

Section IX. Appendices

J. Dental Visit/Bicycle Helmet Use Program Evaluation and “My Bike Safety Contract” – Duval County, Florida



Jeb Bush
Governor

Robert G. Brooks, M.D.
Secretary

Project: Bicycle-Related Brain Injury Prevention Program

Grantor: Center for Disease Control & Prevention

**Grantees &
Implementation
Agencies:**

- Florida Department of Health (FDOH) , Emergency Medical Services (EMS) Division, Florida Injury Prevention & Control Program (FLIPCP)
- FDOH Duval County Health Department, The Injury Prevention Program Office (TIPPO)

Report Type: FY98/99 CQI Aims & Cycles Implementation

AIM: To increase the knowledge of proper bicycle helmet usage within the 5-14 age group during dental visits.

CYCLE I: Wesconnett Dental Clinic agreed to participate in the Dental CQI Program for Year II.
April 13, 1999 The 1st cycle was a focus group discussion between the dentist, dental assistants, clinic supervisor and the TIPPO staff to develop the process and presentation of the educational session on bicycle helmet safety. Ideas and suggestions were incorporated into the 2nd cycle plan.

ACTIVITY: A focus group discussion was conducted on April 13, 1999 to meet with the entire dental staff and provide background on the CQI process. The following lists the items that were addressed during the meeting:

- Background of CQI and history of The Injury Prevention Program Office
- Logistics of participants taking pre/post tests
- Educational materials for the dentist to present to the children
- Bike Safety Contract that includes a picture of child participant
- Time frames for the actual implementation of the educational session
- Scheduling participants in appointment blocks to conduct CQI program
- Target age group for the CQI program (5-14 years old)

Duval County Health Department

Injury Prevention Program • 900 University Boulevard N., Suite 205 • Jacksonville, Florida • 32211 •
(904)630-3344 • Fax (904)745-3014

In partnership with the City of Jacksonville



CYCLE II: The results of the focus group discussions from Cycle I were incorporated into Cycle II, April 23, 1999 in which five children participated.

ACTIVITY: As the participants arrived, they were checked in and a brief explanation of the dental/bicycle education program was provided. A pre-test and picture waiver form were given to the participants and their parents/caregivers for completion and signatures. The actual bicycle education session consisted of the dentist presenting proper helmet fit information by a posterboard presentation (prepared by a TIPPO staff), then a TIPPO staff properly fit a helmet on the child and took a Polaroid picture of the child in the dentist chair, alongside the dentist and guardian. The child was then escorted back to the waiting room and given instructions on how to properly fit their helmet. The post test was then administered and the Bike Safety Contract was presented (an agreement that after the bike safety lesson from the dentist, the child will agree to wear their helmet whenever they ride their bike). The contract contains the Polaroid picture and signatures of the child, dentist and guardian to make it an 'authentic' contract. (See Attachment 1.)

Analysis of the pre and posts test suggests that there was a positive increase in the knowledge of proper bicycle helmet usage. The average score on the pre test was 73.6% and the post tests averaged at 91.2%. This shows a 23.9 % rate of change, which indicates that there was an increase in bicycle safety knowledge.

PROBLEMS: There were several issues that occurred during the course of Cycle II that could be addressed for Cycle III. They were:

- Two of the participants were too young to read and write, so the guardian completed the pre/post tests for the child. Even though the questions were read to the child, there is a potential that the answers were biased towards the parent's knowledge (especially when the child wasn't too sure of an answer).
- Participants were asked to arrive 10-15 minutes early for their appointment, and tardiness caused the client load of the dental office to fall behind their schedule.
- Not all scheduled participants showed up for their appointments, so the participation count was less.

SOLUTIONS: The preceding issues were addressed in the following manner:

Duval County Health Department

Injury Prevention Program • 900 University Boulevard N., Suite 205 • Jacksonville, Florida • 32211 •
(904)630-3344 • Fax (904)745-3014

In partnership with the City of Jacksonville



Jeb Bush
Governor

Robert G. Brooks, M.D.
Secretary

- At the time that potential clients are being asked to participate in the CQI program, their ages will be taken into consideration.
- Participants are encouraged to arrive on time. At the time of scheduling, prompt arrival for appointments could be stressed.

CYCLE III: This cycle involves the 2nd phase of the bicycle safety education implementation, in which

April 29, 1999 solutions of the issues from the previous cycle will be incorporated.

ACTIVITY: (Same from Cycle II.)

Analysis of the pre and post tests from Cycle III shows that there was a positive increase in the knowledge of proper bicycle helmet fit. The average score on the pre tests was 61.7% and the post test average was 75.9%. This indicates a 23% rate of change, which shows that there was an increase in bicycle helmet safety knowledge.

PROBLEMS/FEEDBACK: A focus group discussion was conducted after the third and final cycle, and the following lists some of the issues that were identified by the dental staff:

- The time it took to complete the education component (dentist role) affected the 'time flow' of their client dental schedule. "It could be cumbersome."
- The CQI program put the dental staff behind their schedule of appointments. Also, when patients (scheduled to complete the CQI program) come in late, schedule falls behind again.
- Age of children participating in the CQI program should be within the 8-15 years range, which would cause us to revise our original aim to fit the now appropriate target group (IE "To increase the knowledge of proper bicycle helmet usage within the 8-15 age group during dental visits.") During the focus group discussion, it was stated that the target age was 5-14 years, and it was found that the younger children couldn't complete the pre/post test without the assistance of a parent. Another solution could be to develop pre and post test 'pictures' for those too young to read and/or write.
- A specific amount of charts must be completed on a daily basis, and the CQI program put the dental staff behind their 'quota.'

Duval County Health Department

Injury Prevention Program • 900 University Boulevard N., Suite 205 • Jacksonville, Florida • 32211 •
(904)630-3344 • Fax (904)745-3014

In partnership with the City of Jacksonville



Jeb Bush
Governor

Robert G. Brooks, M.D.
Secretary

SOLUTIONS: Overall, the process worked out good. The dental staff stated they enjoyed the uniqueness of the activity, although there are some administrative issues (scheduling, chart quotas) to clarify before embarking on a long term commitment to implement a program like this at their clinic. Time factors can be adapted to prevent a backlog of patient services.

CQI ADDENDUM:

This Bicycle Brain-Related Injury Prevention Project in the dental setting adds a reinforcement aspect to the 'education penetration factor.' The education penetration factor has to do with the varied amounts of information exposure needed to change an individual's behavior. Our goal being the creation of a safety cultural norm shift within our Jacksonville community from non helmet compliancy to compliancy, in which bicycle helmet usage would be an automatic habit...the natural thing to do.

In the May/June 1999 issue of the *Building Safe Communities* publication, the Dental CQI Program conducted in Duval County was featured. It highlights the unique approach to deliver bicycle safety education in the dental clinic setting. (See Attachment II.)

Duval County Health Department

Injury Prevention Program • 900 University Boulevard N., Suite 205 • Jacksonville, Florida • 32211 •
(904)630-3344 • Fax (904)745-3014

In partnership with the City of Jacksonville

CYCLE II

**CQI Dental Bike Safety
Summary Table of
PRE / POST Tests**

**Pretest Average=73.6%
Post Test Average=91.2%**

CHILD #	1: Bike	2: Frequency FR, NR, O	3: Behavior	4: Knowledge	5: Knowledge	6: Behavior (11 pts)	7: Behavior (11 pts)	8: Knowledge (11 pts)	9: Knowledge (11 pts)	10: Knowledge (11 pts)	11: Knowledge (11 pts)	12: Knowledge (11 pts)	13: Knowledge (11 pts)	14: Attitude (12 pts)	TOTAL
1	YES	30X	NO	NO	NO	0	0	11	11	11	11	11	11	12	78
2	YES	5X	YES	YES	NO	11	11	11	11	11	0	0	0	12	100
3	YES	5X	YES	YES	NO	0	0	11	11	11	0	0	0	12	78
4	YES	10X	YES	YES	YES	11	0	11	11	11	11	11	11	12	89
5	YES	ALL DAY	YES	YES	YES	11	0	11	11	11	11	11	11	12	100

CHILD #	Question # 11	Question # 12	Question # 13	Question # 14
1	Bicycle pad and a helmet.	Cracked and too little.	So you don't go blind or have difficulties with your brain functioning.	Yes. Because it protects m brain and head.
2	Pads and helmet. My head.	When it starts to crack and when it gets too small. *	So you don't get head injuries. *	Yes. Because it protects my skull, brain and head.
3	My head. My head.	6 months. *	In case of accident. *	Yes. To protect me head. Yes. To protect my head.
4	My head. Wearing a helmet.	6 months. When cracked or too small.	In case of accident. So you don't hurt your head.	Yes. To protect my head. Yes. So I don't hurt my head if I wreck.
5	Wearing a helmet. Wearing a helmet. Wearing a helmet.	If it cracks or gets too small. Cracked or too small. When cracked or too small.	So you don't damage your skull. So you don't get head injuries. So you don't hurt your skull.	Yes. To be safe. Yes. To be safe. Yes. To be safe.

CYCLE III

**CQI Dental Bike Safety
Summary Table of
PRE / POST Tests**

**Pretest Average=61.7%
Post Test Average=75.9%**

CHILD #	1: Bike	2: Frequency FR, NR, O	3: Behavior	4: Knowledge	5: Knowledge	6: Behavior (11 pts)	7: Behavior (11 pts)	8: Knowledge (11 pts)	9: Knowledge (11 pts)	10: Knowledge (11 pts)	11: Knowledge (11 pts)	12: Knowledge (11 pts)	13: Knowledge (11 pts)	14: Attitude (12 pts)	TOTAL
1	YES	5X	NO	NO	NO	0	0	11	11	11	11	11	11	12	78
2	YES	4X	NO	NO	YES	0	0	11	11	0	11	11	11	12	100
3	YES	7X	NO	NO	NO	0	0	11	11	11	11	0	11	12	67
4	YES	0	NO	NO	NO	0	0	11	11	11	11	0	11	12	89
5	NO	*	NO	NO	YES	0	0	11	11	11	11	0	0	0	55
6	YES	0	NO	NO	YES	0	0	11	11	11	11	0	11	0	55
7	NO	*	NO	NO	NO	0	0	11	11	11	11	0	11	0	77
						11	0	11	11	11	11	0	11	0	55
						11	0	11	11	11	11	0	11	0	66
						11	0	11	11	11	11	0	11	0	55
						11	0	11	11	11	11	0	11	0	77
						11	0	11	11	11	11	0	11	0	55
						11	0	11	11	11	11	0	11	0	66

CHILD #	Question # 11	Question # 12	Question # 13	Question # 14
1	A helmet on head. Wearing your helmet	When broken. When it gets broken.	Because damage your head you could die You could die.	Yes. I need one. Yes. It is safe.
2	You post to keep it on your head while riding Were a helmet.	When broken. Once a year.	Because you can kill yourself. You can die.	Yes. I will want to be on the safe side. No. Because it earytak. Yes. Because its safe.
3	A bike helmet. A bike helmet.	One time every year.	So you don't get hurt.	Yes. So my head don't get... No. Makes my hair sweaty.
4	Wearing a bicycle helmet. Wearing a bicycle helmet.	Every year or when it is damaged. Every year.	Dead. *	Yes. My head don't get hurt. No. Because I don't have one.
5	To wear a helmet. To wear a helmet	When you get like 17 years old. When you get like 17 years old.	So you won't get brain damage. So you won't get brain damage.	No. Because it is uncomfortable. No. Because it is uncomfortable.
6	A helmet. Wearing a helmet.	*	To keep from getting major injuries. To keep you safe from major injuries.	* * (Haven't really wore a helmet in years. * (I never really wore a helmet in a while.)
7	A helmet. A helmet.	Every 5 years. Every 5 years.	So you wouldn't have blood or water in your head. So you wouldn't die or lose one side of filling.	No. Because people like picking at you. No. Because some people like to pick at you.



ATTACHMENTS:

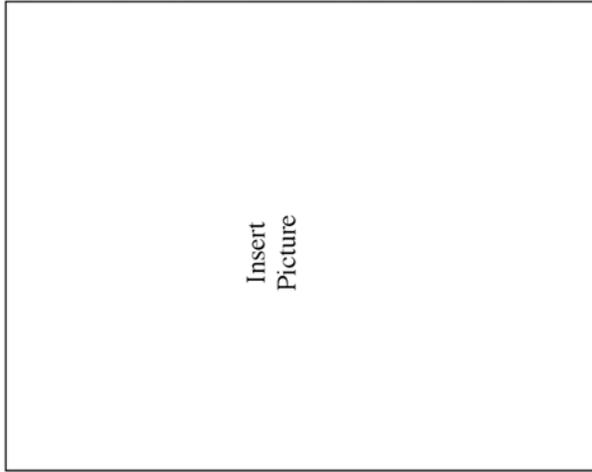
My Bike Safety Contract
“Bicycle Helmets and Dentist” article

Duval County Health Department

Injury Prevention Program • 900 University Boulevard N., Suite 205 • Jacksonville, Florida • 32211 •
(904)630-3344 • Fax (904)745-3014

In partnership with the City of Jacksonville

MY BICYCLE SAFETY CONTRACT



This is to certify that I, _____
(print your name), have received a lesson from my
dentist on how to properly fit my bicycle helmet
on my head.

My dentist has explained to me how the bicycle
helmet will protect my head from serious brain-
related injuries. My dentist also reminded me
that it is a law in Florida to wear bike helmets
when riding my bike. I will wear my bicycle helmet
everytime I ride my bike!

**The newest member of the
Brain Caps Crew**

Witness # 1: Dentist

Witness # 2: Parent

Bicycle Helmets and Dentists

Volume 2, Number 4 - May/June 1999

In this excerpt from a conversation with BSC, Stephen McCloskey, Safe Communities of Jacksonville Program Manager, describes a project that reinforces the bicycle helmet lessons learned in school in a unique venue:

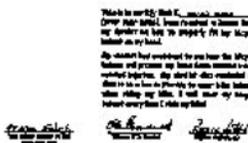
We're in our second year of the Bicycle-related Brain Injury Prevention Project, which is funded by the Centers for Disease Control and Prevention. We wanted to expand the bicycle safety culture created by our school-based program into the community by getting key people to give the same messages to kids. I heard of a Colorado program that used dentists. Our county health department has a very big dental sealant program. I approached them to see if we could work in the dental clinics. We got the people who schedule appointments to ask parents if they could bring their child in 30 minutes early. If they did, they would get a free bicycle helmet. During each 30-minute program, we educate a group of four to seven kids in the waiting room. We use videos, games, and worksheets. And then we give each child a helmet and a lesson on its correct use.

This year, we are trying a different approach. We want the program to be driven by the staff, and we want the dentist to do the education while the kid is in the chair. We had a hard time finding a dentist who would participate,



but we did. We gave him a canned presentation and a flip chart—a five-minute presentation on brain injuries and a lesson on how to wear a helmet correctly. Each child gets a picture taken of him- or herself in the chair, wearing the free helmet, flanked by his or her parent or caregiver and the dentist. This picture goes on a contract that says, "I will wear my helmet every time I ride." The contract goes on their refrigerator so the kids and caregivers get reinforcement.

MY BICYCLE SAFETY CONTRACT



post-tests showed that the program resulted in a significant increase in knowledge and change in attitudes about helmets. We haven't crunched the data on the second year yet, but I like

the concept of using the dentist, and not just the dental facilities, to help reinforce the message that the kids are getting in school.

IN THIS ISSUE

Outside the Car

Oakland Pedestrian Safety Project

Safe Cycling in Jacksonville

Bicycle Helmets and Dentists

Preventing the Crash: An Essential Component in Motorcycle Safety

The National Agenda for Motorcycle Safety

The Pedestrian Safety Road Show

Resources