MRSA – How to Combat the Panic

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EXECUTIVE SUMMARY:

It was our goal to try to increase aware and uniformity of training and teaching material for MRSA to release to the general public so that people would be educated and informed on the disease and not give into media panic. The more that people knew about the disease, the better equipped they were to handle the facts and know that these MRSA deaths did happen occasionally, but weren't the norm and they had the tools to protect themselves against it.

We originally set out to do a 30 minute training video on MRSA and were going to distribute that to local health department staff, food workers, and school personnel across the commonwealth of Kentucky. Due to time constraints and us losing a team member in the middle of our project and being only down to two of us, we had to set a more realistic goal. We decided to write a 60 second public service announcement (PSA) for MRSA. This would still get pertinent information out to our audience and would be much less preparation than a 30 minute training video.

Three PSAs were recorded; two at the state level using their media relations employee and the other was done locally through the Cromwell Radio Group utilizing the actual team member voices. All PSAs were written by written by KPHLI team members and submitted to our mentor for final review. The Cromwell Radio Group serves western Kentucky and southern Indiana and has seven radio stations in all, reaching a very large audience. The PSA from the Cromwell Radio Group was set to air on all seven stations, at an interval of five times a day for two weeks at a time.

We also wanted to do a questionnaire to see what types of MRSA information and how it was best disseminated and received from the school audience to see where to focus our efforts on in regards to that population. A questionnaire was developed and sent out to all the high schools in our seven county area inquiring about what types of information they received and utilized and how we could help them in future situations. Results were analyzed and used to plan for future educational summits at several schools within the district. Most of these summits are scheduled for the fall of 2009, as this is when the majority of cases are reported due to contact sports injuries, such as football.

Our KPHLI group still has plans to produce a training video that can be utilized in many different areas in regards to MRSA education, but we know this will take time. We also have plans to help update the state website for MRSA information at a later date. Currently, the state website mostly links to the Center for Disease Control and Prevention (CDC) website and is not as user friendly as we think it could be, so we wanted to change that and make it more applicable for the general public.

INTRODUCTION/BACKGROUND:

MRSA is by definition a strain of Staphylococcus aureus that is resistant to a large group of antibiotics called the beta-lactams, which include the penicillins and the cephalosporins (Wikipedia). The Emerging Infectious Diseases Report (2007), estimated that the number of MRSA infections treated in hospitals doubled nationwide. This number rose from approximately 127,000 in 1999 to 278,000 in 2005. The Emerging Infectious Disease Report is a publication of the Centers for Disease Control and Prevention (CDC).

MRSA takes on two forms, community acquired and hospital acquired or nosocomial type of infections. Hospital acquired infections are usually associated with open wounds or invasive types of procedures; whereas community acquired infections can occur virtually anywhere from a variety of sources. Up to 30 % of the population have staph bacteria growing on their skin normally and are considered carriers of the disease. The only difference between MRSA and regular staph infections is that MRSA can be resistant to the more common antibiotics, thus making it more difficult to treat. It is usually still treatable however, if caught early on.

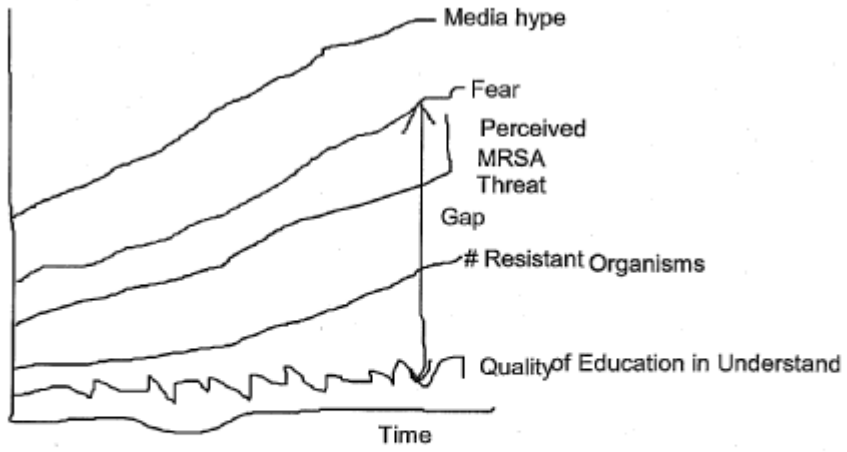
Transmission of MRSA is from person to person contact through breaks or openings in the skin. It is also possible for this bacterium to live on surfaces, although this type of transmission is much less common. Certain persons are more at risk for MRSA infections, such as people who stay for very long periods of time in nursing homes or hospitals or those that are in places where crowding is an issue, such as jails, schools, military barracks, and dorms. Ways to help prevent the spread of MRSA include covering and wearing gloves when dealing with open wounds, no sharing of personal items, taking antibiotics correctly and until completely gone, sanitizing shared equipment thoroughly, and good hygiene at all times, with washing of hands properly and frequently being key.

MRSA infections are most often mild and require very little treatment, however, infections can get into the bloodstream and cause individuals to become very ill and even death can be a result, although this is very rare. This is usually what grabs the headlines and causes panic when dealing with MRSA. It is the young, healthy athlete who is fine one day and then dies shortly thereafter from complications from MRSA. The Strategic Staph Society (S3) knows firsthand the effects from media sensationalism, as it occurred many times in the state of Kentucky in the year 2006-2007. There were several MRSA related death reported nationwide that sparked chaos and panic in the public. Several schools in our district reported outbreaks of cases within sports team and parents were panic-stricken and most, we learned were greatly misinformed. They would hear about the “MRSA Superbug” and how it was a silent killer and there was a domino effect of panic among a lot of the parents. Many even wanted to close schools down and refused to send their children to school. Getting information out the public that MRSA is not usually associated with the environment, but often with the individuals themselves was a great task and some parents still didn’t seem to understand. Education was the key here in calming the fears of the public, which is what sparked our idea for our KPHLI project.

Problem Statement:

What sources of education are available that are uniform in content and correct in information that can be distributed widely to a large range of target audience population that would minimize panic and misguided information and give accurate descriptions of the disease?

Behavior Over Time Graph:



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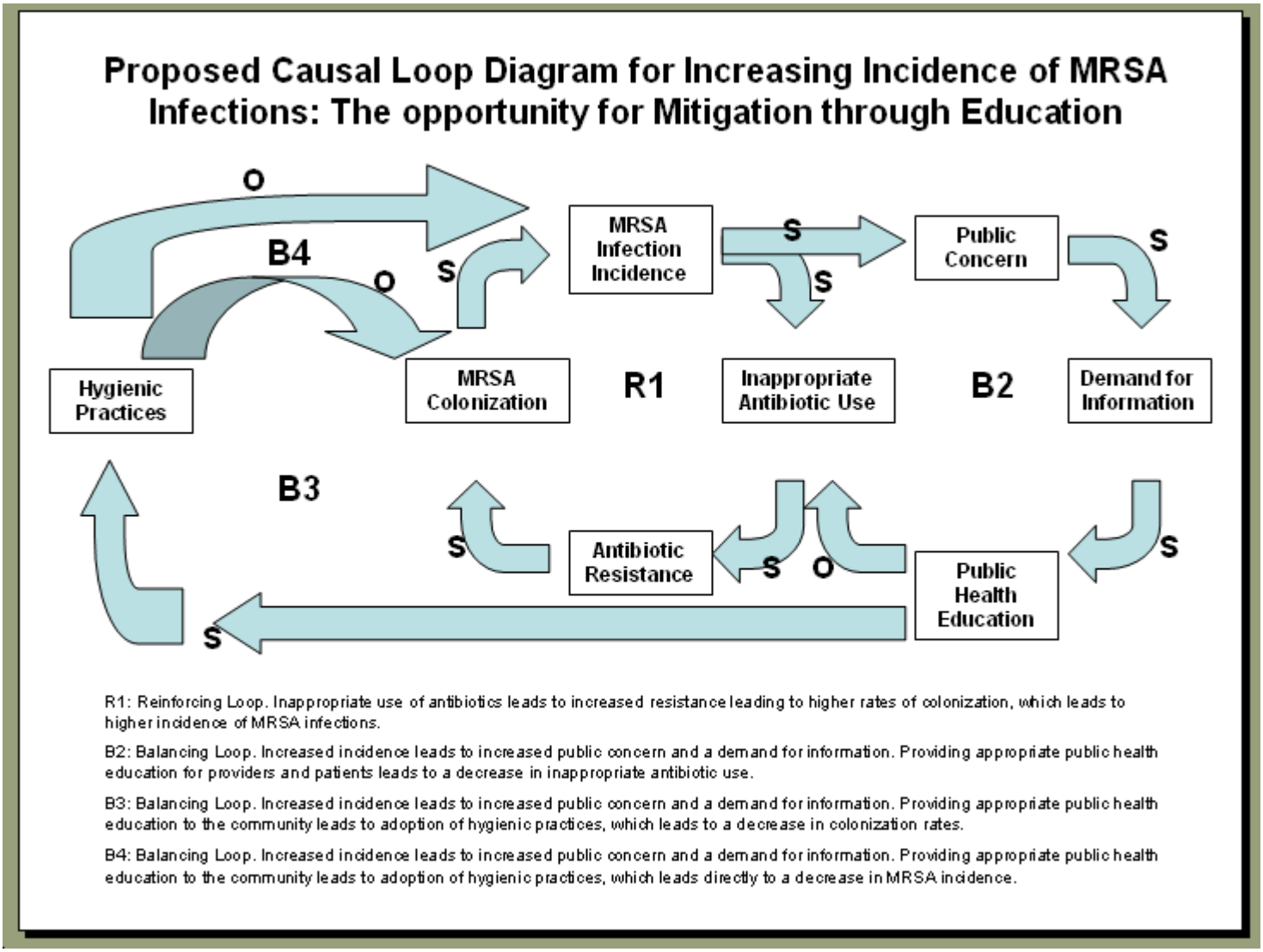
Causal Loop Diagram:



10 Essential Public Health Services/National Goals Supported:

- Inform, educate, and empower people about health issues
- Mobilize community partnerships to identify and solve health problems
- Research for new insights and innovative solutions to health problems

Educational and Community-Based Programs

Goal: Increase the quality, availability, and effectiveness of educational and community-based programs designed to prevent disease and improve health and quality of life.

School Setting

- 7-2: School health education
- 7-3: Health-risk behavior information for college and university students

Worksite Setting

- 7-5: Worksite health promotion programs
- 7-6: Participation in employer-sponsored health promotion activities

Community Setting and Select Populations

- 7-10: Community health promotion programs

Health Communication

Goal: Use communication strategically to improve health.

- 11-1: Households with Internet access
- 11-2: Health literacy

Immunization and Infectious Diseases

Goal: Prevent disease, disability, and death from infectious diseases, including vaccine-preventable diseases.

- 14-20: Hospital-acquired infections

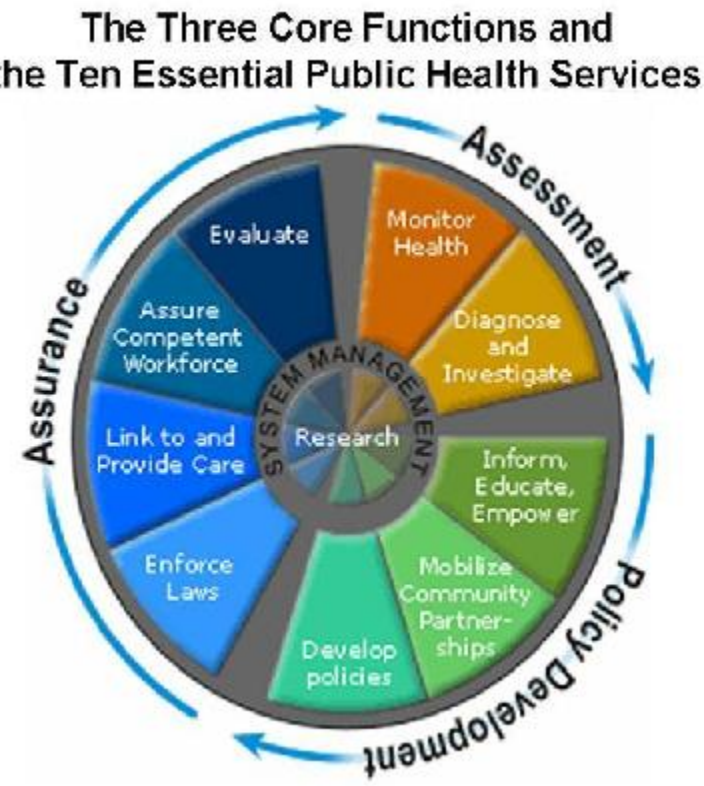


Figure 1: This picture is from the National Association of County and City Health Officials (NACCHO)

PROJECT OBJECTIVES/DESCRIPTION/DELIVERABLES:

The following are the objectives for our project:

- Identify the best methods of information dissemination for school personnel
- Utilize mass media techniques to educate and inform the general public about MRSA
- Identify key stakeholders
- To increase awareness and uniformity of MRSA training material

Our Change Master Project will deliver the following:

- Framework for intervention in the form of MRSA Public Service Announcements
- Health promotion program in the form of MRSA Educational Summits for School Personnel
- Questionnaire to evaluate current efforts of information dissemination
- Next Steps: Training Video, Updated State MRSA Website

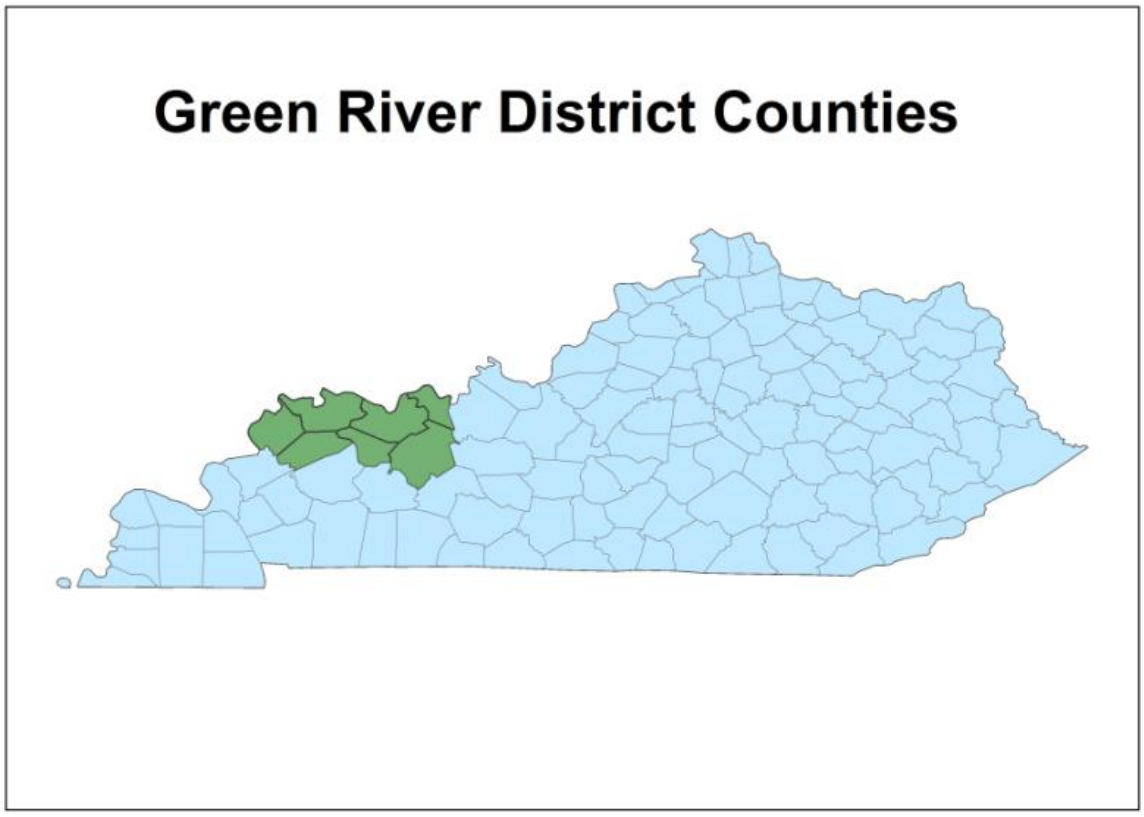
METHODOLOGY:

We began our project by utilizing the systems thinking approach of a causal loop diagram. This diagram enabled us to view connecting variables in a way that shows how one variable affects another in our research process. From this, we were able to move forward in our research and set up program guidelines and objectives. We then focused our attention on our questionnaire. After a few drafts, the questionnaire was complete and athletic/school personnel were contacted via telephone for interviews. This process was quite time intensive due to conflicting schedules of the people being interviewed. One survey was in fact emailed to an athletic director at a high school because phone contact was not proving to be an appropriate method. After the questionnaire was completed by all corresponding schools in the seven county area, the data was compiled for analysis. From these results, we were able to see where our efforts should be concentrated in regards to educational for MRSA in the school systems. We were also able to identify which schools would be willing to let us come and do MRSA educational summits in the fall of 2009.

Our next focus was the PSA Scripts. Several issues arose when trying to record these PSA scripts, but finally, after many revisions and many hours of phone and email contact, they were completed. We worked with the Kentucky Department for Public Health Instructional Designer in the Education and Workforce Development Branch to get the PSAs recorded. We did one for the general public and one specifically geared towards athletic audiences. The scripts for these PSAs can be viewed as Appendix B and Appendix C. The Kentucky Department of Public Health used their own employee voices to record the PSAs. We also did a PSA for general audiences through the Cromwell Radio Group and used out own voices for a more local appeal here in our specific district area.

RESULTS:

In the Green River Region, there are 7 counties which containing 11 High Schools. Our goal was to survey each Athletic Director for these schools. We achieved 100% success rate in completing our surveys. The survey can be viewed as Appendix A and the following responses correspond by number. Below is a map with the counties located within the Green River District Area (Daviess, Hancock, Henderson, McLean, Ohio, Webster, and Union) highlighted.



Questions:

1) What have you and/or your staff done to address concerns about skin infections, or concern over transmission between students in the past?
    a) Had a meeting with faculty and staff - 2
    b) Talked with athletes during a coaches meeting - 4
    c) Held an in-service for the entire school - 1
    d) Posted fliers and handed out pamphlets - 6
    e) Directed students to a website - 1
    f) Nothing

    Other: Contracted cleaning service for athletic building, new towels purchased for football use, new hired custodian to clean everyday, principal met with staff, emails sent out to staff, utilized school nurse, trainer information, informed parents and students, used trainer for info, talked to coaches/players/parents, administration gave disinfectants to use in locker rooms, bleach wrestling mats every day, disinfected locker rooms after all games, had sports medicine person available at all games, custodians wiping down everything, etc.

- It was apparent that all schools had done some sort of educational outreach in regards to MRSA. The most popular was informational fliers and hand outs to the students.

2) Did you know that guidelines were out on the state education website last year?
YES - 10 NO – 1

3) Were you notified that guidelines were out on the state education website?
YES - 10 NO – 1

- All but one school was notified and aware of the MRSA guidelines that the state education cabinet placed on their website in 2007.

4) Where did you go for information on MRSA?
    a) School Administrators - 4
    b) School Nurse/Health Department - 4
    c) Internet - 2
    d) Local Physician
    e) N/A
    f) Other: Trainer - 3, Trover, KHSAA symposium for coaches (required), websites

- This question was split several ways. Several schools relied on health department and school health nurses for information to disseminate, while others obtained it from school administrators or athletic symposiums and training summits. A few schools gathered information from other internet sources.

5) Did you go to the Education Cabinet?
YES - 6 NO - 5

- This question was split as well, as some utilized the education cabinet and some did not.

6) Did you go to the Health Department?
YES - 8 NO – 3

- A lot of the schools actually said that they relied on the health department for information on MRSA during the time when they were seeing a lot of cases and dealing with getting information out to the parents, faculty, and students.

7) Are you comfortable with guidelines put out by the education cabinet?
YES - 10 NO -0 N/A - 1

- Almost all were comfortable with the current cabinet guidelines.

8) How can we help you get the message across?
   a) Pamphlets/Fliers/Fact Sheets - 3
   b) Internet Websites - 3
   c) School Nurse - 2
   d) Other _____

- A variety of information sources could be utilized at each school and it was decided that a combination of these would be most beneficial for our educational efforts. Combining a fact sheet/flier that had a user friendly website that the public could go to as well as a contact person at the health department or school health nurse would be a good fit for all involved.

9) Could we come to your school and present a community education forum for coaches at your school(s)?

YES - 3 NO – 8

YES – Ohio County High School, Hancock County High School, Union County

- This was a good sign that some of the schools were open to us coming to do a MRSA educational summit for staff, parents, and students, however we were met with resistance from a lot of schools who felt like they had enough information to handle the current situation at hand. We wish to expand this number in the coming year.

CONCLUSIONS:

Our initial focus was too broad, so by narrowing that to just schools for the most part, we were able to identify a good starting place that we can eventually expand upon and relay out to other audiences as desired with the training video, such as food service workers and public health professionals. By doing two separate PSAs, we were able to reach the athletic audience as well as the general public. The summits, updated educational materials, PSAs, and eventually the video training module, we are hoping to broaden our audience and have a greater impact in helping to reduce the panic when it comes to MRSA infections. By using these techniques and newly formed media outlets, we are able to inform and educate the people about MRSA and hopefully as a result, decrease panic and media sensationalism that is a vicious cycle. By giving people several options to choose from, whether it's a training video, a PSA, website, pamphlet, or other type of informational piece, we feel that people will be better equipped with the knowledge to know that MRSA does happen and can be serious, but also that it is preventable and treatable and does not always warrant the panic attention it so often receives.

LEADERSHIP DEVELOPMENT OPPORTUNITIES:

Rebecca Baird

This past year in KPHLI has been an experience that will stay with me forever. It has challenged, encouraged, and taught me many things. Through this project I have learned to expand beyond my comfort limits and how to work comfortably with others. I have had the most wonderful group and mentor to work with. My hope is that this project goes far beyond the boundaries of KPHLI, and is able to educate and inform the public. And I know that the lessons learned through KPHLI will only serve to propel me to greater things in the future.

Janie Cambron

The Kentucky Public Health Leadership Institute has given me many memories throughout the past year. At first, there were many challenges as our group of three quickly became a group of only two. Luckily, we worked extremely well together and with the help of a great mentor, we were able to achieve great strides during the year. KPHLI has enabled me to explore my own leadership capabilities, as well as learn the strengths and weaknesses of those around me. This has in turn, allowed me to better my relationship with others and to advance on a more personal level. Though it wasn't always a straight road, that road led my partner and I on a rollercoaster ride to many places that we would've never gotten to experience had we not have participated in KPHLI. Through many ups and down, our project finally began to take shape and has already had a great impact within the community and has gotten great feedback. I will remember my KPHLI experience in more ways than one and look forward to moving ahead with our next phase past the Change Master Project.

AD Called:

Date & Time Called:

Questions for Interviews with AD's in Green River District

Begin conversation by introducing self, workplace, and the reason I am calling is to address a health issue for athletics, specifically MRSA, more commonly known as Staph Infections. My office is trying to be proactive in assessing the current information being used/distributed by the Athletic Directors and school officials to try to avoid panic in the community such as what we experienced last year. I plan to speak to all of the Athletic Directors in the seven county Green River District and I will be compiling the information from these surveys completed to summarize the findings. So, could I ask you some questions?

10) What have you and/or your staff done to address concerns about skin infections, or concern over transmission between students in the past?
    a) Had a meeting with faculty and staff
    b) Talked with athletes during a coaches meeting
    c) Held an in-service for the entire school
    d) Posted fliers and handed out pamphlets
    e) Directed students to a website
    f) Nothing
    g) Other _____

11) Did you know that guidelines were out on the state education website last year? YES NO

12) Were you notified that guidelines were out on the state education website? YES NO

13) Where did you go for information on MRSA?
    a) School Administrators
    b) School Nurse/Health Department
    c) Internet
    d) Local Physician
    e) N/A
    f) Other _____

14) Did you go to the Education Cabinet? YES NO

15) Did you go to the Health Department? YES NO

16) Are you comfortable with guidelines put out by the education cabinet?
YES NO

17) How can we help you get the message across?
   a) Pamphlets/Fliers/Fact Sheets
   b) Internet Websites
   c) School Nurse
   d) Other _____

Tell them that we would like to come to them and help them with information and materials about MRSA. Tell them that we view them (AD's and coaches) as a conduit to get correct information to school administrators, parents, kids, etc.

18) Could we come to your school and present a community education forum for coaches at your school(s)? YES NO

Answers to these questions would be recorded and tabulated for statistical purposes for our Change Master Project.

Appendix B

MRSA Public Service Announcement-Athletics

What's all the buzz about MRSA? What is it? How do I keep from getting it?

Here's what you need to know

MRSA is Methicillin-Resistant Staphylococcus Aureus, basically fancy words for a staph infection.

The only difference with MRSA is that it's resistant to some of the more common antibiotics. But the good news is, it's preventable and treatable.

Staph infections are actually very common. Did you know that up to 30% of us have staph living on our body right now?

MRSA can occur anywhere in the community, but athletes can be at an increased risk due to close contact and breaks in the skin, which is how MRSA is passed from person to person.

So here are some Do's and Don'ts to help keep yourself protected

Do cover your wounds and Do wash your hands

Do shower after all practices and games

Don't share personal items with others

Do take antibiotics until they are completely gone

Don't let a wound go unnoticed, when in doubt-have it checked out!

Most importantly, Don't panic. Remember that MRSA is preventable and treatable!

Contact your local health department for more information.

This message brought to you by the Green River District Health Department

Appendix C

MRSA Public Service Announcement-General Public

What's all the buzz about MRSA? What is it? How do I keep from getting it?

Here's what you need to know

MRSA is Methicillin-Resistant Staphylococcus Aureus, basically fancy words for a staph infection.

The only difference with MRSA is that it's resistant to some of the more common antibiotics. But the good news is, it's preventable and treatable.

Staph infections are actually very common. Did you know that up to 30% of us have staph living on our body right now?

Staph bacteria can be found anywhere. You don't know what the person before you has touched, so the best thing you can do to prevent MRSA is to WASH YOUR HANDS!

This is so important, because MRSA is passed from person to person through close contacts, such as breaks in the skin and on contaminated surfaces.

Here are some other **Do's** and **Don'ts** to help keep yourself protected.

Do cover any wounds

Don't share personal items with others

Don't let a wound go unnoticed, when in doubt-have it checked out!

Do take antibiotics until they are completely gone

Most importantly, **Don't** panic. Remember that MRSA is preventable and treatable!

Contact your local health department for more information.

This message brought to you by the Green River District Health Department

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