INTEGRATION OF CLINIC SERVICES TO IMPROVE PUBLIC HEALTH EFFECTIVENESS IN WYANDOTTE COUNTY PUBLIC HEALTH DEPARTMENT

by

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Abstract

Wyandotte County's health status has been ranked the lowest of all counties in the state of Kansas. This calls for urgent action regarding its communities and population health. This county has a high population density, a high rate of unemployment and a great amount of uninsured and underserved persons, most of whom have a variety of health problems and are patients at the Wyandotte County Health Department. This and many other factors contribute to rank Wyandotte County as a very unhealthy and poor area. Some of the problems that the county is facing are: high rate of teenage pregnancies, Sexually Transmitted Diseases (STD) and Vaccine Preventable Diseases (such as pertussis).

The Wyandotte County Health Department provides services such birth control, STD diagnosis, treatment and prevention, immunizations, public health education, prenatal care, family planning services and many others. The main problem that the Health Department was facing was that they were providing services in a categorical and individual way. Therefore, the Health Department's services were not meeting the patients and the population needs.

To address this problem, the Health Department had to make some changes. First, they integrated three main clinics (Family Planning Clinic, STD Clinic and Immunizations Clinic) into one clinic offering all the services. Also, they renovated the clinic area for it to be more efficient to provide the integrated services. Before and after the renovation and the integration of the services, patients and employees were given a survey about the Health Department was working. It was no surprise that in most part of the responses from both surveys, from patients and employees, they were more pleased after the integration of the services and the renovation of the area.

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Chapter 1 - Introduction

Wyandotte County Health Department

Wyandotte County is located in the northeast section of Kansas, in the heart of the Kansas City Metro area. The county is the fourth most populated in the state (Kansas Demographics, 2012) with an estimated population of 159,129 persons (US Census Bureau, 2012). Wyandotte County has a varied population composed majorly of Caucasians, African Americans and Hispanics. The county has one of the poorest populations in the state with a high rate of unemployment. Wyandotte County has a large community of refugees, mostly from Myanmar, along with a large number of uninsured and underserved persons, most of whom are clients at the Wyandotte County Health Department (WCHD).

The WCHD provides a variety of services for its community. Services offered by the Health Department include: air quality, blood pressure screening, disease investigation, early detection saves lives, emergency preparedness and response, environmental health inspection and services, family planning services, healthy start services, immunizations for children/adults/foreign, laboratory screening, DNA testing, medical records, prenatal services, public health education, sexually transmitted disease, tuberculosis testing/control and WIC: Special Supplemental Nutritional Program for women/infants/children. The WCHD's (2011) vision statement is:

"Leading the way to a healthier community and cleaner environment through community partnership and the support of the Unified Government".

The in mission statement is:

"Monitor and assess health status indicators to identify community health problems, promote and encourage healthy lifestyle behaviors".

The model for distributing public health services listed above to clients is based off a silo system. This means that many of services listed above are distributed as individual, stand-alone services. Clients entering the health department would need to schedule multiple appointments if they needed more than one service. The main reason for the development of this type of silo system is that public health funding is generally based on dealing with specific health concern as opposed to the overall health of the individual. This has resulted in the development over time of service areas in the Wyandotte County Health Department that include family planning, immunizations, and sexually transmitted infection groups.

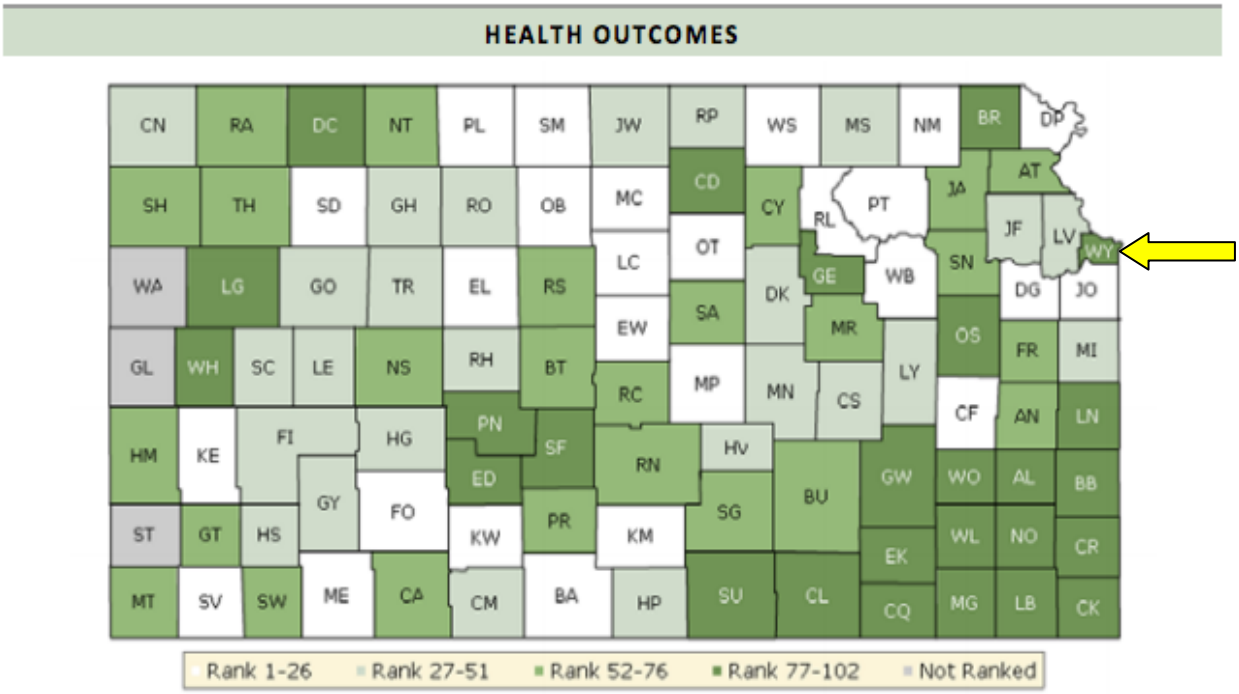
Currently the WCHD plays a critical role in maintaining the health of county residents. This includes receiving over 40,000 client visits a year. Most or all the services are provided at a low-cost or at no-cost, due to the limited economic resources of most of Health Department clients. While the Wyandotte Health Department plays an important role in serving the residents of the county, there is a need for improved public health programming.

Why interventions are needed

Demographics and Socioeconomic factors

The Kansas Health Institute(KHI) (2013) recently reported the 2013 County Health Rankings, in which Wyandotte County has been ranked as one of the least healthy and poorest communities in the state of Kansas (Figure 1.1 and 1.2).

Figure 1.1: Kansas map showing 2013 health outcomes. Highest rankings (white) to lowest rankings (dark green).



(Kansas Health Institute, 2013)

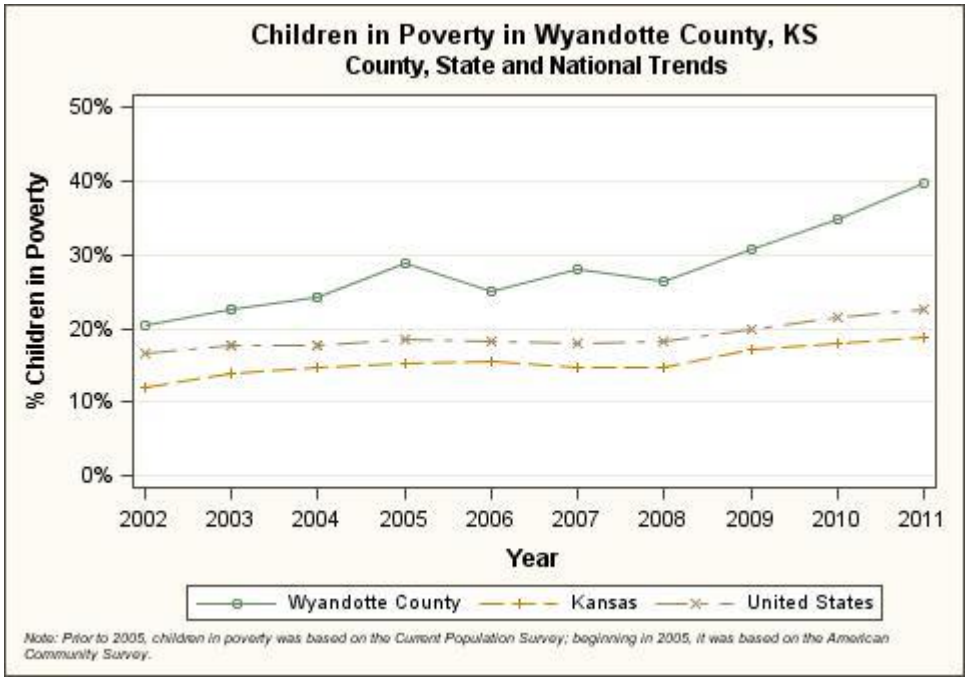
Figure 1.2: Health rankings 2013

County	Rank	County	Rank	County	Rank	County	Rank
Allen	86	Finney	47	Logan	97	Rooks	37
Anderson	67	Ford	26	Lyon	36	Rush	49
Atchison	55	Franklin	57	Marion	28	Russell	73
Barber	11	Geary	90	Marshall	35	Saline	65
Barton	76	Gove	41	McPherson	12	Scott	48
Bourbon	89	Graham	50	Meade	6	Sedgwick	72
Brown	88	Grant	54	Miami	30	Seward	62
Butler	52	Gray	45	Mitchell	18	Shawnee	70
Chase	40	Greeley	NR	Montgomery	96	Sheridan	13
Chautauqua	100	Greenwood	91	Morris	58	Sherman	64
Cherokee	98	Hamilton	71	Morton	69	Smith	14
Cheyenne	33	Harper	31	Nemaha	15	Stafford	82
Clark	59	Harvey	32	Neosho	94	Stanton	NR
Clay	56	Haskell	34	Ness	60	Stevens	3
Cloud	87	Hodgeman	51	Norton	74	Sumner	78
Coffey	24	Jackson	66	Osage	79	Thomas	75
Comanche	38	Jefferson	42	Osborne	10	Trego	44
Cowley	80	Jewell	46	Ottawa	16	Wabaunsee	7
Crawford	81	Johnson	1	Pawnee	83	Wallace	NR
Decatur	95	Kearny	20	Phillips	25	Washington	8
Dickinson	29	Kingman	21	Pottawatomie	4	Wichita	77
Doniphan	22	Kiowa	19	Pratt	61	Wilson	85
Douglas	9	Labette	93	Rawlins	68	Woodson	102
Edwards	92	Lane	27	Reno	53	Wyandotte	99
Elk	101	Leavenworth	43	Republic	39		
Ellis	5	Lincoln	17	Rice	63		
Ellsworth	23	Linn	84	Riley	2		

(Kansas Health Institute, 2013)

The 2013 County Health Rankings report (Kansas Health Institute, 2013) showed that the percentage of children living in poverty conditions has continued to increase to 40% (Figure 1.3). Figure 1.3 also demonstrates that Wyandotte County's children in poverty percentage are higher than the percentage of children in poverty in Kansas and in the United States. It was also stated that currently, unhealthy counties' childhood poverty rates are twice as high compared to healthy counties (KHI, 2013). Additional information regarding County Health Rankings 2013: Kansas can be found in Appendix A.

Figure 1.3: Children in Poverty in Wyandotte County, KS

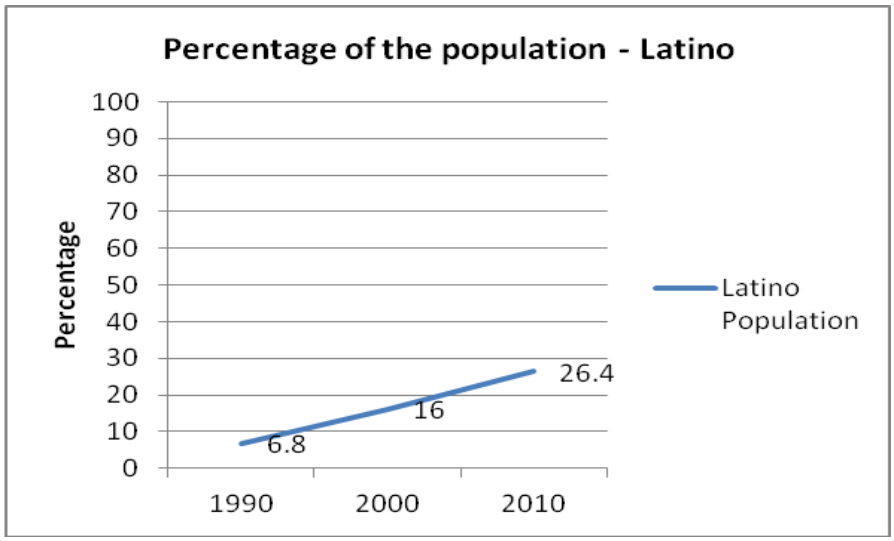


(Kansas Health Institute, 2013)

There has been a major change in the demographic makeup of the county residents. In the last decade there has been an increase of over 300% in the Latino population (Figure 1.4). Not only the Latino population has increased, but also most of the minority groups have shown an increase in their total population. The Latino population has taken over some previously predominantly Black neighborhoods such as Argentine and downtown Wyandotte, in which

about 24.4% only speak Spanish. In 2010, Latinos represented a total of 24.6% of the total population in Wyandotte County (Wyandotte County Health For All Task Force, 2012).

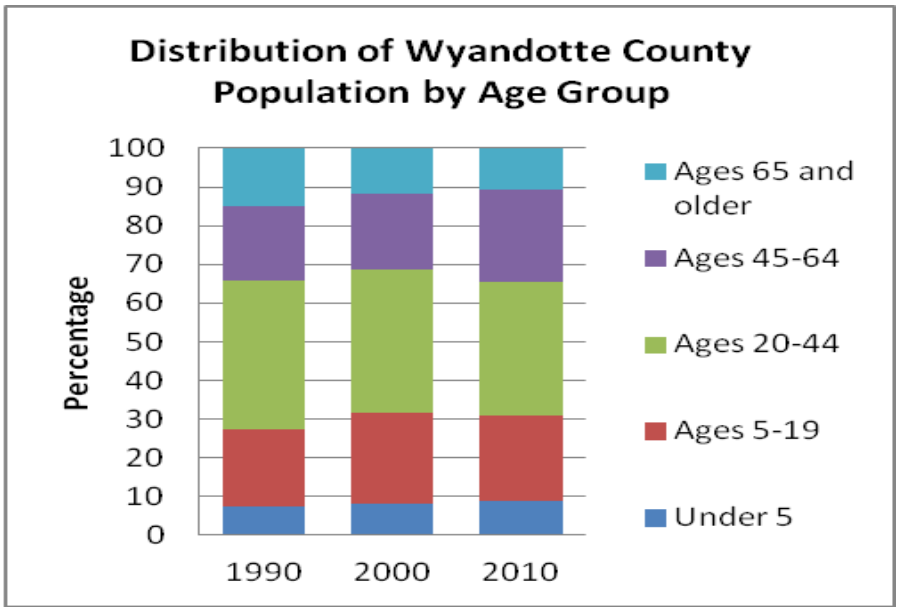
Figure 1.4: Latino population in Wyandotte County



(Wyandotte County Health For All Task Force, 2012)

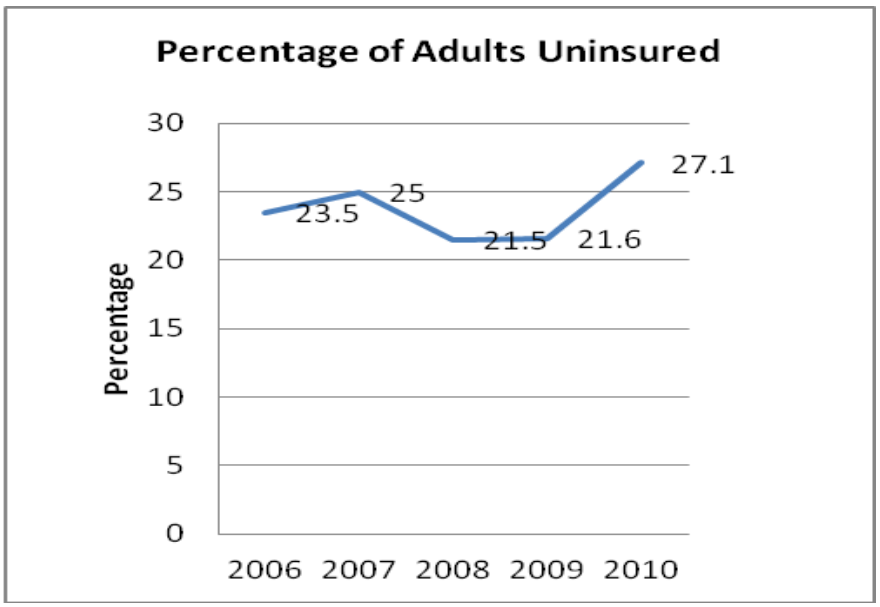
When evaluating age groups, it is important to observe that over the last two decades, an increase has been seen in the residents less than 20 years of age and between 45-64 years of age. The remaining age groups have been decreasing over the last 20 years (Figure 1.5). Wyandotte County has 14,856 single parent households and the percentage of unemployment rates increased almost by 3% from 2006 to 2010. Unfortunately, it has also been observed that the percentage of adults that do not have insurance was at its highest number (27.1%) in the 2010 (Figure 1.6). Wyandotte County's uninsured population is currently 24% (Kansas Health Institute, 2013).

Figure 1.5: Population by Age Group



(Wyandotte County Health For All Task Force, 2012)

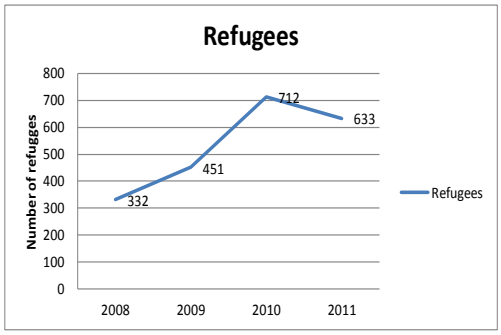
Figure 1.6: Uninsured adults



(Wyandotte County Health For All Task Force, 2012)

It is estimated that there are approximately 24.4% Wyandotte County residents that do not speak English as their primary language. An additional aspect of the County's population is the increasing number of refugees. Since 2008, there has been a large increase (more than 200%) in the refugee population in Wyandotte County (Figure 1.7). Many of the refugees are malnourished and in poor health when they arrive (Refugee Health, 2011).

Figure 1.7: Number of refugees



(Wyandotte County Health For All Task Force, 2012)

The Department of Homeland Security (DHS) (2012) reported that in 2011, approximately thirty five percent of refugees were less than 18 years old and the median age of this population was 24 years of age in the United States. Fifty-two percent of the refugee population were male and thirty-nine percent of the total population were married (DHS, 2012).

The refugee population in the United States comes from a variety of countries around the world (CDC, 2010). According to the DHS (2012), in 2011, most of the refugees in the U.S. were from Myanmar followed by the second largest population of refugees coming from Bhutan (30 percent and 27 percent, respectively). Once refugees arrive in the United States, they bring with them usual health diseases and risks from their camps, where they struggle with very

difficult living conditions on a daily basis. It is not uncommon to see a camp that is not in a clean environment and lacking food, which leads to poor health and nutrition and to many illnesses (CDC, 2010).

The majority of the refugees in the United States do not have health insurance (Refugee Health, 2011). Because of this, they are less likely to look for health services provided in the U.S. when they are sick, unless the condition or disease has become worse (Becker, 2004). Due to their background and to the lack of health insurance, health issues are usually a problem among the refugee community (CDC, 2010).

Looking at the demographic data previously mentioned, it appears evident that interventions in Wyandotte County are very much needed. Not only there is a need to help with the poor communities, but with its county resident's overall health status. Wyandotte County needs to start promoting living a healthier life. Every age group – from infants, young children, adolescents, adults, pregnant women, parents and the elderly – need to learn how to eat healthy and how to stay healthy. To have good health, as defined in the World Health Organization (2003), is to have "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Therefore, improvement in all types of health is needed to improve Wyandotte County's status. To be able to do this, the county needs to come up with ideas on how to have a better and approachable health system program available for all. An important step would be to create a plan to promote better health in every school and every community, and to start implementing it.

Sexual health is another topic that needs to be covered when it comes to creating a plan to develop a healthier community. Wyandotte County has a high rate of teenage pregnancy and sexually transmitted diseases (STD's). The County Health Rankings (KHI, 2013) reported that

there are currently 687 cases of sexually transmitted infections in Wyandotte County and that the teen birth rate is 81 per 1,000 female teens. To help improve the County's status, it is imperative to improve its sexual health. This type of education should start at home and continue at school, to try to lower the teen pregnancy rates.

Immunizations are also a great part in improving a community's health status. In 2012, Wyandotte County had some outbreaks of vaccine preventable diseases, such as pertussis. By vaccinating every individual, the county will be at less risk of outbreaks.

Upcoming changes in health care systems

The adoption of a universal health care plan proposed by President Obama has brought concern to the American public on how health care will be distributed in the future (America's Health Insurance Plans, 2013). The Affordable Care Act (ACA) to be implemented in 2014 will bring major changes to the nation's current health care system.

Federal funding is an important issue that not only concerns Kansans, but every American. For example, in the WCHD the STD Clinic and the Family Planning Clinic provide service mostly due to federal funding. Currently, the Kansas Department of Health and Environment (KDHE) receives a federal grant which is used in research investigation, preventive measures and treatment for patients with the most common causes of infertility, which are STD's such as chlamydia, gonorrhea and syphilis as reported in a Kansas Health Institute (2012) report "Health departments brace for loss of STD funds" by Dave Ranney. At the same time, the Family Planning Clinic is funded by the Title X grant (HSS, 2013). Ms. Jennifer VanderVelde, from the Kansas Infertility Prevention Project at the Kansas Department of Health and Environment, stated that "the assumption is that with the Affordable Care Act everyone will have insurance so we won't need the funding we have now" (KHI, 2012).

One problem discussed in KHI's (2012) report regarding the ACA is that it states that everyone will have health insurance, but at the end it will not include every single person currently living in the United States. For example, Greg Stephenson from the Wyandotte County Public Health Department stated in the report that his concern is with the undocumented individuals. Another group of people that could be concerned about the upcoming change in health care are the Kansans whose incomes are below 133 percent of the federal poverty level, which are most probably uninsured (KHI, 2012).

The new health insurance exchanges from the ACA will come with many policy choices, from basic to full coverage. It doesn't matter if a person has the basic, the full or an in between coverage plan, all the policies cover the "essential health benefits", such as maternity care, birth control, preventive screening and immunizations (HHS, 2013). But, Robert Zirkelback, from America's Health Insurance Plans (AHIP), has stated that all the benefits will cost more than what Americans are paying now for health insurance, which will definitely be a problem (AHIP, 2013). Not everyone is in the position to be able or will agree to pay more for health insurance.

Challenges of Health Care Reform

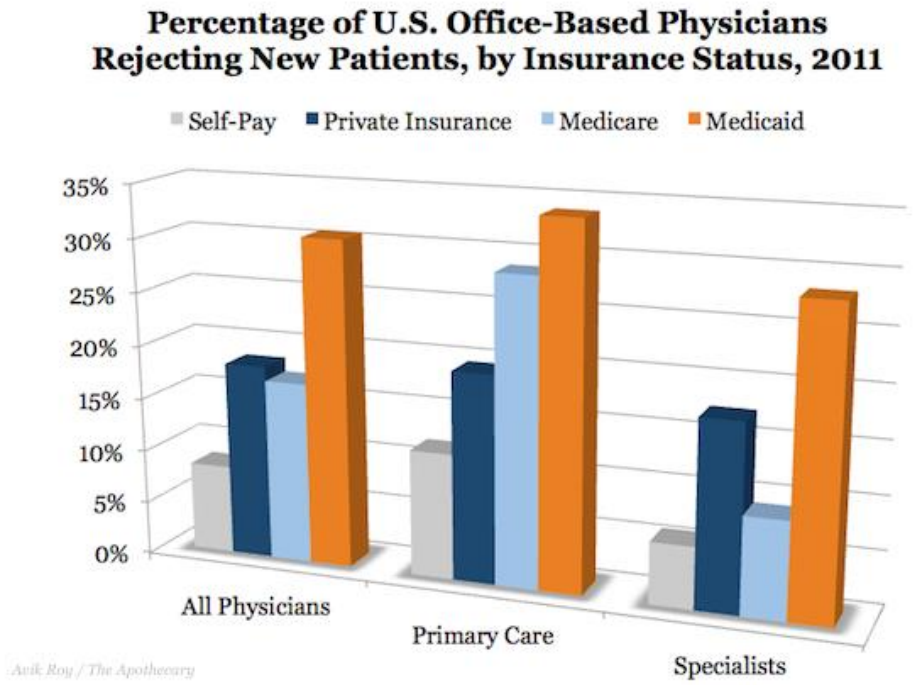
The United States health care system has been dealing with a number of challenges over the past several decades. This includes a large number of persons living without health care insurance. In Wyandotte County the number of uninsured includes as many as one in every four residents (KHI, 2013). These uninsured individuals have been a strain on the health care system, as their health care needs are often provided for through government funded programs or absorbed by overburdened hospital budgets (Richardson and Norris, 2010).

The ACA should be of significant benefit to those currently uninsured individuals, as health care services that were once unavailable will be available beginning January 2014.

However, a challenge for health care providers will be the distribution of these newly insured patients into an already over whelmed health care system. Currently Wyandotte County is a medically underserved community (U.S. Health and Human Services [HHS], 2013). Based on these factors the role of the public health department in Wyandotte County should continue to be important, as current clients and those struggling to find health care providers will need their services.

An example of how these changes in health care coverage may impact the new health care system can be seen currently with Medicaid. Physicians who see patients with Medicaid will receive only a portion of what physicians are paid by private insurers. Roy (2012) stated that in our current health care system "One-third of doctors won't accept new Medicaid patients". Therefore, less and less doctors are accepting new patients with Medicaid, minimizing the opportunities of a sick patient to receive the adequate treatment (Roy, 2012). An article by Decker (2012) showed that Medicaid patients are 73% more likely to be rejected by primary care doctors and 63% more likely by specialists, than patients with private insurance, as it can be seen in Figure 1.8 (Forbes, 2012). In Wyandotte County it is vital that the Public Health Department services be available to patients who may have trouble accessing private health care organizations. Redesigning the Health Department to operate more like private health providers should benefit patients as well as other health organizations, in dealing with these upcoming changes.

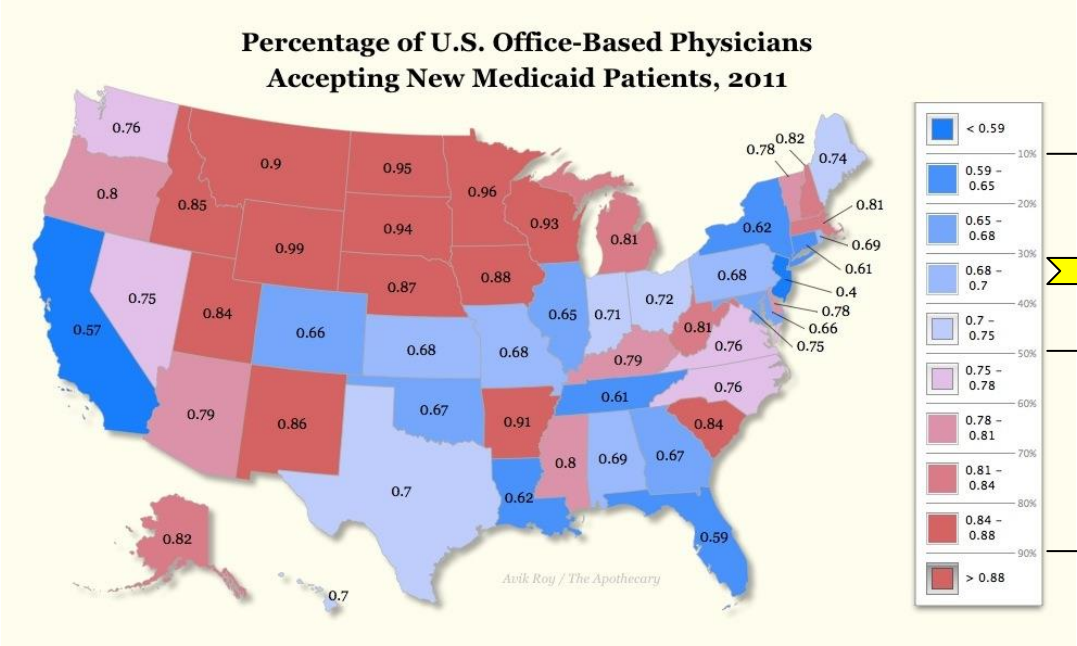
Figure 1.8: Physicians rejecting new patients by insurance status



(Forbes, 2012)

Notice also in the image below (Figure 1.9) that Kansas is no exception when it comes to rejecting Medicare or Medicaid patients. In 2011, Kansas office-based physicians were accepting only 40% of new Medicaid patients.

Figure 1.9: Physicians accepting new Medicaid patients



(Forbes, 2012)

Impact of funding sources

Public Health Departments or health-related clinics are usually funded by federal grants. One great example in Kansas is the Kansas Association for the Medically Underserved (KAMU), a Primary Care Association, which started providing health services in 1989. Public and private nonprofit primary care clinics, local health departments and Federally Qualified Health Centers are some of the members of the association, the purpose of which is "to grow and strengthen safety net clinics so that all Kansans will have a health care 'home'" (KAMU, 2011). The main services provided by KAMU are comprehensive primary, dental and behavioral care. The importance of associations like this one is evidenced by the number of individuals served. For example, in 2009 only, KAMU's clinics offered primary medical care services to more than 223,000 Kansans (KAMU, 2011). KAMU and other health departments around Kansas received $21 million in 2012, through federal funding.

More than fifty percent of the Wyandotte County Health Department services are able to be provided thanks to grants that are funded to them. If these grants are not provided in the near future, the Health Department will have to look for other revenue sources to be able to continue providing their services.

The Kansas Association for the Medically Underserved is not the only health center in Kansas or in the United States that provides services to the uninsured and low-income individuals and operates mostly due to grants. But, if everyone can afford to go to private doctors or primary physicians, the health departments will have fewer clients, which will probably force their grant funding agencies to lower the grants or even to cut them completely. What is the future of public health without funding? To prevent this from happening, the health departments will need to start accepting all or most types of health insurance, which will make it become more interactive with the community.

Marketing of service to healthcare

As it has been discussed, in the next year everyone will be able to have health care coverage. Will the health departments that depend on funding survive this change? How will the health departments and the health clinics that provide services to low-income individuals or families be affected by this? The questions will remain without an answer until the proposed plan for healthcare starts to be implemented.

Currently, low income individuals do not visit the private primary doctors since they are not able to afford it. Also, it is not as common, as it is in health departments, for primary care physicians to have patients with STD's, mostly due to the fact that, as previously stated, low-income individuals and refugees have less access to preventive medicine. In occasions, if they do decide to treat a patient, the doctors need to contact the public health department to consult their

patient's disease to see what the treatment options are and what would be the best thing to do. At the same time, they will focus on treatment and not on prevention. With the current example, prevention is an important factor.

With the proposed health care change in 2014, if almost everyone will have health insurance, most probably, every insured individual will start going to private doctor offices for everything instead of visiting the health department. This will definitely overwhelm doctors even more in Wyandotte County (Swope Health Services, 2012) and they will have to either reject their patients or refer them.

The best idea would probably be for doctors and public health departments to work together. This would alleviate the rush of seeing or needing to treat patients that can be seen by health department specialists in areas such as STD, family planning and immunization. The same positive outcome can happen with hospitals visits. Many of the uninsured individuals are used to going to the emergency room and waiting long periods of time to be seen. With the new health insurance, hospitals could also refer the patients that are not emergency cases to a health clinic or a primary care physician, letting the hospital perform its role of dealing with emergency cases.

Another system that could be beneficial to everyone is one similar to the Accountable Care Organization (ACO). The ACO is a service of coordinated care to improve the quality of doctor or hospital visits or treatments for Medicare patients (Centers for Medicare & Medicaid Services, 2013). This new system's goal is to "ensure that patients, especially the chronically ill, get the right care at the right time, while avoiding unnecessary duplication of services and preventing medical errors". All the doctors, hospitals and health care providers participating in the program will have access to the patient's file making them able to see their health history, preventing errors in the medicine field or the repetition of unnecessary services (Centers for

Medicare & Medicaid Services, 2013). This will definitely save some time to the health care provider as well as to the patient, which will result in better quality service. ACO has brought positive outcomes to the health care system (HHS, 2011); therefore, a similar system should be implemented with everyone and not just Medicare patients.

Chapter 2 - Strategic Planning

Problem Statement

The underserved population in Wyandotte County struggles every day to be healthy. This population has been notably increasing during the last decade, as previously discussed. Wyandotte County's health rankings are, in the most part, the lowest ranking in all the Kansas Counties, not only due to the refugees, but also to their poor population. Usually, when someone from the underserved community needs health attention, they have two options: either to go to an emergency room or to go to the Health Department.

WCHD provides a variety of services to the previously mentioned population. The problem was a lack of efficiency with the needs of their patients. For example, their services were offered categorically, meaning that if an STD patient was seen and treated and then that person wanted a method for birth control, he or she needed to make another appointment and come back later for that. Also, if the patient was going to be seen by different nurses for multiple reasons or treatments needed, the patient had to register each time he or she was going to see a new nurse. They identified the multiple needs of their patients, but they were not being able to fulfill them. The Health Department had multiple services offering independently and had an uneven distribution of clinical resources, which was not meeting the needs of its population. With this mode of operating, the Health Department Clinics patients had to wait long times to be seen, treated or evaluated, confirming a lack of comprehensive clinical encounters.

Multiple needs of "underserved" population

Wyandotte County has multiple needs regarding its residents' health status and poverty. Their underserved population is a vivid example of the many needs a community can have. The main problems noted in this population are high teen pregnancy rates, high number of STD cases and lack of birth control.

Kansas Health Institute's report "Kansas rate remains higher than national average for eighth year" by Phil Cauthon (KHI, 2012) stated that Kansas ranks amongst the highest in the teen birth rates in the United States. At the same time, the author noticed that the United States teen birth rate is one of the highest in the industrialized world. Wyandotte County was reported as having the highest teen pregnancy rate among in Kansas Counties (KHI, 2012). This rate also varies depending on the race, since, according to KHI's report, black and Hispanic teens' pregnancy rates are 10 to 17 times higher than white female teens'.

Table 2.1: Pregnancies*, Females Aged 10-19 Years, by Component, By County of Residence and by Peer Group, Kansas, 2010

County of Residence	Live Births Age-Group		Stillbirths Age-Group		Abortions Age-Group		Total Pregnancies Age-Group		Teenage† Pregnancy Rate Age-Group		Teenage† Preg. Rate Age-Group
	10-14	15-19	10-14	15-19	10-14	15-19	10-14	15-19	10-14	15-19	10-19
Lyon	1	57	0	0	1	12	2	69	2.0	47.9	29.2
Mcpherson	1	22	0	0	0	0	1	22	1.0	23.9	12.1
Marion	0	11	0	0	0	3	0	14	0.0	33.3	17.2
Marshall	0	8	0	0	0	0	0	8	0.0	28.0	13.3
Meade	0	5	0	0	0	0	0	5	0.0	29.2	13.6
Miami	1	30	0	0	0	7	1	37	0.8	33.7	15.9
Mitchell	0	3	0	0	0	0	0	3	0.0	17.1	8.0
Montgomery	0	64	0	0	1	7	1	71	1.0	56.4	31.7
Morris	0	8	0	0	0	1	0	9	0.0	55.6	27.0
Morton	0	7	0	0	0	0	0	7	0.0	61.4	27.6
Nemaha	0	5	0	0	0	1	0	6	0.0	19.4	8.7
Neosho	0	32	0	0	0	3	0	35	0.0	60.4	30.8
Ness	0	4	0	0	0	0	0	4	0.0	49.4	23.5
Norton	0	2	0	0	0	0	0	2	0.0	13.2	6.8
Osage	0	17	0	0	0	2	0	19	0.0	35.8	16.8
Osborne	0	5	0	0	0	0	0	5	0.0	43.9	21.6
Ottawa	0	7	0	0	0	1	0	8	0.0	45.2	20.1
Pawnee	0	6	0	0	0	1	0	7	0.0	40.5	17.8
Phillips	0	3	0	0	0	0	0	3	0.0	18.0	8.2
Pottawatomie	0	15	0	1	0	0	0	16	0.0	21.5	9.9
Pratt	0	9	0	0	0	1	0	10	0.0	27.1	15.2
Rawlins	0	2	0	0	0	0	0	2	0.0	32.3	15.5
Reno	0	87	0	1	0	7	0	95	0.0	44.1	22.5
Republic	0	4	0	1	0	0	0	5	0.0	40.7	19.4
Rice	0	11	0	0	1	2	1	13	3.2	33.5	19.9
Riley	1	57	0	0	1	27	2	84	1.4	23.3	17.0
Rooks	0	5	0	0	0	0	0	5	0.0	30.1	15.0
Rush	0	4	0	0	0	2	0	6	0.0	70.6	37.0
Russell	0	10	0	0	0	1	0	11	0.0	57.3	28.6
Saline	0	104	0	2	0	13	0	119	0.0	67.0	32.8
Scott	0	5	0	0	0	0	0	5	0.0	35.5	16.2
Sedgwick	4	904	0	0	5	85	9	989	0.5	57.1	28.4
Seward	1	70	0	0	0	1	1	71	1.1	78.6	40.4
Shawnee	4	273	0	3	1	46	5	322	0.9	56.8	28.3
Sheridan	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Sherman	0	14	0	0	0	0	0	14	0.0	89.7	41.1
Smith	0	2	0	0	0	0	0	2	0.0	17.9	9.3
Stafford	0	9	0	0	0	0	0	9	0.0	63.4	31.8
Stanton	0	5	0	0	0	0	0	5	0.0	63.3	29.2
Stevens	0	11	0	0	0	0	0	11	0.0	52.9	26.1
Sumner	0	39	0	1	0	4	0	44	0.0	56.9	26.4
Thomas	0	8	0	0	0	0	0	8	0.0	20.2	12.3
Trego	0	2	0	0	0	0	0	2	0.0	19.8	10.6
Wabaunsee	0	1	0	1	0	2	0	4	0.0	19.1	8.8
Wallace	0	1	0	0	0	0	0	1	0.0	16.7	9.5
Washington	0	1	0	0	0	0	0	1	0.0	6.4	2.9
Wichita	0	4	0	0	0	0	0	4	0.0	66.7	29.2
Wilson	1	19	0	0	0	1	1	20	3.2	70.4	35.3
Woodson	0	7	0	0	0	2	0	9	0.0	123.3	52.3
Wyandotte	7	415	0	3	2	67	9	485	1.6	89.7	44.8
Unknown	0	0	0	0	2	6	2	6	n/a	n/a	n/a
Kansas	36	3,843	0	23	23	576	59	4,442	0.6	45.1	23.1
Peer Group											
Frontier	3	122	0	1	0	6	3	129	0.8	38.4	18.9
Rural	4	272	0	3	1	28	5	317	0.6	37.2	20.2
Densely-Settled Rural	9	834	0	5	1	60	10	885	0.6	53.6	26.8
Semi-Urban	3	625	0	5	3	102	6	732	0.4	42.3	23.1
Urban	17	1,990	0	9	16	374	33	2,373	0.6	45.0	22.5

n/a = Not applicable
*Pregnancies include the sum of live births, stillbirths and abortions.
†Rates per 1,000 female age-group population.
2010 female age-group population numbers are actual counts from the US Census 2000, dated 4/1/2010.

Source: Bureau of Epidemiology and Public Health Informatics
Kansas Department of Health and Environment

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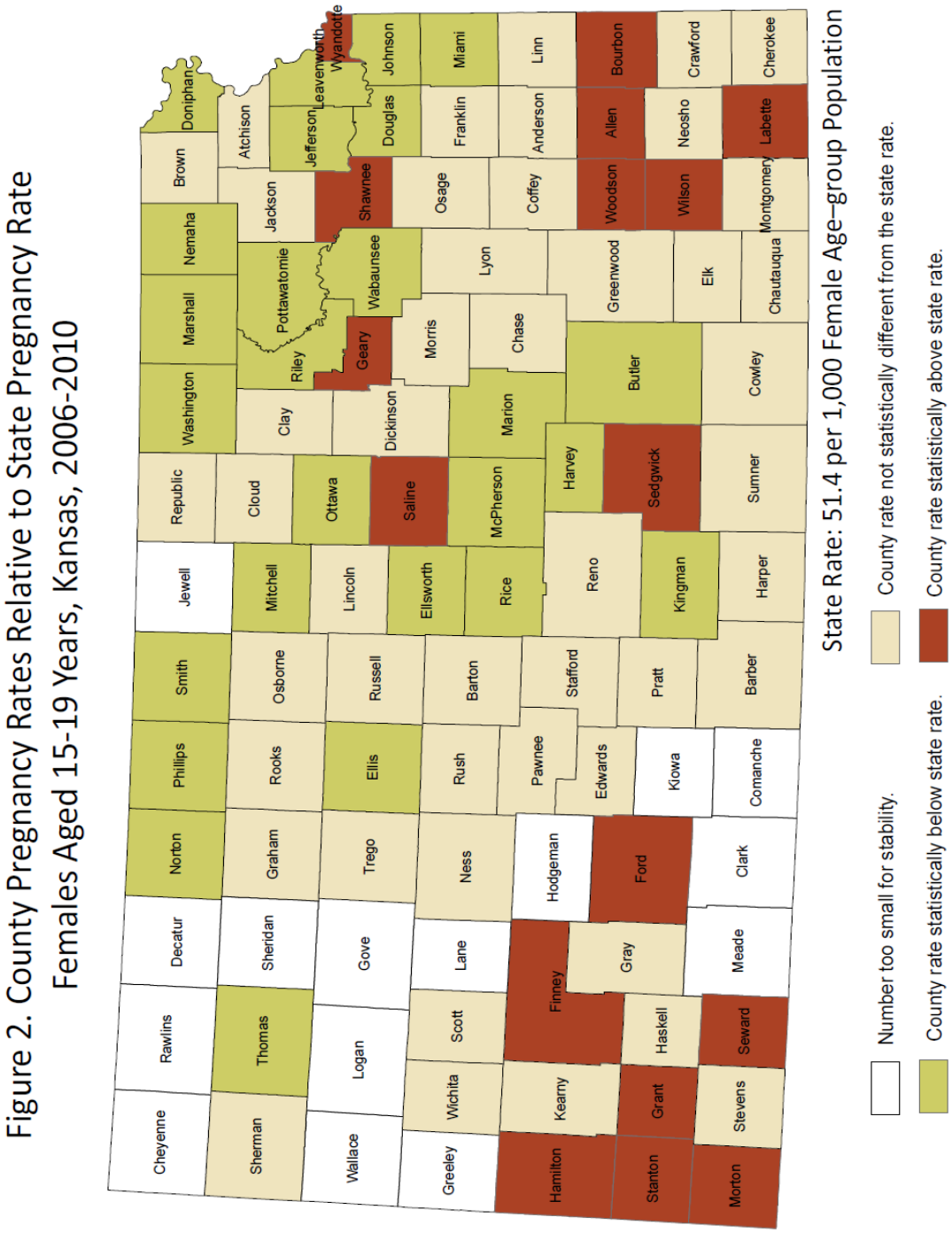
(Kansas Department of Health and Environment, 2010)

Figure 2.1: County Pregnancy Rates Relative to State Pregnancy Rate



(Kansas Department of Health and Environment, 2010)

Table 2.2 Pregnancy* Rates†, Females Aged 10-14 and 15-19 Years, By County of Residence, Kansas, 2006-2010

County of Residence	Year										5-year Rate	
	2006		2007		2008		2009		2010			
	Age-Group		Age-Group		Age-Group		Age-Group		Age-Group		Age-Group	
	10-14	15-19	10-14	15-19	10-14	15-19	10-14	15-19	10-14	15-19	10-14	15-19
Lyon	0.9	50.7	1.8	48.3	0.9	51.4	1.1	32.0	2.0	47.9	1.3	46.1
Mcpherson	1.2	37.1	0.0	25.6	1.2	42.9	0.0	27.1	1.0	23.9	0.7	31.4
Marion	0.0	14.4	0.0	25.7	0.0	20.0	0.0	16.1	0.0	33.3	0.0	21.7
Marshall	0.0	31.4	0.0	14.7	4.2	34.4	0.0	23.8	0.0	28.0	0.7	26.3
Meade	0.0	27.8	0.0	42.9	0.0	55.6	0.0	69.9	0.0	29.2	0.0	44.5
Miami	0.0	42.7	0.0	35.1	1.0	35.8	0.9	53.4	0.8	33.7	0.5	40.2
Mitchell	0.0	23.9	0.0	24.6	0.0	29.1	0.0	11.2	0.0	17.1	0.0	21.6
Montgomery	0.0	78.1	1.0	76.1	0.0	73.3	1.0	60.0	1.0	56.4	0.6	68.6
Morris	0.0	30.2	0.0	43.1	0.0	44.3	0.0	36.6	0.0	55.6	0.0	41.5
Morton	7.6	90.1	0.0	79.6	0.0	54.1	7.9	100.8	0.0	61.4	3.2	77.5
Nemaha	0.0	32.0	0.0	17.4	0.0	12.3	0.0	12.1	0.0	19.4	0.0	19.0
Neosho	2.0	56.0	0.0	73.9	0.0	66.2	0.0	48.4	0.0	60.4	0.4	61.0
Ness	13.3	40.0	0.0	57.5	0.0	61.0	0.0	25.3	0.0	49.4	2.5	47.0
Norton	0.0	21.6	0.0	46.2	7.1	23.4	0.0	27.6	0.0	13.2	1.4	25.9
Osage	0.0	49.7	0.0	45.2	1.8	51.6	0.0	41.7	0.0	35.8	0.3	44.9
Osborne	0.0	39.4	0.0	68.4	0.0	59.8	0.0	35.7	0.0	43.9	0.0	49.4
Ottawa	0.0	46.2	0.0	31.3	0.0	28.4	0.0	27.5	0.0	45.2	0.0	35.8
Pawnee	0.0	32.0	0.0	54.8	0.0	45.7	0.0	45.9	0.0	40.5	0.0	43.8
Phillips	0.0	25.9	0.0	17.8	0.0	43.2	0.0	12.5	0.0	18.0	0.0	23.5
Pottawatomie	0.0	29.9	0.0	34.2	1.5	42.3	1.4	34.2	0.0	21.5	0.5	32.3
Pratt	0.0	53.3	0.0	70.3	0.0	75.5	0.0	57.6	0.0	27.1	0.0	55.8
Rawlins	0.0	23.3	13.2	11.8	0.0	12.0	0.0	37.0	0.0	32.3	2.9	22.7
Reno	1.1	51.0	0.0	58.0	0.0	60.7	0.0	65.1	0.0	44.1	0.2	55.4
Republic	0.0	67.5	0.0	42.3	0.0	61.1	0.0	29.4	0.0	40.7	0.0	48.9
Rice	0.0	33.2	0.0	21.7	3.7	26.1	0.0	28.6	3.2	33.5	1.4	28.4
Riley	0.7	30.8	0.7	25.4	0.0	27.7	0.0	27.4	1.4	23.3	0.6	26.9
Rooks	0.0	35.5	0.0	62.9	0.0	51.9	0.0	42.3	0.0	30.1	0.0	44.0
Rush	0.0	49.5	0.0	20.4	0.0	44.0	0.0	23.8	0.0	70.6	0.0	41.4
Russell	0.0	35.7	0.0	33.0	0.0	80.5	0.0	82.0	0.0	57.3	0.0	57.2
Saline	1.7	76.2	1.1	68.6	0.6	86.2	0.6	69.2	0.0	67.0	0.8	73.3
Scott	0.0	40.8	0.0	83.9	0.0	29.9	0.0	51.3	0.0	35.5	0.0	48.5
Sedgwick	0.9	68.2	0.8	68.8	0.9	68.5	1.1	71.2	0.5	57.1	0.8	66.6
Seward	3.2	97.5	2.2	102.1	1.1	118.2	0.0	113.4	1.1	78.6	1.5	101.6
Shawnee	0.5	64.6	1.6	71.9	1.3	60.9	0.5	66.8	0.9	56.8	1.0	64.1
Sheridan	0.0	0.0	0.0	57.5	0.0	41.7	0.0	41.7	0.0	0.0	0.0	28.9
Sherman	0.0	44.1	0.0	58.8	0.0	58.8	0.0	33.7	0.0	89.7	0.0	56.0
Smith	0.0	29.4	0.0	25.2	0.0	55.6	0.0	26.5	0.0	17.9	0.0	30.6
Stafford	0.0	49.2	0.0	53.3	0.0	46.4	0.0	34.0	0.0	63.4	0.0	49.2
Stanton	0.0	36.1	0.0	144.6	0.0	156.6	0.0	70.6	0.0	63.3	0.0	94.4
Stevens	5.1	33.2	0.0	71.8	0.0	70.7	5.4	55.0	0.0	52.9	2.1	56.1
Sumner	0.0	43.8	0.0	32.8	0.0	56.5	0.0	40.9	0.0	56.9	0.0	45.8
Thomas	0.0	37.9	0.0	24.0	0.0	44.9	0.0	39.5	0.0	20.2	0.0	33.2
Trego	0.0	41.1	0.0	39.5	0.0	40.0	0.0	46.0	0.0	19.8	0.0	36.4
Wabaunsee	0.0	24.3	0.0	34.1	0.0	38.6	0.0	47.4	0.0	19.1	0.0	32.8
Wallace	0.0	18.9	0.0	0.0	0.0	20.4	0.0	0.0	0.0	16.7	0.0	10.8
Washington	0.0	5.1	0.0	31.9	0.0	28.2	0.0	30.9	0.0	6.4	0.0	20.4
Wichita	0.0	112.9	0.0	81.1	0.0	25.6	0.0	63.3	0.0	66.7	0.0	68.0
Wilson	0.0	87.2	0.0	75.7	3.6	59.9	0.0	69.0	3.2	70.4	1.3	72.5
Woodson	11.8	71.4	0.0	90.9	0.0	68.5	0.0	66.7	0.0	123.3	2.3	83.5
Wyandotte	2.8	108.7	2.7	100.2	2.4	106.4	1.7	105.5	1.6	89.7	2.3	102.1
Kansas	0.9	52.2	0.8	53.2	0.7	55.0	0.6	51.6	0.6	45.1	0.7	51.4

*Pregnancies include the sum of live births, stillbirths and abortions.
†Rates per 1,000 female age-group population.
2006-2009 female age-group population estimates were compiled by the U.S. Census Bureau as of 7/1 of each year;
2010 population values were actual 2000 Census counts dated 4/1/10.

Source: Bureau of Epidemiology and Public Health Informatics
Kansas Department of Health and Environment

(Kansas Department of Health and Environment, 2010)

Table 2.3: Pregnancy* Rates†, Females Aged 10-19 Years, By County of Residence, Kansas, 2006-2010

County of Residence	2006	2007	2008	2009	2010	5-year Rate
Lyon	29.5	28.7	30.2	20.0	29.2	27.6
Mcpherson	21.5	14.4	23.8	14.6	12.1	17.2
Marion	8.0	14.1	11.0	8.5	17.2	11.7
Marshall	16.7	8.3	21.5	12.7	13.3	14.4
Meade	12.0	17.9	24.7	29.1	13.6	19.4
Miami	20.5	17.2	17.8	25.9	15.9	19.5
Mitchell	14.6	15.4	18.5	6.6	8.0	12.8
Montgomery	40.3	40.8	38.6	31.7	31.7	36.6
Morris	15.7	23.7	24.3	17.9	27.0	21.6
Morton	45.3	38.6	27.0	52.8	27.6	38.4
Nemaha	16.0	8.3	5.8	5.7	8.7	9.0
Neosho	31.0	40.0	35.4	25.4	30.8	32.5
Ness	26.7	31.3	32.9	11.9	23.5	25.0
Norton	10.3	21.8	14.9	13.6	6.8	13.4
Osage	24.6	22.7	26.8	21.0	16.8	22.4
Osborne	19.5	34.3	31.4	17.9	21.6	24.8
Ottawa	23.6	16.3	14.1	12.3	20.1	17.3
Pawnee	17.2	30.1	24.3	23.7	17.8	22.6
Phillips	14.1	9.1	22.9	6.4	8.2	12.0
Pottawatomie	15.2	17.5	22.2	17.7	9.9	16.3
Pratt	27.8	36.7	41.3	32.2	15.2	30.3
Rawlins	11.9	12.4	6.9	20.7	15.5	13.4
Reno	26.7	29.7	30.7	31.9	22.5	28.2
Republic	38.6	24.3	34.6	15.3	19.4	26.5
Rice	20.9	14.1	18.3	18.1	19.9	18.3
Riley	22.3	18.2	19.3	20.0	17.0	19.4
Rooks	15.3	29.8	23.6	20.1	15.0	20.5
Rush	26.6	10.9	23.3	12.3	37.0	21.9
Russell	18.1	16.1	40.6	40.7	28.6	28.5
Saline	37.4	34.0	40.8	33.1	32.8	35.6
Scott	19.4	42.9	15.0	25.5	16.2	23.7
Sedgwick	33.1	33.9	34.1	35.3	28.4	32.9
Seward	49.5	51.9	59.3	53.0	40.4	50.8
Shawnee	32.3	36.1	30.7	32.8	28.3	32.0
Sheridan	0.0	33.6	21.9	21.7	0.0	15.0
Sherman	24.7	34.5	32.8	17.9	41.1	30.1
Smith	15.9	13.2	28.2	14.2	9.3	16.1
Stafford	27.0	29.3	25.5	17.9	31.8	26.4
Stanton	17.3	76.9	85.5	38.7	29.2	48.3
Stevens	19.7	36.8	36.6	31.2	26.1	29.8
Sumner	22.0	16.9	29.3	20.1	26.4	22.9
Thomas	21.9	14.0	26.5	24.7	12.3	19.9
Trego	18.4	18.2	20.0	24.2	10.6	18.0
Wabaunsee	11.8	16.9	20.2	23.5	8.8	16.1
Wallace	9.2	0.0	10.6	0.0	9.5	5.9
Washington	2.7	16.7	14.3	15.0	2.9	10.3
Wichita	44.9	35.7	12.7	34.2	29.2	31.4
Wilson	43.6	39.0	33.5	35.7	35.3	37.5
Woodson	43.7	46.5	32.3	31.1	52.3	41.5
Wyandotte	54.0	51.4	54.5	52.9	44.8	51.5
Kansas	27.1	27.8	28.6	26.8	23.1	26.6

*Pregnancies include the sum of live births, stillbirths and abortions.
†Rate per 1,000 female age-group population.
2006-2009 female age-group population estimates were compiled by the U.S. Census Bureau as of 7/1 of each year.
2010 population taken from US Census counts as of 4/1/2010.

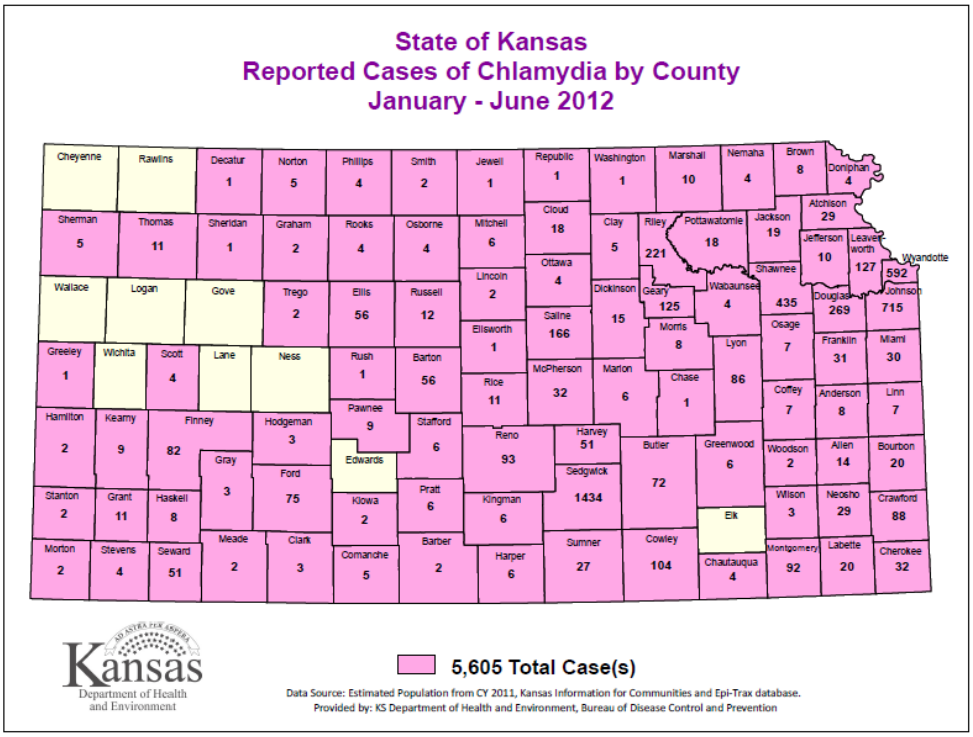
Source: Bureau of Epidemiology and Public Health Informatics
Kansas Department of Health and Environment

(Kansas Department of Health and Environment, 2010)

Sexually Transmitted Diseases ranked 37th out of 50 states in 2010 in the state of Kansas, according to the Kansas Health Profile 2010 conducted by the Centers for Disease Control (CDC). This ranking also showed that there is 1 case of primary and secondary syphilis for every 100,000 individuals, 81.9 gonorrheal infections per 100,000 people and 331.7 chlamydial infections per 100,000 Kansans. The cases of gonorrhea have been decreasing in the past couple of years (Kansas Health Profile, 2010). However, the cases of Chlamydia and syphilis continue to go up, as stated in The Health Profile in 2008.

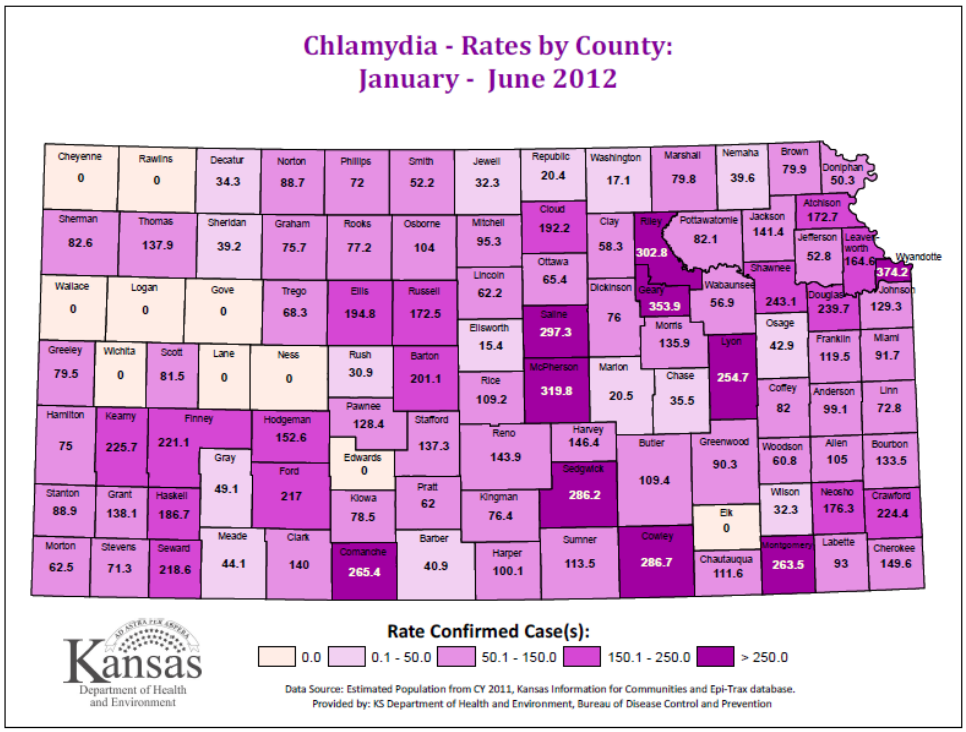
Kansas Health Matters (2013) reported that Wyandotte County' Sexually Transmitted Disease Rate in 2011 was 10 cases per 1,000 residents. These rates are very serious due to the fact that untreated STD's can be the cause of infertility mostly in young women. It has been estimated that more than 24,000 North American women become infertile because of an undiagnosed or untreated sexually transmitted disease (Kansas Health Matters, 2013). The figures below (Figures 2.2 – 2.7) show Wyandotte's County rates and cases of the three primary STD's in 2012. Additional data regarding Kansas' STD rates can be found in Appendix B.

Figure 2.2: Reported cases of Chlamydia by County



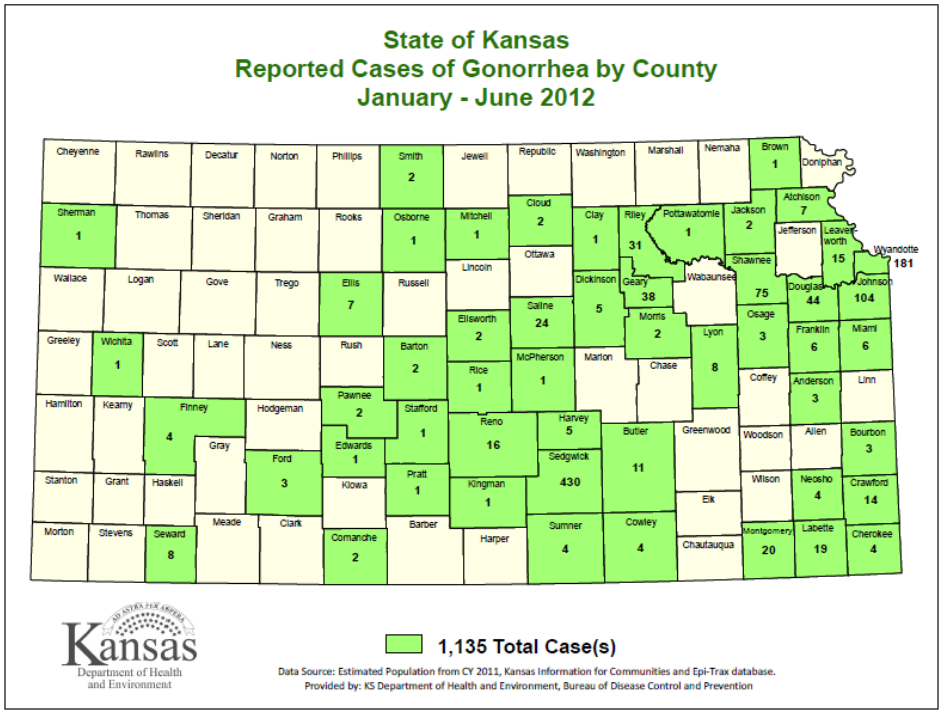
(Kansas Department of Health and Environment, 2010)

Figure 2.3: Chlamydia rates by County



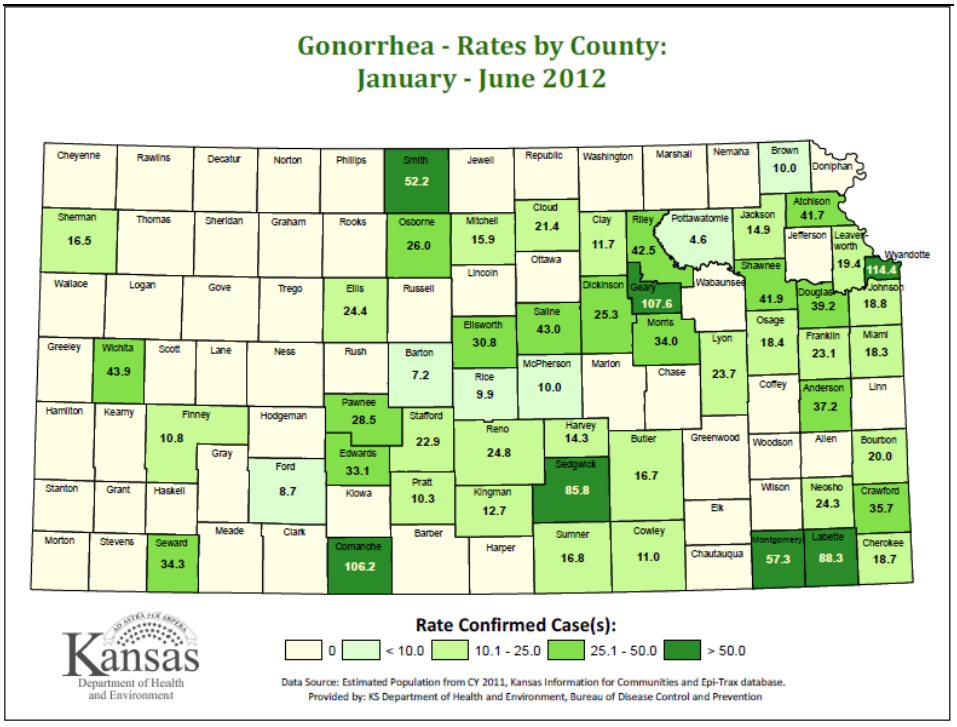
(Kansas Department of Health and Environment, 2010)

Figure 2.4: Reported cases of Gonorrhea by County



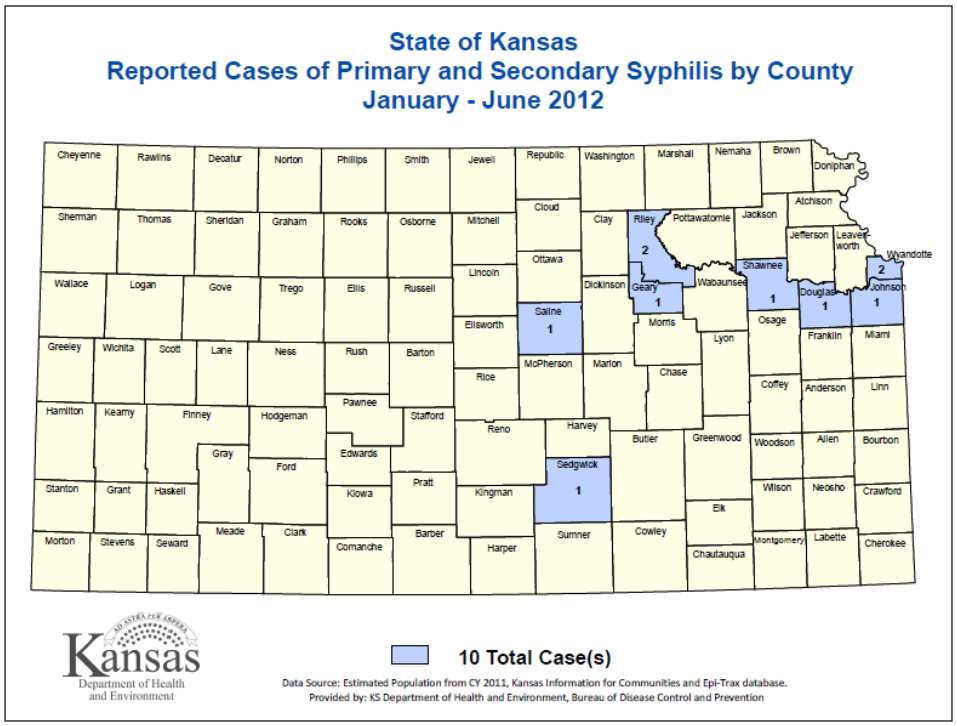
(Kansas Department of Health and Environment, 2010)

Figure 2.5: Gonorrhea rates by County



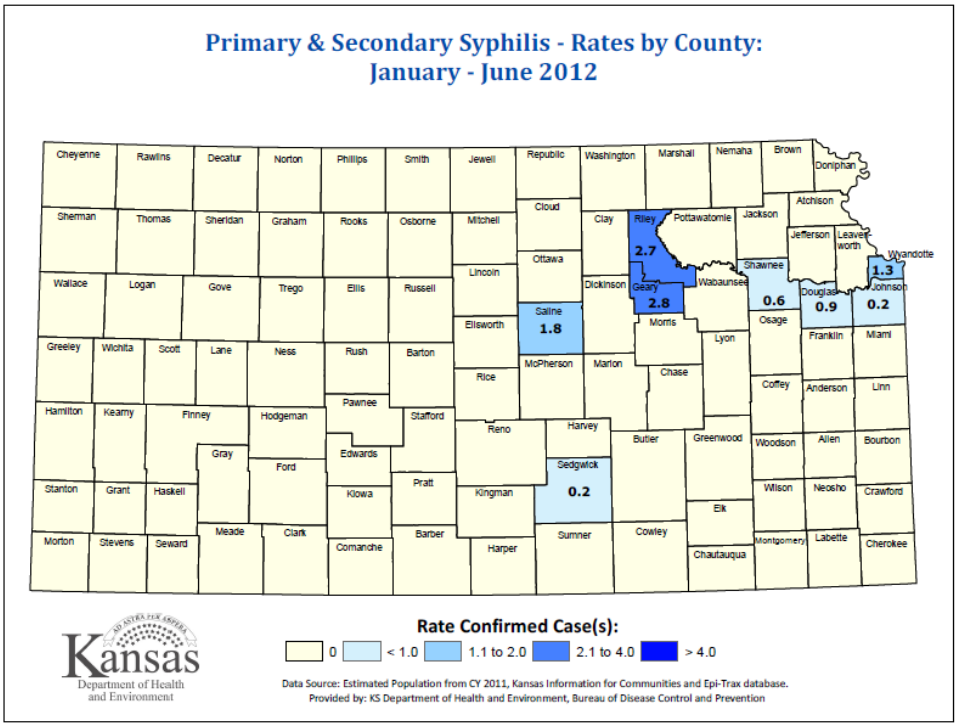
(Kansas Department of Health and Environment, 2010)

Figure 2.6:Reported cases of Primary and Secondary Syphilis by County



(Kansas Department of Health and Environment, 2010)

Figure 2.7: Primary and Secondary Rates by County



(Kansas Department of Health and Environment, 2010)

One of the WCHD's Family Planning Clinic missions is to prevent abortions and to lower the number of teen pregnancies. This mission in Wyandotte County is not easy, as the rankings show. Before the integration of the three main clinics, one big problem that all clinics had was that they were offering their service exclusively. The main concern with this, especially in the Family Planning clinic, is that most of its patients needed more than one service and the clinics were not able to provide them. For example, if a patient visited the clinic for birth control, but it also wanted to be seen for an STD, the patient had to make another appointment for another day to be seen by the STD nurse, or if an appointment was available that same day, the patient would have to wait a long period of time to be seen. Another problem was that pregnancy checks were only available to patients that had appointments specifically for that.

An additional main concern in the Family Planning Clinic is the fetal infant mortality. Wyandotte County currently has 8.47 fetal infant deaths per 1000 live deaths (the highest in the state), as stated by Terrie Garrison, Program Manager in the Wyandotte County Public Health Department. Kansas fetal infant mortality rates are 6.2 per 1000 (KDHE, 2012) and the Healthy People 2020's goal is to have 5.2 fetal infant mortalities per 1000 live births (Healthy People 2020, 2013). With the services being provided as they were before the integration of the services, the Health Department was not contributing much to lowering the rates for Wyandotte County and for Kansas to achieve the Healthy People 2020's goal.

With the lack of service availability, the Family Planning Clinic was not being efficient for its patients, and even less efficient for the Wyandotte County community needs. The underserved population really needed integration so that their health needs would be met. Due to the lack of certified obstetric gynecologists in the area, a common situation in family planning

services, this clinic is vital to meet the needs of the community. Integrating the clinic should increase the county's health rankings and status.

Integration of clinics – merging of 3 areas

The Wyandotte County Health Department is trying to provide the best services for its clients' needs. The merging of the main three clinic areas (Family Planning, STD's and Immunization) in the Health Department had been proposed for years, but had not been adopted by WCHD. For Wyandotte County to be able to implement the proposed change and the merger, it had to be sure that their existing categorical funding programs would continue to be provided. The idea was presented to each funder to maximize flexibility for each funding piece to be able to support the proposed structure without compromising categorical goals of each piece. A plan was developed and the discussion of its implementation started in 2011. After much evaluation, it was decided that the Unified Government Capital Improvement Funds were going to be used to remodel existing work areas to accommodate integrated services.

General Clinic/Sexually Transmitted Diseases (STD) Clinic combined with Family Planning Clinic

The integration of the clinic services and the renovation of its area have brought many positive outcomes to the Health Department. Before the integration, the services were offered in a categorical way, which were not meeting the patients needs. Table 2.4 compares the clinics in all aspects prior and after the consolidation.

Table 2.4: General Clinic/STD Clinic integration with Family Planning Clinic

Prior to consolidation	After consolidation
- The General Clinic/Sexually Transmitted Disease Clinic was one clinic. - Only 3 Registered Nurses (RN) were covering the General Clinic/STD Clinic; one of them was the Supervisor. - The General Clinic provided STD exams for males and females. - Also offered treatment and counseling for sexually transmitted diseases. - There were 5 RN's working in Family Planning with 2 open positions.	- Multiple meetings were conducted to discuss and plan the combining of STD/General Clinic and Family Planning Clinic. - The clinics were combined and now they are staffed by 7 Registered Nurses and 1 Nurse Supervisor has been added. - The two vacant positions in the Family Planning Clinic were filled. - All the nurses attended a STD/HIV Prevention Professional Training at University of Missouri-Kansas City, which was sponsored by the STD program in St. Louis Missouri. - Nurses were trained to perform pelvic exams and treatments for STD clients. - Nurses from the former STD/General Clinic have been cross-trained to Family Planning procedures and are working in all areas. - Birth control is now offered in all clinical service areas, whereas prior to

	combining and training all nurses, the clients seen in the STD clinic had to make an appointment to be seen in Family Planning. - Additional equipment was ordered to increase the number of examination rooms to 8, instead of 6. - The examination rooms were reorganized, providing the ability to treat more clients at the same time. - Changes in the operation of the clinics and cross-training of staff have reduced the time clients wait to be seen. - The number of clients seen daily has also increased. Some services used to require clients to have an appointment, now, clients are able to walk in and receive care. - Nursing staff have all completed training and are now proficient in all areas. - Pregnancy tests are available for all women in the clinic, even if that is not the main reason they are visiting the Health Department. - The integration opens conversation

	between nurses and patients. Nurses are able to educate the patients in terms of pregnancy, medical care during pregnancy for the mom and for the baby, contraception methods, etc. - Nurses are able to take some weight of the shoulders of the primary care physicians by being trained to do intense labor such as educating, counseling, testing, partner counseling, etc. for the Family Planning patients.

Immunization Clinic

In regards to the Immunization Clinic services, prior to the integration, the provided minimal services. After the consolidation of the clinics, they expanded the clinic's services and trained nurses to treat other patients' needs as well. The comparison of the Immunization Clinic's services can be seen below in Table 2.5:

Table 2.5: Immunization Clinic before and after integration

Prior to consolidation	After consolidation
- Vaccines were administered to adults and children for foreign travel. - Recommended vaccines were administered to adults and refugees. - The clinic was in charge of the organization and set up for community	- Adult and childhood immunizations were reassigned and are given in an area that has been designated as Immunizations. - There are 2 Licensed Practical Nurses and 1 Medical Assistant staffing the immunization clinic; they have been cross

outreach vaccination clinics.	trained. - The nurses and the medical assistant now know the protocols for counseling and administering foreign travel vaccines and the schedule of recommended adult vaccines. - The Licensed Practical Nurses have been cross trained to STD treatment protocols and are able to assess, administer treatments and provide teaching for the process of the infections and the medications. - Nurses have been trained and are offering Fluoride treatments to children who are being seen in WIC and Immunizations. - Outreach to the community has improved; vaccine clinics were organized and more than 3,000 doses of the Tdap vaccine were administered throughout the Wyandotte county area.

Cross-training of nurses

All 3 clinic's nurses were cross-trained to be able to see and treat patients after the integration of the services, making them proficient in all the areas. The nurses were permitted to observe combined operations provided in the Johnson County and Olathe Health Departments,

for them to become familiarized with the integration concept. One of the positive outcomes of this process is that the nurses are now contributing to the clinics goal which is to have more encounters for birth control, provide an easier access for the patients and to have the opportunity to orient the clients. The main training processes and additional services offered after the consolidation of the services are listed below:

- The nurses participated in a CDC Professional Training Course – STD Intensive Course, which is provided by the CDC's Prevention Training Service.
- The STD and Family Planning nurses were required to complete webinar trainings to gain immunization knowledge.
- Nurses have cross-trained with the Sexual Health Educator and take an active role in educating at health fairs.
- Nurses have attended the teen clinic called "Bull Doc", which is a health clinic under the University Of Kansas School Of Medicine, providing immunizations, physicals, health education, mental and reproductive health and other treatments for high school students, as stated in The University of Kansas Medical Hospital, Center Express (2012). The cross training will support social worker and health educators.
- Registered Nurses have also added support to the Hip Hop clinics sponsored by School District 500; prior to the consolidation of the clinics, they had no involvement in this outreach.

Survey

In order to understand how the Wyandotte County Health Department patients and employees felt regarding the services offered and infrastructure of the main clinics, a survey was conducted. The survey was designed by Dr. Lawrence (Larry) Franken, Chief Epidemiologist of

the WCHD. Both, the patients' and the employees' surveys were distributed during two periods of time: (a) before the integration of the services and the remodel, administered by Dr. Franken and (b) after the integration of the services and the remodel was done, administered by the investigator of this paper. The surveys were in both English and Spanish, due to the Health Departments large Hispanic population.

The patients' survey questions were mostly regarding their visit, the services provided and the remodeled areas. They were also asked their age, gender, level of education and if that was their first visit or not. A copy of the survey can be found in Appendix C.

The employees' survey questions examined how they feel working at the Health Department and their sense of accomplishment with the services they provide on a daily basis. Other questions asked were regarding the remodel of the clinic areas and the integration of the services. A copy of the survey can be found in Appendix C.

Redesign of Clinic areas

Client flow

The reorganization of examination rooms, the changes in the operation of the clinics and the cross-training of the staff have provided many positive outcomes in regards to the client flow. For example, it has provided the ability to treat more clients at the same time and it has reduced the time clients wait to be seen. The number of clients seen daily has also increased. Prior to the integration of the clinics, some services required clients to have an appointment, while now clients are able to walk in and receive care. Another major change with combining the clinics is the elimination of clients seeing 3 or more care providers before they leave. Now, each nurse sees a client through the entire visit. Finally, there is only one registration desk to make the

patient's visit run as smoothly and simple as possible. Table 2.6 provides a comparison of the number of client visits prior and after the consolidation.

Table 2.6: Comparison of Client visits prior to clinics consolidation and after consolidation

Service Provided	January 2012	January 2013
Family Planning	497	590
General Clinic	3	17
Immunizations – Adults	84	135
Immunizations General Clinic – Children	271	295
Immunizations in WIC	180	410
STD	202	261
Teen pregnancy prevention	27	35
Total number of new clients	328	463

In the table above (Table 2.6) it can be noted that an increase in the number of visits in the services provided by the Wyandotte County Health Department has occurred between January 2012 and January 2013. The integration of the clinics show more efficiency in terms of meeting its clients' needs and being able to offer multiple services in just one visit. The table also shows a notable increase in the total number of new cases comparing last year, before the consolidation, versus this year, after consolidation. It is definitely demonstrated that the community is more aware of all the services provided by the Health Department available to them and that they are more comfortable visiting the Health Department.

Chapter 3 - Results

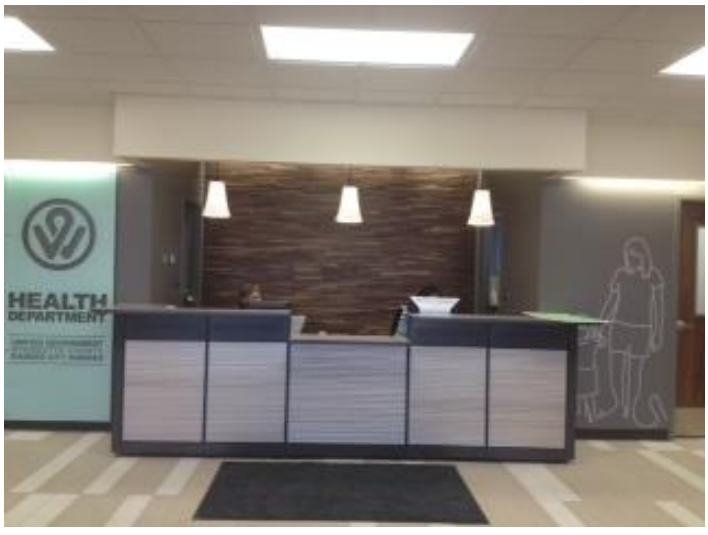
Pictures

Main Entrance

Before

During

After



Registration Area

Before

After

Waiting Room

Before

During

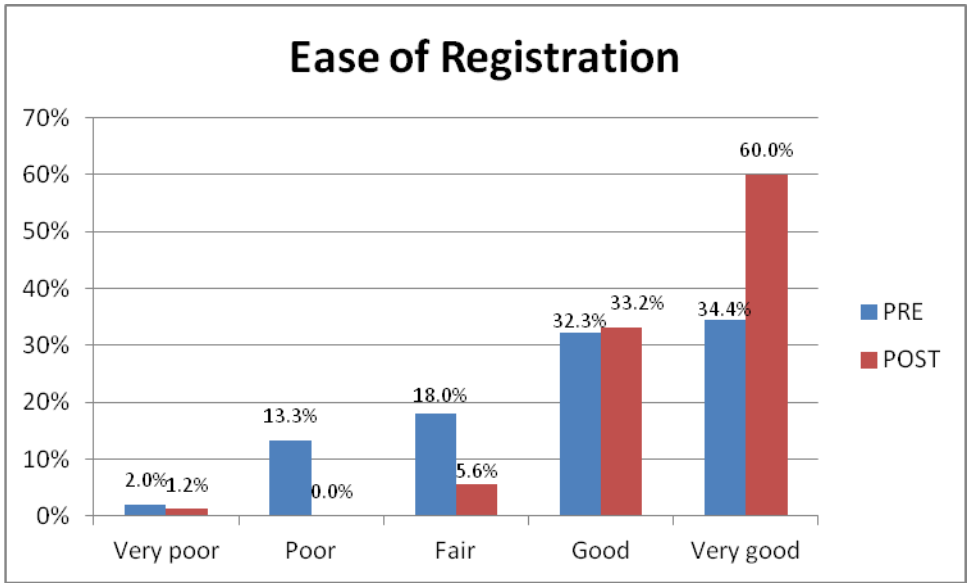
After

Survey data

After collecting the surveys, the results were divided by rating in percentages to compare the data from before the integration and after it. The mode and the median were also calculated for each category. Finally, to determine if there was any significant difference between the data results from the Pre- and Post- surveys, a T-Test was analyzed. To run the T-Test, numbers were assigned to the survey scale, as 1 for Very Poor/Very Unlikely/Strongly Disagree and 5 for Very Good/Very Likely/Strongly Agree. This way each question was analyzed numerically. A detailed explanation of each survey question results is discussed after each graph.

Patient survey

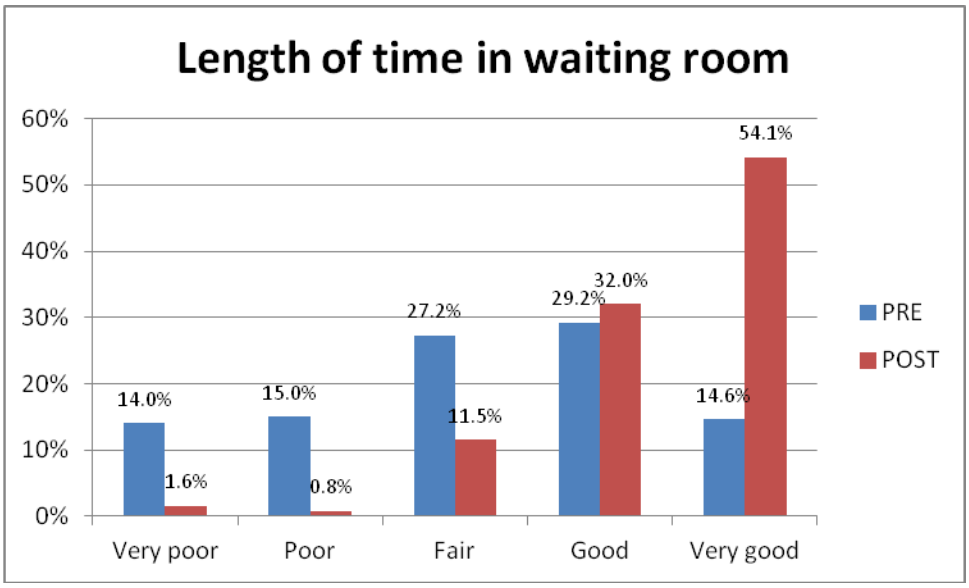
Figure 3.1: Ease of Registration – Pre vs. Post



p-value < 0.01

The figure above (Figure 3.1) demostrates how the patients ease of registration process is more straightforward after the integration of the three main clinics. As it can be seen, the Post bars are mostly rated as Good and Very Good, while before the integration, a percentege of the patients that completed the survey thought that the ease of registration was Fair, Poor and Very Poor. The mode and the median for the Pre and Post results are 5 and 4, and 5 and 5, respectively. The results above also show a significant difference between the Pre and the Post results.

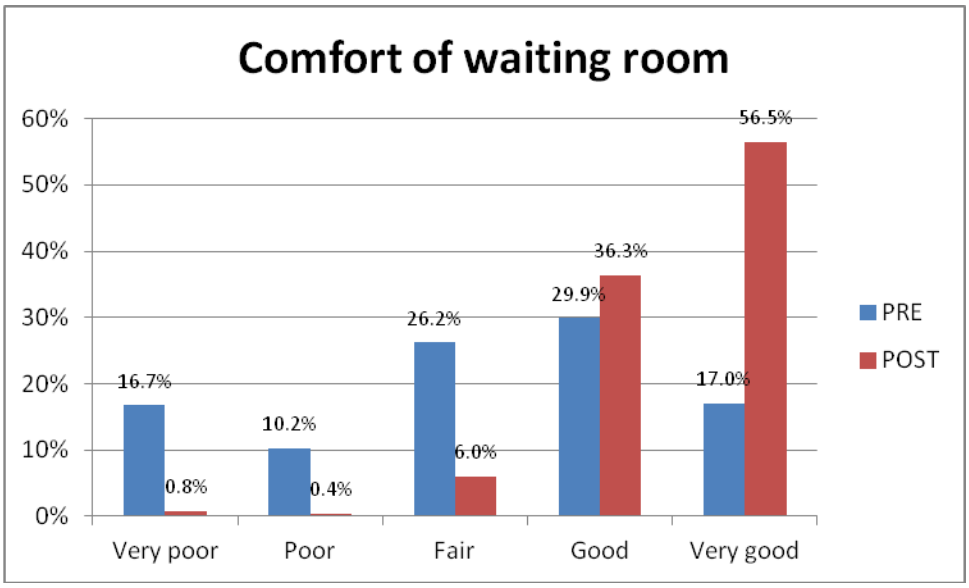
Figure 3.2: Length of time in waiting room – Pre vs. Post



p-value < 0.01

Figure 3.2 shows how the length of time in the waiting room for the patients is more efficient after the integration of the three main clinics. Almost 100% of the Post survey's responses were from Fair to Very Good. The Very Good rating increased dramatically from the Pre responses to the Post responses, from 14.6% to 54.1%. The Pre survey results showed similarity in the percentages of all ratings. The mode and the median for the Pre and Post results are 4 and 3, and 5 and 5, respectively. The results above also show a significant difference between the Pre and the Post results.

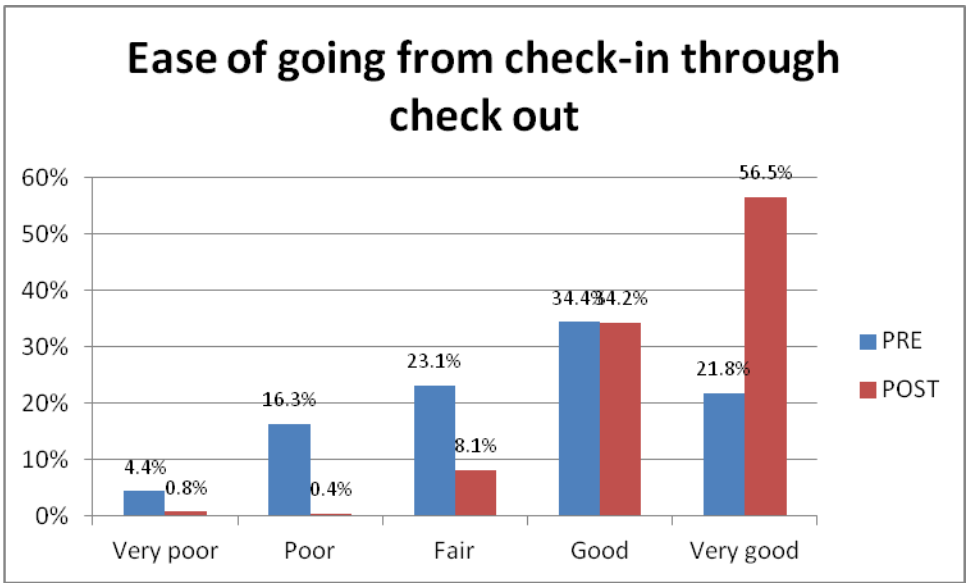
Figure 3.3: Comfort of waiting room – Pre vs. Post



p-value < 0.01

The results of the figure above (Figure 3.3) show that the waiting room is now more comfortable than before the renovation. More than half of the patients that were surveyed responded that the comfort of the waiting room is very good. The mode and the median for the Pre and Post results are 4 and 3, and 5 and 5, respectively. The results above also show a significant difference between the Pre and the Post results.

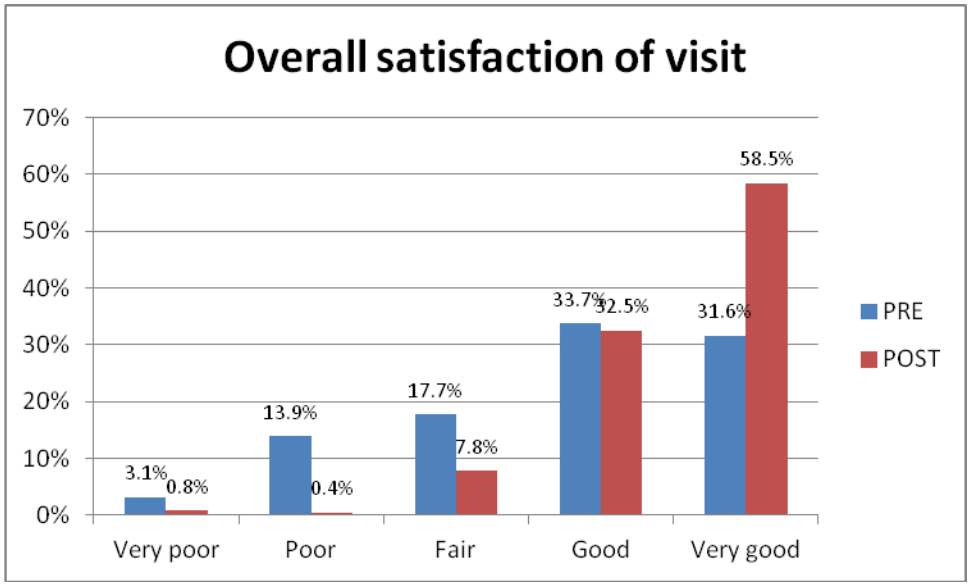
Figure 3.4: Ease of going from check-in through check-out – Pre vs. Post



p-value < 0.01

The figure above (Figure 3.4) demostrates that the check-in/check-out process is better now that the clinics are integrated. Before the integration, most of the patient rated this process as Fair and Good, but, after the renovation most of the responses were rated as Very Good. Only less than 2% of the responses were Poor and Very Poor after the integration. The mode and the median for the Pre and Post results are 4 and 4, and 5 and 5, respectively. The results above also show a significant difference between the Pre and the Post results.

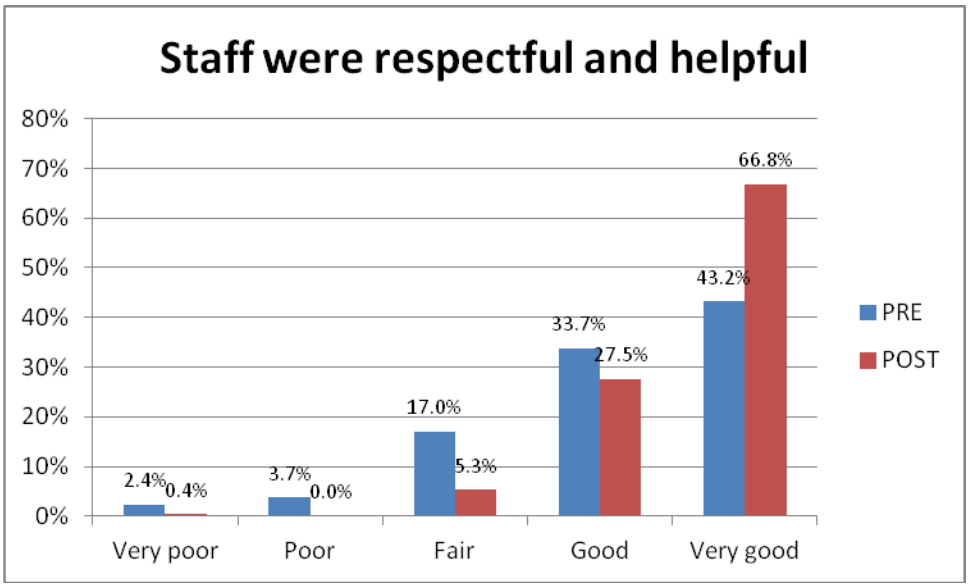
Figure 3.5: Overall satisfaction of visit – Pre vs. Post



p-value < 0.01

Figure 3.5 shows that the integration of the clinics have had positive outcomes since most of the Post survey responses regarding this matter were rated as Very Good. The Health Department is now more efficient with the services they provide and with how they provide them. The mode and the median for the Pre and Post results are 4 and 4, and 5 and 5, respectively. The results above also show a significant difference between the Pre and the Post responses.

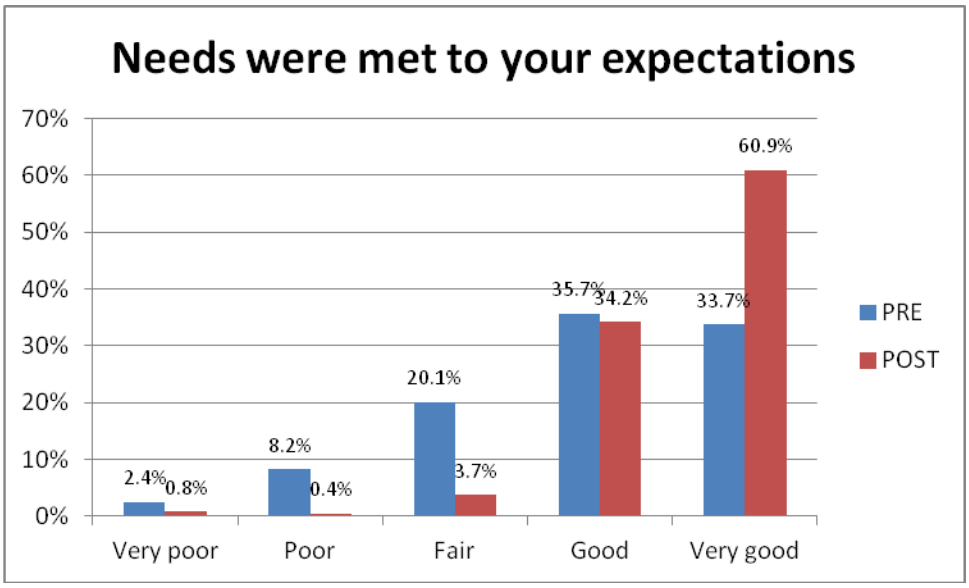
Figure 3.6: Staff were respectful and helpful – Pre vs. Post



p-value < 0.01

The figure above (Figure 3.6) demostrates how the patients are really satisfied with the respect and the help provided by the Heath Department's staff. The cross-training of the nurses really improved the service offered by the them, since now they are able to cover all their patients' need in one visit. As where before, the patients had to have multiple appointments if they needed to cover more than one thing at a time. As it can be seen, the Very Good rate showed an increase of more than 20% from Pre to Post integration of services. The mode and the median for the Pre and Post results are 5 and 4, and 5 and 5, respectively. The results above also show a significant difference between the Pre and the Post results.

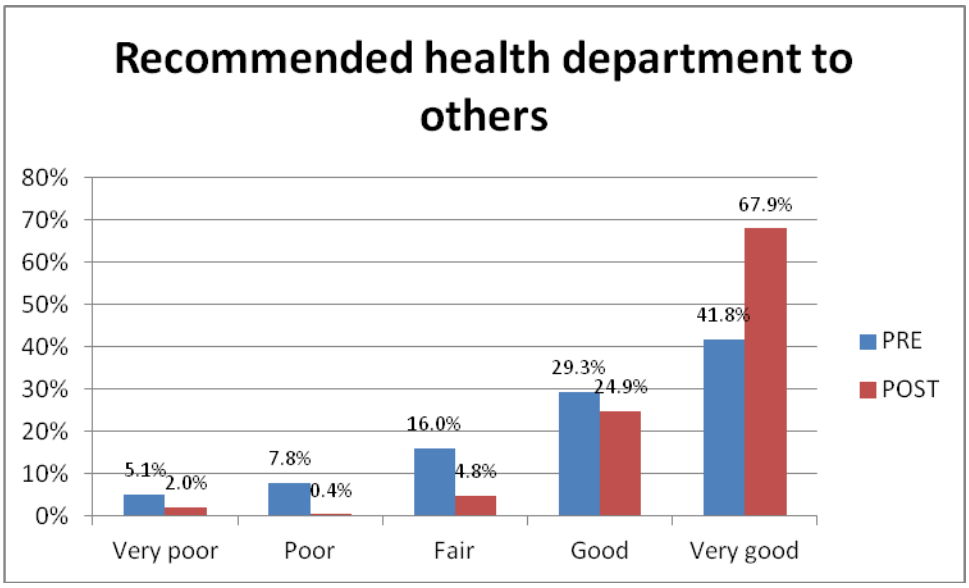
Figure 3.7: Needs were met to your expectations – Pre vs. Post



p-value < 0.01

Figure 3.7 shows that after the renovation and the integration of the three main clinics services, the patients are feeling more satisfied with their health-related needs being taken care of in the Health Department. An approximately 30% increase can be seen in the Very Good rating between the Pre and the Post survey results. After the integration, the Health Department is more capable of covering Wyandotte County's population's necessities. The mode and the median for the Pre and Post results are 4 and 4, and 5 and 5, respectively. The results above also show a significant difference between the Pre and the Post results.

Figure 3.8: Recommended health department to others – Pre vs. Post

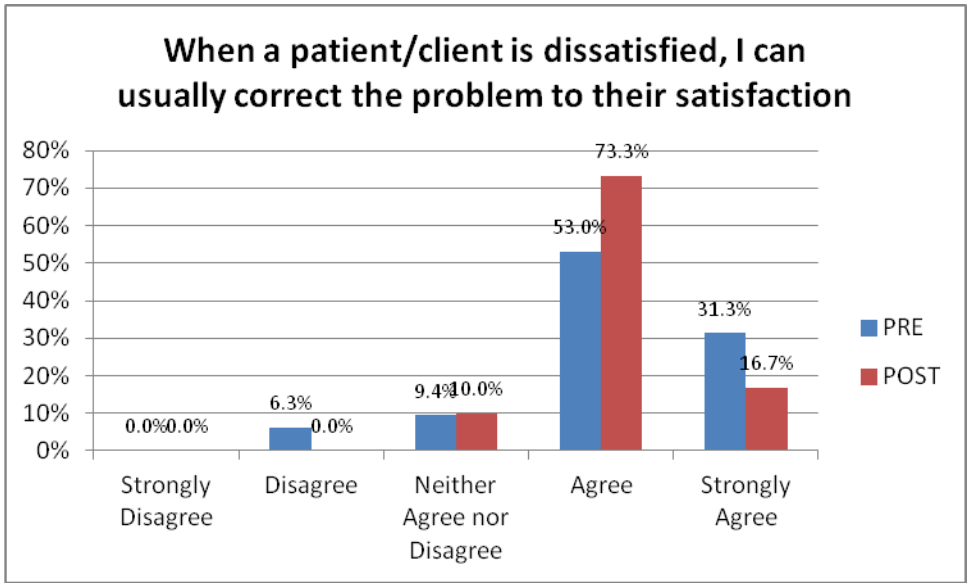


p-value < 0.01

The figure above (Figure 3.8) demostrates that after the services integration and the renovation, patients are recommending more the Health Department services. This definitely shows an improve in covering the patients needs and will help improve the community's heath status by attracting more patients. As it can be seen, almost 70% of the Post responses were rated as Very Good. The mode and the median for the Pre and Post results are 5 and 4, and 5 and 5, respectively. The results above also show a significant difference between the Pre and the Post results.

Employee survey

Figure 3.9: Ability to satisfy patients/clients – Pre vs. Post



p-value > 0.05

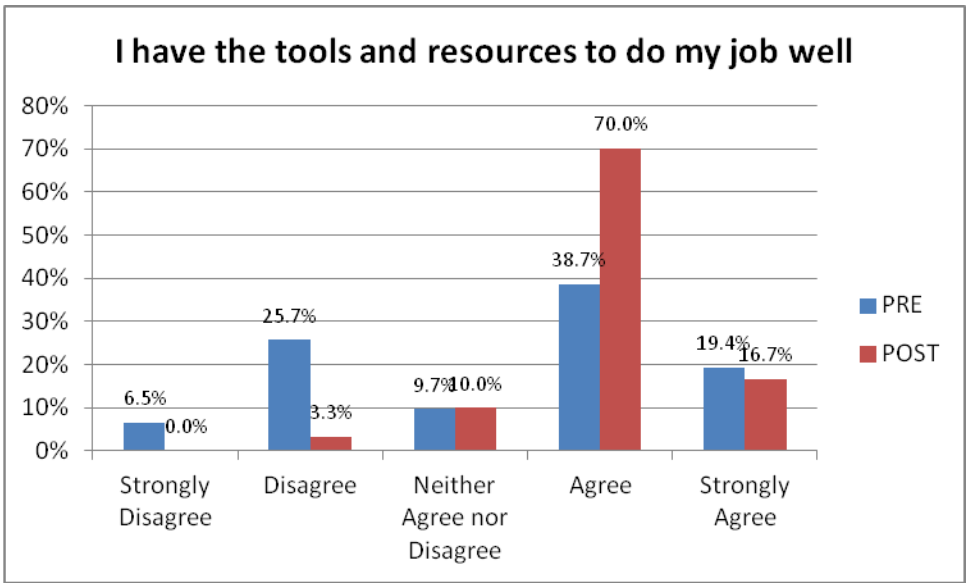
The figure above (Figure 3.9) shows that the employees agree that they can correct a client's problem if he/she is disatisffied. Unfortunately, even with the integration of the services, the employees don't strongly agree with this situation. This can be possibly due to the fact that there are some services that the Health Department does not provide yet. More data could also influence in the significance of the results. The mode and the median for the Pre and Post survey results were 4 and 4 for both, which reaffirms the fact that the comparison of the results was not significant.

Figure 3.10: Personal accomplishment at work – Pre vs. Post

p-value > 0.05

Figure 3.10 demonstrates that the employees are in agreement with the fact that they feel a personal accomplishment with their job. Perhaps there should be a monthly meeting with the staff and supervisors to see how can this be improved so that the employees strongly agree with this item. Again, with more data the significance of the results could vary. To analyze this question for this project in particular, it should also be more specific. The mode and the median for the Pre and Post survey results were 4 and 4 for both, which reaffirms the fact that the comparison of the results was not significant.

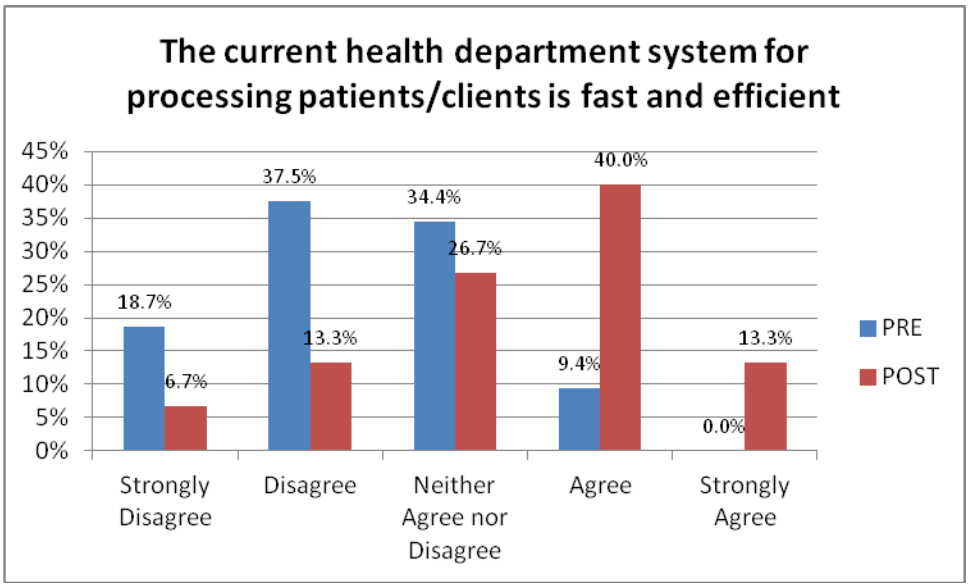
Figure 3.11: Availability of tools to work well – Pre vs. Post



p-value < 0.05

In the figure above (Figure 3.11) it is demonstrated how the employees agree that they have the tools and the resources necessary for them to be able to perform their job after the integration of the services and the renovation. Only a small percentage of the employees disagree with this question, which can probably be if they have seen any patients that need special treatment. The mode and the median for the Pre and Post survey results were 4 and 4 for both, but the p-value shows that there was significance between the Pre and the Post survey responses, probably due to the more than 30% increase in the Agree rate responses.

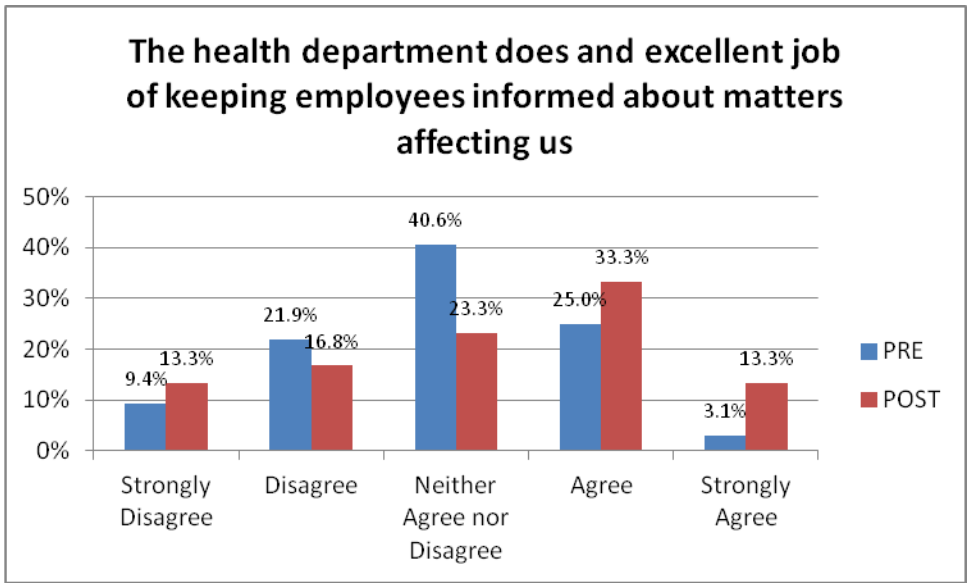
Figure 3.12: Efficiency in processing patients/clients – Pre vs. Post



p-value < 0.01

Figure 3.12 shows significant difference between the Pre and the Post survey responses. As it can be seen, most of the results from the Pre survey were rated as Strongly Disagree to Neither Agree nor Disagree. Probably this results were expected since prior to the integration, all the services were offered categorically, whereas with the integration, one nurse is able to meet all the needs the patient has. The mode and the median for the Pre and Post survey results were 2 and 2, and 4 and 4, respectively.

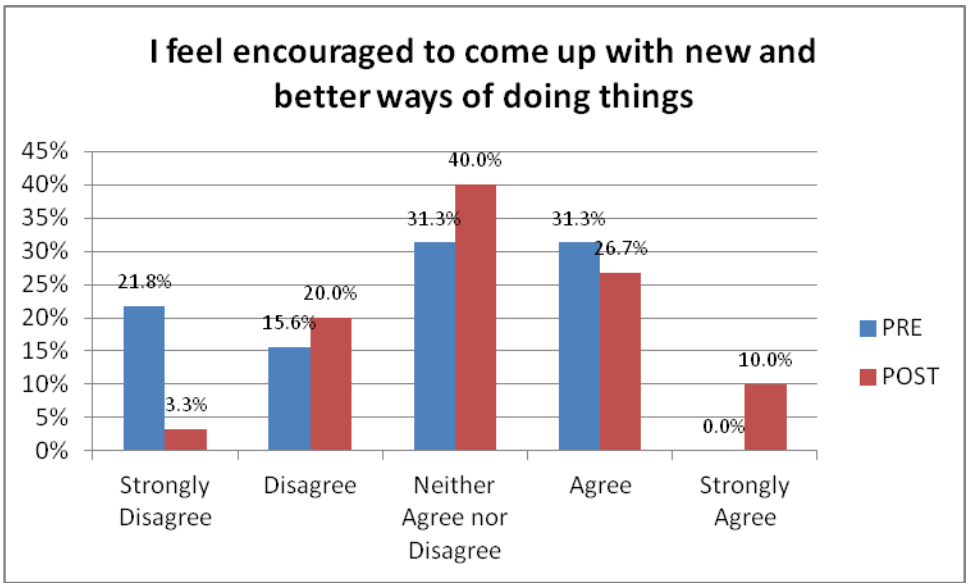
Figure 3.13: Employees feel that they are informed about matters affecting the Health Department – Pre vs. Post



p-value > 0.05

The figure above (Figure 3.13) shows that the communication between employees and the health department's supervisors needs to improve. The employees don't feel that they are informed about the matters regarding the health department. Additional data could also influence in the significance of the results.The mode and the median for the Pre and Post survey results were 3 and, and 4 and 3, respectively, showing no significant difference between the results.

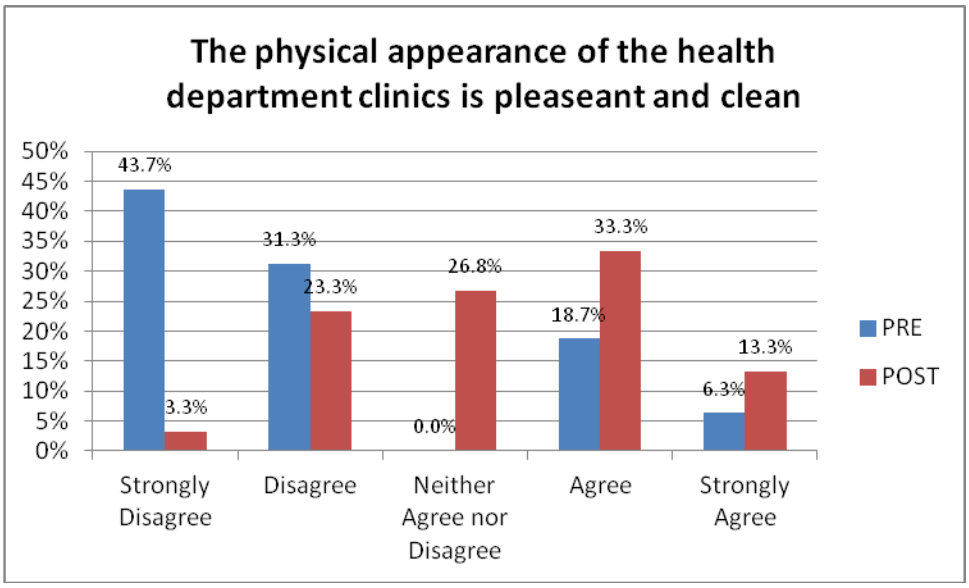
Figure 3.14: Encouragement to come up with better ways to do things – Pre vs. Post



p-value > 0.05

The figure above (Figure 3.14) shows no significant difference between the results of both surveys. Employees reflected that mostly they Neither Agree nor Disagree to the statement "I feel encouraged to come up with new and better ways of doing things". This is something that the supervisors and department heads should really care about changing, since if there is encouragement in the employees, the job will be done in better ways. This can also help the services offered in the clinics since the employees can come up with great ideas based on their direct intereactions with their patients. The mode and the median for the Pre and Post survey results were 4 and 3, and 3 and 3, respectively.

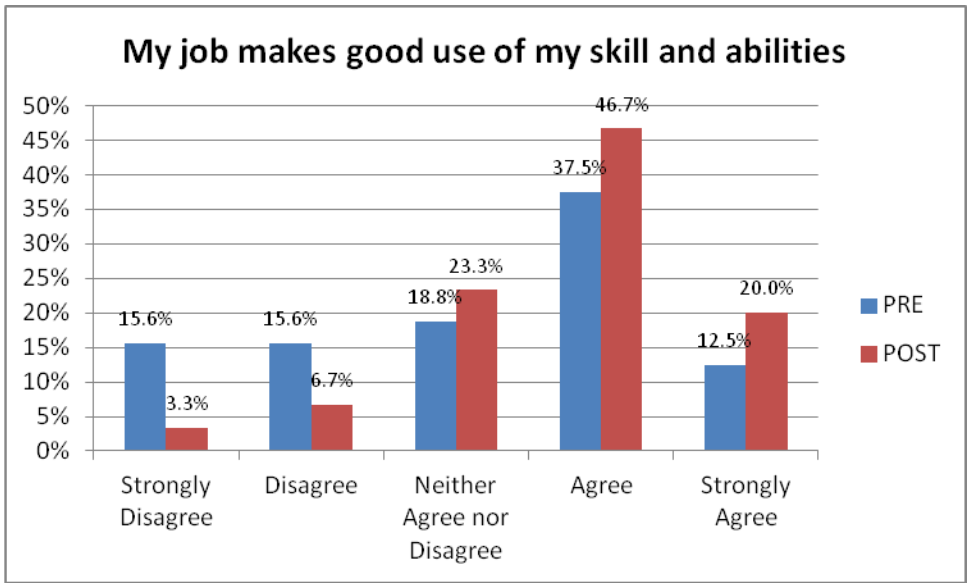
Figure 3.15: Physical appearance of the health department is pleasant – Pre vs. Post



p-value < 0.01

The figure above shows significant difference between the results from the Pre and the Post surveys. Before the renovation, it can be seen that the vast majority of the employees thought that the physical appearance of the clinics was not pleasant and clean, while after the renovation, the highest percentage of the respodents agreed to this situation. The results were expected. The mode and the median for the Pre and Post survey results were 1 and 2, and 4 and 3, respectively.

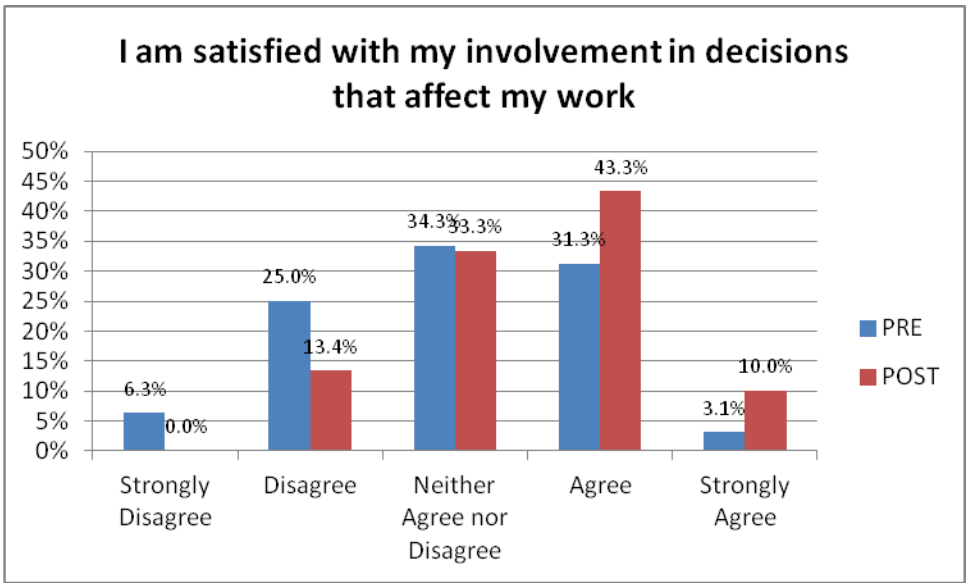
Figure 3.16: Good use of skills and abilities at work – Pre vs. Post



p-value > 0.05

Figure 3.16 demonstrates that the employees don't completely agree with the statement "My job makes good use of my skills and abilities". Even though the highest percent is rated as Agree in the Post survey results, there are still some employees that don't feel as they are using their skills and abilities on a day to day basis. There was no significant difference between the responses and the mode and the median for the Pre and Post survey results were 4 and 3.5, and 4 and 4, respectively.

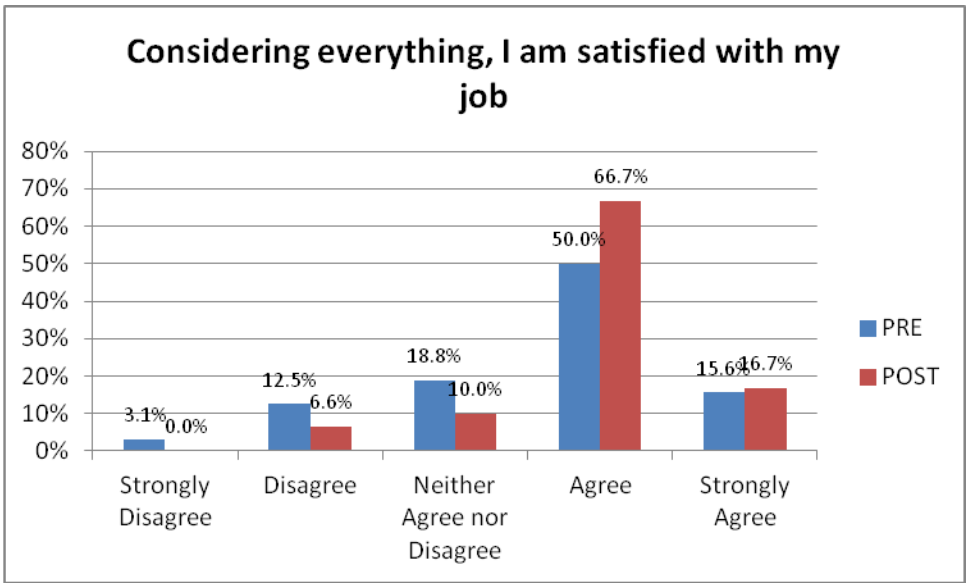
Figure 3.17: Satisfaction of involvement in decisions that affect work



p-value < 0.05

The figure above (Figure 3.17) shows that the health department employees mostly Neither Agree nor Disagree and Agree to the fact that they are satisfied with their involvement in decisions that affect their work. Again, this can be taken care of if there is better communication between supervisors and employees. Still, the results showed significant difference between the Pre and the Post survey responses and the mode and the median for the Pre and Post survey results were 3 and 3, and 4 and 4, respectively.

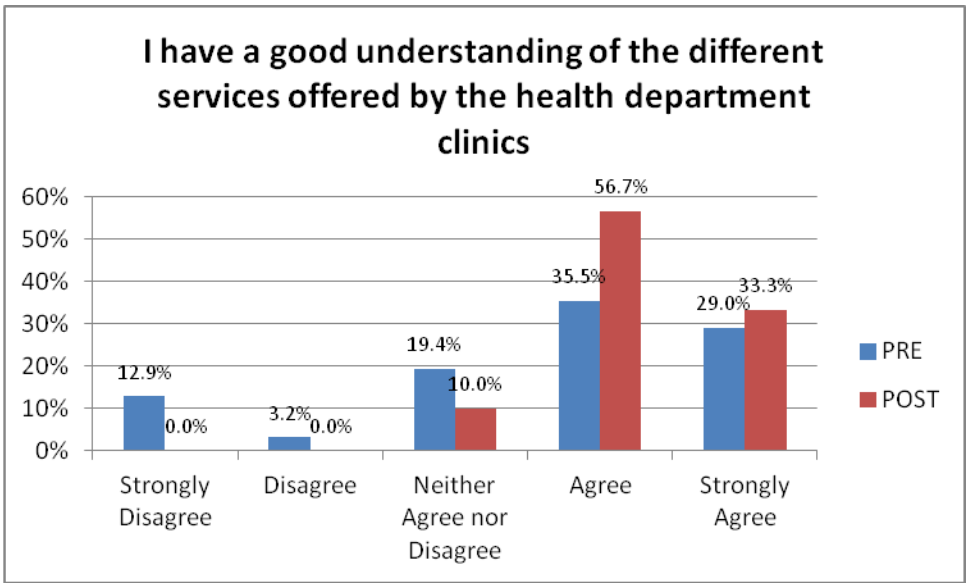
Figure 3.18: Job satisfaction



p-value > 0.05

The figure above (Figure 3.18) shows no significant difference between the results of the Pre and the Post surveys, since most of the respondents agreed to be satisfied with their job. Job satisfaction involves many aspects, therefore, being more specific with this question could influence in the significance of the results. The mode and the median for the Pre and Post survey results were 4 and 4 for both.

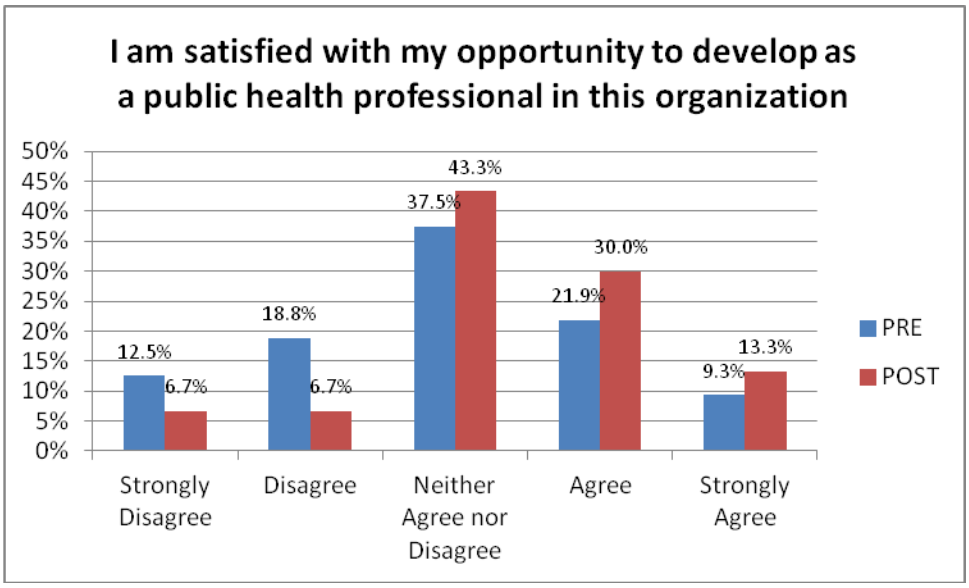
Figure 3.19: Good understanding of the services offered by the health department clinics



$p < 0.05$

Figure 3.19 demonstrates that after the integration and renovation of the clinics, the employees are more aware of the services offered by the health department. The comparison of the results from the Pre and Post surveys showed significant difference and the mode and the median for the Pre and Post survey results were 4 and 4 in both surveys. It can be seen how before the integration, the results were rated from Strongly Disagree to Strongly Agree, while after the integration all the results were rated as Neither Agree nor Disagree to Stronlgy Agree, with the highest percentage of results in Agree.

Figure 3.20: Satisfaction to develop as a public health professional in the organization



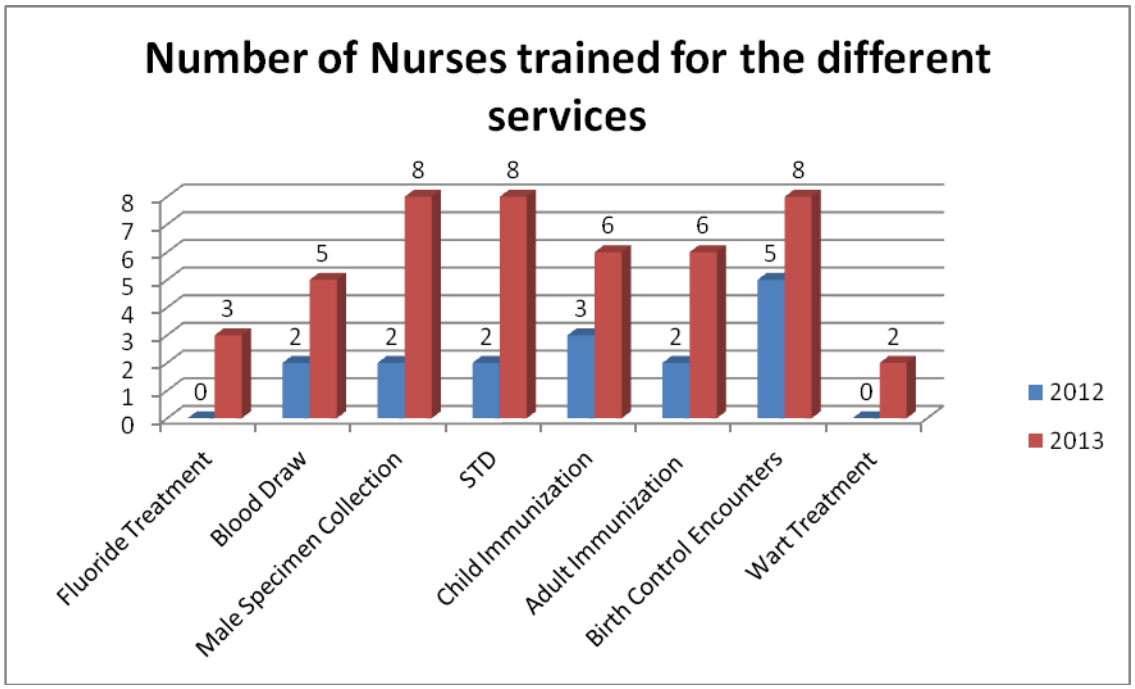
p > 0.05

The figure above (Figure 3.20) shows no significant difference between the results from both surveys. The employees Neither Agree nor Disagree to the statement "I am satisfied with my opportunity to develop as a public health professional in this organization". This should not be the situation since they are working in a public health department. Again, the best thing to do is to increase the levels of communication between employees and supervisors to see how this can change. The mode and the median for the Pre and Post survey results were 3 and 3 for both Pre and Post results.

Nurse data

The cross-training of the nurses from the clinics has become a very valuable asset for the Health Department. All the nurses are now trained to see and treat patients in need of service from any of the 3 main clinics (Family Planning, STD's, and Immunization). Figure 3.21 below shows how the Health Department is now more prepared to provide different services.

Figure 3.21: Number of nurses trained for different service – 2012 vs. 2013



Effectiveness

As it can be seen in the previous graphs and data discussed, the Wyandotte County Health Department has had many positive outcomes with the integration of the clinics and the renovation of the clinic area. There are more services provided than before the integration, making the Health Department more attractive for the clients. This also opens up the possibility for the Health Department to become the "medical home" for its patients. As there are more services being provided, more patients are being seen. An increase in the clients visit is notable (Table 2.6).

As for the clients, the survey results showed that they are happier and more satisfied with their visits. Not only they are not waiting long periods of time to be seen by a nurse, they can be seen and treated for multiple health-related things in just one visit. The use of the clinicians is now more efficient since they are all able to make consults and treat every patient, not just the ones in their area of specialization, either STD, birth control, etc., as it was before.

The integration of the services has brought integrated protocols for all the clinical services. The clinical staff is now more competent in terms of the clients' encounters. The services offered are coming to be more efficient and definitely more complete. Prior to the integration of the services and the cross-training of the nurses, the Health Department had electronic patient records, but it was not a universal system shared with all the WCHD clinics. By the end of the project, the Health Department is expected to have fully electronic medical records that could potentially be shared with the other health-related care clinics.

Wyandotte County's Health Department has seen great positive outcomes in terms of the renovation, the services provided, the waiting times and the integration of services. This specific project is almost finished and there are only some areas in which improvement is needed, such as the complete universal electronic patient records. The supervisors are working on this to achieve the Health Department's final goals. Once everything is completed, it is expected that Wyandotte County's Health Department will be recognized by community private health care providers, which will refer their patients for specific clinical services offered in the Health Department's clinics. It is also expected that the public health workforce will be more highly skilled, therefore there should be a decrease in unwanted public health-related issues, like for example, pregnancies and sexually transmitted diseases. With the implementation of the ACA in 2014, it is hoped that the public health clinics will have a secure and relevant role in the context of health care reform.

Chapter 4 - Conclusion

Wyandotte County's health status needs urgent action to improve. Many factors have contributed to the county's low rankings. Since the factors are all known, the main focus now should be in what needs to be done to help this situation. Because of this and due to the implementation of the ACA starting on January 2014, the Wyandotte County Health Department integrated and renovated their main clinic services to take action in its community health needs.

For years now, this county has been rated as the unhealthiest and poorest community in the state of Kansas. They had a functional Health Department providing a variety of services to the underserved and uninsured population, but the Department was not meeting its patients' needs. Most of the patients needed to visit the Health Department multiple times to cover all their health problems, and because of their economic status, they often weren't able to make it. This showed that a change was needed if Wyandotte County wanted to improve its health status.

The integration of the Family Planning, STD and Immunization clinics has brought many positive outcomes to the Health Department, not only to the patients, but to the community in general. Data shows that the level of efficiency has increased dramatically overall. The patients' survey results demonstrated how the patients are also more satisfied with the way the Health Department is working compared to before the integration of the services.

No one is completely sure of what will happen once the ACA is implemented in terms of how many patients will still visit the Health Department if they have health insurance and also in terms of the current funding that the Health Department receives to be able to provide its services. Hopefully, primary care and public health will be integrated and they'll support each other.

Chapter 5 - Future Steps

Marketing

Currently, most of the patients seen at the Health Department come from the low-income or from the underserved community. Therefore, not everyone who receives a service or multiple services from the nurses is able to pay their accounts. When this happens, the Public Health Department leaves an "open-account" for these patients with their balance, which rarely is paid off. The income for the clinics comes from persons who pay cash for services, Medicaid reimbursement and grant support.

There is a need for marketing their services to target other health care organizations, communities and other populations to receive alternative sources of income for the Health Department. Other ways for marketing and promoting the Health Department's services to the general population include having open houses, going to hospitals, schools, community services, etc. to give talks regarding what their clinics can provide to individuals. Also, visiting low-income neighborhoods regularly to provide health services and make an effort to let them know that the Health Department is an accessible place for them. Social media is a very important way of communicating services and attracting new clients (CDC, 2011). Finally, a user-friendly webpage in both English and Spanish, with a forum-like link would provide the individuals with an opportunity to communicate or ask questions to health specialist with just a click away.

Health care

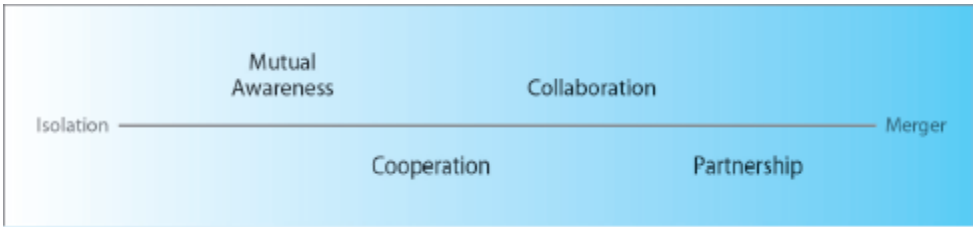
The primary care physician's shortage has been a problem for decades now as stated by Dr. Sanjay Gupta in his report "Is This the Match We Need?" published in March, 2013. As cited in *Annals of Family Medicine*, "the total number of office visits to primary care physicians is projected to increase from 462 million in 2008 to 565 million in 2025, which will require more

than 52,000 additional primary care physicians". This will be an even bigger issue beginning in 2014 with the implementation of the ACA.

A possible remedy for the shortage in primary care physicians would be to use resources available through current public services. STD, immunization and family planning patients currently using public health services do not necessarily need to use primary care physicians once they have insurance. These services could be continued by public health organizations. This would require public health to accept medical insurance along with other forms of funding currently being used.

A strategic plan for the integration of primary care and public health was studied by the Institute of Medicine (IOM) of the National Academies in 2013 in their report "Primary Care and Public Health: Exploring Integration to Improve Population Health". After careful consideration and evaluation of this matter, the IOM, reported its recommendations, which should definitely be followed by the whole nation if we want to see a positive change in the United States health status. First of all, they stated that every community will be different in terms of implementing the proposed plan due to the fact that each community has it special needs, circumstances, etc. Because of this, the IOM developed certain core principles, which are the main integration efforts that a community should follow. Some of the main principles proposed by this institution are the following: a basic common goal on how to improve each community's health, how to involve each community in a plan to emphasize their needs and a way to address them, leadership committees and sustainability. It cannot be emphasized more in the report that the time to start implementing the changes is now, that action is needed. They recommend certain degrees of integration (Figure 5.1) for both sides, rather than complete integration.

Figure 5.1: Degrees of Primary Care and Public Health Integration



(Institute of Medicine, 2013)

Another topic discussed in the IOM report regards funding. The report stated that the Centers for Disease Control and the Health Resources and Services Administration should contribute on this process at all levels (local, state and regional). It is also stated that these agencies should collaborate in different networks, such as learning and research, to reinforce the importance on integrating public health and primary care. When it comes to how the U.S. Department of Health and Human Services (HHS) can contribute to the integration, the study recommends that they should develop new programs to help contribute to the effectiveness of the integration, as well as improving existing programs. The implementation of this plan is not an easy task, but the United States health care system desperately needs a change and by implementing all the recommendations as best as possible, we are opting for a better system.

Hopefully, sometime in the near future, all patients' records will be available electronically in a database that will be accessed by all the health-related specialists, including all doctors, nurses, health departments, etc. With this change, all the process of implementing the integration of services will be much easier. Also, by having all the records electronically, there will be fewer duplicates, in terms of procedures, testing, treatment, etc. Every health-related specialist that is seeing a patient will have access to their complete medical history in a screen.

Health care reform

By January 1, 2014, the Affordable Care Act will be fully implemented. This means that

in a couple of months, there will be major changes in all health care arenas. The U.S. Department of Health & Human Services (2013) provides a complete timeline of all the process of the ACA since it was approved. They point out a couple of important points to keep in mind starting next year. Some of the most relevant changes are discussed below.

First of all, they state that if an individual that works for a company that does not offer health insurance, the employee will have the opportunity to buy his/her insurance from the Health Insurance Marketplace. The same offer will be available for small businesses. Everyone will have different options or plan's to choose from depending on the coverage and the price. They also state that everyone who is able to afford insurance must be insured. There are only a couple of exceptions. For example, if an individual or a family earn less that 133% of the poverty level, they will not be able to pay for the ACA, but, they will be eligible for Medicaid.

Another important change regarding existing health insurance is the fact that the insurers will not be able to limit or cancel any coverage just because an individual decides to be part of a clinical trial (HHS, 2013). Also regarding existing plans, the full implementation of ACA will not permit annual limits on coverage, as stated by the HHS (2013). It is also emphasized that the ACA will also prohibit the refusal of renewal, new coverage or the increase on rates to individuals depending on their gender of health history. Finally, the ACA plans to continue helping with small businesses, by implementing the second phase of their tax credit, which will keep on making them able to provide health insurance for their employees (HHS, 2013).

Other health services

To be able to compete with the upcoming health system, the Wyandotte County Public Health Department needs to apply new concepts and provide new services to its patients. It is not surprising to learn that most of the current Health Department patients have many other health

related needs. The underserved population's health status is typically low, as they tend to get sick more easily and be in need of health services they cannot afford. Some of the services that could be provided in the future in the Wyandotte County Health Department are Fitness, Nutrition and Dental, and others, as stated by Greg Stephenson, Division Head of the Community Health Services, Unified Government Public Health Department.

The Nutrition and Fitness services, also referred to as Wellness services, will bring many positive outcomes to the entire community. These services may also help increase the health ranking status of the County. Promoting healthy eating and fitness may help with preventing common diseases in the underserved population as the individuals will be healthier, helping the status of their immune system. One beneficial aspect of these services is that they can be provided without a primary care physician.

Currently, there is a dentist shortage in the Wyandotte County area. Dentists have had to decline service to patients just because there aren't enough dentists. If this becomes a new service provided by the Health Department, more residents will be able to have their routine visits to the dentist. Also, it would make the Health Department more competitive, due to the fact that other counties' health departments are already offering these services.

The Family Planning Clinic has many future plans to expand the services they offer. One of the things they are discussing is the fact that they want to provide delivering services for pregnant women. For this to be possible, they'll have to recruit nurses with obstetric gynecological background, which they have none as of today. The provision of this services will help with the obstetric gynecologists shortage that currently faces Wyandotte County. Future plans will improve the quality of care of the residents of Wyandotte County by making more efficient the way we deliver health care services.

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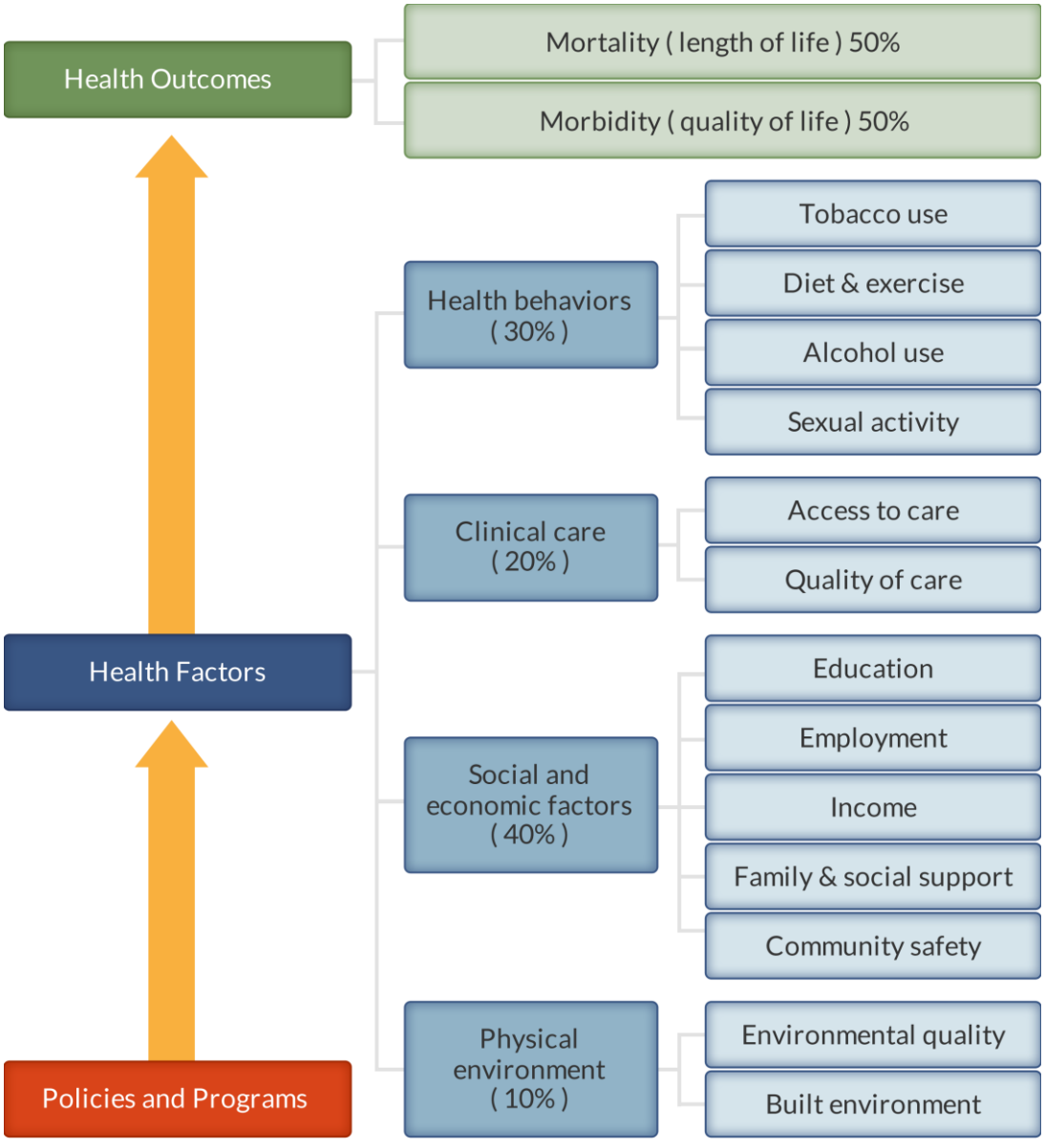
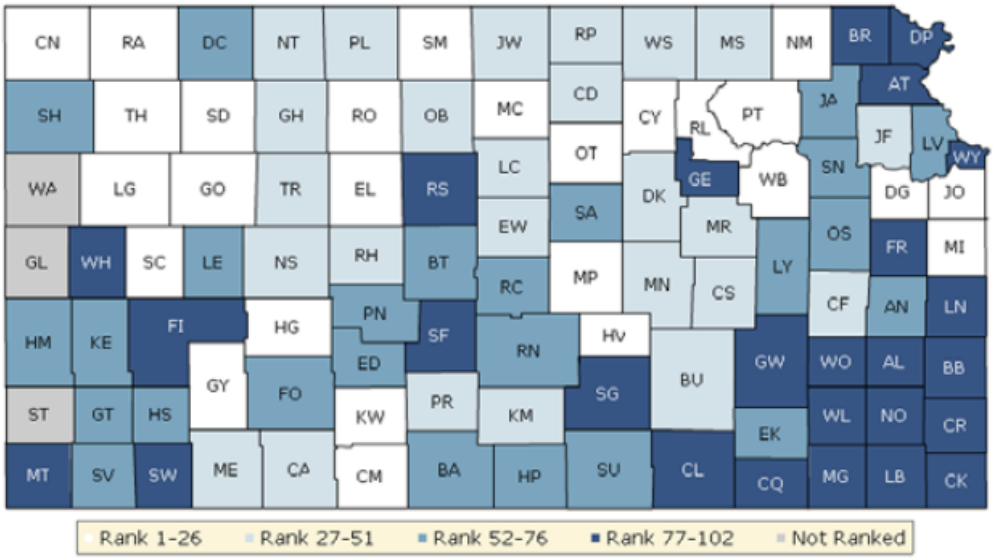
Appendix A - County Health Rankings 2013: Kansas



Model emphasizing the factors that could improve the health of a population.

(Kansas Health Institute, 2013)

HEALTH FACTORS



County	Rank	County	Rank	County	Rank	County	Rank
Allen	86	Finney	93	Logan	22	Rooks	26
Anderson	73	Ford	75	Lyon	58	Rush	45
Atchison	89	Franklin	78	Marion	31	Russell	81
Barber	53	Geary	91	Marshall	35	Saline	59
Barton	65	Gove	21	McPherson	3	Scott	13
Bourbon	87	Graham	29	Meade	41	Sedgwick	80
Brown	96	Grant	64	Miami	10	Seward	97
Butler	36	Gray	16	Mitchell	5	Shawnee	61
Chase	49	Greeley	NR	Montgomery	99	Sheridan	24
Chautauqua	98	Greenwood	82	Morris	44	Sherman	69
Cherokee	94	Hamilton	63	Morton	85	Smith	9
Cheyenne	23	Harper	76	Nemaha	2	Stafford	84
Clark	33	Harvey	17	Neosho	92	Stanton	NR
Clay	14	Haskell	60	Ness	27	Stevens	71
Cloud	42	Hodgeman	4	Norton	48	Sumner	67
Coffey	51	Jackson	62	Osage	74	Thomas	18
Comanche	12	Jefferson	47	Osborne	32	Trego	43
Cowley	79	Jewell	38	Ottawa	11	Wabaunsee	15
Crawford	88	Johnson	1	Pawnee	66	Wallace	NR
Decatur	68	Kearny	72	Phillips	40	Washington	30
Dickinson	50	Kingman	28	Pottawatomie	8	Wichita	77
Doniphan	83	Kiowa	20	Pratt	37	Wilson	101
Douglas	7	Labette	95	Rawlins	25	Woodson	90
Edwards	54	Lane	52	Reno	56	Wyandotte	102
Elk	70	Leavenworth	57	Republic	34		
Ellis	19	Lincoln	46	Rice	55		
Ellsworth	39	Linn	100	Riley	6		

(Kansas Health Institute, 2013)

Summary Health Outcomes & Health Factors Rankings

Counties receive two summary ranks:

- Health Outcomes
- Health Factors

Each of these ranks represents a weighted summary of a number of measures.

Health outcomes represent how healthy a county is while health factors represent what influences the health of the county.

Rank	Health Outcomes	Rank	Health Factors
1	Johnson	1	Johnson
2	Riley	2	Nemaha
3	Stevens	3	McPherson
4	Pottawatomie	4	Hodgeman
5	Ellis	5	Mitchell
6	Meade	6	Riley
7	Wabaunsee	7	Douglas
8	Washington	8	Pottawatomie
9	Douglas	9	Smith
10	Osborne	10	Miami
11	Barber	11	Ottawa
12	McPherson	12	Comanche
13	Sheridan	13	Scott
14	Smith	14	Clay
15	Nemaha	15	Wabaunsee
16	Ottawa	16	Gray
17	Lincoln	17	Harvey
18	Mitchell	18	Thomas
19	Kiowa	19	Ellis
20	Kearny	20	Kiowa
21	Kingman	21	Gove
22	Doniphan	22	Logan
23	Ellsworth	23	Cheyenne
24	Coffey	24	Sheridan
25	Phillips	25	Rawlins
26	Ford	26	Rooks
27	Lane	27	Ness
28	Marion	28	Kingman
29	Dickinson	29	Graham
30	Miami	30	Washington
31	Harper	31	Marion
32	Harvey	32	Osborne
33	Cheyenne	33	Clark
34	Haskell	34	Republic
35	Marshall	35	Marshall
36	Lyon	36	Butler
37	Rooks	37	Pratt
38	Comanche	38	Jewell
39	Republic	39	Ellsworth
40	Chase	40	Phillips
41	Gove	41	Meade
42	Jefferson	42	Cloud

Rank	Health Outcomes	Rank	Health Factors
43	Leavenworth	43	Trego
44	Trego	44	Morris
45	Gray	45	Rush
46	Jewell	46	Lincoln
47	Finney	47	Jefferson
48	Scott	48	Norton
49	Rush	49	Chase
50	Graham	50	Dickinson
51	Hodgeman	51	Coffey
52	Butler	52	Lane
53	Reno	53	Barber
54	Grant	54	Edwards
55	Atchison	55	Rice
56	Clay	56	Reno
57	Franklin	57	Leavenworth
58	Morris	58	Lyon
59	Clark	59	Saline
60	Ness	60	Haskell
61	Pratt	61	Shawnee
62	Seward	62	Jackson
63	Rice	63	Hamilton
64	Sherman	64	Grant
65	Saline	65	Barton
66	Jackson	66	Pawnee
67	Anderson	67	Sumner
68	Rawlins	68	Decatur
69	Morton	69	Sherman
70	Shawnee	70	Elk
71	Hamilton	71	Stevens
72	Sedgwick	72	Kearny
73	Russell	73	Anderson
74	Norton	74	Osage
75	Thomas	75	Ford
76	Barton	76	Harper
77	Wichita	77	Wichita
78	Sumner	78	Franklin
79	Osage	79	Cowley
80	Cowley	80	Sedgwick
81	Crawford	81	Russell
82	Stafford	82	Greenwood
83	Pawnee	83	Doniphan
84	Linn	84	Stafford
85	Wilson	85	Morton
86	Allen	86	Allen
87	Cloud	87	Bourbon
88	Brown	88	Crawford
89	Bourbon	89	Atchison
90	Geary	90	Woodson

Rank	Health Outcomes	Rank	Health Factors
91	Greenwood	91	Geary
92	Edwards	92	Neosho
93	Labette	93	Finney
94	Neosho	94	Cherokee
95	Decatur	95	Labette
96	Montgomery	96	Brown
97	Logan	97	Seward
98	Cherokee	98	Chautauqua
99	Wyandotte	99	Montgomery
100	Chautauqua	100	Linn
101	Elk	101	Wilson
102	Woodson	102	Wyandotte

(Kansas Health Institute, 2013)

2013 *County Health Rankings*: Measures, Data Sources, and Years of Data

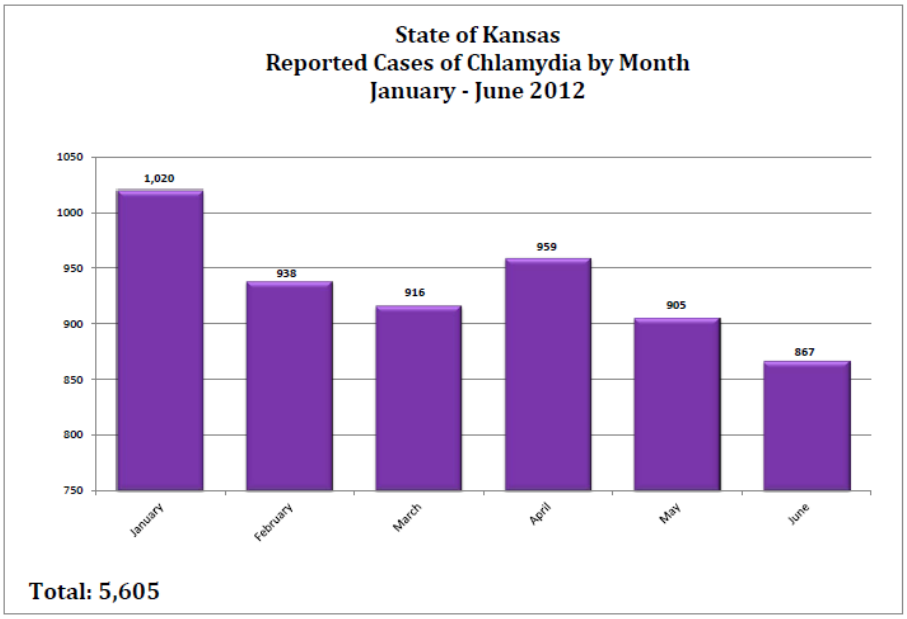
	Measure	Data Source	Years of Data
HEALTH OUTCOMES			
Mortality	Premature death	National Center for Health Statistics	2008-2010
Morbidity	Poor or fair health	Behavioral Risk Factor Surveillance System	2005-2011
	Poor physical health days	Behavioral Risk Factor Surveillance System	2005-2011
	Poor mental health days	Behavioral Risk Factor Surveillance System	2005-2011
	Low birthweight	National Center for Health Statistics	2004-2010
HEALTH FACTORS			
HEALTH BEHAVIORS			
Tobacco Use	Adult smoking	Behavioral Risk Factor Surveillance System	2005-2011
Diet and Exercise	Adult obesity	National Center for Chronic Disease Prevention and Health Promotion	2009
	Physical inactivity	National Center for Chronic Disease Prevention and Health Promotion	2009
Alcohol Use	Excessive drinking	Behavioral Risk Factor Surveillance System	2005-2011
	Motor vehicle crash death rate	National Center for Health Statistics	2004-2010
Sexual Activity	Sexually transmitted infections	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB prevention	2010
	Teen birth rate	National Center for Health Statistics	2004-2010
CLINICAL CARE			
Access to Care	Uninsured	Small Area Health Insurance Estimates	2010
	Primary care physicians	HRSA Area Resource File	2011-2012
	Dentists	HRSA Area Resource File	2011-2012
Quality of Care	Preventable hospital stays	Medicare/Dartmouth Institute	2010
	Diabetic screening	Medicare/Dartmouth Institute	2010
	Mammography screening	Medicare/Dartmouth Institute	2010
SOCIAL AND ECONOMIC FACTORS			
Education	High school graduation	Primarily state-specific sources, supplemented with National Center for Education Statistics	State-specific
	Some college	American Community Survey	2007-2011
Employment	Unemployment	Bureau of Labor Statistics	2011
Income	Children in poverty	Small Area Income and Poverty Estimates	2011
Family and Social Support	Inadequate social support	Behavioral Risk Factor Surveillance System	2005-2010
	Children in single-parent households	American Community Survey	2007-2011
Community Safety	Violent crime rate	Federal Bureau of Investigation	2008-2010
PHYSICAL ENVIRONMENT			
Environmental Quality	Daily fine particulate matter [1]	CDC WONDER Environmental data	2008
	Drinking water safety	Safe Drinking Water Information System	FY 2012
Built Environment	Access to recreational facilities	Census County Business Patterns	2010
	Limited access to healthy foods	USDA Food Environment Atlas	2012
	Fast food restaurants	Census County Business Patterns	2010

[1] Not available for AK and HI.

(Kansas Health Institute, 2013)

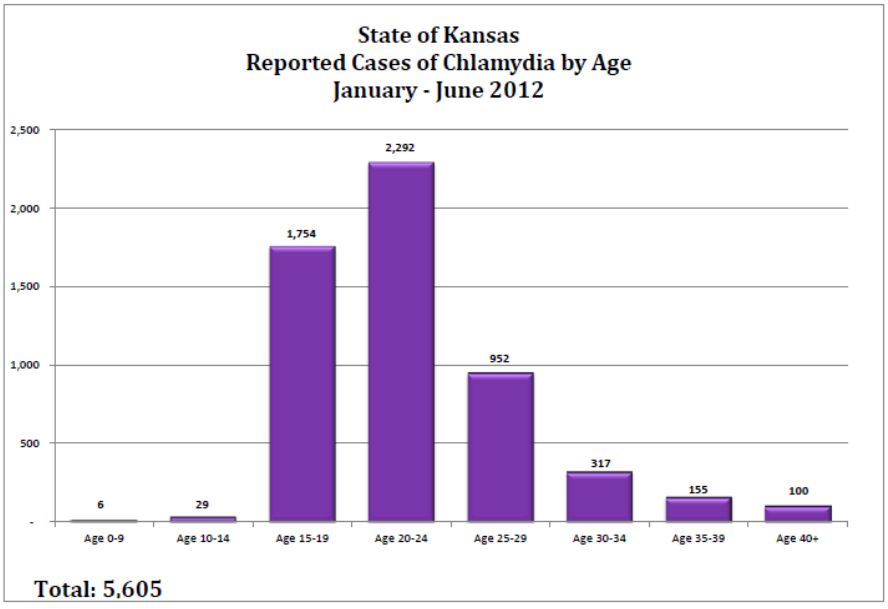
Appendix B - Sexual Transmitted Diseases in Kansas

Figure B.1: Reported Cases of Chlamydia by Month: January – June 2012



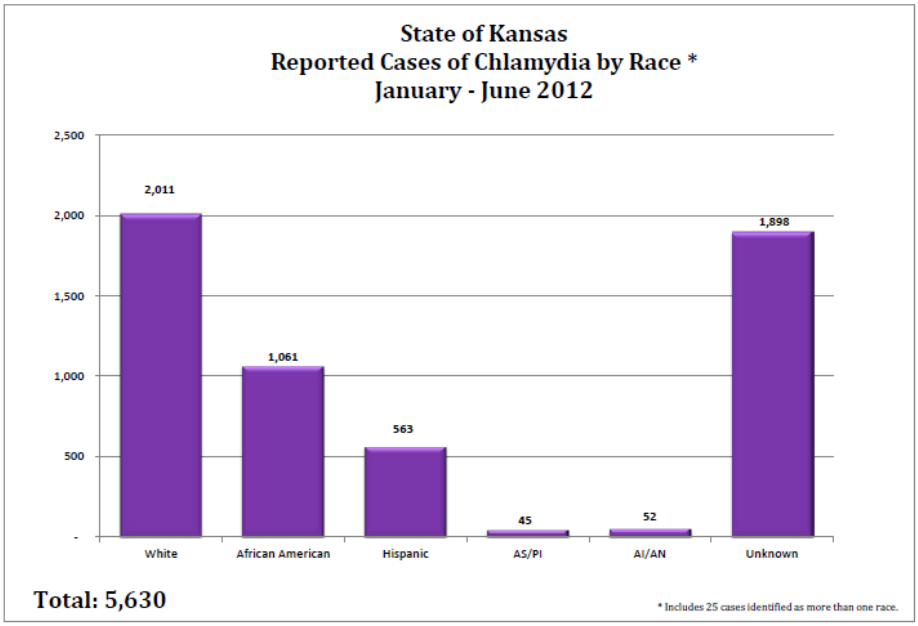
(Kansas Department of Health and Environment, 2010)

Figure B.2: Reported Cases of Chlamydia by Age: January – June 2012



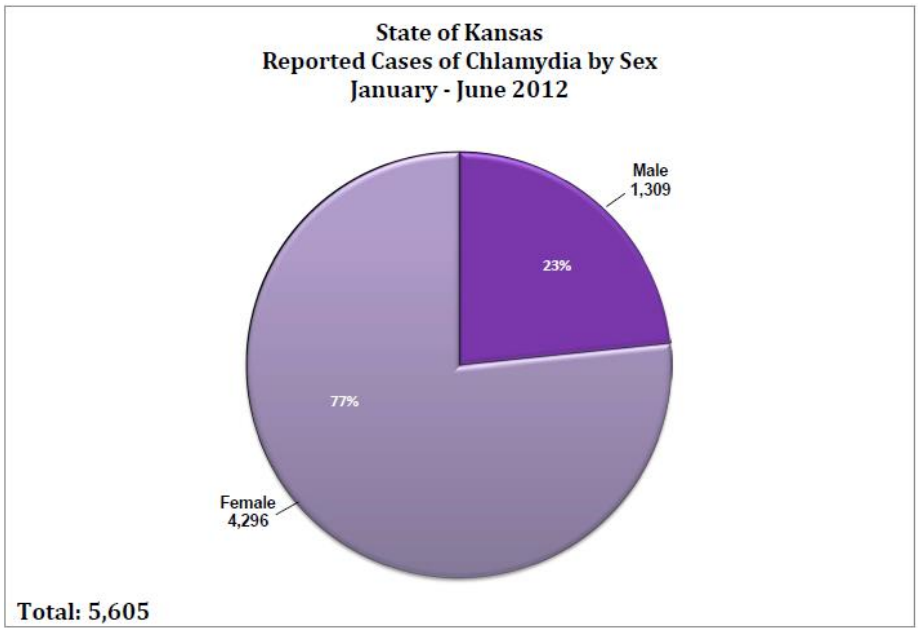
(Kansas Department of Health and Environment, 2010)

Figure B.3: Reported Cases of Chlamydia by Race*: January – June 2012



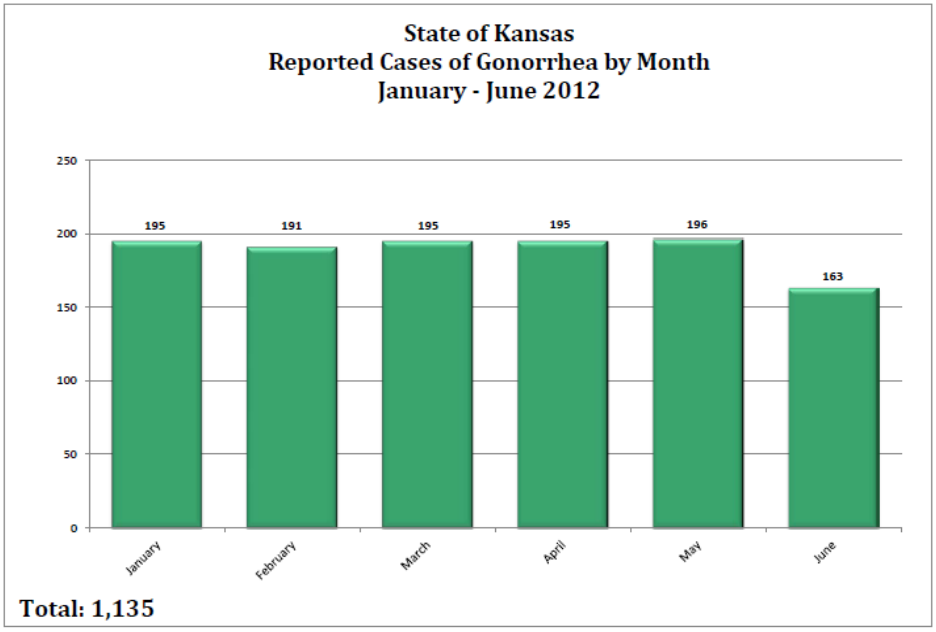
(Kansas Department of Health and Environment, 2010)

Figure B.4: Reported Cases of Chlamydia by Sex: January – June 2012



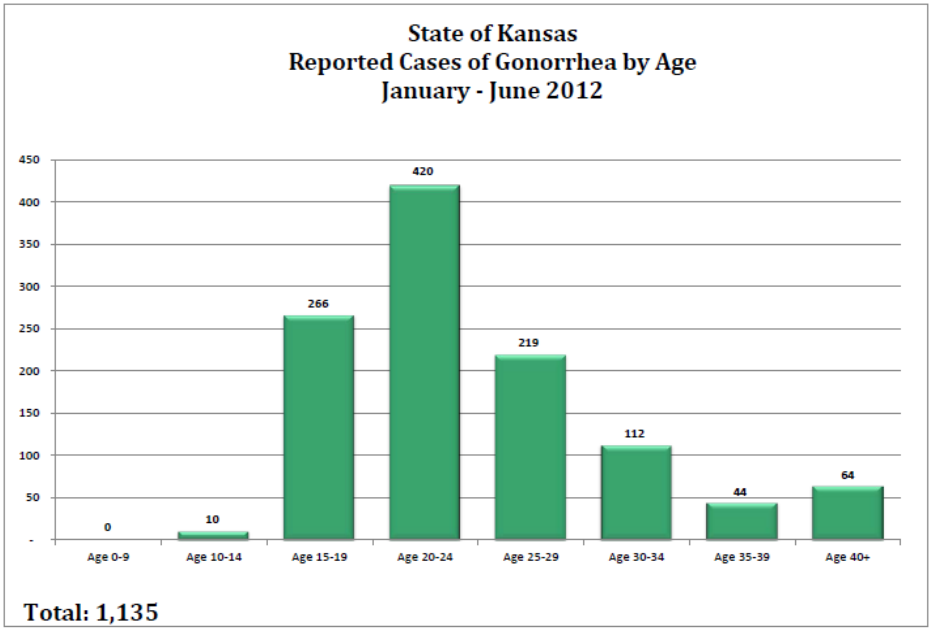
(Kansas Department of Health and Environment, 2010)

Figure B.5: Reported Cases of Gonorrhea by Month: January – June 2012



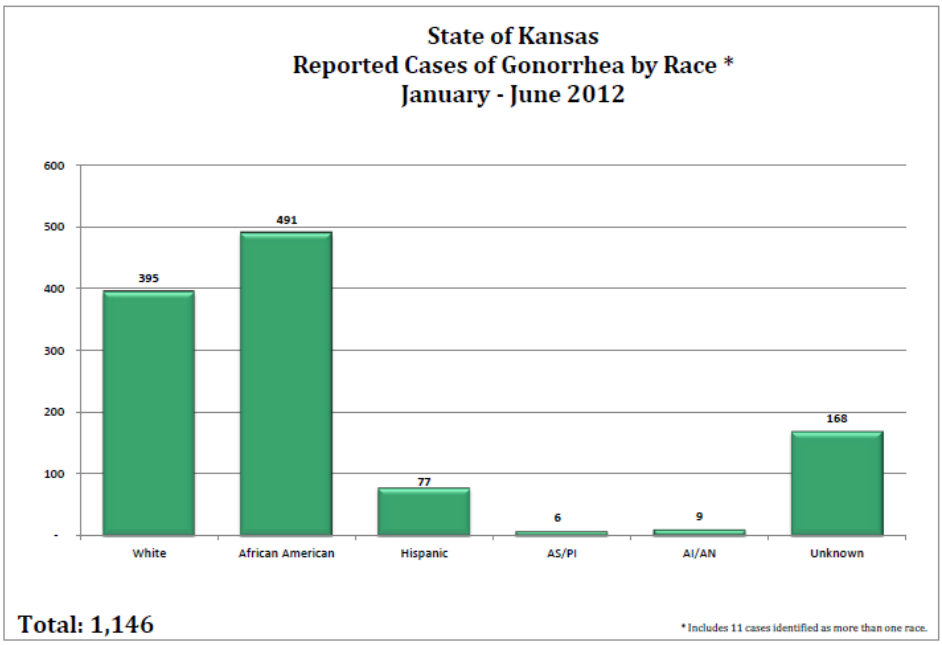
(Kansas Department of Health and Environment, 2010)

Figure B.6: Reported Cases of Gonorrhea by Age: January – June 2012



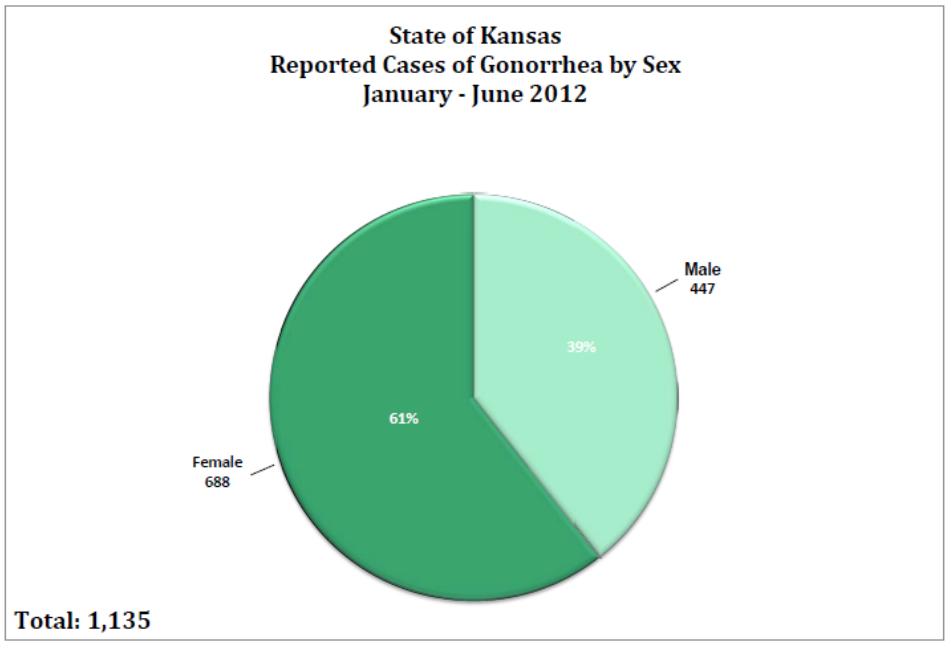
(Kansas Department of Health and Environment, 2010)

Figure B.7: Reported Cases of Gonorrhea by Race*: January – June 2012



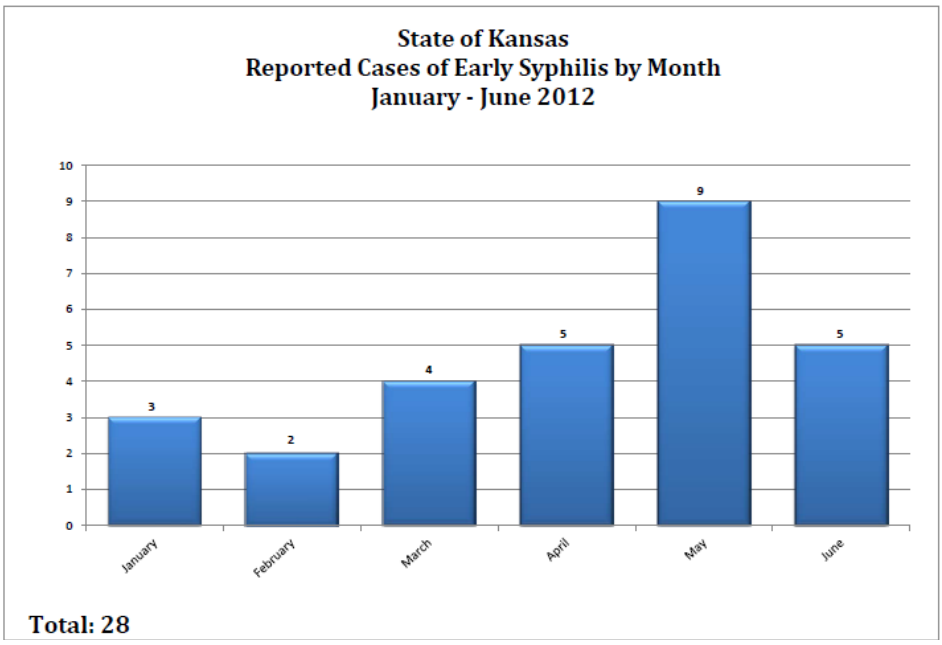
(Kansas Department of Health and Environment, 2010)

Figure B.8: Reported Cases of Gonorrhea by Sex: January – June 2012



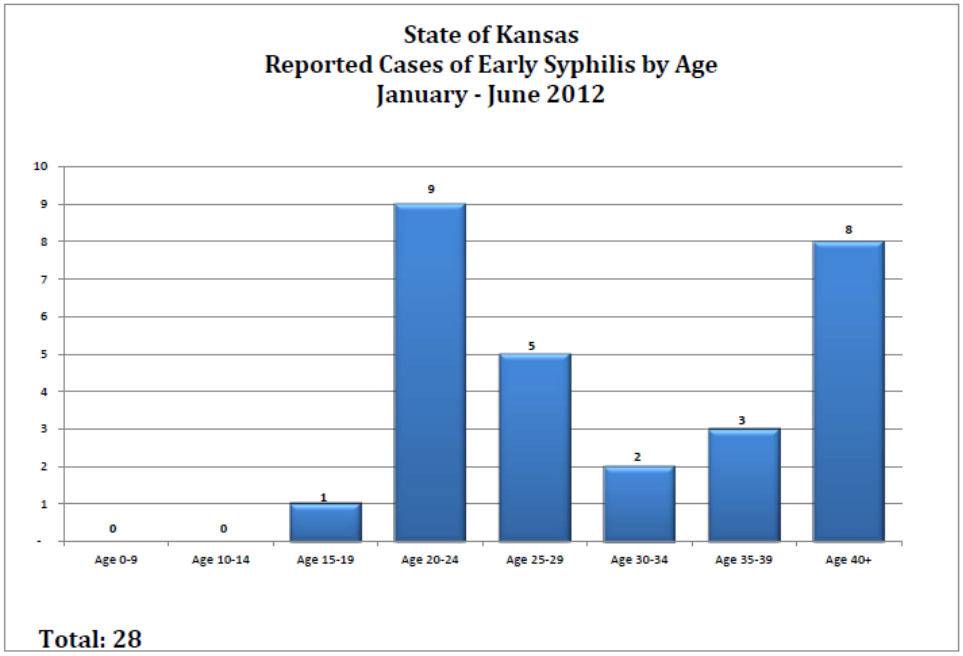
(Kansas Department of Health and Environment, 2010)

Figure B.9: Reported Cases of Early Syphilis by Month: January – June 2012



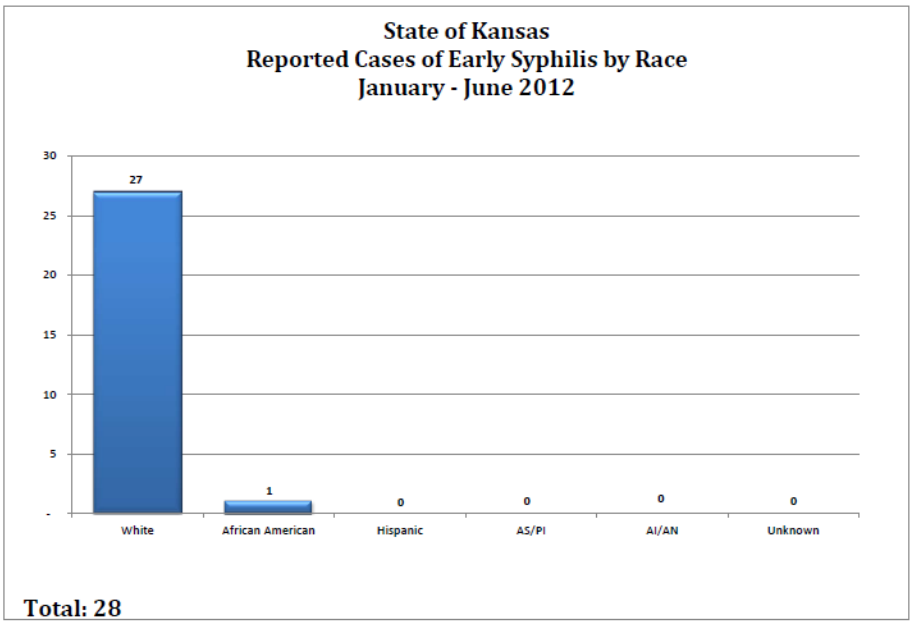
(Kansas Department of Health and Environment, 2010)

Figure B.10: Reported Cases of Early Syphilis by Age: January – June 2012



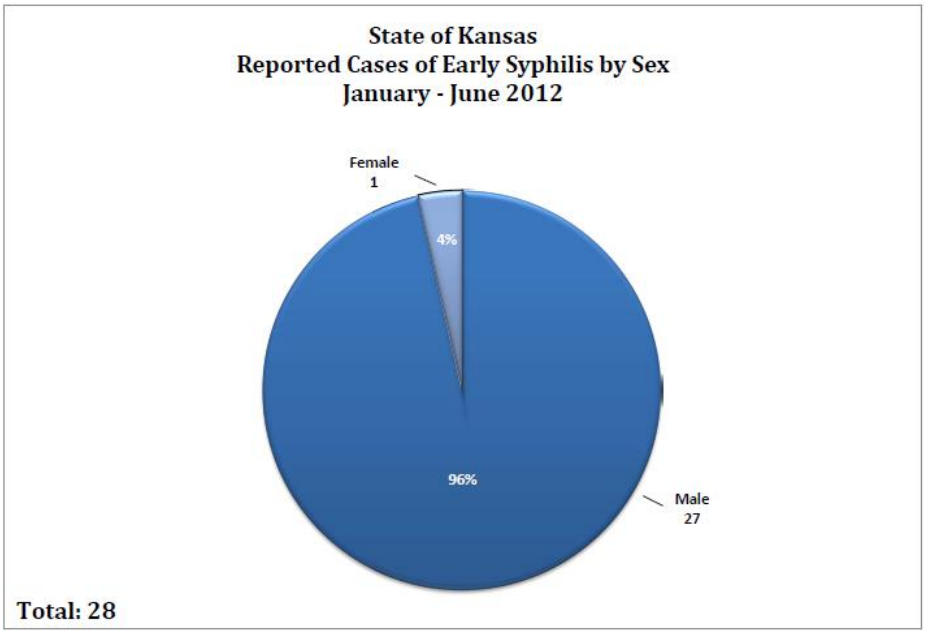
(Kansas Department of Health and Environment, 2010)

Figure B.11: Reported Cases of Early Syphilis by Race: January – June 2012



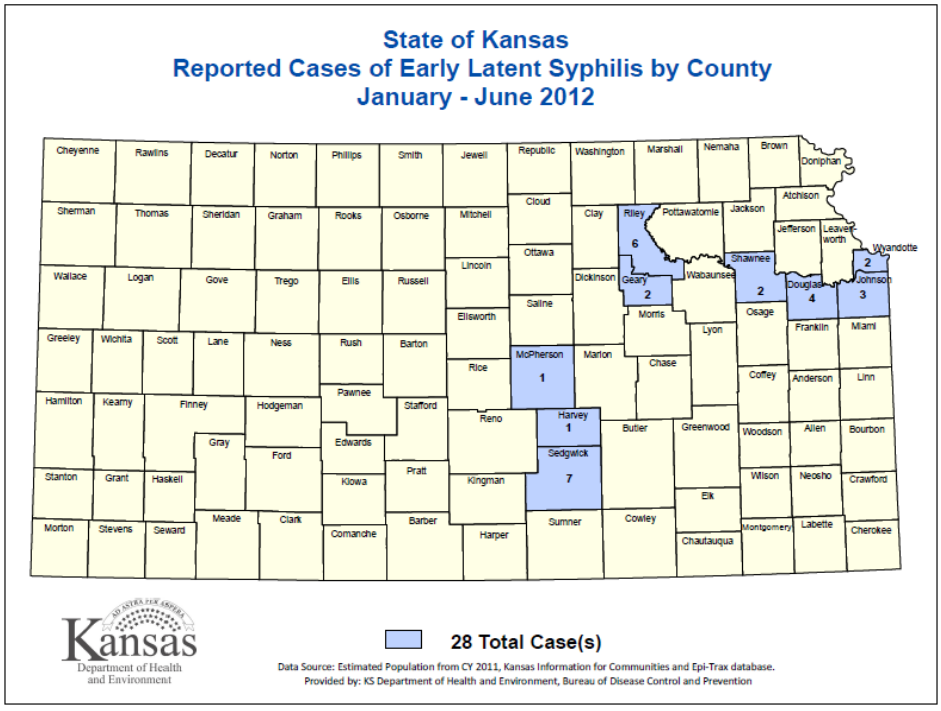
(Kansas Department of Health and Environment, 2010)

Figure B.12: Reported Cases Early Syphilis by Sex: January – June 2012



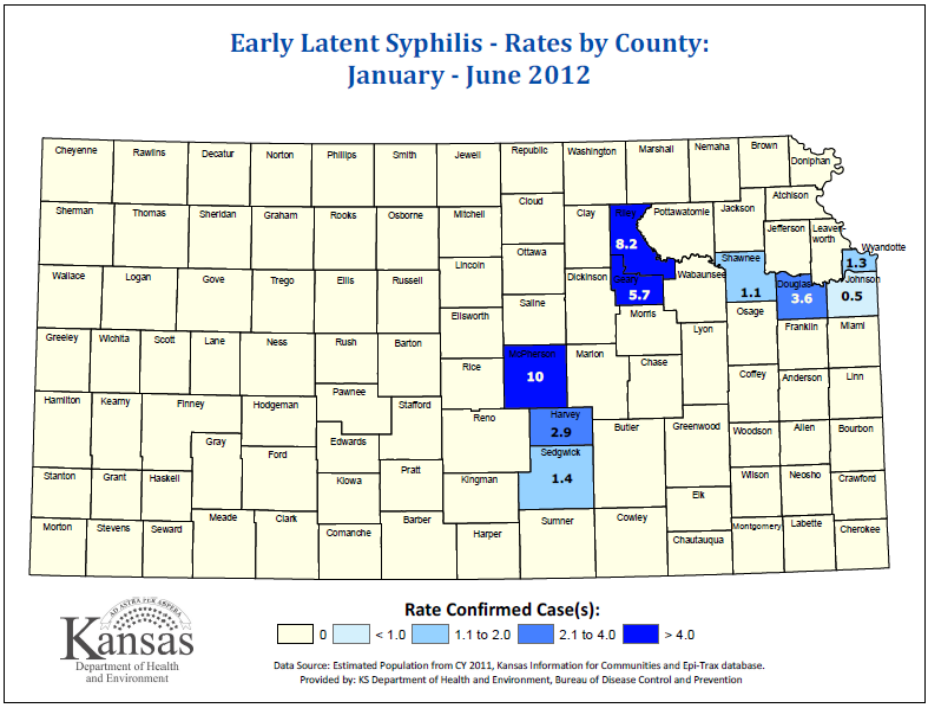
(Kansas Department of Health and Environment, 2010)

Figure B.13: Reported Cases Early Latent Syphilis by County: January – June 2012



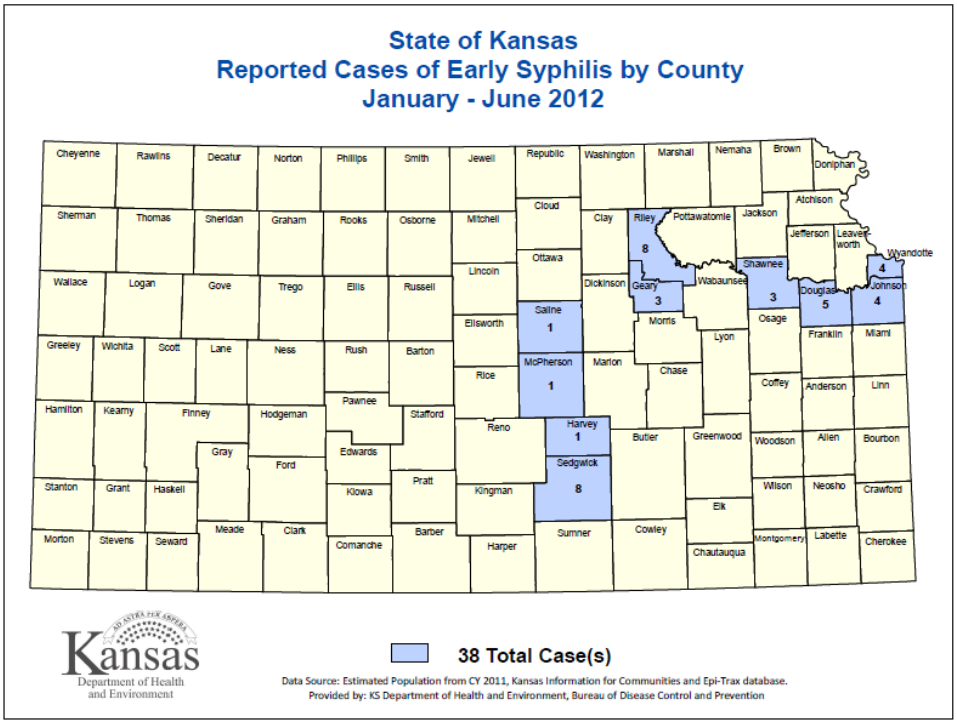
(Kansas Department of Health and Environment, 2010)

Figure B.14: Early Latent Syphilis – Rates by County: January – June 2012



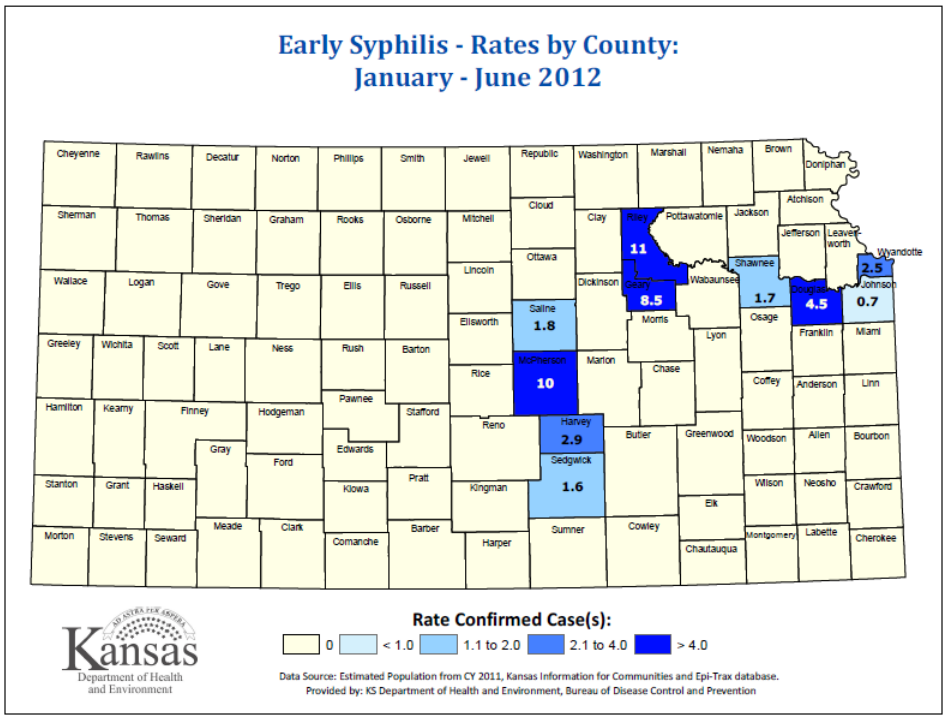
(Kansas Department of Health and Environment, 2010)

Figure B.15: Reported Cases of Early Syphilis by County: January – June 2012



(Kansas Department of Health and Environment, 2010)

Figure B.16: Early Syphilis – Rates by County: January – June 2012



(Kansas Department of Health and Environment, 2010)

Appendix C - Surveys

EMPLOYEE SURVEY

Please check one box for each statement.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
When a patient/client is dissatisfied, I can usually correct the problem to their satisfaction.	O	O	O	O	O
My work gives me a feeling of personal accomplishment.	O	O	O	O	O
I have the tools and resources to do my job well.	O	O	O	O	O
The current health department system for processing patients/clients is fast and efficient.	O	O	O	O	O
The health department does an excellent job of keeping employees informed about matters affecting us.	O	O	O	O	O
I feel encouraged to come up with new and better ways of doing things.	O	O	O	O	O
The physical appearance of the health department clinics is pleasant and clean.	O	O	O	O	O
My job makes good use of my skills and abilities.	O	O	O	O	O
I am satisfied with my involvement in decisions that affect my work?	O	O	O	O	O
Considering everything, I am satisfied with my job.	O	O	O	O	O

I have a good understanding of the different services offered by the health department clinics.	O	O	O	O	O
I am satisfied with my opportunity to develop as a public health professional in this organization.	O	O	O	O	O

Comments:

WYANDOTTE COUNTY HEALTH DEPARTMENT

CLIENT SURVEY

Age: _____

Gender (Circle): Male Female

Highest Grade Elementary School Junior High School High School Post High School

Completed (Circle): Grade 1 2 3 4 5 6 Grade 7 8 Grade 9 10 11 12

Is this your first visit? Yes No

1) Ease of registration
   - ( ) Very poor
   - ( ) Poor
   - ( ) Fair
   - ( ) Good
   - ( ) Very good

2) Length of time in waiting room
   - ( ) Very poor
   - ( ) Poor
   - ( ) Fair
   - ( ) Good
   - ( ) Very good

3) Comfort of waiting room
   - ( ) Very poor
   - ( ) Poor
   - ( ) Fair
   - ( ) Good
   - ( ) Very good

4) Ease of going from check-in through check-out
   - ( ) Very poor
   - ( ) Poor
   - ( ) Fair
   - ( ) Good
   - ( ) Very good

5) Overall satisfaction of visit
   - ( ) Very poor
   - ( ) Poor
   - ( ) Fair
   - ( ) Good
   - ( ) Very good

6) Staff were respectful and helpful
   - ( ) Very poor
   - ( ) Poor
   - ( ) Fair
   - ( ) Good
   - ( ) Very good

7) Needs were met to your expectations
   - ( ) Very poor
   - ( ) Poor
   - ( ) Fair
   - ( ) Good
   - ( ) Very good

8) Recommend health department to others
   - ( ) Very unlikely
   - ( ) Unlikely
   - ( ) Not sure
   - ( ) Likely
   - ( ) Very likely

Comments:

_____

_____