

## **Medical Services and Safety Committee Agenda**

**Thursday, October 21, 2010**

**William Green Building**

Level 2, Room 3

12:30 P.M. - 2:30 P.M.\*

### **Call to Order**

Jim Harris, Committee Chair

### **Roll Call**

Mike Sourek, scribe

### **Approve Minutes of September 23, 2010 meeting**

Jim Harris, Committee Chair

### **Review and Approve Agenda**

Jim Harris, Committee Chair

### **New Business/ Action Items**

#### 1. Motions for Board consideration:

##### A. For Second Reading

1. Health Care Provider Quality Assurance Advisory Committee Rule 4123-6-22

Robert Coury, Chief of Medical Service and Compliance  
Mamta Mujumdar, Director of Medical Research

2. 2011 Inpatient Hospital Fee Schedule Rule 4123-6-37.1  
Freddie Johnson, Director of Managed Care Services  
Anne Casto, President Casto Consulting

##### B. For First Reading

1. Committee Charter Annual Review  
Donald C. Berno, Board Liaison  
Ann Shannon, Legal Counsel

### **Discussion Items\* \***

#### 1. OSU/BWC Report re: Opioids Use

Mamta Mujumdar, Director of Medical Research  
John Hanna, Pharmacy Program Director

2. Committee Calendar  
Jim Harris, Committee Chair

**Adjourn**  
Jim Harris, Committee Chair

**Next Meeting: Thursday, November 18, 2010**

\*Or after previous meeting adjourns

\*\*Not all agenda items may have materials \*\*\* Agenda subject to change

**Common Sense Business Regulation (BWC Rules)**

(Note: The below criteria apply to existing and newly developed rules)

**Rule 4123-6-22**

**Rule Review**

1.  The rule is needed to implement an underlying statute.

Citation: O.R.C. 4121.441; O.R.C. 4123.66

2.  The rule achieves an Ohio specific public policy goal.

What goal(s): The rule would create a committee composed of a diverse group of medical providers that would advise the administrator, chief of medical services, and chief medical officer on medical quality issues, and would be consistent with O.R.C. 4123-6-21.2.

3.  Existing federal regulation alone does not adequately regulate the subject matter.
4.  The rule is effective, consistent and efficient.
5.  The rule is not duplicative of rules already in existence.
6.  The rule is consistent with other state regulations, flexible, and reasonably balances the regulatory objectives and burden.
7.  The rule has been reviewed for unintended negative consequences.
8.  Stakeholders, and those affected by the rule were provided opportunity for input as appropriate.

Explain: BWC's proposed changes to the rule were e-mailed to the BWC Medical Division's list of stakeholders for review on September 13, 2010. Stakeholders were given until October 6, 2010 to submit comments. The proposed rule changes were also discussed at BWC's MCO Business Council meeting.

9.  The rule was reviewed for clarity and for easy comprehension.
10.  The rule promotes transparency and predictability of regulatory activity.
11.  The rule is based on the best scientific and technical information, and is designed so it can be applied consistently.
12.  The rule is not unnecessarily burdensome or costly to those affected by rule.
13.  The Chief Legal Officer, or his designee, has reviewed the rule for clarity and compliance with the Governor's Executive Order.

**BWC Board of Directors**  
**Executive Summary**  
**Health Care Quality Assurance Advisory Committee Rule**  
**OAC 4123-6-22**

## **Introduction**

Chapter 4123-6 of the Administrative Code contains BWC rules implementing the Health Partnership Program (HPP) for state fund employers.

BWC's Health Care Quality Assurance Committee (HCQAAC), an advisory committee to BWC on medical issues created by rule OAC 4123-6-22,

. . . was created to advise the administrator, the chief of medical services, and the chief medical officers with regard to medical quality issues...

BWC proposes to revise rule OAC 4123-6-22, which would acknowledge the internal organizational changes made within BWC and create consistency with other rules.

## **Background Law**

R.C. 4123.66(A) provides that the BWC Administrator "shall disburse and pay from the state insurance fund the amounts for medical, nurse, and hospital services and medicine as the administrator deems proper," and that the Administrator "may adopt rules, with the advice and consent of the [BWC] board of directors, with respect to furnishing medical, nurse, and hospital service and medicine to injured or disabled employees entitled thereto, and for the payment therefore."

R.C. 4121.441(A) provides that the BWC Administrator, with the advice and consent of the BWC Board of Directors, shall adopt rules for implementation of the HPP "to provide medical, surgical, nursing, drug, hospital, and rehabilitation services and supplies" to injured workers.

## **Proposed Changes**

BWC submits that the current proposed rule, OAC 4123-6-22, be adopted. The purpose of the revised rule is to align the focus of this medical advisory committee with recent organizational changes within BWC. The main organizational change that has taken place is the creation of a chief medical officer who is responsible for improving working relationships with health care professionals that do business with BWC and overseeing the committees of those medical professionals that provide advice and guidance on medical issues. In addition, there was a need to ensure that all rule revisions would be consistent in style and format to enhance readability. Otherwise, no other changes are requested of the original rule.

## **Stakeholder Involvement**

BWC's proposed HCQAAC Committee rule was e-mailed to the following lists of stakeholders on September 15, 2010 with comments due back by October 6, 2010:

- BWC's Managed Care Organizations and the MCO League representative
- BWC's internal medical provider stakeholder list - 68 persons representing 56 medical provider associations/groups

- BWC's Healthcare Quality Assurance Advisory Committee
- Ohio Association for Justice
- Employer Organizations
  - Council of Smaller Enterprises (COSE)
  - Ohio Manufacturer's Association (OMA)
  - National Federation of Independent Business (NFIB)
  - Ohio Chamber of Commerce
- BWC's Self-Insured Division's employer distribution list
- BWC's Employer Services Division's Third Party Administrator (TPA) distribution list

A draft of the proposed rule was discussed at BWC's HCQAAC meeting on September 16, 2010.

Stakeholder responses received by BWC have been summarized on the Stakeholder Feedback Summary Spreadsheet. Five individuals have responded, two of which were from the same stakeholder.

First, the representative from the Ohio Podiatric Medical Association requested that the dean of the Ohio College of Podiatric Medicine be added to paragraph one of 4123-6-22. The College has been added.

Second, two psychologists expressed concern that because of the changes, the diversity of representation on the committee would be decreased; the Chief Medical Officer instead of the Administrator of BWC would choose the member for the HCQAAC; and review of MCO practices would be decreased. It was explained to them that the changes in the rule would not affect the diversity and composition of the committee, the Administrator would still choose the members, and the review of MCO practices would remain the same. Sections of the rule were cited for this response.

Third, CompManagement Health Systems, Inc. inquired as to whether an initial review/site visit could precede a review conducted by HCQAAC of MCOs' professional performance and conduct regarding the management of medical services. We replied that the review of MCOs would be preceded by prior attempts to resolve any disputes, and the review would be a last resort measure. In addition, they asked if stakeholders can request the annual summary of the meetings the Chief Medical Officer writes for the Administrator. We explained that the summary would not contain any new information and it is merely a summary of what occurred at the previous meetings. CompManagement understood this and agreed with the explanation.

Finally, the Ohio Council for Home Care and Hospice wanted to be added to paragraph 1 as an organization that can nominate a medical provider to the list of potential providers who can be on the HCQAAC. They reasoned that the provider would add diversity, home care/hospice treats injured workers and home care/hospice workers themselves are injured on the job, and they can provide the HCQAAC some quality assurance data, part of which is required of them for Medicare. We explained to them that their organization is too specialized for their medical provider to be chosen for the HCQAAC and the HCQAAC members have already been chosen for the year. However, we indicated they are welcome to attend and participate in the meetings, since the meetings are open to the public. We also said their feedback will be considered along with everyone else's in the spring.

Other than the stakeholder feedback, we noticed that the deans for the Ohio colleges of dentistry were not included in paragraph 1 of the rule. No stakeholders in the area of dentistry questioned the exclusion. This oversight has been corrected.

## OAC 4123-6-22 Stakeholders' Health Care Quality Assurance Advisory Committee

The bureau of workers' compensation stakeholders' health care quality assurance advisory committee (HCQAAC) was created to advise the administrator, the chief of medical services, and the chief medical officer with regard to medical quality issues. A list of medical providers, each holding a professional license in good standing, who have agreed to serve on the HCQAAC, and who would add credibility and diversity to the mission and goals of the HCQAAC shall be developed and maintained by the chief medical officer. Providers may be nominated for inclusion on the list by provider associations and organizations including but not limited to: deans of Ohio's allopathic and osteopathic medical schools, deans of Ohio's colleges of pharmacy, **deans of Ohio's dental schools**, the dean of the Ohio college of podiatric medicine, the Ohio state medical association, the Ohio state osteopathic association, the Ohio state chiropractic association, specialty board associations of Ohio, the Ohio podiatric medical association, the Ohio psychological association, the Ohio dental association, the Ohio pharmacists association, the Ohio hospital association, the Ohio state medical board, the Ohio state chiropractic board, the Ohio state psychology board, the Ohio state pharmacy board, and the Ohio state dental board.

- (A) The HCQAAC shall consist of the bureau's chief medical officer and not more than **thirteen** nor less than **five** voting members representing the diverse group of providers that provide medical care to the injured workers of Ohio as administrated through the bureau. The committee may create any subcommittees that the committee determines are necessary to assist the committee in performing its duties. Any subcommittee recommendations **shall be submitted to** the HCQAAC committee.

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- (B) HCQAAC members must meet the following requirements:

- (1) Providers must be familiar with issues relating to the treatment of injured workers in the Ohio workers' compensation system.
- (2) Providers must possess significant clinical or administrative experience in health care delivery, including but not limited to, medical quality assurance, disease management, and utilization review.
- (3) Providers must have experience with and an understanding of the concepts of evidence based medicine as well as contemporary best practices in their respective areas of practice.

- (C) The appointing authority for members of the HCQAAC shall be the administrator or the administrator's designee(s), who shall appoint members of the HCQAAC from the list of qualified providers developed and maintained by the chief medical officer. Terms of membership for individual members of the HCQAAC shall be for one year. Individuals may be reappointed to subsequent terms as determined by the administrator. Vacated terms shall be filled in a like manner as for the full term appointments and shall be for the remaining term of the vacated member.

- (D) The chief medical officer of the bureau shall be the chairperson of the HCQAAC and shall provide notice of meeting to the members and be responsible for the meeting agenda. In addition, the chief medical officer may be self-designated as an ad hoc member of any subcommittees of the HCQAAC; however, the chief medical officer shall be a voting member of the HCQAAC and any subcommittees only in the case of tie votes. The bureau's medical director, the industrial commission's medical director, and one physician chosen by the MCOs may participate in discussions; however, they shall not be voting members.
- (E) The HCQAAC shall develop and establish bylaws for the organization and operations of the committee and subcommittees, subject to the requirements of this rule and approval by the administrator and the chief medical officer.
- (F) The HCQAAC shall be responsible to respond to requests for action on any medical quality assurance issue submitted by the bureau's administrator, chief of medical services, or chief medical officer including, but not limited to:
- (1) Review of medical treatment guidelines referred to the bureau.
  - (2) Review of any of the bureau's policies and procedures related to medical quality assurance issues.
  - (3) Review of any of the bureau's medical providers' professional performance and conduct, including bureau certification and malpractice issues. The HCQAAC shall perform peer review according to generally accepted standards of medical practice and may recommend sanctions as well as decertification of any provider determined to have consistently failed to meet those standards of care.
  - (4) Review of any of the bureau's managed care organizations' professional performance and conduct regarding the management of medical services for the bureau. This may include interfacing with any quality assurance committee of any of the individual managed care organizations.

The HCQAAC may make such recommendations as it deems necessary to address any medical quality assurance issue impacting the bureau.

- (G) The HCQAAC shall hold at least quarterly meetings. The HCQAAC and all subcommittees shall keep written records of the agenda and minutes of each meeting. The records of all committees shall remain in the custody of the chief medical officer.
- (H) The HCQAAC shall submit an annual report of its activities and recommendations to the administrator. In addition to inclusion in the annual report, all recommendations from the HCQAAC and subcommittees shall be

submitted to the chief medical officer in a timely fashion upon completion and approval by the respective subcommittees and HCQAAC committee.

- (I) Each member of the HCQAAC and its respective subcommittees may be paid such fees as approved by the administrator or administrator's designee. The expenses incurred by the HCQAAC and its subcommittees and the fees of their members shall be paid in the same manner as other administrative costs of the bureau.

Effective: \_\_\_\_\_

R.C. 119.032 review dates: 03/03/2005 and 03/01/2009

Promulgated Under: 119.03

Statutory Authority: 4121.12, 4121.121, 4121.30, 4121.31, 4121.44, 4121.441, 4123.05, 4123.66

Rule Amplifies: 4121.121, 4121.44, 4121.441, 4123.66

Prior Effective Dates: 1/27/97, 1/15/99, 06/01/2005

## TO BE RESCINDED

### **4123-6-22 STAKEHOLDERS HEALTH CARE QUALITY ASSURANCE ADVISORY COMMITTEE.**

The bureau of workers' compensation stakeholders' health care quality assurance advisory committee is hereby created to advise the administrator and the chief, of injury management services of the bureau of workers' compensation with regard to medical issues.

(A) A list of physicians who have agreed to serve on the committee shall be developed by approval recommendations from the deans of Ohio's medical and osteopathic schools, presidents of the Ohio state medical association, the Ohio state osteopathic association, the Ohio state chiropractic association, Ohio board specialty associations, the Ohio podiatry association, the Ohio psychology association, the Ohio hospital association, the Ohio pharmacists association, the Ohio dental association, the Ohio state medical board, the Ohio state chiropractic board, the Ohio state psychology board, the Ohio state pharmacy board, the Ohio state dental board, and the industrial commission of Ohio. This list shall be maintained by the bureau's chief, of injury management and services and additional names may be added as needed or desired.

(B) The appointing authority for members of this advisory committee shall be the administrator or his designees, and shall appoint members of the committee from the lists of approved physicians.

(C) The bureau's chief, of injury management services shall be the chairman of the advisory committee, and may be self-designated an ad hoc member of any other subcommittees formed by the advisory committee. The chief of injury management services may delegate these duties to a chairperson elected by the voting members. The chief of injury management services shall be a voting member of the advisory and subcommittees only in case of tie votes.

(D) In addition to the bureau's chief of injury management services, the advisory committee shall consist of at least one M.D., one D.O., one D.C., one clinical psychologist and one pharmacist, each holding a license in good standing in the state of Ohio, and one person representing the Ohio hospital association. The bureau's medical director, the industrial commission's medical director, and one physician chosen by the MCOs may participate in discussions; however, they shall not be voting members.

(E) Terms of membership for individual members of the advisory committee shall be for twelve months, subject to review by the administrator. Vacated terms shall be filled in like manner as for the full term appointments.

(F) The advisory committee shall develop and establish bylaws for the organization and operations of the committee and subcommittees, subject to the requirements of this rule and approval by the administrator and the bureau's chief of injury management services.

(G) The advisory committee may initiate assessment of any medical quality assurance issue impacting the bureau and shall be responsible to respond to requests for assessment of any medical quality assurance issue submitted by the bureau's chief of injury management including:

(1) Reviewing managed care data reporting;

(2) Recommending system-wide non-coverage policies or determinations that MCOs would be required to follow;

(3) Interfacing with MCO quality assurance committees;

(4) Reviewing performance measures;

(5) Addressing problems with MCO treatment guidelines;

(6) Providing ongoing peer review of the bureau's MCO and provider certification processes, including making recommendations to the bureau for imposing sanctions or granting or denying certification or recertification of a provider based upon a review of the provider's malpractice history;

(7) Advising the bureau regarding the decertification of providers and MCOs, including making recommendations to the bureau for imposing sanctions or decertification of a provider based upon a review of the provider's malpractice history; and

(8) Review of medical disputes referred to the bureau pursuant to rule 4123-6-16 of the Administrative Code.

(H) The advisory committee shall hold at least quarterly meetings. The advisory committee and all subcommittees shall keep written records of the agenda and minutes of each meeting. The records of all committees shall remain in the custody of the bureau's chief of injury management services.

(I) The advisory committee shall submit an annual report of their activities and recommendations to the administrator. In addition to inclusion in the annual report, all recommendations from the advisory committee and subcommittees shall be submitted to the bureau's chief of injury management services in a timely fashion upon completion and approval by the respective committees.

(J) Each member of the advisory committee and its respective subcommittees may be paid such fees as may be approved by the administrator. The expenses incurred by the advisory committee and its subcommittees and the fees of their members shall be paid in the same manner as other administrative costs of the bureau.

(K) The administrator may request that the advisory committee appoint peer review subcommittees to review and provide recommendations to the administrator on disputes arising over quality assurance issues, determinations that a service provided to a claimant is not covered or is medically unnecessary, or billing adjustments arising from bureau audits or reviews of records involving individual health care providers. For these disputes the appointed panel shall consist of providers licensed pursuant to the same section of the Revised Code and system specialty as the individual health care provider for whom review has been requested. The panel may conduct an informal hearing, and shall advise the administrator, whose decision shall be final.

Effective: 6/1/05

Prior Effective Dates: 1/27/97, 1/15/99

**Feedback to Proposal for O.A.C. 4123-6-22**

Stakeholder	Comments	Follow-up	BWC response	Resolution
<p>Jimelle Rumberg, Ph.D., CAE Executive Director OH Podiatric Medical Association</p>	<p>Noticed that the Ohio College of Podiatric Medicine was omitted in the list of medical schools that could be represented in the HCQAAC and explained the importance of the representation</p>	<p>Dr. Balchick emailed them back and said we will add the Ohio College of Podiatric Medicine to the rule.</p>	<p>Agree that Ohio College of Podiatric Medicine should be included in the list of medical schools whose deans represent them as stakeholders</p>	<p>Ohio College of Podiatric Medicine has been added to the list of medical schools</p>
<p>Dr. Robert G. Kaplan, Ph.D., B.C.F.E., D.A.B.P.S. Clinical Psychologist Board Certified Forensic Examiner Fellow, American College of Forensic Examiners Diplomate, American Board of Psychological Specialties, Psychological Disability Evaluation</p>	<ul style="list-style-type: none"> <li>• Rule appears to eliminate the requirement that one member of each stakeholder profession be on the panel and instead requires that committee members have administrative experience in health care organizations and administration</li> <li>• Appointment by chief medical officer instead of administrator</li> <li>• Review is eliminated as a function of the committee</li> <li>• Appears to weaken the influence of actual providers and strengthens the influence of MCOs/individuals involved in claims administration</li> <li>• Does not adequately ensure the welfare of injured workers</li> <li>• Can be corrected by returning the sections regarding representation from each stakeholding profession on the committee and reinstating the review of MCO practices and guidelines</li> </ul>	<p>Mamta emailed Dr. Kaplan back and explained that the rule addresses all of the concerns:</p> <ul style="list-style-type: none"> <li>• Medical providers will still only be considered for the committee.</li> <li>• (B)(2) of the rule indicates that administrative experience alone not to be considered when forming the list of providers.</li> <li>• Committee will be diverse, since several professional associations and organizations are listed within the rule as to those who can be represented.</li> </ul>	<p>The rewritten rule does not affect substance and composition of HCQAAC, thus the welfare of injured workers to receive appropriate care and treatment is retained.</p>	<p>No change in the rule.</p>
<p>Loren Shapiro, Ph.D.</p>	<ul style="list-style-type: none"> <li>• Concerned that members will</li> </ul>	<p>Same as Dr. Kaplan, but added</p>	<p>The only change in terms of</p>	<p>No change in the</p>

**Feedback to Proposal for O.A.C. 4123-6-22**

Stakeholder	Comments	Follow-up	BWC response	Resolution
[lshapirohd@sbcglobal.net]	<p>be appointed by the medical officer instead of an administrator</p> <ul style="list-style-type: none"> <li>• MCOs will be strengthened as review of their practices is eliminated</li> <li>• Providers (especially non-MD providers) appear to have diminished standing in terms of treating injured workers and working towards their welfare</li> <li>• Important that one member of each stakeholding profession be on the panel</li> </ul>	<p>that the only change in terms of composition of the committee is the addition of a chief medical officer at the bureau, who will be the chairman of the committee.</p>	<p>composition of the committee is the addition of a chief medical officer at the bureau, who will be the chairman of the committee.</p>	<p>rule</p>
<p>Beth Foster, RN, BA, CPHQ Regulatory Specialist Ohio Council for Home Care and Hospice</p>	<ul style="list-style-type: none"> <li>• Requesting that their provider association be included in the list to nominate a medical provider to the HCQAAC <ul style="list-style-type: none"> <li>○ Adding either a Home Health Agency provider or HHA medical director would add another dimension of credibility and diversity to the mission and goals of HCQAAC</li> <li>○ Not only do HHAs provide medical care to the injured workers, but they also have injured workers due to the uncontrolled environments of the patient homes and the community</li> <li>○ Data collection assessments</li> </ul> </li> </ul>	<p>Mamta called back on 10/6/10 and left a message on VM, but received a call back from Beth Foster on 10/7/10. Mamta called Beth again on 10/8/10 to follow up and resolve the issue of including the provider association on the list.</p>	<ul style="list-style-type: none"> <li>• BWC would like to learn more about why home care and hospice wants to be added to the list in paragraph 1. Listened to reasons on 10/7/10.</li> <li>• There are only a few oncology and end-of-life-care cases that BWC encounters</li> <li>• Those who work in hospice/home health care and become injured would not have their interests represented by the council</li> <li>• The council is too highly specialized in what the</li> </ul>	<p>No change in the rule.</p>

**Feedback to Proposal for O.A.C. 4123-6-22**

Stakeholder	Comments	Follow-up	BWC response	Resolution
	<p>for Medicare and other quality measurements could help lead to more efficient and effective management processes</p>		<p>types of patients they see and their medical provider would reflect this.</p> <ul style="list-style-type: none"> <li>The council is welcome to attend and participate during the HCQAAC meetings and provide feedback, which will be examined in the spring.</li> </ul>	
<p>Becky Bolt President - MCO Ops Vice President - Managed Care Dir CompManagement Health Systems, Inc.</p>	<ul style="list-style-type: none"> <li>Underneath (F)(4), asked if review of bureau's MCOs should be preceded by an initial review/site visit to the MCO for resolution prior to presenting to HCQAAC</li> <li>Underneath (H), asked if they should request that representatives/sponsoring organizations receive this report at the same time.               <ul style="list-style-type: none"> <li>Explained as a means to validate meeting discussions</li> </ul> </li> </ul>	<p>Mamta called on 10/6/10 and left a message. David Kessler called back on 10/7/10.</p>	<ul style="list-style-type: none"> <li>Explained that the review of an MCO would be the last resort of communication between the HCQAAC and the MCO. Resolution would be sought before embarking on a review.</li> <li>Also, the report is only a summary provided by the chief medical officer to the administrator. No new information would be added to it.</li> </ul>	<p>Dr. Kessler was fine with the explanations. No change in the rule.</p>

**Common Sense Business Regulation (BWC Rules)**

(Note: The below criteria apply to existing and newly developed rules)

**Rule 4123-6-37.1**

**Rule Review**

1.  The rule is needed to implement an underlying statute.

Citation: O.R.C. 4121.441(A)(8); O.R.C. 4123.66

2.  The rule achieves an Ohio specific public policy goal.

What goal(s): The rule adopts a discounted hospital inpatient reimbursement methodology based on Medicare’s “Medicare severity diagnosis related group” or “MS-DRG” methodology, in accordance with O.R.C. 4121.441(A)(8) and *Ohio Hosp. Assn. v. Ohio Bur. of Workers' Comp.*, Franklin App. No. 06AP-471, 2007-Ohio-1499.

3.  Existing federal regulation alone does not adequately regulate the subject matter.

4.  The rule is effective, consistent and efficient.

5.  The rule is not duplicative of rules already in existence.

6.  The rule is consistent with other state regulations, flexible, and reasonably balances the regulatory objectives and burden.

7.  The rule has been reviewed for unintended negative consequences.

8.  Stakeholders, and those affected by the rule were provided opportunity for input as appropriate.

Explain: The proposed changes were presented by BWC staff to the Ohio Hospital Association on 8/12/10. The changes were also posted on BWC’s website on 8/26/10, with comments being taken up to 9/10/10.

9.  The rule was reviewed for clarity and for easy comprehension.

10.  The rule promotes transparency and predictability of regulatory activity.

11.  The rule is based on the best scientific and technical information, and is designed so it can be applied consistently.

12.  The rule is not unnecessarily burdensome or costly to those affected by rule.

If so, how does the need for the rule outweigh burden and cost? \_\_\_\_\_

13.  The Chief Legal Officer, or his designee, has reviewed the rule for clarity and compliance with the Governor's Executive Order.

**BWC Board of Directors  
Executive Summary  
BWC Hospital Inpatient Services  
Payment Rule**

## **Introduction**

The Health Partnership Program (HPP) rules were first promulgated in 1996, prior to the implementation of the HPP in 1997. HPP rules establishing criteria for the payment of various specific medical services were subsequently adopted in February 1997.

Ohio Administrative Code 4123-6-37, initially adopted February 12, 1997 and amended March 1, 2004, provides general criteria for the payment of hospital services under the HPP. Ohio Administrative Code 4123-6-37.1 provides specific methodology for the payment of hospital inpatient services. It was initially adopted effective January 1, 2007, and has since been amended effective April 1, 2007, January 1, 2008, February 1, 2009, and February 1, 2010.

## **Background Law**

R.C. 4123.66(A) provides that the BWC Administrator “shall disburse and pay from the state insurance fund the amounts for medical, nurse, and hospital services and medicine as the administrator deems proper,” and that the Administrator “may adopt rules, with the advice and consent of the [BWC] board of directors, with respect to furnishing medical, nurse, and hospital service and medicine to injured or disabled employees entitled thereto, and for the payment therefor.”

R.C. 4121.441(A)(8) provides that the BWC Administrator, with the advice and consent of the BWC Board of Directors, shall adopt rules for implementation of the HPP “to provide medical, surgical, nursing, drug, hospital, and rehabilitation services and supplies” to injured workers, including but not limited to rules regarding “[d]iscounted pricing for all in-patient . . . medical services.”

Pursuant to the 10<sup>th</sup> District Court of Appeals decision in *Ohio Hosp. Assn. v. Ohio Bur. of Workers' Comp.*, Franklin App. No. 06AP-471, 2007-Ohio-1499, BWC is required to adopt changes to its methodology for the payment of hospital inpatient services via the O.R.C. Chapter 119 rulemaking process.

BWC's hospital inpatient reimbursement methodology is based on Medicare's “Medicare severity diagnosis related group” or “MS-DRG” methodology, which is updated annually. Therefore, BWC must also annually update OAC 4123-6-37.1, to keep in sync with Medicare.

## **Proposed Changes**

Ohio Administrative Code 4123-6-37.1 currently incorporates by reference 42 Code of Federal Regulations (C.F.R.) Part 412 as published in the October 1, 2009 C.F.R., as well as Federal Register citations to the 2009 Medicare regulations under which the applicable MS-DRG reimbursement rate was determined during the last Medicare fiscal year. BWC is proposing to revise the Federal Register citations to the 2010 regulations, and the 42 CFR Part 412 citation to that published in the October 1, 2010 C.F.R.

BWC is proposing to adopt version 28.0 of the MS-DRGs and pricing factors as published in Medicare's Inpatient Prospective Payment System (IPPS) Final Rule.

BWC is proposing to maintain the current inlier payment adjustment factor (PAF) to hospitals at one hundred twenty percent (120%) of the applicable MS-DRG reimbursement rate.

BWC is further proposing to maintain the per diem rates to hospitals for direct graduate medical education at one hundred twenty percent (120%). Additionally, maintain the approach with using the effective date of the rule, February 1, 2011, as the date for calculating the annual per diem rates for direct graduate medical education.

BWC is further proposing to increase the current outlier PAF to one hundred eighty percent (180%) of the applicable MS-DRG reimbursement rate.

BWC is further proposing adopting of a BWC adjustment factor (3.15%) to address Medicare reductions incorporated in Medicare's IPPS Final Rule.

BWC is further proposing that Medicare IPPS exempt hospitals who submitted a 2009 cost report to the Ohio Department of Job and Family Services (ODJFS) shall be reimbursed at their reported cost-to-charge ratio plus twelve percentage points (12%), not to exceed seventy percent (70%) of billed charges; Medicare IPPS exempt hospitals who did not submit a 2009 cost report to ODJFS shall be reimbursed at sixty-one percent (61%) of billed charges.

The proposed rule would also clarify that a QHP or self-insuring employer may reimburse hospital inpatient services at:

- the applicable rate under the or "MS-DRG" methodology; or
- cost-to-charge ratio plus twelve percentage points (12%), not to exceed seventy percent (70%) of billed charges for hospitals who submitted a 2009 cost report to ODJFS, and sixty-one percent (61%) of billed charges for hospitals who did not submit a 2009 cost report to ODJFS; or
- the rate negotiated between the hospital and the QHP or self-insuring employer in accordance with rule 4123-6-46 of the Administrative Code.

Finally, BWC proposes to make the new hospital inpatient reimbursement rule applicable to hospital inpatient services with a discharge date of February 1, 2011 or later.

## **Stakeholder Involvement**

The proposed inpatient payment methodology was provided for review to the Ohio Hospital Association. OHA verbally expressed support of BWC's proposed changes to the 2011 inpatient hospital reimbursement fee schedule and rule.

The proposed rule and changes were also posted on the BWC website, with a comment period open from 8/27/10 to 9/10/10.

## 4123-6-37.1 Payment of hospital inpatient services.

(A) HPP.

Unless an MCO has negotiated a different payment rate with a hospital pursuant to rule 4123-6-10 of the Administrative Code, reimbursement for hospital inpatient services with a discharge date of February 1, ~~2010~~ 2011, or after shall be as follows:

(1) Reimbursement for hospital inpatient services, other than outliers as defined in paragraph (A)(3) of this rule or services provided by hospitals subject to reimbursement under paragraph (A)(4) of this rule, shall be ~~equal to one hundred twenty per cent of~~ calculated using the applicable medicare severity diagnosis related group (MS-DRG) reimbursement rate for the hospital inpatient service under the medicare inpatient prospective payment system, multiplied by a 2011 bureau adjustment of 1.0315 and further multiplied by a payment adjustment factor of 1.20, according to the following formula:-

(MS-DRG reimbursement rate x 1.0315) x 1.20 = bureau reimbursement for hospital inpatient service.

(2) In addition to the payment specified by paragraph (A)(1) of this rule, hospitals operating approved graduate medical education programs and receiving additional reimbursement from medicare for costs associated with these programs shall receive an additional per diem amount for direct graduate medical education costs associated with hospital inpatient services reimbursed by the bureau. Hospital specific per diem rates for direct graduate medical education shall be calculated annually by the bureau effective February first of each year, using the most current cost report data available from the centers for medicare and medicaid services, according to the following formula:

$1.20 \times [(\text{total approved amount for resident cost} + \text{total approved amount for allied health cost}) / \text{total inpatient days}] = \text{direct graduate medical education per diem.}$

Direct graduate medical education per diems shall not be applied to outliers as defined in paragraph (A)(3) of this rule or services provided by hospitals subject to reimbursement under paragraph (A)(4) of this rule.

(3) Reimbursement for outliers as determined by medicare's inpatient prospective payment system outlier methodology shall be ~~equal to one hundred seventy five per cent of~~ calculated using the applicable medicare severity diagnosis related group (MS-DRG) reimbursement rate for the hospital inpatient service under the medicare inpatient prospective payment system, multiplied by a 2011 bureau adjustment of 1.0315 and further multiplied by a payment adjustment factor of 1.80, according to the following formula:-

(MS-DRG reimbursement rate x 1.0315) x 1.80 = bureau reimbursement for hospital inpatient service outlier

(4) Reimbursement for inpatient services provided by hospitals, ~~and~~ distinct-part units of hospitals designated by the medicare program as exempt from the medicare inpatient prospective payment system, and hospitals enrolled or certified by the bureau as psychiatric hospitals shall be determined as follows:

(a) For Ohio hospitals who submitted a hospital cost report (JFS 02930) to the Ohio department of job and family services for the ~~2008~~ 2009 state fiscal year, reimbursement shall be equal to the hospital's allowable billed charges multiplied by the hospital's reported facility inpatient cost-to-charge ratio (from schedule B, line 101 of the hospital

cost report) plus twelve percentage points, not to exceed seventy per cent of the hospital's allowed billed charges.

(b) For Ohio hospitals who did not submit a hospital cost report (JFS 02930) to the Ohio department of job and family services for the ~~2008~~ 2009 state fiscal year and for out-of-state hospitals, reimbursement shall be equal to ~~sixty-two~~ sixty-one per cent of the hospital's allowed billed charges.

(5) For purposes of this rule, the "applicable medicare severity diagnosis related group (MS-DRG) reimbursement rate" or "value" shall be determined in accordance with the medicare program established under Title XVIII of the Social Security Act, 79 Stat. 286 (1965), 42 U.S.C. 1395 et seq. as amended, excluding 42 U.S.C. 1395ww(d)(4)(D) and 42 U.S.C. 1395ww(m), as implemented by the following materials, which are incorporated by reference:

(a) 42 C.F.R. Part 412 as published in the October 1, ~~2009~~ 2010 Code of Federal Regulations;

(b) Department of health and human services, centers for medicare and medicaid services' ~~"42 C.F.R. Parts 412, 413, 415, et al. Medicare Program; Changes to the Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and Fiscal Year 2010 Rates; and Changes to the Long-Term Care Prospective Payment System and Rate Years 2010 and 2009 Rates; "74 Fed. Reg. 43754 (2009) "42 C.F.R. Parts 412, 413, 415, et al. Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System Changes and FY2011 Rates; Provider Agreements and Supplier Approvals; and Hospital Conditions of Participation for Rehabilitation and Respiratory Care Services; Medicaid Program: Accreditation for Providers of Inpatient Psychiatric Services; Final Rule," 75 Fed. Reg. 50041-50681 (2010).~~

(B) QHP or self insuring employer (non-QHP):

A QHP or self-insuring employer may reimburse hospital inpatient services at:

(1) The applicable rate under the methodology set forth in paragraph (A) of this rule;

or

(2)

(a) For Ohio hospitals who submitted a hospital cost report (JFS 02930) to the Ohio department of job and family services for the ~~2008~~ 2009 state fiscal year, the hospital's allowable billed charges multiplied by the hospital's reported facility inpatient cost-to-charge ratio (from schedule B, line 101 of the hospital cost report) plus twelve percentage points, not to exceed seventy per cent of the hospital's allowed billed charges;

(b) For Ohio hospitals who did not submit a hospital cost report (JFS 02930) to the Ohio department of job and family services for the ~~2008~~ 2009 state fiscal year and for out-of-state hospitals, ~~sixty-two~~ sixty-one per cent of the hospital's allowed billed charges; or

(3) The rate negotiated between the hospital and the QHP or self-insuring employer in accordance with rule 4123-6-46 of the Administrative Code.

Effective: ~~2/1/10~~ 2/1/11

Promulgated Under: 119.03

Statutory Authority: 4121.12, 4121.30, 4121.31, 4123.05

Rule Amplifies: 4121.121, 4121.44, 4121.441, 4123.66  
Prior Effective Dates: 1/1/07, 4/1/07, 1/1/08, 2/1/09, 2/1/10

# **BWC 2011 Proposed Inpatient Hospital Fees**

## **Medical Service Enhancements**

Prompt, effective medical care makes a big difference for those injured on the job. It is often the key to a quicker recovery and timely return-to-work and quality of life for injured workers. Thus, maintaining a network of dependable medical and vocational rehabilitation service providers ensures injured workers get the prompt care they need. Maintaining a network of hospitals to provide appropriate care is an important element to ensure the best possible recoveries from workplace injuries. It also ensures access to quality, cost-effective service. Access for injured workers, and employers, means the availability of quality, cost-effective treatment provided on the basis of medical necessity. It facilitates faster recovery and a prompt, safe return to work.

The Medical Services Division has focused on improving its core medical services functions. Our goals are as follows: enhance our medical provider network, establish a better benefits plan, institute an updated and competitive provider fee schedule, improve our managed care processes, and establish excellent medical bill payment services.

## **Inpatient Hospital Fee Schedule Methodology**

### **Introduction**

As stated, implementing a sound and effective provider fee schedule is a critical component of the Medical Services Division's goals. Inpatient bills represent a small number of the bills BWC processes annually, however, they are a critical segment as they represent the treatment given to our most seriously injured workers. Inpatient hospitalization may be the first treatment following an injury; it may also be part of later treatment intended to return the injured worker to employment.

In financial terms, these bills represent 11.1 percent of BWC's overall medical expenses, even though they are 0.12 percent of bills received by BWC. An appropriate inpatient fee schedule is integral to assuring that injured workers are receiving quality care so that they may achieve the best possible recovery from their injuries. For the period reviewed (Dates of service February 2009 - January 2010), BWC paid the following medical expenses: Inpatient Hospital - \$ 81 million, Outpatient Hospital - \$ 145 million, Pharmacy - \$ 130 million, and Professional and other - \$ 373 million.

### **Methodology**

BWC, in January 2007, implemented Medicare's Inpatient Prospective Payment System (IPPS). The IPPS utilizes the diagnosis-related groups (DRGs) classification system. BWC adopted the then DRG classification system, along with customized outlier and medical education payment adjustment factors. In 2008, BWC revised its program to implement Medicare's new MS-DRG methodology. In 2009, BWC adopted Medicare's 2009 MS-DRG outlier formula and updated the payment adjustment factors. The BWC

inpatient fee schedule was last updated by the Board in 2009, and effective February 2010.

BWC update the inpatient hospital rule annually to reference the new federal rule reflecting the most current Medicare model. In addition, BWC's evaluation methodology includes an analysis: 1) of the Medicare rule changes relative to BWC's goal of ensuring access to quality care, and 2) of the current payment adjustment factors to determine if a change to the same is warranted.

The Medicare MS-DRG pricing standard methodology calculates a based fixed price for groupings of procedures and diagnoses. Medicare adjusts pricing for each hospital using hospital-specific factors that include the hospital's average costs, its typical patient population, and prevailing wages in the hospital's geographic area within the state. In addition, the calculation provides additional reimbursement for complicated cases to ensure that hospital expenses are covered more equitably. Medicare also supports medical education programs by making additional payments to teaching hospitals.

Pursuant to our annual evaluation methodology, BWC completed an analysis of the Medicare's 2011 Inpatient Prospective Payment System final rule. This analysis included completing a review of Medicare's modifications to the MS-DRG case rates. The analysis identified two provisions in Medicare's Inpatient Prospective Payment System final rule which medical services is proposing non-adoption by incorporating a proposed BWC adjustment to the 2011 BWC inpatient fee schedule.

The first Medicare modification which medical services is proposing to offset is the budget neutrality safeguard known as the Documentation and Coding Adjustment. The adjustment was proactively approved by Congress in anticipation of the adoption of a severity adjusted classification system (MS-DRGs) in 2008. Although strongly opposed by the provider community, by law<sup>1</sup> Medicare must make an adjustment in 2011 or 2012. Thus, Medicare proposed adjust hospital rates down by a 2.9 percent adjustment that will be applied to the hospital base rate for every acute care hospital.

Medical services after an analysis of the Documentation and Coding Adjustment determined that a BWC adjustment to our 2011 reimbursement formula would be appropriate to restore Medicare's 2.9 percent decrease. The Medicare adjustment is a budget neutrality adjustment executed to protect the Medicare Fund, and as such does not support BWC's goal of ensuring access to quality care. Additionally, all hospitals are subject to the adjustment irrespective of whether their documentation and coding patterns subsequent to the adoption of the severity-adjusted MS-DRG system had changed at all. Lastly, because BWC's protocols ensuring diligence in our coding team's reviews of MS-DRG assignment for hospital inpatient bills, medical services is confident that our case mix index for 2008 and 2009 is accurate and will not need future payment adjustment.

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<sup>1</sup> The Transitional Medical Assistance, Abstinence Education and Qualifying Individuals Program Extension Act (TMA) of 2007 – requires Medicare to adjust the hospital standardized amounts during federal fiscal years 2010-2012 if actual payments for hospital inpatient admissions for federal fiscal years 2008 and 2009 are greater than expected.

The second Medicare modification medical services is proposing to offset is the Market Basket Adjustment. The Affordable Care Act (ACA) of 2010 requires that a market basket adjustment be applied to Medicare participating hospitals for federal fiscal years 2010 through 2019. The 2010 negative adjustment of 0.25 percent was retroactively enforced by Medicare, but not adopted by BWC, as BWC had already adopted by rule our 2010 fee schedule. However, the 2011 adjustment of -0.25 percent was adopted in the new IPPS final rule.

Medical services after analysis of the Market Basket Adjustment determined that a BWC adjustment to our 2011 reimbursement formula would be appropriate to restore Medicare's 0.25 percent decrease. The Medicare adjustment is purely a cost saving measure for the Medicare program, and as such does not support BWC's goal of ensuring access to quality care.

Medical Services in addressing the above two identified Medicare adjustment is proposing for 2011 to adopt a BWC adjustment factor which will be applied to the IPPS Medicare payment rate. The recommended BWC adjustment factor is 3.15 percent, which will fully offset the two Medicare negative adjustments.

Medical services also performed a payment simulation based on the latest Medicare inpatient final rule. The simulation showed that the payments inlier bills would be adequate to ensure access to quality care. However, the analysis also showed that payment for outlier bills would be inadequate if the adjustment factor remained at 175 percent for 2011. Specifically, the payment to cost ratio for outlier bills in 2011 would fall below 100 percent. Given the projected impact, medical services determined that an increase in the payment adjustment factor for outlier cases from the current 175 percent to 180 percent was appropriate. The proposed increase in the payment adjustment factor would result in an estimated 2011 payment to cost ratio of 102 percent, which is in alignment with the estimated 2011 payment to cost ratios for inliers and MS-DRG exempt cases (inpatient rehabilitation, psychiatric and long term care).

Per adoption of the above recommendations, the 2011 hospital inpatient fee schedule would be as follows:

Inliers

$((\text{Medicare rate} * 2011 \text{ BWC adjustment}) * \text{Payment adjustment factor}) + \text{Direct Graduation Medical Education Per Diem}$

$((\text{Medicare rate} * 1.0315) * 1.20) + \text{Direct Graduate Medical Education Per Diem}$

Outliers

$(\text{Medicare rate} * 2011 \text{ BWC adjustment}) * \text{Payment adjustment factor}$

$(\text{Medicare rate} * 1.0315) * 1.80$

### **Summary of 2011 Proposed Changes to the Current Inpatient Fee Schedule Rule**

Medical Services is recommending that for 2011, BWC adopts version 28.0 of the MS-DRGs and pricing factors as published in Medicare's Inpatient Prospective Payment System (IPPS) Final Rule.

Medical Services is further proposing that for 2011 BWC increase the payment adjustment factor for outliers from 175 percent to 180 percent.

Medical Services is further proposing that BWC adopt a BWC adjustment factor of 3.5 percent as an offset of Medicare's Documentation and Coding and 2011 Market Basket adjustments. We are proposing to offset these provisions by creating a 2011 BWC adjustment as illustrated above.

### **Projected Impact of Recommendations**

The projected impact of the recommended changes to the hospital inpatient rule for 2011 is an increase in reimbursement of 5.7% or \$4.9 million dollars over estimated 2010 reimbursements. Additionally, the changes to the rule will continue to ensure access to quality care for Ohio injured workers.



**Bureau of Workers' Compensation**

Governor **Ted Strickland**  
Administrator **Marsha P. Ryan**

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Columbus, OH 43215-2256  
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**Stakeholder feedback and recommendations for changes to the BWC Hospital Inpatient Services Fee Schedule - O.A.C. 4123-6-37.1**

Line #	Rule # / Subject Matter	Stakeholder/ Interested Party	Draft Rule Suggestions	Stakeholder Rationale	BWC Response	Resolution
1	General Comment	Ohio Hospital Association	General comment of support of the recommended rule changes with no objections.			Maintain current proposal
2	General Comment	CompManagement Health System (MCO)	BWC should work to further address facilities who are exempt from Medicare's IPPS, and therefore, 4123-6-37.1(A)(4) should be more specific. Couldn't the DRG reimbursement rate formula still be used a guideline to point out excessive cost and then set a pre-determined percentage or maximum reimbursement above the DRG formula to better handle these escalated charges rather than allowing 61% or 70 percent of the hospitals allowed billed charges?	Currently the new provision divides the reimbursement rate into two categories based on whether or not a hospital cost report was submitted for the previous year and then goes on to allow a percentage of reimbursement (either 70% or 61% )based on the hospitals allowed billed charges. With this method, facilities can continue to escalate their costs without concern or repercussion. When facilities determine that their final payment is a percentage off their charged amounts—this not only initiates a very vicious cycle of hyperinflation but ultimately encourages fraud.	BWC acknowledges the comments and merits of the submitted suggestion and the rationale underlying the same. The current method as reflected in the rule has been determine to be at this time the most efficient method to compute reimbursement for a very small population of hospital facilities. The current method also effectively address and facilitate the underlying BWC philosophy and goal of the inpatient fee schedule. While BWC's hospital analysis has identified a hospital facility which appears to be constantly outside the norm with its billing, BWC is currently assessing other more efficient methods to address that particular situation. However, BWC will further evaluate the submitted suggestion for future consideration.	Maintain current proposal

Ohio BWC

2011 Hospital Inpatient Fee Recommendations

OAC: 4123-6-37.1

Medical Services Division

Freddie Johnson, Director, Managed Care Services

Anne Casto, Casto Consulting

October 21, 2010

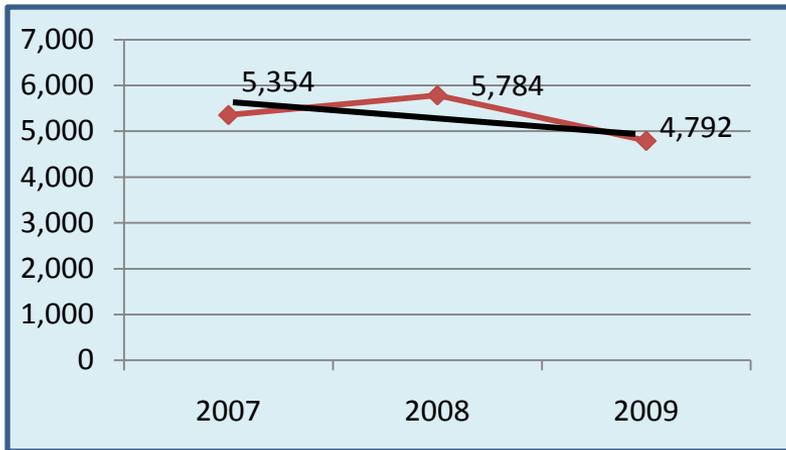
# Introduction and Guiding Principles

- Legal Requirements For Fee Schedule Rule
- Proposed Time-line for Implementation
  - Stakeholder Feedback - June 2010 – September 2010
  - Board Presentation – September/October
  - Proposed to JCARR – November 16, 2010
  - Effective Date – February 1, 2011
- Guiding Principle:

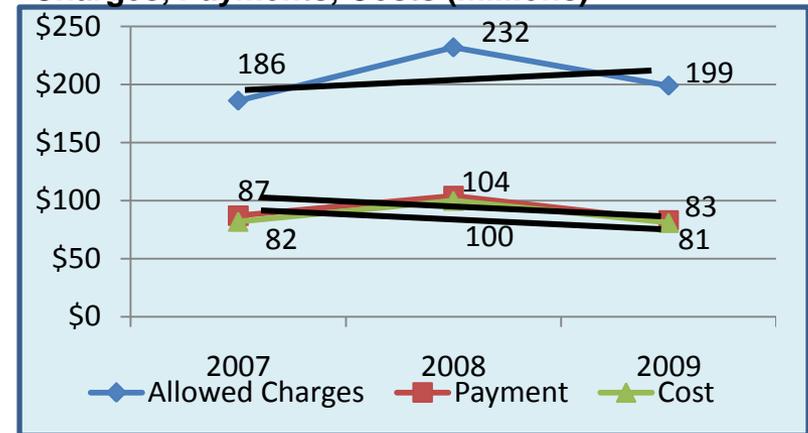
Ensure access to high-quality medical care and vocational rehabilitation services by establishing an appropriate Benefit plan and Terms of service with competitive fee schedule which, in turn, enhances medical/vocational provider network

# Hospital Inpatient Services Trend Analysis: 2007 - 2009

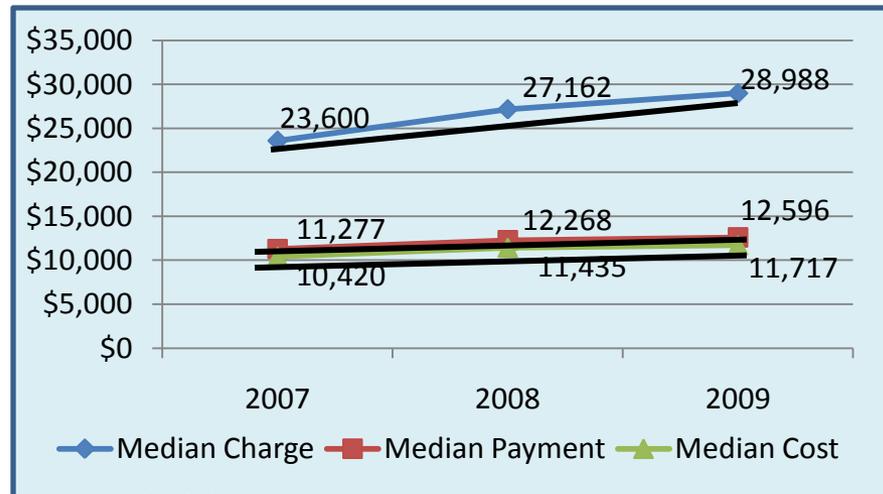
**Services**



**Charges, Payments, Costs (millions)**



**Median Charges, Payments, Costs**



# Medicare 2011 Changes– Budget Neutrality Safeguards

- Documentation and Coding Adjustment
  - Imposed by TMA of 2007
    - *Transitional Medical Assistance, Abstinence Education and Qualifying Individuals Programs Extension Act of 2007*
  - 2.9 percent decrease to hospital base rates for 2011
- Affordable Care Act cost saving measure
  - Yearly market basket adjustment from 2010 to 2019
  - .25 percent reduction for 2011
- Total Reduction = 3.15

# Outlier Payment Adjustment Factor

- During our annual review we examine performance metrics
  - Percent of payment to cost
  - Percent of billed charges
- Review of outlier bill metrics revealed that in 2009 BWC paid slightly below estimated costs
- Adjustment to payment adjustment factor for outliers recommended to address estimated impact on costs
  - Currently payment adjustment factor set at 175%
  - Recommending a new payment adjustment factor of 180%
  - Estimated impact on cost is reimbursing at 102% of cost.

# Recommendation

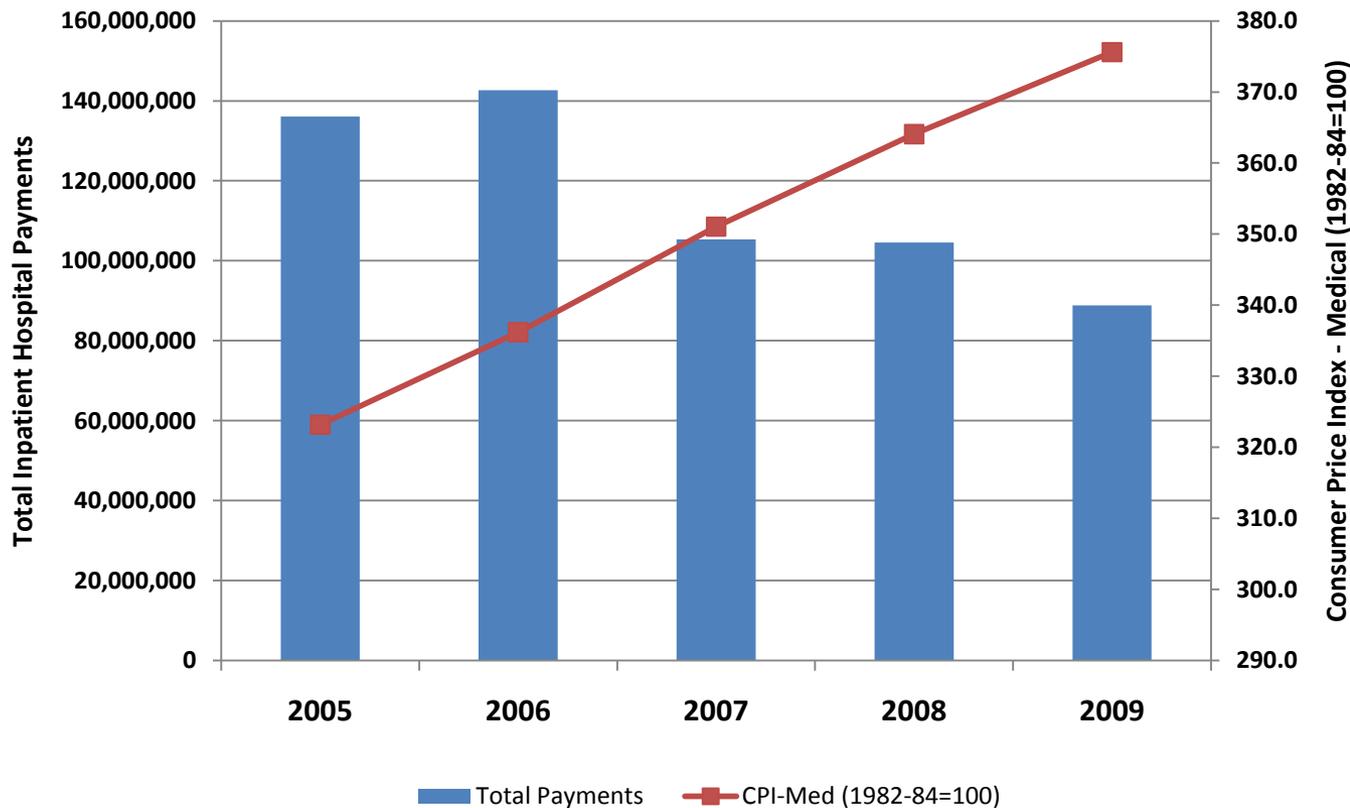
- Adopt rates as published in 2011 IPPS final rule, version 28.0 of MS-DRGs
- Maintain the 120% PAF to IPPS rates for MS-DRG bills
  - DGME also to remain at 120%
- Adopt a 180% PAF to IPPS rates for all Outlier bills
- Apply a 2011 BWC adjustment factor of 3.15% to address Medicare reductions
  - Documentation and Coding Adjustment (2.9%)
  - Market basket reduction required by the Affordable Care Act of 2010 (.25%)
- Maintain current Exempt methodology
  - Medicaid Cost-to-charge ratio (CCR) plus 12 percentage point, not to exceed 70% allowed billed charges
  - Average CCR + 12 percentage points for 2009 is .61 which is used for providers without a Ohio Medicaid CCR

# Recommendation Impact

- Estimated impact for 2011
  - Increase 4.9 million
  - 5.7% increase from 2010

2011 Proposed Rule Impact Distribution	
Category	Estimated Impact
2011 BWC adjustment (3.15%)	\$2,597,758
Annual MS-DRG maintenance	\$1,939,490
Payment adjustment factor for outliers	\$371,734
All categories	\$4,908,980

# BWC Hospital Inpatient Payments 2005 - 2009



Thank You

# Appendix

- 2010 Fee Schedule Changes
- 2009 Hospital Inpatient Experience
- 2008 Hospital Inpatient Experience
- Hospital Inpatient Payment Trends
- Review of Payment Methodologies used by other Workers Compensation Jurisdictions; Other Methodologies

# Calculating Rates

- MS-DRG Formula 2010  
(Medicare Rate\*PAF) + DGME
- MS-DRG Formula 2011  
((Medicare Rate\*BWC Adjustment)\*PAF) + DGME
  
- Outlier Formula 2010  
Medicare Rate [includes outlier add-on]\*PAF
- Outlier Formula 2011  
(Medicare Rate [includes outlier add-on]\*BWC Adjustment)\*PAF
  
- ✓ Note: the formula change is required because adding the market basket adjustment to the payment adjustment factor is not a true simulation of restoring the market basket.

BWC Adjustment = 2011 BWC adjustment of 3.15% or 1.0315

# Medicare 2011 Inpatient Updates

- Documentation and Coding Adjustment
  - Imposed by TMA of 2007
    - *Transitional Medical Assistance, Abstinence Education and Qualifying Individuals Programs Extension Act of 2007*
  - Budget neutrality safeguard proactively executed to address the move to a severity-adjusted classification system for hospital inpatient services
    - Move from DRGs to MS-DRGs effective 2008
  - 2.9 percent decrease to hospital base rates for 2011

DRGs – Diagnosis Related Groups

MS-DRGs – Medicare Severity Diagnosis Related Groups

# Medicare 2011 Inpatient Updates

- Documentation and Coding Adjustment
  - Foundation
    - Hospitals utilized documentation and coding enhancement programs to improve physician documentation and in turn the coding of diagnoses and procedures
    - Improved documentation and coding leads to a more accurate MS-DRG assignment and in some cases a higher case mix index
  - Adjustment is applied to ALL hospitals
    - Even if hospitals experienced an equal or lower case mix index during the transition to MS-DRGs
  - Adjustment is opposed by the hospital community

# Medicare 2011 Inpatient Updates

- Affordable Care Act cost saving measure
  - Yearly market basket adjustment from 2010 to 2019
  - .25 percent reduction for 2011

Market Basket Reduction Schedule under ACA of 2010			
FFY	MB Reduction	FFY	MB Reduction
2010	.25%	2015	.20%
2011	.25%	2016	.20%
2012	.10%	2017	.75%
2013	.10%	2018	.75%
2014	.30%	2019	.75%

# Fee Schedule Methodology

- Evaluation of current inpatient services and experiences, considering the need for annual payment updates and/or other policy changes
- Evaluation of the Medicare Inpatient Prospective Payment System Updates
- Setting payment adjustment factor (payment rate) at the right level
- Develop payment adjustments that accurately reflect market, service, and patient cost differences

# Current Fee Schedule

- FFY 2010 IPPS system as published in CMS final rule (version 27.0 MS-DRGs)
  - Exclude Hospital Acquired Conditions provision
    - Remains unchanged from 2009
- Payment adjustment factors (unchanged from 2009)
  - 120% inliers
    - 120% direct graduate medical education (DGME)
  - 175% outliers
- Exempt methodology (unchanged from 2009)
  - Medicaid Cost-to-charge ratio (CCR) plus 12 percentage point, not to exceed 70% allowed billed charges
  - Average CCR for 2008 is .62 which is used for providers without a Ohio Medicaid CCR
    - Unchanged from 2009 fee schedule

# 2009 Hospital Inpatient Experience

Bill Type	Volume	Percent of Total Volume	Allowed Billed Charges	Percent of Total Allowed Billed Charges	Payment	Percent of Total Payment
MS-DRG	3982	83%	\$144,947,498	73%	\$56,434,745	68%
Outlier	141	3%	\$25,528,385	13%	\$8,976,528	11%
Exempt	669	14%	\$28,847,503	14%	\$17,703,544	21%
Total	4792		\$199,323,386		\$83,114,817	

# 2009 Hospital Inpatient Experience

Bill Type	Vol.	Allowed Billed Charges	Cost	Payment	Percent of Charge	Percent of Cost
MS-DRG	3,982	\$144,947,498	\$56,042,977	\$56,434,745	39%	101%
Outlier	141	\$25,528,385	\$9,139,265	\$8,976,528	35%	98%
Exempt	669	\$28,847,503	\$15,941,404	\$17,703,544	61%	111%
Total	4,792	\$199,323,386	\$81,123,646	\$83,114,817	42%	102%

# 2008 Hospital Inpatient Experience

Bill Type	Volume	Percent of Total Volume	Allowed Billed Charges	Percent of Total Allowed Billed Charges	Payment	Percent of Total Payment
MS-DRG	4,531	78%	\$147,809,133	64%	\$62,690,444	60%
Outlier	544	10%	\$52,691,661	23%	\$21,976,077	21%
Exempt	709	12%	\$31,069,184	13%	\$19,475,843	19%
Total	5,784		\$231,569,978		\$104,142,364	

# 2008 Hospital Inpatient Experience

Bill Type	Vol.	Allowed Billed Charges	Cost	Payment	Percent of Charge	Percent of Cost
MS-DRG	4,531	\$147,809,133	\$58,317,723	\$62,690,444	42%	107%
Outlier	544	\$52,691,661	\$22,546,542	\$21,976,077	42%	97%
Exempt	709	\$31,069,184	\$19,009,887	\$19,475,843	63%	102%
Total	5,784	\$231,569,978	\$99,874,152	\$104,142,364	45%	104%

# 2007 Hospital Inpatient Experience

Bill Type	Vol.	Percent of Total Volume	Allowed Billed Charges	Percent of Total Allowed Billed Charges	Payment	Percent of Total Payment
MS-DRG	4,130	77%	\$114,782,724	62%	\$49,856,672	58%
Outlier	677	13%	\$49,280,225	26%	\$22,743,249	26%
Exempt	547	10%	\$22,418,075	12%	\$14,136,796	16%
Total	5,354		\$186,481,024		\$86,736,717	

# 2007 Hospital Inpatient Experience

Bill Type	Vol.	Allowed Billed Charges	Cost	Payment	Percent of Charge	Percent of Cost
MS-DRG	4,130	\$114,782,724	\$48,639,143	\$49,856,672	43.3%	102.4%
Outlier	677	\$49,280,225	\$22,119,313	\$22,743,249	46.2%	103.1%
Exempt	547	\$22,418,075	\$11,526,132	\$14,136,796	63.0%	122.6%
Total	5,354	\$186,481,024	\$82,284,588	\$86,736,717		

# Average and Median Charge, Cost and Payment Trends

	2007	2008		2009	
Average Allowed Charge	\$34,830	\$40,036	15%	\$41,442	4%
Average Cost	\$16,201	\$17,267	7%	\$16,951	-2%
Average Payment	\$16,200	\$18,005	11%	\$17,354	-4%
BWC CMI	1.8007	1.9848	10%	1.9215	-3%
	2007	2008		2009	
Median Allowed Charge	\$23,600	\$27,162	15%	\$28,988	7%
Median Cost	\$10,420	\$11,435	10%	\$11,717	2%
Median Payment	\$11,277	\$12,268	9%	\$12,596	3%

# States Using MS-DRG Methodology

Payment Adjustment Factors
MS – 200% MCR
CO – 160% MCR
MT – 148/108% MCR (included vs. excluded device payment)
TX – 143%
SC – 140% MCR
KS – 138/134% MCR (based on peer groups)
WV – 135% MCR
ND – 130% MCR
OH – 120/175% MCR (inlier vs. outlier)
CA – 120% MCR

# States Using a Modified MS-DRG Methodology

## **PA: Frozen relative weights / updated base rates**

Grouper frozen at 1994 DRG version 12 + hospital specific base rates

## **NC : MS-DRGS with stop loss on both ends**

If MS-DRG Rate between 75% BC and 100% BC pay MS-DRG rate

If MS-DRG Rate less than 75% BC then pay 75% BC

If MS-DRG Rate greater than 100% BC then pay 100% BC

## **OK: MS-DRG with reduced base rate, separate payment for implants and stop loss**

79% MS-DRG Rate

Implants at 4.5% invoice cost

Stop loss at 70% BC if allowed charges exceed \$70,000

# States Using Percent of Billed Charges Methodology

Percent of Billed Charges
NE – 96/92.5% (based on bed size)
ME – 95/100% (based on billed to paid date)
ID – 90/85% (based for facility size)
DE – 85%
MN – 85%
VT – 83%

# States Using Per Other Methodologies

## Per Diem

States
AL
AR
FL
NV
NY
TN
WA

## Contracted/UCR\*

States
CT
MI
MN
OR
RI
UT
VA
WY

\*Usual, Customary & Reasonable

# Recommendation Impact

## BWC Hospital Inpatient Payments 2005 - 2009

<b>FDOS Year</b>	<b>Number of Unique Claims</b>	<b>BWC Payment Amount</b>	<b>Average Payment</b>	<b>CPI-Med (1982-84=100)</b>
2005	5488	\$ 136,047,284	\$ 24,790	323.2
2006	5261	\$ 142,647,893	\$ 27,114	336.2
2007	5096	\$ 105,359,424	\$ 20,675	351.1
2008	4698	\$ 104,581,426	\$ 22,261	364.1
2009	4145	\$ 88,823,969	\$ 21,429	375.6

## OBWC Board of Directors Medical Services and Safety Committee Charter

### Purpose

The Ohio Bureau of Workers' Compensation Board of Directors has created the Medical Services and Safety Committee under authority granted by RC 4121.12(G)(2). The Medical Services and Safety Committee is a standing committee of the Board of Directors. The Committee shall:

- assist the Board of Directors in the development of strategic policy for the provision of quality, cost-effective safety and accident prevention programs for the mutual benefit of injured workers and employers, and
- assist the Board of Directors in the development of strategic policy for the provision of quality, cost-effective treatment and rehabilitation services necessitated as the result of workplace injuries for the mutual benefit of injured workers and employers
- review opportunities and challenges the Board of Directors needs to discuss as they fulfill the statutory requirement to “. . . fix and maintain . . . the lowest possible rates of premium consistent with the maintenance of a solvent state insurance fund . . .”.

### Membership

The Committee shall be composed of a minimum of ~~three-five~~ (35) members. The Board, by majority vote, shall appoint at least three members of the Board to serve on the Medical Services and Safety Committee and may appoint additional members, who are not Board members, as the Board determines necessary. Bureau management personnel cannot serve as a Committee member.

The Chair and Vice Chair are designated by the Board, based on the recommendation of the Board Chair. If the Board Chair is not a member of the Committee, he/she shall be an ex-officio member. As an ex-officio member, he/she shall not vote if his/her vote will create a tie vote.

The Committee Chair will be responsible for scheduling all meetings of the Committee and providing the Committee with a written agenda for each meeting. The Committee will have a staff liaison designated to assist it in carrying out its duties.

Members of the Medical Services and Safety Committee serve at the pleasure of the Board, and the Board, by majority vote, may remove any member.

## **Meetings**

The Committee shall meet at least six (6) times annually. The Committee Chair will provide a report of the meeting at the next subsequent Board meeting. Additional meetings may be requested by the Committee Chair, 2 or more members of the Committee, or the Chair of the Board.

A quorum shall consist of a majority of Committee members. Committee meetings will be conducted according to Robert's Rules of Order. All Directors are encouraged to attend the Committee meetings.

The Committee will invite members of management, and/or others to attend meetings and provide pertinent information, as necessary.

Minutes for all meetings of the Committee will be prepared to document the actions of the Committee in the discharge of its responsibilities.

## **Duties and responsibilities**

The Committee shall have the responsibility for ensuring the appropriateness and oversight of policy regarding BWC medical and managed care services and safety programs:

1. The Committee shall assist the Board in meeting the following statutory requirements, including but not limited to:
  - Consult with the Administrator and recommend to the Board the appointment of the Superintendent of Safety and Hygiene (RC 4121.37);
  - Review and make recommendations to the Board regarding administrative code rules related to BWC's Division of Safety and Hygiene, including specific safety rules (RC 4121.12 (F)(13)(b), and 4121.12(F)(13)(d)).
  - Review and make recommendations to the Board regarding administrative code rules related to BWC's health partnership program (RC 4121.12 (F)(13)(c)).
  - Review the Division of Safety and Hygiene annual report (RC 4121.37)
2. The Committee shall provide strategic oversight for BWC in the following areas:
  - Composition of, modification of, and/or delivery of occupational safety and health programs;
  - Composition of or modification to medical, occupational safety and health research programs;

- Initiation and development of collaborative partnerships between BWC and other agencies in and outside Ohio for the purpose of improving medical services, managed care services and workplace safety;
- Composition of or improvement to BWC's medical provider network and practice guidelines;
- managed care and claims policies including an appropriate disability prevention delivery model;
- research for injury prevention, treatment guidelines, the benefit plan, formularies, and corresponding fee schedules;
- Improvements to the provider bill payment services, and
- Development of metrics for all of the above showing comparative effectiveness.
- Coordinate with the other Board Committees on items of common interest, including but not limited to an annual discussion of issues under their jurisdiction which would impact the Board's statutory requirement to "... fix and maintain the lowest possible rates of premium consistent with the maintenance of a solvent state insurance fund ...".
- At least annually, review the Medical Services and Safety Committee charter and submit any proposed changes to the Governance Committee and to the Board for approval.
- The Committee by majority vote may create a subcommittee consisting of one or more Directors on the Committee. In consultation with the chair, other board members may be appointed to the subcommittee as appropriate. The subcommittee shall have a specific purpose. Each subcommittee shall keep minutes of its meetings. The subcommittee shall report to the Committee. The Committee by majority vote may dissolve the subcommittee at any time.
- Perform such other duties required by law or otherwise as are necessary or appropriate to further the Committee's purposes, or as the Board may from time to time assign to the Committee.

Draft 102909  
 Reviewed and approved 112009, Jim Harris, Chair  
Reviewed and approved 111910



**Bureau of Workers'  
Compensation**

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**MEMO**

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**To:** BWC Board of Directors  
**Date:** October 22, 2010  
**From:** Robert Balchick, MD, MBA, Chief Medical Officer  
**Subject:** BWC Narcotics Utilization Research

The goal to expand BWC's medical resources and research capabilities was part of the administrator's flexible performance agreement for fiscal year 2010. A research department has been developed to fulfill that goal by collaborating with Ohio's colleges and universities to decrease the incidence of workplace injuries and occupational exposures and improve the quality of care of injured workers who experience a work related injury. The first research project has been completed with the OSU College of Public Health and the Center for Health Outcomes, Policy and Evaluation Studies which is attached to this memo entitled "Use of Opioids in the Ohio Bureau of Workers' Compensation (BWC) Population, fiscal years 2008 and 2009." This study marks Phase 1 of an ongoing project at the BWC to evaluate narcotics use and to incorporate management strategies in order to ensure that injured workers in Ohio receive safe and effective treatment.

The three major aims of this first study were to:

1. Determine the overall opioid use of BWC claimants during the past two fiscal years, FY 2008 and FY 2009 (July 1, 2007 through June 30, 2009).
2. Determine the proportion of opioid use that could be considered "high dose" use.
3. Determine the impacts of opioid use during FYs 2008 and 2009.

This population-based study provides a good foundation for understanding how providers use narcotics to treat pain related to workplace injuries, the nature of injuries and the workers who experience injuries that are likely to receive pain medications, and how pain medications are obtained and utilized by injured workers. One of the many benefits of this first phase was a good understanding of BWC's claimant data which was augmented as a result of this study with morphine equivalent dosage calculations. These calculations will provide a standard that normalizes different doses, strengths, and types of opioids which are now being used by the pharmacy department to evaluate narcotics utilization by providers and claimants. This is in conjunction with state efforts to manage narcotic over-utilization and with the recent recommendations of the Ohio Prescription Drug Abuse Task Force designed to reduce the risks of excessive opioid use including dependence, addiction, and death. With a good understanding of BWC's population, subsequent phases will attempt to address identification of the determinants of high risk injuries and develop effective strategies to manage treatment of these types of injuries to promote safer and healthier outcomes. BWC is committed to this evidence based approach and the support of quality delivery of care through our research program.



Use of Opioids in the Ohio Bureau of  
Workers' Compensation (BWC)  
Population, Fiscal Years 2008 and 2009

## REPORT: PHASE I

September 27, 2010

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The Center for HOPES would like to acknowledge the contributions of L. Geist, OSU student, in the production of this report; J. Mai at the Washington State Department of Labor and Industries and J. Hanna at the BWC for assistance with MED calculations; and D. Dalbenzio and D. Fodor at the BWC for their assistance with data collection.

## EXECUTIVE SUMMARY

At the request of the Ohio Bureau of Workers' Compensation (BWC), the Center for Health Outcomes, Policy and Evaluation Studies (Center for HOPES) at the Ohio State University conducted a study of opioid use in the BWC claimant population. The study was initiated in December 2009 and had three major aims:

1. Determine the overall opioid use of BWC claimants during the past two fiscal years, FY 2008 and FY 2009 (July 1, 2007 through June 30, 2009).
2. Determine the proportion of opioid use that could be considered "high dose" use.
3. Determine the impacts of opioid use during FYs 2008 and 2009.

Pharmacy data from the BWC was obtained and was linked to other claim data that provided information on injury date, claim duration, claim expenses, and lost work time. A comparison group of non-opioid using claimants was identified to allow opioid users to be compared to non-users on variables such as gender, age, claim duration and related factors.

Key findings of the study are:

- 13.6% of all active claims in FY 2008 and FY 2009 had an opioid prescription. This represents 78,550 claims with an opioid prescription out of 579,700 total claims in these two years.
- The average daily dose (milligrams [mg]) of opioids, measured as a morphine equivalent dose (MED), was 61.7 mg in FY 2008 and 64.0 mg in FY 2009.
- On average, claimants had approximately 6 months of opioid prescriptions during each of the study years.
- There were 1,040,668 opioid prescriptions filled and paid for by BWC in FYs 2008 and 2009, with an aggregate cost of \$90,498,415. The costs of opioids grew by 12.4% during that period, increasing from \$42.6 million in FY 2008 to \$47.9 million in FY 2009.
- The average cost per opioid prescription rose from \$81.47 in FY 2008 to \$92.49 in FY 2009, an increase of 13.5%. From FY 2008 to FY 2009, the average opioid cost per claimant grew by 21.8%, from \$734.94 per claimant to \$895.22.
- One reason for the observed increase in costs may have been changes in the drug prescription practices. The total volume of Oxycontin prescriptions rose by 236% from

FY 2008 to FY 2009, while the volume of Oxycodone HCL fell by 39.3%. This change may have been associated with a change in drug patents at about that time.

- Claimants who had opioid prescriptions filled at four or more pharmacies had much higher daily MED dose levels (approximately 132 mg in FY 2009) compared to claimants who had opioid prescriptions filled at three or fewer pharmacies (approximately 69 mg in FY 2009).
- Opioid use appears to be substantially higher in the Southeast Region of the state than in other regions, as measured by the number of BWC opioid users per 10,000 workers in the general labor force.
- We defined “high dose” opioids as those doses in the top quintile (top 20 percent) of the daily MED distribution for our sample of opioid users. This included claimants with a daily MED above approximately 72 mg. For this group, the average daily MED in FY 2008 and FY 2009 was 183 mg and 194 mg, respectively.
- Approximately 7% of the claimants using opioids had a dose level (daily MED) of 120 mg that could be considered as warranting caution in the absence of improved functioning or pain relief, based on recent government guidelines and recommendations.
- Early opioid use within 15 days following injury was associated with later opioid use but not with claimant costs or lost work time. However, these findings should be considered very preliminary and probably reflect the limited nature of the analysis that could be accomplished with the limits of the data and the resources available for this study.

This study provides a beginning descriptive understanding of the extent and nature of opioid use within the BWC claimant population. Many questions pertaining to opioid use, its potential benefits and its attendant health risks remain to be answered.

## INTRODUCTION

Although opioids (also commonly referred to as narcotics or opiates) have been commonly used to manage acute pain arising from injuries and surgeries and to manage pain resulting from advanced cancer, until the late 1990's their use in treating chronic non-cancer pain (CNCP) was much less common. In fact, until that time the use of long-term opioid therapy to manage CNCP was essentially prohibited in most states. During the late 1990's, pain management practice patterns began to change as statutes and regulations in many states were modified to lift the prohibition on opioid use for CNCP. These changes were made in response to active lobbying by pain advocacy groups and to ascertain the effect of opioids to treat CNCP on a variety of conditions, e.g., back sprain and migraine headache, associated with CNCP (Sullivan et al. 2008).

As a result of the changed laws and regulations, the use of opioids for CNCP increased substantially. One recent longitudinal study showed dramatic increases in the use of opioids among privately insured patients and Medicaid patients. That study found over a five-year period (2000 to 2005) the cumulative opioid dose per year per person (in morphine equivalent terms) increased by 66% for Medicaid patients and by 82% for privately insured patients (Sullivan et al. 2008).

There is little doubt long-term opioid therapy for CNCP helps improve pain relief for some patients. But it also appears to increase the risk of overdose and to elevate the risk of other adverse events. A recent study by Dunn et al. (2010) of a large HMO population in Washington State found the risk of overdose, including fatal overdose, increased threefold for patients on even modest opioid doses (50 mg to 100 mg per day morphine equivalent dose [MED]) compared to former opioid users. For patients receiving 100 mg or more, the risk of overdose increased nine times. Other studies have documented similar adverse outcomes associated with long-term opioid use for CNCP (Ballantyne and La Forge 2007; Eriksen et al. 2006; Franklin et al. 2005). Another problem arising from more frequent use of prescription opioids is increased drug diversion. A West Virginia study, published recently in JAMA, found fewer than half (44%) of persons who died of unintentional prescription drug overdose received opioids prescribed to them by a physician (Hall et al. 2008).

Chronic pain arising from musculoskeletal injuries is a major source of work-related disability within workers' compensation, and the use of opioids for CNCP has garnered increased attention in recent years from workers' compensation administrators, researchers and policy makers. For instance, Franklin et al. (2008) found that nearly 14% of their sample of workers with acute back injury in the Washington State workers' compensation system were still receiving work disability compensation after one year. Among those claimants, over one-third received opiates within six weeks of injury, which was found to be a strong predictor of long-term disability. Similarly, in a study of workers' compensation claims with acute disabling low back pain, Webster et al. (2007) found that there is a strong association between early opioid use and disability duration, medical costs, surgery and the prolonged use of opioids. Eriksen et al. (2006) conducted one of the first studies that highlighted the issue of the potential dangers related to prescribing opioids for chronic pain. According to Eriksen's study, opioid users reported significantly more moderate to severe or very severe pain, poorer self-rated health, and lower quality of life scores than did non-users of opioids.

The growing concern about the widespread use of prescription opioids, with its attendant health risks, prompted the Ohio Bureau of Workers' Compensation (BWC) to sponsor a study of opioid use among injured workers in Ohio. As the agency that operates the Ohio Workers' Compensation State Fund, BWC is responsible for monitoring the quality of health care delivered to injured workers covered by the State Fund.

Initiated in December 2009, this study was conducted by researchers at the Ohio State University Center for Health Outcomes, Policy and Evaluation Studies (Center for HOPES). Dr. Robert Balchick, Chief Medical Officer for the Ohio Bureau of Workers' Compensation, collaborated on the study. Three general aims guided our analysis:

1. Determine the overall opioid use of BWC claimants during the past two fiscal years; FY 2008 and FY 2009 (July 1, 2007 through June 30, 2009).
2. Determine the proportion of opioid use that could be considered "high dose" use.
3. Determine the impacts of opioid use during FYs 2008 and 2009.

This report presents the key findings from our analysis. Detailed descriptive data are included in an appendix. The purpose of this study is to provide BWC with an initial descriptive understanding of opioid use in the BWC population that can be used for benchmarking purposes. A fuller understanding of opioid utilization on medical recovery, return to work, and other outcomes will require additional, more complex, analyses. These analyses are currently being planned and will be conducted in Phase II of this project. A secondary purpose of the study is to assess the viability of BWC claims data as a data source for this type of study. While not without inherent limitations, our impression is that BWC claims data can serve as an important data source to address a range of questions facing the state workers' compensation system pertaining not only to opioid use but also to other issues related to health care quality, efficiency, management, prevention and safety.

## **METHODS**

We adopted a population-based approach to the analysis. In brief, our intent was to examine the profile of opioid use within the overall BWC population over the past two years. Thus, we obtained outpatient pharmacy data that captured information on all opioid prescriptions filled and paid for by BWC in FYs 2008 and 2009. Pharmacy data and claims information were not available for self-insured employers. Also, data regarding opioid prescriptions received during inpatient hospital stays and data on parenterally administered opioids were not included in this analysis. The data provided for this project was retrieved using the ORACLE EPM query tool, which is the Bureau of Workers' Compensation's data warehousing system. Several of BWC's processing systems feed data into what is referred as the "Data Warehouse." That data is organized and maintained by a dedicated IT team so that "users" throughout BWC can query the data in various ways. Using the ORACLE EPM query tool, the drug and claim related data was retrieved as requested (including claims initiated between 7/1/2007, and 6/31/2009, Drug Therapeutic Classes limited to opioid claims and a paid bill for at least one prescription during this time frame).

The claims data provided by BWC included information about:

- number of pills, strength of drug, and number of days for all prescriptions
- drug type
- age and sex of the claimant

- type of injury and date of injury
- number of lost work days
- medical and disability (indemnity) costs

These data were provided to the Center for HOPES with all personal identifiers removed (to protect the confidentiality of claimants, medical providers, and pharmacies) and, when possible, data elements were further encrypted to prevent release of identifying information. These methods were reviewed and approved by the Ohio State University Institutional Review Board before the study began to ensure human subjects' protection.

We also obtained data for all active non-opioid claims, defined as a claim with any medical or pharmacy charge (other than for opioids) during FYs 2008 and 2009. These non-opioid claims served as a comparator group for the analysis and allowed us to compare factors such as age, sex, type of injury, length of claim and cost variables for opioid claims versus non-opioid claims.

An important aspect of our research was the construction of a variable that would allow us to compare various opioid prescriptions having different strengths, number of pills, and duration (days of use). The daily morphine equivalent dose (MED) in milligrams (mg) is the standard measure used to evaluate opioid use in patient populations. Calculations to measure MED for each type of opioid prescription were conducted using standard methods (Sullivan et al. 2008; Dunn et al. 2010). We then added the MEDs for each claimant's prescriptions for each month and divided by the total number of days supplied each month to derive an approximate daily MED per claimant (in mgs). To account for patients taking more than one opioid concurrently, we set the maximum number of 30 days of use for any prescription in a particular month. More details on MED calculations and conversions can be found in the appendix.

Opioids are categorized as short- or long-acting and they are further classified according to five Drug Enforcement Administration (DEA) schedules. Short-acting opioids include Hydrocodone-Acetaminophen, Oxycodone-Acetaminophen, Oxycodone HCL, Morphine Sulfate and Hydrocodone HCL. Short-acting opioids can be given more than three times per day and are used for acute or intermittent pain that does not require a continuous state of medication (Lainer and Kharash 2009). Long-acting opioids are typically given three times per day or less for three to six months for the treatment of chronic pain (Chou and Carson 2008) and include Oxycodone ER, and Oxymorphone ER. The DEA schedules further define opioids according to their

medical utility and abuse potential. Schedule I opioids are illegal in the U.S. and have no medical use. Schedule II drugs are accepted for medical use under strict restrictions but have a high abuse potential. Schedule III drugs are used for medical care and have less potential for abuse or dependence, as are Schedule IV and V drugs which have a decreasing risk for abuse, respectively.

The findings described in the report are based on different levels of analyses conducted at the prescription level, the claim level and the claimant level. Opioid data were provided for each prescription and were then aggregated to the claimant level to assess each claimant's level of opioid use. For non-opioid claims, it was not possible to aggregate the data to the claimant level because claimant numeric identifiers were not provided in the data set made available for this study. A small percentage (< 5%) of the opioid claimants filed more than one claim during the two-year period. In these cases, we designated the first claim as the index claim and used that claim to estimate duration and lost work time. This may, consequently, have led to a slight underestimate of the true claim duration and lost work time for a particular claimant indicated in our reporting tables.

We intentionally adopted a population-based approach that would allow us to capture information on all opioid prescriptions filled during FYs 2008 and 2009, regardless of when a claim was originally filed. This allowed us not only to describe all use during the two-year study period, but also allowed us to estimate the duration of claims that might have involved prolonged opioid use. Interestingly, nearly 30% of the opioid claims in our sample were filed prior to July 1, 2000. However, we were only able to assess opioid use and dosing for the FY 2008-2009 study period, and thus we do not know the dosing history before that time. In the future, additional studies may be conducted to evaluate those long-term dosing histories. In this report, we refer to "new claims" as those that were opened during the two-year study period and "old claims" as those that were opened prior to FY2008-2009 but which extended into that study period. In this study, we did not capture any information for claims beginning prior to July 1, 2007 but which did not extend into the FY2008-2009 study period.

## FINDINGS

### Extent of Opioid Use in the BWC Population

Based upon the methods described above, we identified 78,550 claims for which an opioid prescription was written and paid for by BWC during FY 2008 and/or FY 2009. These claims were incurred by 75,125 claimants (a small percentage of claimants had more than one active claim during the study period). In FYs 2008 and 2009, 59,276 claimants and 54,994 claimants, respectively, had at least one opioid prescription. We identified 501,150 claims that had a charge for medical care or prescription in FY 2008 or 2009, but which did not involve an opioid prescription. We defined these (non-opioid) claims as the comparison group.

Over the two-year study period, 13.6% of all claims had one or more opioid prescriptions filled. This percentage figure is based upon all claims, including claims for workers with only minor injuries for whom opioid use would be unexpected. We anticipated the prevalence of opioid use might be higher than 13.6% for claims with (a) one or more lost work days or (b) 14 or more lost work days (data on injury type was unavailable for comparison group claims so we could not examine opioid use by type of injury), and the data confirmed this. Nearly a quarter (22.7%) of claims involving one or more lost work days had an opioid prescription and one-third (32.6%) of the claims involving 14 or more lost work days had an opioid prescription. Among very old claims, with durations of over 25 years (representing 3.9% of all claims), one of every four claims ( $6,143/24,249 = 25.3\%$ ) had at least one opioid prescription during FY 2008 or FY 2009.

Descriptive information on opioid and non-opioid claims for factors such as claimant age and sex, duration of claim and type of injury are reported in Table A-1 in the appendix. Key claim findings include:

- Opioid and non-opioid claims were similar in gender distribution, with 64% of the claims representing male claimants.
- The age category with the greatest proportion of opioid claims was 50 to 59, accounting for 31.4% of all opioid claims. In contrast, there were 24.0% of the non-opioid claims in this age category.

- Opioid claims were more likely than non-opioid claims to involve extended lost work time (> 180 days) (57.4% versus 13.1%).
- Opioid claims were more likely than non-opioid claims to be an existing claim (69.3% versus 58.9%) and less likely to be a new claim (30.7% versus 41.1%).
- Opioid claims were more likely than non-opioid claims to be of long (> 10 years) duration (28.5% versus 12.1%).

### Types of Opioids Used

78,550 claims (13.6% of all active claims) had one or more opioid prescriptions during FY 2008 or FY 2009. As shown in Table A-2, 522,413 opioid prescriptions were filled in FY 2008 and 518,255 were filled in FY 2009. The great majority of opioids were schedule II drugs, and four were long-acting opioids (see Table A-2 and the Methods section for a description of DEA drug schedules and a definition of long-acting opioids).

The seven most common opioid prescriptions for FYs 2008 and 2009 combined are shown in Figure 1 below; more detailed data is shown in Table A-2. The most common prescription filled by a wide margin was Hydrocodone-Acetaminophen. This schedule III drug accounted for slightly more than one-third of all prescriptions filled; the next five most common opioids, all schedule II drugs, each accounted for between 3% and 15% of the prescriptions filled. Other opioid drugs beside the seven shown in the figure accounted for 26% of the total opioid drugs prescribed. There was little meaningful change in numbers of opioid prescriptions filled in the two years, except for Oxycodone HCL and Oxycontin. The proportion of prescriptions accounted for by Oxycodone HCL declined from 6.7% in FY 2008 to 4.1% in FY 2009, whereas the proportion accounted for by Oxycontin increased from 2.7% to 6.4%. This change in use appears to reflect a change in drug patents that occurred at about that time.

Figure 1. Seven Most Frequently Prescribed Opioids, FYs 2008 and 2009 Combined

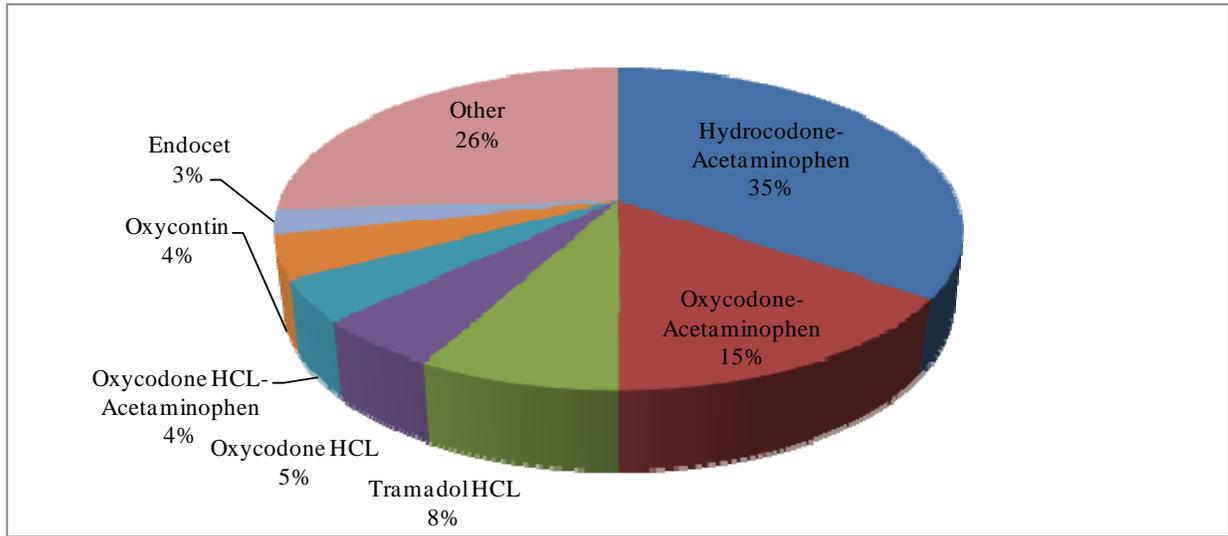


Table A-2 also provides information on select other prescription drugs that were commonly taken by opioid users. Among opioid users, more than 400,000 prescriptions for select non-opioids were filled during each of the two study years. The most commonly prescribed non-opioid drugs of this select group of drugs were antidepressants and skeletal muscle relaxants.

#### Dose and Duration of Opioids

Information regarding opioid dose for all claimants is shown in Table 1 below (detailed data on duration of use is included in Table A-3 in the appendix). On average, claimants used opioids for approximately 6 months in each year, with an average daily MED of 61.7 mg in FY 2008 and 64.0 mg in FY 2009. The median daily MED (the 50<sup>th</sup> percentile of the distribution) in each year was approximately 40 mg. The difference between the average (or mean) and the median values indicates that a small percentage of claimants took very high doses of opioids. The standard deviation (SD), a measure of dispersion of the data, was approximately 104 mg (both years), meaning there was a wide spread in dosage among claimants (the SD was approximately 1.5 times the mean daily MED). Another way to understand this is to consider the MED values at the 90<sup>th</sup> percentile of the daily MED distribution. For FYs 2008 and 2009, these values were 104 mg and 115 mg, respectively. A small percent of cases (120 cases

representing 0.2% of all opioid claimants) had huge average daily MED dose levels exceeding 1,000 mg per day.

Table 1 Opioid Dose and Number of Months Prescriptions Were Filled

Opioid Use Measure	FY 2008	FY 2009
	(n = 59,276)*	(n = 54,994)*
Average months prescriptions filled	5.9	6.3
Average daily MED per claimant (mg)	61.7	64.0
Median daily MED per claimant (mg)	39.2	40.0

\* Claimants taking opioids in FY 2008 or FY 2009

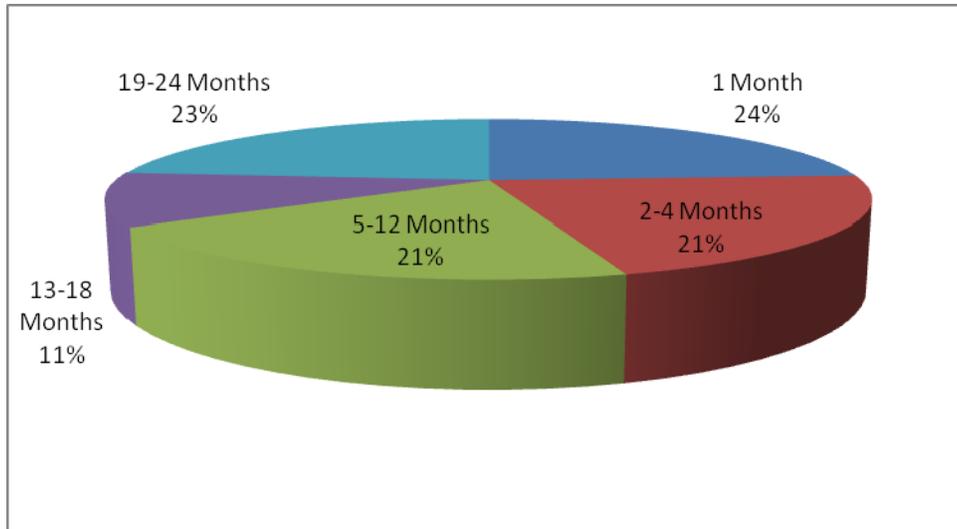
The average MEDs for the Ohio BWC population in FY 2008 and FY 2009 are similar to MED values from the TROUP (Trends and Risks of Opioid Use for Pain) study, as reported by Sullivan et al. (2008). The TROUP study ran from 2000-2005 and followed two populations: the HealthCore privately insured population and Arkansas' Medicaid population. Dosage for non-cancer pain conditions including arthritis/joint pain, back pain, neck pain, headaches, and HIV/AIDS was assessed. The BWC values for average MED were 61.7 mg/day in FY 2008 and 64.0 mg/day in FY 2009. By comparison, in 2000-2005, the HealthCore population MED averaged between 53 and 54 mg/day and the Medicaid population values varied between 50.2 and 54.3 mg/day. Median MEDs were 39.2 mg/day and 40.0 mg/day, respectively, for FY 2008 and FY 2009 in the BWC population and 38.0 mg/day for all years among HealthCore participants during 2000-2005 in the Arkansas Medicaid population.

Figure 2 below shows the distribution of months during FY 2008 and 2009 for which opioids were prescribed (see also Table A-3). Of the 75,125 claimants who used opioids, 24% had a prescription filled in one month only, while 23% had prescriptions filled in 19 months or more. As Table A-3 shows, 8.9% of the claimants who used opioids (6,684) did so for the entire 24-month period.

Table A-3 also includes information on the number of months in which opioid prescriptions were filled by the 7,386 claimants who used opioids and filed a new claim during the first six months of the capture period (July 1, 2007 through December 31, 2007). It is noteworthy that

7.0% of those claimants had an opioid prescription filled in all 24 months and an additional 8.0% of claimants had an opioid prescription filled in 21 to 23 of the months. 29.4% of the (7,386) claimants had a prescription filled in one month only. Another 23.3% of the opioid users had prescriptions filled in 2 to 4 of the months.

Figure 2. Number of Months During FYs 2008 and 2009 Claimants Who Used Opioids Had a Prescription Filled



We also calculated the average daily MED (mg) for long-acting opioids. Approximately 8,500 claimants had one or more prescriptions for a long-acting opioid in each year. The results are shown in Table 2 below. The average daily MED for those claimants taking long-acting opioids was approximately 128 mg, roughly twice the daily MED for all opioids shown in Table 1 above. The average number of months prescriptions were filled for long-acting opioids increased 18% from 6.0 in FY 2008 to 7.1 months in FY 2009.

Table 2. Dose and Months Prescriptions Were Filled for Long-Acting Opioids

Measure	FY 2008		FY 2009	
	Mean	Median	Mean	Median
Daily MED (mg)	128.7	75.0	127.7	80.0
Months of prescribing	6.0	5.0	7.1	8.0

Studies conducted in the State of Washington workers' compensation system provide a useful benchmark for the BWC opioid results. In the Ohio BWC population, the average MED for long-acting opioids was 128 mg/day. In a study done by Franklin et al. (2005) involving injured workers in the Washington State workers' compensation system, the average MED for long-acting opioids was 132 mg/day during the last quarter of 2002. However, Sullivan et al. (2008) in the TROUP study found average MED for long-acting opioids to be 79.8 mg/day in the HealthCore population and 81.4 mg/day in the Medicaid population, which is lower than what we found in the BWC population.

To explore whether opioid dose (average daily MED) differed by the duration of the claim, we stratified the sample of opioid claims into three groups: (1) new claims (injury date of July 1, 2007 or later), (2) recent claims (injury date of July 1, 2006 or later) and (3) older claims (injury date of June 30, 2006 or before). There was little meaningful difference in the average daily MED for the three groups and only a small increase in level of dose between FYs 2008 and 2009. The average daily MED for new claims in FY 2008 was 60.1 mg (group #1) and was 62.8 mg for older claims (group #3). The increase in average daily MED for all claimants from FY 2008 to FY 2009 was 2.3 mg (4.5%).

As part of our analysis, we examined the number of different pharmacies at which claimants obtained opioid prescriptions during the two study years and whether the number of pharmacies at which prescriptions were filled for an individual claimant was associated with higher doses (average daily MED) of opioids. The number and percentage of claimants obtaining opioid prescriptions at different pharmacies is shown in Table 3 below. Most claimants (71% to 73%) obtained their opioid prescription from a single pharmacy. However, approximately 17% to 18% obtained their prescriptions at two pharmacies and another 5% or 6% obtained them at three pharmacies. A small percentage of claimants (< 5%) obtained opioid prescriptions at more than three pharmacies.

Table 3. Number of Pharmacies Used By Claimants to Fill Opioid Prescriptions

Number of pharmacies	FY 2008 Number of claimants (%)	FY 2009 Number of claimants (%)
1	43,492 (73.4)	39,061 (71.0)
2	10,189 (17.2)	9,961 (18.1)
3	3,300 (5.6)	3,398 (6.2)
4	1,251 (2.1)	1,409 (2.6)
5	582 (1.0)	590 (1.1)
6 or more	462 (0.8)	575 (1.0)

We analyzed whether the opioid dose (daily MED) differed for claimants obtaining prescriptions at more than three pharmacies. As shown in Table 4 below, the average daily MED for these claimants was much greater than for claimants who obtained prescriptions at three or fewer pharmacies. For example, claimants who obtained opioids at three or fewer pharmacies in FY 2008 had a mean daily dose of 64.9 mg. In contrast, those claimants who obtained opioids at four or more different pharmacies had a mean daily dose of 118.4 mg. This finding merits further study by the BWC.

Table 4. Opioid Dose (daily MED) of Claimants Obtaining Prescriptions at Three or Fewer Pharmacies Versus Four or More Pharmacies

	FY 2008		FY 2009	
	3 or fewer pharmacies	4 or more pharmacies	3 or fewer pharmacies	4 or more pharmacies
Mean daily (MED) dose (mg)	64.9	118.4	68.5	131.7
Median daily (MED) dose (mg)	39.8	59.6	40.0	72.0

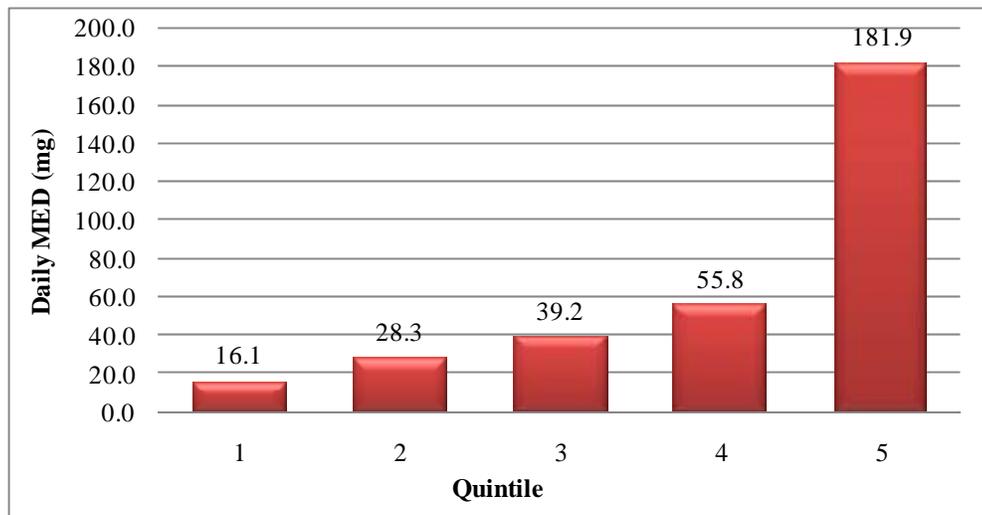
We also explored whether the number of opioid users as a percentage of workers in the labor force differed by geographic region. In effect, this allowed us to account for the regional differences in the employed population. The measure we constructed represented the number of opioid users per 10,000 workers in each of the five Ohio regions (Northwest, Northeast, Southeast, Central and Southwest). This analysis yielded interesting findings. The Central Region had the lowest number of opioid users per 10,000 workers (137.2). Three other regions (Northwest, Northeast and Southwest) had somewhat higher opioid user rates ranging from 142.0 to 152.3 (per 10,000 workers). The Southeast Region had a substantially higher rate of 295.2 opioid users per 10,000 workers. The reason for the substantially higher number of opioid users per 10,000 workers in the Southeast Region is not known but would seem to merit future study.

Finally, we examined opioid dose with the goal of describing “high dose” users. There is no single average daily MED value considered to be high dose, and pain management experts and clinician researchers differ in their opinions about this question. However, recent guidelines issued in 2008 by the Agency Medical Directors in Washington State and dosing recommendation issued in 2010 by the Centers for Disease Control and Prevention (CDC) both consider 120 mg daily MED as the “yellow flag” dose level at which physicians should seek a consult from a pain specialist if the patient’s pain and function have not improved substantially. The recent study by Dunn et al. (2010), discussed earlier, found that patients taking 100 mg daily MED were nine times more likely to have an overdose than a comparison group who did not use opioids.

Given the lack of a well defined dose that could be considered a high dose, we defined “high dose” in terms of our sample of claimants who used opioid. More specifically, we defined a “high dose” as any doses (daily MED) in the top quintile (20%) of the distribution of daily MED doses among opioid users. As shown below in Figure 3, there were modest increases in average daily MED for the first four quintiles of the distribution. But the average daily MED jumps dramatically from the fourth quintile (mean of approximately 55mg) to the fifth quintile (mean of approximately 180 mg). The cut point defining the lowest value of the fifth quintile is approximately 72 mg daily MED. The maximum daily MED value is greater than 1,000 mg. Approximately one-third of the daily MED dose levels (5,032 in FY 2008 and 5,269 in FY 2009) in the top quintile exceeded 120 mg.

We compared the high-dose group of claimants who used opioids to a group we defined as claimants who used a moderate-dose of opioids consisting of those with a dose falling in the 3<sup>rd</sup> quintile (40% to 60% of the distribution). One might consider this group to represent an “average” opioid user in terms of daily MED dose. There was little change from FY 2008 to FY 2009 in the daily MED for the moderate-dose opioid users (39.2 mg in FY 2008 and 39.5 mg in FY 2009). In contrast, the daily MED for the high-dose opioid users increased from 182.9 mg to 193.7 mg. There was little meaningful difference between the two groups in duration of claim, gender or age. High-dose opioid users tended to have somewhat more back or neck sprains as compared to moderate-dose opioid users. In FY 2008, back and neck sprains for moderate-dose users accounted for 38.7% of all injuries, whereas they accounted for 43.4% of the injuries among high-dose opioid users.

Figure 3. Average Daily Dose (MED) by Quintile for FY 2008



As a further analysis, we examined the average daily MED and proportion of claimants with doses above 120 mg daily MED among a subset of claimants meeting the following selection criteria: (1) new claim that occurred between July 1, 2007 and December 31, 2007, and (2) had opioid prescriptions (any dose) for at least 18 of the 24 months during the two-year study period. These two criteria defined a group of 1,492 claimants. The average daily MED for this claimant group was 85.3 mg in FY 2008 and increased to 93.8 mg in FY 2009. Of

these claimants, 16.6% (248) had a daily MED of 120 mg or above in FY 2008 and 20.5% had this dose level in FY 2009.

### Costs of Opioids

The total aggregated cost of opioids paid for by BWC in FYs 2008 and 2009 was \$90,498,415 (see Table A-4). Costs for opioids grew by 12.4% during that period, increasing from \$42.6 million in FY 2008 to \$47.9 million in FY 2009. The average cost per opioid prescription was \$81.47 in FY 2008. The cost increased by 13.5% to \$92.49 in FY 2009. In FY 2009, Oxycontin became the most costly opioid drug prescribed. Its cost increased by almost 180% from \$6.2 million in FY 2008 to \$17 million in FY 2009. On a claimant basis, the average cost of opioids was \$718.05 per claimant in FY 2008 and \$871.64 per claimant in FY 2009. Table A-4 also provides cost information for individual opioid prescriptions. With two exceptions, there was little change in the cost of opioids from FY 2008 to FY 2009. In FY 2008, Oxycodone HCL was the most costly drug (\$7.8 million), accounting for 18.2% of total opioid costs. The cost declined by 60% to \$3.2 million in FY 2009. In FY 2009 Oxycontin became the most costly drug, increasing by almost 180% to \$17 million.

Opioid users frequently used other drugs such as antidepressants, muscle relaxants, benzodiazepines, hypnotic-sedatives and narcotic antitussives. The cost of these select other non-opioid drugs was \$24,479,391 in FY 2008 and \$26,774,359 in FY 2009. Thus, the cost of opioids and select other non-opioid drugs combined used by claimants was \$67.1 million in FY 2008 and \$74.7 million in FY 2009.

### Impact of Opioids

We attempted to explore in a limited fashion the impact of opioid use on costs, lost workdays and other outcomes. Conducting any in-depth analysis of the impact of opioid use was well beyond the limited scope of this study and would require an entirely different data set. Our preliminary analysis examined whether early opioid use, defined as use within 15 days after injury, was related to later opioid use, to BWC claimant expenses or to lost workdays. For this analysis, we selected claimants having new claims during a sixth-month period beginning July 1, 2007. The three outcome variables were measured in FY 2009. We conducted regression analysis that controlled for claimant age, sex and occurrence of a back or neck sprain. Early opioid use was defined as yes/no and indicated whether the claimant had

any opioid prescription filled in the 15 days following injury. Later opioid use was defined as any opioid use in FY 2009. We created binary variables for the other two (cost and lost work time) outcome measures set equal to 1 if the claimant's cost or lost work days were in the top quintile of the distribution and set equal to 0 otherwise.

We found a statistically significant ( $p < .05$ ) relationship between early opioid use and later opioid use but no statistically significant relationship between early opioid use and the other two measures. Readers are cautioned not to place much emphasis on these very tentative findings. In a more in-depth analysis of early opioid use in a workers' compensation population, Webster et al. (2008) found large and statistically significant effects of early opioid use on outcomes.

## **CONCLUSION AND UNANSWERED QUESTIONS**

This report provides a beginning descriptive understanding of the use of opioids within the BWC population. In FYs 2008 and 2009, more than 1 million opioid prescriptions were filled at an annual cost exceeding \$40 million/year. Almost 14% of the active claims in FYs 2008 and 2009 had an opioid prescription, and the percentage of claims with one or more days of lost work time that had an opioid prescription was even higher (22.7%). The average opioid user had prescriptions filled for approximately 6 months during each of the study years. The dose strength prescribed, measured as average daily MED, increased modestly from 61.7 mg in FY 2008 to 64.0 mg in FY 2009. For those claimants taking long-acting opioids, the average daily MED was considerably higher, in the range of 128 mg. The average daily MED was also much higher (132 mg versus 69 mg in FY 2009) for claimants who obtained opioids at 4 or more pharmacies as compared to 3 or fewer pharmacies.

This study was not designed to provide detailed information about the determinants of opioid use or the risks associated with opioid use. Our data show that the substantial majority of BWC claimants use modest doses of opioids usually for limited periods of time. However, roughly 7 percent of opioid users had a dose level above 120 mg average daily MED, which has been considered in recent dosing guidelines and government recommendations to constitute the threshold dose value where in the absence of improved function or pain relief

caution is warranted. Supporting these recommendations is a recent study (Dunn et al. 2010) that showed persons taking more than 100 mg average daily MED were nine times as likely to have an overdose as former opioid users. Claimants taking opioids for extended periods appear to be more likely to achieve a dose level of 120 mg (average daily MED) that may warrant caution. One out of every five BWC claimants with a new claim who filled prescriptions in 18 or more months during FYs 2008 and 2009 had an average daily MED exceeding 120 mg.

The BWC expends significant resources on reimbursing for opioids taken by injured workers. While many workers no doubt benefit from taking opioids and experience improved function and valuable pain relief, our analysis suggests that for a small portion of the opioid-using population, opioid use may pose potential risks in terms of overdose, other adverse events or drug dependence, based on data on this dose range from other studies.

The study reported here should be viewed as a beginning step to improve understanding of the nature and scope of opioid use within BWC's claimant population. Many questions regarding opioid use remain unanswered that merit future study. These include the following: (1) What are the key determinants of high dose opiate use? (2) What health risks and risks for extending worker disability does opioid use pose? (3) What types of injuries in what types of workers lead to persistent opioid use? (4) What are the benefits and risks associated with early opioid use? (5) Are there different patterns of dose escalation among injured workers with new claims and do these different patterns lead to different outcomes? (6) What are the best approaches the BWC might take to reduce health risks associated with opioid use and to improve the utilization of opioids to manage acute and chronic non-cancer pain?

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## **Appendix**

Tables Presenting Descriptive Data (A1-A4)

Tables Presenting MED Calculations and Conversions (A5-A7)

Table A-1. Comparison of Opioid Claims and Non-Opioid Claims

	Opioid Claims (FY 2008 and 2009)		Non-Opioid Claims (FY 2008 and 2009)	
	Number	Percent	Number	Percent
Active Claims during FY 2008 & FY 2009 combined	78,550	13.6	501,150	86.4
Gender				
Males	49,684	63.4	322,254	65.2
Females	28,671	36.6	172,417	34.8
Age Distribution				
18 - 29	4,419	5.6	75,053	15.0
30 – 39	10,653	13.6	98,382	19.7
40 – 49	20,623	26.3	117,425	23.5
50 – 59	24,654	31.4	120,242	24.0
60 - 69	12,501	15.9	60,431	12.0
70 and over	5,693	7.3	29,234	5.8
Region				
Central OH	11,836	15.1	57,500	11.5
Northeast OH	27,294	34.8	222,535	44.4
Northwest OH	9,493	12.1	67,616	13.5
Southeast OH	5,104	6.5	23,218	4.6
Southwest OH	19,814	25.2	107,039	21.4
Not OH	4,980	6.3	22,939	4.6
Unknown	29	0.04	303	0.06
Injury Type				
Back or neck sprain	135,094	38.6	239,442	23.2
All other sprains/strains	45,480	13.0	183,156	17.7
Fracture	17,833	5.1	55,016	5.3
Contusion	26,062	7.4	154,824	15.0
Laceration	10,807	3.1	122,064	11.8
Other	114,353	32.7	278,130	26.9
Lost Work Days per Claim*				
0	9,373	12.8	231,409	51.6
1	1,523	2.1	26,122	5.8
2 – 7	4,424	6.1	61,607	13.7
8 – 30	4,536	6.2	32,175	7.2
31 – 90	6,345	8.7	25,863	5.8
91 – 180	4,919	6.7	12,514	2.8
> 180	42,006	57.4	58,663	13.1
Duration of Claim*				
< 1 year	3,741	4.8	33,878	6.8
1 – 3 years	31,024	39.5	302,054	60.3
4 – 5 years	8,100	10.3	50,564	10.1
6 – 10 years	13,328	16.8	54,139	10.8
> 10 years	22,357	28.5	60,533	12.1
Claim Status as of FY 2008**				
New claim	24,137	30.7	206,224	41.1
Existing claim	54,413	69.3	294,926	58.9

\* Number of lost work days and duration of claim are based on the entire length of the claim, not just FY 2008 and FY 2009. Hence, as shown in the table, 28.5% of opioid claims have been open for more than 10 years.

\*\* Represents claim status as of FY 2008. Thus, 30.7% of opioid claims were initiated on or after the start of FY 2008 and 69.3% of opioid claims started prior to FY 2008.

Table A-2. Opioid Prescription Use in Ohio BWC Population

	FY 2008		FY 2009	
	Number	Percent	Number	Percent
<b>Type of Opioid Prescription</b>				
Hydrocodone-Acetaminophen (III)	193,112	37.0	184,797	35.7
Oxycodone-Acetaminophen (II)	57,826	11.1	59,160	11.4
Tramadol HCL (0)	43,858	8.4	43,054	8.3
Oxycodone HCL (II)*	34,746	6.7	21,091	4.1
Oxycodone HCL-Aetaminophen (II)	20,915	4.0	24,237	4.7
Oxycontin (II)*	13,944	2.7	32,976	6.4
Endocet (II)	12,915	2.5	15,547	3.0
Methadone HCL (II)	12,374	2.4	12,699	2.5
Morphine Sulfate (II)*	10,148	1.9	10,629	2.1
Ultram ER (0)	9,645	1.9	11,789	2.3
Kadian (II)	8,024	1.5	7,296	1.4
Tramadol HCL-Acetaminophen (0)	7,716	1.5	5,402	1.0
Propoxyphene Napsylate-APAP (IV)	5,226	1.0	5,815	1.1
Opana ER (II)*	4,340	0.8	7,273	1.4
Hydromorphone HCL (II)	2,825	0.5	3,272	0.6
Other Opioid Prescriptions**	84,800	16.2	73,111	14.1
<b>Total Opioid Prescriptions</b>	<b>522,413</b>	<b>100.0</b>	<b>518,255</b>	<b>100.0%</b>
<b>Select Other Drugs Filled by Opioid Users</b>				
Antidepressants	134,169	33.4	137,607	34.1
Skeletal muscle relaxants	127,254	31.7	123,349	30.6
Benzodiazepines	70,712	17.6	70,368	17.5
Hypnotic-sedatives	69,098	17.2	71,315	17.7
Narcotic antitussives	458	0.1	376	0.1
<b>Total Select Other Prescriptions</b>	<b>401,691</b>	<b>100.0</b>	<b>403,015</b>	<b>100.0</b>

( ) Denotes the Drug Schedule for each opioid.

\*Denotes long-acting opioids. Long-acting opioids are ones that remain in the body for 8 hours to 3 days, compared to 3-6 hours for short-acting opioids and are commonly used to treat chronic pain, which is pain that lasts for at least 3 to 6 months.

\*\*This group contains both long-acting and short-acting opioids.

Table A-3. Duration of Opioid Use by Month, FY 2008 & FY 2009 Combined

Number of Months a Claimant Used Opioids FY 2008 & FY 2009 Combined	All Claimants		Claimants Injured Between 7/1/07 and 12/31/07	
	Number	Percent Distribution	Number	Percent Distribution
1 month	18,055	24.0	2,174	29.4
2 months	7,681	10.2	839	11.4
3 months	4,810	6.4	509	6.9
4 months	3,546	4.7	368	5.0
5 months	2,886	3.8	292	4.0
6 months	2,359	3.1	207	2.8
7 months	2,121	2.8	194	2.6
8 months	1,887	2.5	172	2.3
9 months	1,659	2.2	151	2.0
10 months	1,578	2.1	138	1.9
11 months	1,501	2.0	127	1.7
12 months	1,429	1.9	145	2.0
13 months	1,323	1.8	121	1.6
14 months	1,332	1.8	106	1.4
15 months	1,338	1.8	110	1.5
16 months	1,328	1.8	131	1.8
17 months	1,302	1.7	110	1.5
18 months	1,382	1.8	112	1.5
19 months	1,426	1.9	119	1.6
20 months	1,730	2.3	144	2.0
21 months	1,956	2.6	149	2.0
22 months	2,366	3.1	187	2.5
23 months	3,446	4.6	261	3.5
24 months	6,684	8.9	520	7.0
Total	75,125*	100.0	7,386**	100.0

\*Claimants taking opioids in FY 2008-FY 2009 regardless of injury date. This number is less than the sum of claimants taking opioids in FY 2008 plus FY 2009 because some claimants took opioids in both FY 2008 and FY 2009, so there was some overlap of claimants between years.

\*\*Claimants taking opioids in FY 2008 and FY 2009 who were injured between 7/1/07 and 12/31/07.

Table A-4. Cost of Opioid Prescriptions (in dollars)

	FY 2008		FY 2009	
	Dollars (\$)	Percent	Dollars (\$)	Percent
Cost by Type of Opioid Prescription				
Oxycodone HCL	7,754,259	18.2	3,162,096	6.6
Oxycontin	6,217,251	14.6	17,007,989	35.5
Hydrocodone-Acetaminophen	3,482,083	8.2	3,298,749	6.9
Kadian	2,864,826	6.7	2,988,543	6.2
Oxycodone HCL-Acetaminophen	1,827,197	4.3	1,769,859	3.7
Opana ER	1,794,956	4.2	3,503,784	7.3
Ultram ER	1,688,941	4.0	2,437,782	5.1
Oxycodone-Acetaminophen	1,172,788	2.8	1,185,241	2.5
Endocet	940,168	2.2	960,649	2.0
Tramadol HCL	934,477	2.2	690,411	1.4
Morphine Sulfate	553,162	1.3	475,687	1.0
Tramadol HCL-Acetaminophen	458,733	1.1	299,284	0.6
Methadone HCL	268,420	0.6	293,140	0.6
Hydromorphone HCL	124,244	0.3	122,603	0.3
Propoxyphene Napsylate-APAP	94,563	0.2	104,582	0.2
Others	12,387,355	29.1	9,634,625	20.1
Total Opioid Prescription Cost	42,563,416	100.0	47,934,999	100.0
Cost per Opioid Prescription	81.47*	--	92.49*	--
Opioid Prescription Cost per Claimant	718.05**	--	871.64**	--
Select Other Drugs Also Filled by Opioid				
Antidepressants	11,283,954	46.1	12,680,078	47.4
Hypnotic-sedatives	7,976,732	32.6	9,304,760	34.8
Skeletal muscle relaxants	4,284,733	17.5	3,873,393	14.5
Benzodiazepines	926,976	3.8	908,390	3.4
Narcotic antitussives	6,996	0.0	7,738	0.0
Total select Other Drug Prescription Cost	24,479,391	100.0	26,744,359	100.0
Total Prescription Cost (\$) (opioids & select other Drugs)	67,042,807	--	74,709,358	--

\*There were 522,413 opioid prescriptions in FY 2008 and 518,255 opioid prescriptions in FY 2009.

\*\*There were 59,276 claimants who used opioids in FY 2008 and 54,994 claimants who used opioids in FY 2009.

Table A-5. Description of MED Calculation

The average daily MED per claimant was calculated using the algorithm detailed below. This method aggregates an individual claimant's MED for all prescriptions for each year. Average monthly MEDs were calculated to allow for variation in the number of months a claimant takes opioids. Average monthly MED was also adjusted for claimants who had more than one opioid prescription in a given month

1. Calculate total MED for each prescription  
 $\text{MED/prescription} = \text{strength of dose} \times \text{number of pills supplied} \times \text{MED conversion}$
2. Calculate average daily MED per claimant
  - a. Sum MED/prescription over each month
  - b. Sum total number of days supplied in each month
  - c. Calculate monthly MED for each month:
    - If total number days supplied  $\leq 30$ , average monthly MED/claimant= $a/b$
    - If total number days supplied  $> 30$ , average monthly MED/claimant= $a/30$  (this adjustment accounts for claimants with more than one opioid prescription in a given month)
  - d. Sum total average monthly MED
  - e. Sum total number of months in which claimant took opioids. Months in which a claimant did not fill a prescription for opioids were not included in this total.
  - f. Average daily MED/claimant= $d/e$

Table A-6. Description of Calculations to Derive MED

claimant_id	drug name	date filled	opioid strength	number of pills	days supplied	MED conversion factor	MED/prescription
1	OXYCODONE HCL-ACETAMINOPHEN	1/1/2008	10MG	28	14	1.5	420
1	OXYCODONE HCL-ACETAMINOPHEN	1/14/2008	10MG	28	14	1.5	420
1	OXYCODONE HCL-ACETAMINOPHEN	2/1/2008	10MG	28	14	1.5	420
1	OXYCODONE HCL-ACETAMINOPHEN	2/16/2008	10MG	28	14	1.5	420
1	OXYCODONE HCL-ACETAMINOPHEN	3/1/2008	10MG	28	14	1.5	420
1	HYDROCODONE-ACETAMINOPHEN	3/15/2008	10MG	7	7	1	70
1	HYDROCODONE-ACETAMINOPHEN	3/22/2008	10MG	7	7	1	70

For the above claimant:

1. MED/prescription:

Oxycodone HCL - Acetaminophen:  $10\text{mg} \times 28 \text{ pills} \times 1.5 \text{ conversion} = 420 \text{ mg}$   
 Hydrocodone - Acetaminophen:  $10 \text{ mg} \times 7 \text{ pills} \times 1.0 \text{ conversion} = 70 \text{ mg}$

2. Average daily MED per claimant

a. Sum MED/prescription over each month:

January 2008:  $420 + 420 = 840$

February 2008:  $420 + 420 = 840$

March 2008:  $420 + 70 + 70 = 560$

b. Sum total number of days supplied in each month

January 2008:  $14 + 14 = 28$

February 2008:  $14 + 14 = 28$

March 2008:  $14 + 7 + 7 = 28$

c. Calculate monthly MED for each month

January 2008:  $840/28=30$

February 2008:  $840/28=30$

March 2008:  $560/28=20$

d. Sum total average monthly MED

$30 + 30 + 20 = 80$

e. Sum total number of months in which claimant took opioids.

3

f. Average daily MED/claimant=d/e

$80/3=26.7$

Table A-7. MED Conversion Factors for Top 15 Opioids by Use in Ohio BWC Population  
FYs 2008 and 2009

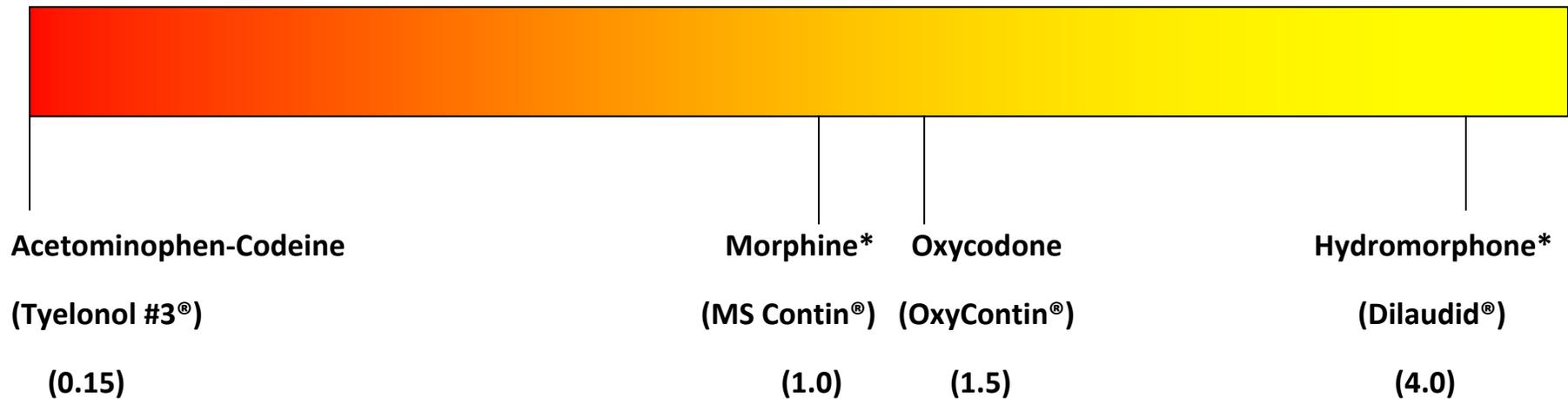
Type of Opioid Prescription	MED Conversion Factor
Hydrocodone-Acetaminophen (III)	1.0
Oxycodone-Acetaminophen (II)	1.5
Tramadol HCL (0)	0.144
Oxycodone HCL (II)*	1.5
Oxycodone HCL-Aetaminophen (II)	1.5
Oxycontin (II)*	1.5
Endocet (II)	1.5
Methadone HCL (II)	4.0-8.0 (depending on dose)
Morphine Sulfate (II)*	1.0
Ultram ER (0)	0.144
Kadian (II)	1.0
Tramadol HCL-Acetaminophen (0)	0.144
Propoxyphene Napsylate-APAP (IV)	0.15
Opana ER (II)*	3.0
Hydromorphone HCL (II)	4.0

( ) Denotes the Drug Schedule for each opioid.

\*Denotes long-acting opioids. Long-acting opioids are ones that remain in the body for 8 hours to 3 days, compared to 3-6 hours for short-acting opioids and are commonly used to treat chronic pain, which is pain that lasts for at least 3 to 6 months.

Source: J. Mai at the Washington State Department of Labor and Industries and J. Hanna at the BWC.

# Morphine Equivalent Dose (MED) and Its Relationship with Other Narcotic Analgesics



\*Morphine and Hydromorphone are both Schedule II drugs, which means that they are categorized as drugs that have a strong potential for abuse or addiction but also have legitimate medical use.

# 12 - Month Medical Services & Safety Calendar

Date	October 2010	Notes
10/21/10	1. HCPQAAC Rule 4123-6-22 (2nd read)	
	2. Inpatient Hospital Fee Schedule (2nd read)	
	3. Committee Charter review (1st read)	
	4. OSU/BWC Report	
	<b>November 2010</b>	
11/18/10	1. Outpatient Hospital Fee Schedule (2nd read)	
	2. Ambulatory Surgical Center Fee Schedule Rule (1st read)	
	3. Committee Charter Review (2nd read)	
	4. Outpatient Hospital Fee Schedule (1st read)	
	5. Outpatient Drug Payment Rule (1st read)	
	6. Customer Services Report	
	<b>December 2010</b>	
12/15/10	1. Update Medical and Service Provider Fee Schedule to conform with new Medicare rates (possible waive 2nd read)	
	2. Ambulatory Surgical Center Fee Schedule Rule (2nd read)	
	3. Vocational Rehab fee schedule (1st read)	
	4. Outpatient Hospital Fee Schedule (2nd read)	
	5. Outpatient Drug Payment Rule (2nd read)	
	6. Medical Services Report	
	<b>2011</b>	
<b>Date</b>	<b>January 2011</b>	
1/20/11	1. Vocational Rehab fee schedule (2nd read)	
	2. Customer Services Report	
	3. Rehabilitation Services Commission Review	
	<b>February 2011</b>	
2/23/11	1. Medical Services Report	
	<b>March 2011</b>	
3/24/11	1. Customer Services Report	
	<b>April 2011</b>	
4/28/11	1. Medical Services Report	
	<b>May 2011</b>	
5/26/11	1. Customer Services Report	
	<b>June 2011</b>	
6/15/11	1. Medical & Service Provider Fee Schedule (1st read)	
	2. Medical Services Report	
	<b>July 2011</b>	
7/28/11	1. Medical & Service Provider Fee Schedule (2nd read)	
	2. Customer Services Report	
8/28/11	<b>August 2011</b>	
	1. Inpatient Hospital Fee Schedule (1st read)	
	2. Medical Services Report	
9/29/11	<b>September 2011</b>	
	1. Pharmacy and Therapeutics Committee Rule 4123-6-21-1 (2nd read)	
	2. Inpatient Hospital Fee Schedule (1st read)	
	3. Customer Services Report	

## Ohio BWC Fee Schedule History and Calendar: 2007 – Current

### Inpatient Hospital Fee Schedule

Year	Reviewed/ Approved	Effective Date	Est. % Change	Est. \$ Change
2007	N/A	N/A	N/A	N/A
2008	Sept/Oct	Jan. 1, 2009	-0.9%	-\$471,950
2009	Sept/Oct	Feb. 1, 2010	+2.9%	+\$2.4 million
2010	Sept/Oct	Feb. 1, 2011	+5.7%	+\$4.9 million
2011				

### Outpatient Hospital Fee Schedule

Year	Reviewed/ Approved	Effective Date	Est. % Change	Est. \$ Change
2007	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A
2009	Dec/Jan/Apr	Jan. 1, 2011	-7.2%	-\$2.55 million
2010	Oct/Nov	Apr. 1, 2011	-7.2% from base rate*	-\$10.2 million
2011				

\* BWC plans to maintain the same payment adjustment factor through Feb. 28, 2012; therefore, a total of a 7.2% decrease is expected for services rendered from January 1, 2011 through February 28, 2012.

### Vocational Rehabilitation Fee Schedule

Year	Reviewed/ Approved	Effective Date	Est. % Change	Est. \$ Change
2007	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A
2009	Nov/Dec	Feb. 15, 2010	+5.86%	+\$1.9 million
2010	Nov/Dec	Feb. 2011		
2011				

## Ohio BWC Fee Schedule History and Calendar Beginning with Adoption by Rule

### Ambulatory Surgical Center Fee Schedule

Year	Reviewed/ Approved	Effective Date	Est. % Change	Est. \$ Change
2008	Nov/Dec	April 1, 2009	+23%	+\$1.73 million
2009	Oct./Nov.	April 1, 2010	+16%	+\$860,000
2010	Nov./Dec.	April 1, 2011		
2011				

### Medical and Service Provider Fee Schedule

Year	Reviewed/ Approved	Effective Date	Est. % Change	Est. \$ Change
2008	Sept/Oct/Nov	Feb. 15, 2009	+6.0%	+\$23.8 million
2009	Sept/Oct	Nov. 1, 2009	+0.2%	+\$800,000
2010	June/July	Oct. 25, 2010	+2.9%	+\$9.2 million
2010	Dec (emergency)	January 1, 2011		
2011	Jan (final)			

\* Emergency rule to add new codes