, percentage)</b>				
A	162 (85%)	11 (34%)	14 (56%)	3 (75%)
B	14 (7%)	13 (41%)	10 (40%)	0 (0%)
A/B	14 (7%)	8 (25%)	1 (4%)	1 (25%)
<b>Age Group (count, percentage)</b>				
0-4 yrs	38 (20%)	9 (28%)	2 (8%)	1 (25%)
5-24 yrs	100 (53%)	10 (31%)	4 (16%)	0 (0%)
25-64 yrs	38 (20%)	2 (6%)	7 (28%)	1 (25%)
≥ 65 yrs	14 (7%)	11 (34%)	12 (48%)	2 (50%)
<b>Gender (count, percentage)</b>				
Male	98 (52%)	15 (47%)	12 (48%)	1 (25%)
Female	92 (48%)	17 (53%)	13 (52%)	3 (75%)

## Hospital Emergency Departments Influenza-like Illness (ILI) Surveillance

On a daily basis, participating hospital emergency departments electronically transmit data to the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE), a web-based syndromic surveillance system. The data is processed into 11 different syndrome categories based on the patient's chief complaint. One of the categories is influenza-like illness (ILI), which is composed of chief complaints that include the words "influenza" or "flu", or fever with either cough or sore throat. During the 2009-2010 influenza season, there were 505 emergency department visits for ILI. This is three times higher than that reported during the 2008-2009 influenza season. The percentage of emergency department visits for ILI averaged 1.46% for the 2009-2010 influenza season. This is higher than that observed during the 2008-2009

influenza season (0.43%). This influenza season, emergency department visits for ILI peaked in November (Figure 6).



### **Important Influenza Surveillance Reminders**

- ◆ The influenza surveillance data is used to answer the question of where, when, and what influenza viruses are circulating. It can be used to determine if influenza activity is increasing or decreasing, but it cannot be used to ascertain how many people have become ill with influenza so far this season.
- ◆ For up-to-date 2009 Influenza A (H1N1) information, please visit:  
<http://www.cdc.gov/h1n1flu/>  
<http://www.who.int/csr/disease/swineflu/en/index.html>  
[http://www.doh.state.fl.us/disease\\_ctrl/epi/swineflu/index.html](http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/index.html)
- ◆ As the traditional influenza season runs from October through May, this is the final report for the 2009-2010 influenza season. The influenza surveillance reports will resume at the beginning of the 2010-2011 influenza season. Any questions or comments regarding this report or any healthcare providers interested in participating in our ongoing influenza surveillance program should contact the Division of Epidemiology at (772) 221-4030 ext. 2214 or ext. 2130.



We would like to thank our influenza surveillance program participants for the time and effort each contributed towards monitoring and reporting influenza and/or ILI cases to the health department. We sincerely thank the following community partners:

### **Medical Providers**

Dr. Eric Ewald  
Dr. Celia Fernandez-Butelho  
Dr. Chad Harvey  
Dr. John Koors  
Dr. Richard Loew  
Dr. Glynnis Lyons  
Dr. Trinidad Rojas  
Dr. Richard Weisberg  
Children's Physicians  
East Ocean Family Care  
Jupiter Island Medical Clinic  
Martin Memorial Family Care Palm City  
Martin Memorial Hospital  
Martin Memorial Medi Center Palm City  
Martin Memorial Treasure Coast Pediatrics  
Nephrology and Internal Medicine  
Pulmonary Medicine  
Volunteers in Medicine Clinic

### **Long-Term Care Facilities**

Family Manors  
Maple Leaf Assisted Living Facility  
Martin Nursing and Restorative Care Center  
Ocean Palms Retirement Center  
Palm City Nursing and Rehabilitation Center  
Parkway Health and Rehabilitation Center  
Pine Grove Manor  
Salerno Bay Manor  
Sterling House of Stuart  
Stuart Nursing and Restorative Care Center  
The Manors at Hobe Sound  
The Place at Stuart  
Waters Edge Extended Care

### **Public Schools**

Bessey Creek Elementary  
Challenger Elementary  
Citrus Grove Elementary  
Crystal Lake Elementary  
Dr. David L. Anderson Middle  
Felix A. Williams Elementary  
Hidden Oaks Middle  
Hobe Sound Elementary  
Indiantown Middle  
J.D. Parker Elementary  
Jensen Beach Elementary  
Jensen Beach High  
Martin County High  
Murray Middle  
Palm City Elementary  
Pinewood Elementary  
Port Salerno Elementary  
SeaWind Elementary  
South Fork High  
Spectrum Junior/Senior High  
Stuart Middle  
Warfield Elementary