Quarantine and Isolation;

Public Health Leadership's Challenge When Enforcement Is Necessary

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Introduction

The great-granddaughter of Fred Globe was admitted to Golden General Hospital on May 25, 2006 with breathing trouble, and was later found to have TB. About a week later, a Golden County Health Department nurse went to Mr. Globe's home and tested his entire family. A skin test performed on Mr. Globe came back negative June 2nd. A separate sputum test; which involves the subject coughing into a sterile container, returned a positive finding July 5th. Mr. Globe wouldn't look at the report and refused to have a chest X-ray. The July 5th finding was confirmed two days later. A nurse visited the Globe family home on July 20th, but Mr. Globe shut his door and refused to talk to the nurse. In what some called unprecedented in Golden County, local prosecutors filed court documents in August of 2006 that forced Mr. Globe, now diagnosed with tuberculosis, to stop refusing treatment, and ordered him to remain in his home under quarantine until the virus was no longer contagious.

Background

Golden County has a combination of suburban and rural communities near a metropolitan area with a 2006 population of 304,000 people. The Golden County Health Department has a budget of $5.5 million with 145 employees in operating divisions that include Administration, Nursing, and Environmental. The TB Program is governed by a TB Board separate from the Board of Health and operated by the Nursing Division. The TB Program has a Medical Director, two full time nurses, one part time nurse and two clerical positions.

Tuberculosis is an infectious disease which can be traced back to antiquity yet continues to have a major impact on public health today. Healthy People 2010's goals of reducing TB and increasing the proportion of all tuberculosis patients who complete curative therapy within 12 months show the significance of this disease in modern society. TB began to decrease dramatically in the United States in the 1940's with the discovery of several medications used to treat the disease. Unfortunately there was a resurgence of TB in the late 1980's along with the emergence of a drug resistant strain of TB (see Table 1 in Appendix A). Public health strengthened surveillance and expanded direct observed therapy treatment along with improved investigation of close contacts of TB patients and TB cases then dropped again in the 1990's. Multi-drug resistant TB can develop as a result of inadequate treatment such as when people are noncompliant, skip doses or do not finish the entire course of medication. Once a strain of multi-drug resistant TB develops, it can be transmitted to others just like a normal drug-susceptible strain. Public health views TB as a significant enough threat to society that it is believed to warrant the use of quarantine and isolation measures in individual cases. Illinois and Golden County TB statistics are shown in Appendix B.

Policy Development Issue

Quarantine and isolation may seem like antiquated or medieval concepts particularly when you consider the dramatic advances in medicine over the last several decades. However, the spotlight is on public health in recent years as public health

departments across the country engage in unprecedented preparedness activities to be able to respond to an ever increasing variety of public health threats. Incidents such as the spread of SARS in 2003, the threat of influenza A (H_5N_1), the first CDC issued federal order of isolation under the Public Health Service Act since 1963 involving an international traveler in 2007 and globalization highlight the need for public health leadership to make sure their agency is ready for anything. High profile incidents such as the international traveler with a drug resistant form of TB focus attention on the methods of controlling the spread of diseases. Specifically, cases involving quarantine and isolation raise many legal questions and create a delicate balancing act between protecting the community at large and preserving individual liberties.

The National Summit on Public Health Legal Preparedness, convened in 2007 in part by the CDC, among many action agenda items, indicated the critical need for public health departments to be competent in applying law to public health goals. This is critical because improperly applied quarantine and isolation powers can expose the public health department to extensive liability. A California county health department, for example, ordered a multi-drug resistant TB patient held in the county jail for what ended up to be 10 months, for not complying with a treatment plan or an order for examination. As it turned out, the order did not provide due process afforded to the patient by the state's TB control laws resulting in a $1.2 million settlement paid to the patient after she filed a federal lawsuit.[1]

The public health core function of **policy development** is the central issue in cases like this. Example policy development activities include, "building community constituencies and identifying resources in the community; generating supportive and collaborative relationships with potential community partners creating organizational mechanisms for effective planning, implementation and management of public health programs and services."[2] In Illinois, the Department of Public Health Act provides, "supreme authority in matters of quarantine and isolation, and may declare and enforce quarantine and isolation when none exists, and may modify or relax quarantine and isolation when it has been established".[3] The extent to which leadership of a local public health department has successfully engaged in policy development activities with the legal community within its jurisdiction is critical to successfully carrying out the mission of protecting the community from the spread of disease, while at the same time protecting individual liberties. This case study will demonstrate how all of these issues interconnect in quarantine and isolation cases and show how the leadership in a local public health department better be ready, because it could happen anywhere.

CASE TIMELINE

May 2006

Five-month old Grace Globe was admitted to Golden General Hospital with breathing problems. Dr. Steven Davis, the Globe family physician who examined the infant at Golden General informed Ann Globe, the 22-year old mother of Grace that she may have Tuberculosis but more tests would be needed to be sure. Dr. Davis assured Ms. Globe that the infant is in good hands and as long as she receives treatment, she should be fine. Dr. Davis also informed Ms. Globe that if Grace does have TB, her family living in

the home should be tested because TB is dangerous if left untreated. He advised Ms. Globe that he would contact the Golden County Health Department to have a Public Health Nurse come to the home.

June 2006

Margaret Smith, a Public Health Nurse from the Golden County Health Department tested the entire family living in the home. Fred Globe, 67, the great-grandfather of the infant, David Globe, 45, the great uncle and Ann Globe, the 22-year old mother were all tested. Initially, the skin test performed on Fred Globe was negative on June 2nd. A separate sputum test that was performed; which involves the subject coughing into a sterile container, returned a positive test on July 5th. Fred Globe would not look at the report and refused to have a chest X-ray. When Margaret Smith returned to the home on July 20th Fred Globe shut his door and refused to talk to her.

July 2006

Dr. Carolyn Anderson, the Golden County Health Department Administrator, met with Melinda McDaniel, Assistant State's Attorney from the Golden County State's Attorney's Office to discuss imposing the first court ordered quarantine and forced TB treatment in Dr. Anderson's tenure at the Golden County Health Department. Dr. Anderson was hesitant but knew the risks to the community could be great if TB is left untreated or develops into a drug resistant form if the treatment regimen is not followed. Ms. McDaniel assured Dr. Anderson that laws are in place to give them the authority to impose such an order and as long as Mr. Globe is afforded his due process rights under the law, there would be nothing to worry about.

August 2006

In Judge Geraldine Thorn's courtroom at the Golden County Courthouse, a hearing was held. At issue was a request by the Golden County Health Department and the Golden County State's Attorney's Office to have a court order issued to impose treatment for Fred Globe. Dr. Daniel Winston, Medical Director for the Golden County Health Department's TB Clinic, informed Judge Thorn that Mr. Globe was afflicted with Tuberculosis and his refusal of treatment jeopardizes the health of not only Mr. Globe, but also anyone who has contact with him. Dr. Winston explained that microscopic particles containing TB spread through conversation and can stay airborne for up to six hours and others in that air space are at risk. Judge Thorn agreed and issued the court order requiring Mr. Globe to begin taking medication under the supervision of the Golden County Health Department. Mr. Globe did not show up at the hearing so Judge Thorn scheduled another court date in September to assure that the order was in compliance.

Andrea Carson, the Golden County State's Attorney met with Melinda McDaniel, the Assistant State's Attorney on the case, to discuss the possibility of filing a petition for contempt of court. Since Mr. Globe did not show up at the August hearing, they were of the opinion that Mr. Globe was being noncompliant. As the September court date approached, the State's Attorney's Office was prepared to ask that Mr. Globe be held in

contempt if he was still refusing treatment and to have him ordered to be taken to the hospital to force treatment.

September 2006

By now, the case had garnered media attention. In an interview outside the Globe family home, speaking through the door of his home, Mr. Globe indicated that he was the victim, that he didn't need the medication because he wasn't sick. He said he would continue to refuse treatment and felt that he had been given false information throughout the process. He further stated that he was not made aware of the hearing but said he would get his day in court. He said he just wanted to be left alone because he felt he was being publicly humiliated. From that point on, the media consistently watched and reported on events as the case unfolded.

After a series of one-on-one phone conversations in September between Mr. Globe and Andrea Carson, the Golden County State's Attorney, Mr. Globe agreed to cooperate with more testing from his family physician, Dr. Davis. The State's Attorney encouraged Mr. Globe that cooperating with the Health Department was in his best interest as well as his family. Ms. Carson reminded Mr. Globe that refusing a court order may mean that he would be removed from his house and placed in a hospital for involuntary treatment and would have to stay until he is no longer a risk. Mr. Globe informed Ms. Carson that he would be getting a lawyer of his own to ensure that his rights are being upheld.

October 2006

In Judge Thorn's courtroom, Michelle Hendricks, a court-appointed Attorney for Mr. Globe, asked that the quarantine imposed in August be lifted because the tests indicated that Mr. Globe does not have an active form of tuberculosis and therefore is not contagious. Ms. Hendricks stated that Dr. Davis, Mr. Globe's personal physician indicated that the best course of action was three precautionary medications. Andrea Carson, the State's Attorney, however requested that the quarantine remain in effect out of continued concern for the community and to ensure that Mr. Globe agrees to take the medication suggested by his doctor. Ms. Carson further requested that in light of Halloween approaching, Mr. Globe not be allowed to answer the door for trick-or-treaters. Judge Thorn said she had no choice but to wait for the test results from Dr. Davis and agreed to continue the quarantine order and ordered that a police officer be stationed outside the Globe family home on Halloween. Judge Thorn also asked that Mr. Globe take the medications suggested by his personal physician and scheduled another court date in November.

November 2006

Judge Thorn lifted the court-ordered quarantine after test results indicated that Mr. Globe was in fact, not contagious. Michelle Hendricks, Mr. Globe's attorney said that Mr. Globe felt that he was treated unfairly because he was never a risk to infect anyone. She added that because Mr. Globe rarely leaves his home anyway, the quarantine wasn't

overly burdensome and even though he feels he should never have been quarantined in the first place, he just wants to put the saga behind him. Andrea Carson, the State's Attorney said she didn't regret the decision to request the quarantine because she felt she had to support the Health Department's expertise in the matter. She added that it was a conservative decision but one that she felt was in the best interest of the community.

However, the case was not over yet. David Globe, also living in the Globe home was ordered by Judge Thorn to give county health officials three sputum samples and have a chest X-ray taken by December 1st or face contempt charges. Initially, when the entire Globe family was tested, David tested negative. He refused all subsequent requests for further testing while Fred Globe's case was going on. Andrea Carson, the Golden County State's Attorney, requested quarantine be ordered for David Globe along with the imposed treatment out of concern for the community. Unlike Fred Globe, David Globe leaves the home regularly and there is concern about potential infection. Along with the order, Judge Thorn required that David Globe provide the names and addresses of all people who have visited the home, or with whom he had contact since May 31st.

December 2006

In Judge Thorn's courtroom, Andrea Carson, the Golden County State's Attorney presented evidence from the Health Department that David Globe's chest X-ray showed that he had active tuberculosis. She also indicated that David Globe had refused to provide the sputum tests requested by the Health Department. Judge Thorn ordered that the quarantine continue and ordered Mr. Globe to comply with the testing required or face contempt charges. Michelle Hendricks, Mr. Globe's attorney expressed concern over the quarantine continuing because Mr. Globe works and it would be a hardship. Judge Thorn, nonetheless, continued the quarantine for two more weeks pending the results of the sputum tests.

January 2007

David Globe had been complying with the court ordered treatment and had been responding well. However, Judge Thorn agreed to continue the quarantine because Dr. Daniel Winston, the Medical Director of the Golden County TB Clinic said that until there are three negative tests, the Health Department was not comfortable releasing him from quarantine. Dr. Winston indicated that they would need another three weeks to complete the testing.

February 2007

In Judge Thorn's courtroom, Michelle Hendricks, David Globe's attorney said that her client was in dire financial straits because the three month long quarantine has depleted his savings. Andrea Carson, the State's Attorney, argued that there is not enough data to suggest that he is no longer contagious. Judge Thorn ruled that the quarantine should continue for at least three more weeks, however ordered the county to pay Mr. Globe $1,000 to assist him with his financial responsibilities.

May 2007

Amazingly, a full year after five-month old Grace Globe was diagnosed the quarantine was finally lifted on her great uncle, David Globe. Judge Thorn ordered the county to pay David Globe $5,275 for back rent owed since the quarantine was ordered. Dr. Carolyn Anderson, the Golden County Health Department Administrator expressed relief that it was over as well and said that without the support of the State's Attorney's Office, the quarantine would not have been possible. Quarantine and forcing treatment aren't things a health department likes to do but they are sometimes necessary to meet the goal of protecting the community by controlling the spread of a dangerous disease.

Conclusion

This case highlights how challenged public health leadership is when faced with a noncompliant patient diagnosed with a highly contagious, potentially fatal disease such as tuberculosis. Quarantine and isolation powers afforded local health departments are not to be taken lightly. A delicate balance exists between protecting the community at large and protecting the rights of individuals under quarantine. The extent to which the leadership at the Golden County Health Department was adept at **policy development** activities was critical to the successful outcome in this case. Had leadership focused too much attention on **assessment** and **assurance** activities and not taken the time to develop strong collaborative relationships with the State's Attorney and worked together with them to make decisions throughout the case, the end result could have been very different.

Teacher's Guide

1. In what ways were the three core functions of public health demonstrated in this case? Describe examples in which all three core functions were interdependent.

2. This case demonstrates the conflict between the rights of individuals to refuse treatment and the rights of the public at large to be protected from illness. What ethical challenges does this pose?

3. Does public health have the right or obligation to impose treatment? If an individual refuses treatment, what recourse should occur for the individual?

4. In the event of quarantine, whose responsibility is it to provide for the financial obligations of an individual?

5. What gaps in service were present? What could have prevented these gaps?

6. This case developed through regular information provided by the media. In what ways was the media helpful? How did the media present a barrier in this case?

7. This case took place in a highly populated suburban area. How might the case have differed had it occurred in a metropolitan area? A rural, isolated area?

8. What differences may have occurred in this case if the disease were pandemic flu instead of tuberculosis? Why?

9. Was the opportunity for meta-leadership achieved or missed in this case? How is meta-leadership important in cases such as these?

Appendix A[4]

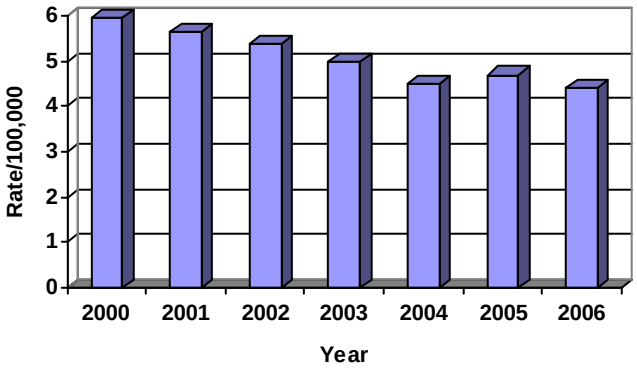
Table 1. Tuberculosis Cases, Case Rates per 100,000 Population, Deaths, and Death Rates per 100,000 Population, and Percent Change: United States, 1953–2006

	Tuberculosis Cases				Tuberculosis Deaths			
			Percent Change				Percent Change	
Year	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1953	84,304	52.6	–	–	19,707	12.4	–	–
1954	79,775	48.9	- 5.4	- 7.0	16,527	10.2	-16.1	-17.7
1955	77,368	46.6	- 3.0	- 4.7	15,016	9.1	- 9.1	-10.8
1956	69,895	41.4	- 9.7	-11.2	14,137	8.4	- 5.9	- 7.7
1957	67,149	39.0	- 3.9	- 5.8	13,390	7.8	- 5.3	- 7.1
1958	63,534	36.3	- 5.4	- 6.9	12,417	7.1	- 7.3	- 9.0
1959	57,535	32.4	- 9.4	-10.7	11,474	6.5	- 7.6	- 8.5
1960	55,494	30.7	- 3.5	- 5.2	10,866	6.0	- 5.3	- 7.7
1961	53,726	29.2	- 3.2	- 4.9	9,938	5.4	- 8.5	-10.0
1962	53,315	28.6	- 0.8	- 2.1	9,506	5.1	- 4.3	- 5.6
1963	54,042	28.6	+ 1.4	0.0	9,311	4.9	- 2.1	- 3.9
1964	50,874	26.5	- 5.9	- 7.3	8,303	4.3	-10.8	-12.2
1965	49,016	25.2	- 3.7	- 4.9	7,934	4.1	- 4.4	- 4.7
1966	47,767	24.3	- 2.5	- 3.6	7,625	3.9	- 3.9	- 4.9
1967	45,647	23.0	- 4.4	- 5.3	6,901	3.5	- 9.5	-10.3
1968	42,623	21.2	- 6.6	- 7.8	6,292	3.1	- 8.8	-11.4
1969	39,120	19.3	- 8.2	- 9.0	5,567	2.8	-11.5	- 9.7
1970	37,137	18.1	- 5.1	- 6.2	5,217	2.6	- 6.3	- 7.1
1971	35,217	17.0	- 5.2	- 6.1	4,501	2.2	-13.7	-15.4
1972	32,882	15.7	- 6.6	- 7.6	4,376	2.1	- 2.8	- 4.5
1973	30,998	14.6	- 5.7	- 7.0	3,875	1.8	-11.4	-14.5
1974	30,122	14.1	- 2.8	- 3.4	3,513	1.7	- 9.3	- 5.6
1975	33,989	15.7	–	–	3,333	1.6	- 5.1	- 5.9
1976	32,105	14.7	- 5.5	- 6.4	3,130	1.5	- 6.1	- 6.3
1977	30,145	13.7	- 6.1	- 6.8	2,968	1.4	- 5.2	- 6.7
1978	28,521	12.8	- 5.4	- 6.6	2,914	1.3	- 1.8	- 7.1
1979	27,669	12.3	- 3.0	- 3.9	2,007[1]	0.9[1]	-31.1[1]	30.8[1]
1980	27,749	12.2	+ 0.3	- 0.8	1,978	0.9	- 1.4	0.0
1981	27,373	11.9	- 1.4	- 2.5	1,937	0.8	- 2.1	-11.1
1982	25,520	11.0	- 6.8	- 7.6	1,807	0.8	- 6.7	0.0
1983	23,846	10.2	- 6.6	- 7.3	1,779	0.8	- 1.5	0.0
1984	22,255	9.4	- 6.7	- 7.8	1,729	0.7	- 2.8	-12.5
1985	22,201	9.3	- 0.2	- 1.1	1,752	0.7	+ 1.3	0.0
1986	22,768	9.5	+ 2.6	+ 2.2	1,782	0.7	+ 1.7	0.0
1987	22,517	9.3	- 1.1	- 2.1	1,755	0.7	- 1.5	0.0
1988	22,436	9.2	- 0.4	- 1.1	1,921	0.8	+ 9.5	+14.3
1989	23,495	9.5	+ 4.7	+ 3.3	1,970	0.8	+ 2.6	0.0
1990	25,701	10.3	+ 9.4	+ 8.4	1,810	0.7	- 8.1	-12.5
1991	26,283	10.4	+ 2.3	+ 1.0	1,713	0.7	- 5.4	0.0
1992	26,673	10.4	+ 1.5	+ 0.1	1,705	0.7	- 0.5	0.0
1993	25,107	9.7	- 5.9	- 7.1	1,631	0.6	- 4.3	-14.3
1994	24,205	9.2	- 3.6	- 4.8	1,478	0.6	- 9.4	0.0
1995	22,728	8.5	- 6.1	- 7.2	1,336	0.5	- 9.6	-16.7
1996	21,210	7.9	- 6.7	- 7.8	1,202	0.5	-10.0	0.0
1997	19,751	7.2	- 6.9	- 8.0	1,166	0.4	- 3.0	-20.0
1998	18,287	6.6	- 7.4	- 8.5	1,112	0.4	- 4.6	0.0
1999	17,501	6.3	- 4.3	- 5.4	930	0.3	-16.4	-25.0
2000	16,310	5.8	- 6.8	- 7.9	776	0.3	-16.6	0.0
2001	15,945	5.6	-2.2	- 3.2	764	0.3	- 1.5	0.0
2002	15,056	5.2	-5.6	- 6.5	784	0.3	+ 2.6	0.0
2003	14,838	5.1	-1.4	- 2.4	711	0.2	- 9.3	-33.3
2004	14,502	4.9	-2.2	- 3.1	657	0.2	- 7.6	0.0
2005	14,080	4.7	-2.9	- 3.8	646[2]	0.2[2]	- 1.7[2]	0.0[2]
2006	13,779	4.6	-2.1	- 3.1	...	...	...	...

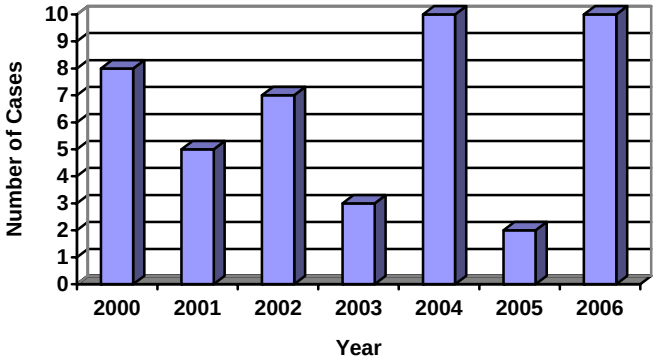
[1]The large decrease in death rate in 1979 occurred because late effects of tuberculosis (e.g., bronchiectasis or fibrosis) and pleurisy with effusion (without mention of cause) are no longer included in tuberculosis deaths.
[2]Preliminary data obtained from National Center for Health Statistics, *E-Stat Deaths: Preliminary Data for 2005*, September, 2007.

Appendix B[5]

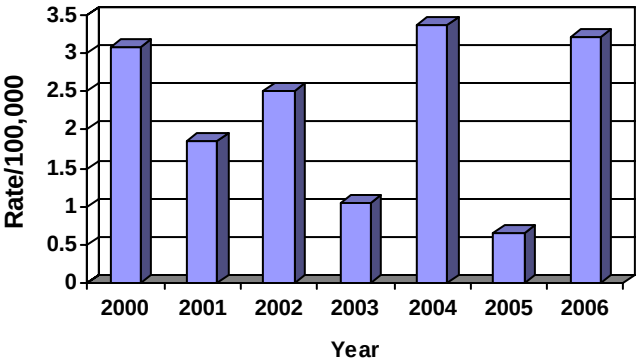
Illinois TB Case Rate/100,000 People
2000-2006



Reported Active TB Cases in Golden County
2000-2006



Golden County TB Case Rate/100,000 People
2000-2006



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[2] Rowitz, Ph.D., Louis, *Public Health Leadership: Putting Principles into Practice*, Jones and Bartlett Publishers, 2003.

[3] Department of Public Health Act, (20 ILCS 2305), www.ilga.gov

[4] CDC. *Reported Tuberculosis in the United States, 2006.* Atlanta, GA: U.S. Department of Health and Human Services, CDC, September, 2007.

[5] IDPH. *Annual TB Report 2006.* www.idph.state.il.us