AGENDA

- Approval of Minutes from the July 27, 2016 Meeting
- Cost Trends and Market Performance
- 2016 Health Care Cost Trends Hearing
- Quality Improvement and Patient Protection

  - Opioid use Disorder in Massachusetts: An Analysis of its impact on the Health Care System, Pharmacological Treatment, and Recommendations for payment and care delivery reform (VOTE)
    - Mandates for HPC and other agency work targeting opioid epidemic
    - HPC analyses on the impact of the opioid epidemic on the health care system
    - HPC investments to address the opioid epidemic
    - Proposed policy recommendations for board discussion

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Several laws direct HPC and other state agencies to target the opioid epidemic, resulting in 2 reports being released next week.

**2014**

**Ch. 258: An Act to Increase Opportunities for Long-Term Substance Abuse Recovery**

Basis for HPC’s emerging report on opioid use disorder in Massachusetts

**2016**

**Ch. 55: An Act Requiring Certain Reports for Opiate Overdoses**

Basis for DPH’s emerging report analyzing causes of opioid overdoses

**2016**

**Ch. 52: An Act Relative to Substance Use, Treatment, Education and Prevention**

Directs future HPC work related to the opioid epidemic (see appendix)
In 2015, the Legislature passed ch. 55 of the Acts of 2016, *An Act Requiring Certain Reports for Opiate Overdoses*. Recognizing that the complexity of the opioid overdose epidemic is captured across a multitude of datasets, Ch. 55 charged DPH to **link databases** and **analyze overdoses** using shared information to **promote understanding of the following factors:**

1. Receipt of prescriptions from **multiple providers**;
2. Access to **multiple prescriptions** for drugs that increase likelihood of overdose when combined with opioids;
3. Opioid **prescription history** including whether individual had opioid prescription at the time of death;
4. History of voluntary or involuntary **treatment for SUD** or mental illness, including for overdose
5. History of **previous attempts** at entry and denial to entry to treatment
6. History of **detention or incarceration**, including treatment during that time

DPH is issuing its report on this effort, *An Assessment of Opioid-Related Deaths in Massachusetts (2013 – 2014)*. **Focus of DPH report is on opioid-related mortality**
Ch. 258: Legislature tasked HPC to study opioid use disorder trends and make recommendations

In 2014, the Legislature passed a comprehensive health care law, ch. 258 of the Acts of 2014, *An Act to Increase Opportunities for Long-Term Substance Abuse Recovery*.

Recognizing the HPC’s mission and role in developing and promoting evidence-based health policy that improves the transparency, accountability, efficacy, and efficiency of our health care system, *ch.258 charged HPC to put forward recommendations on:* 

1. Improving the adequacy of **coverage** by public and private payers where necessary;
2. Improving the **availability of opioid therapy** where inadequate; and
3. **Identifying the need for further analyses.**

Focus of HPC report is on the impact of opioid-related discharges on the health care system.
HPC identified care delivery and payment reform innovations that would contribute to the Commonwealth’s effort to address opioid abuse

1. Provide new research and data analyses to support and inform policy on the opioid epidemic in Massachusetts

2. Draw on our experience with investment, certification, and technical assistance programs to inform scaling of emerging best practices

3. Identify strategic policy opportunities to promote innovative care delivery and payment models for opioid use disorder treatment that are likely to result in reduced spending and improved quality and/or access
Outline of the HPC’s Opioid Use Disorder Report

The State of the Opioid Epidemic in Massachusetts
- Opioid-Related Mortality
- Opioid-Related Hospital Discharges
  - Impact on Communities
  - Impact on Populations
  - Impact on Exposed Infants
- Availability of Pharmacologic Treatment of Opioid Use Disorder

HPC Efforts to Address the Opioid Epidemic
- Integrating Behavioral Health into Primary Care
- Fully Integrated Accountable Care Delivery Systems
- Broad-based Community Coalitions
- Investing in Innovative Models of Care

Policy Recommendations
- Improved data collection & monitoring
- Care delivery integration & payment reform
- Community-based multi-stakeholder coalitions
- Testing & scaling innovative care models to improve access to and quality of treatment

Conclusion
- Data Notes
- Appendices
- References
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Key definitions and methods (HPC analyses)

To assess the impact of the opioid epidemic on the Massachusetts health care system, HPC examined the number of opioid-related hospital discharges.

To assess the availability of pharmacologic treatment, an evidence-based protocol that combines medication with behavioral therapies to treat individuals with opioid use disorder, the HPC examined the location, geographic region, and patient travel distances for all three types of pharmacologic treatment. For the purposes of this analysis, pharmacologic treatment includes outpatient methadone clinics, buprenorphine prescribers, and naltrexone providers.*

Hospital discharges

- Includes inpatient discharges and emergency department visits
  - Some analyses include only inpatient discharges (e.g., stratification by gender, age, and income)

Opioid-related

- Hospital discharges with a primary or secondary diagnosis related to abuse and/or misuse of prescription opioids and/or heroin**
  - This set of diagnoses is broader than the set used to calculate DPH’s previously published estimates of deaths averted (see appendix for ICD-9 codes used in each analysis)

Geographic regions

The HPC’s standard regions, described in the HPC’s Cost Trends Report***

Note: *Methadone data as of 11/20/2015; Buprenorphine data as of 11/5/2015; Naltrexone data received on 8/20/2015 - Naltrexone data only includes those providers who prescribed Vivitrol for 10 or more patients between July 2014 and June 2015

**Analysis adapted from AHRQ H-CUP methodology. See appendix for comparison of codes

HPC analyses show the number of opioid-related hospital discharges increased substantially since 2007, driven by illicit & prescription opioids.

**Rate of Change of Opioid-Related Hospital Discharges**

<table>
<thead>
<tr>
<th>Years</th>
<th>Heroin-related</th>
<th>Other opioids</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-2008</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>2008-2009</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>2009-2010</td>
<td>-29%</td>
<td>6%</td>
</tr>
<tr>
<td>2010-2011</td>
<td>52%</td>
<td>6%</td>
</tr>
<tr>
<td>2011-2012</td>
<td>23%</td>
<td>13%</td>
</tr>
<tr>
<td>2012-2013</td>
<td>35%</td>
<td>8%</td>
</tr>
<tr>
<td>2013-2014</td>
<td>43%</td>
<td>5%</td>
</tr>
</tbody>
</table>

**201% increase in heroin-related hospital discharges between 2007 and 2014**

Source: HPC Analysis—CHIA, Hospital Inpatient Discharge Database, Outpatient Observation Database, and Emergency Department Database, 2007-2014

Note: Hospital discharges include ED discharges, inpatient discharges, and observation stay discharges. The remainder of analyses do not include observation stay discharges. Discharges with both a “heroin-related” and “other opioid” discharge code are counted only once in the “all opioids category”, as well as in both of the sub-categories. For example, a patient coded with a heroin overdose and a non-heroin overdose would be counted once in the “heroin-related” category and once in the “other opioids” category. However, if a discharge had multiple diagnoses for the same sub-category (e.g., both a heroin overdose and heroin poisoning), the discharge would be counted only once in the heroin-related sub-category.

*This analysis is based on ICD-9 codes and includes discharges with an opioid-related primary or secondary diagnosis. As with all analyses dependent on ICD-9 codes, provider coding may not always fully accurately reflect the patient’s clinical condition. In particular, heroin-related codes are considered specific, but not necessarily sensitive. For example, some hospitals may only use heroin-related codes for cases of poisoning/overdose. As result, some heroin abuse/dependence is likely captured in the “other opioids” category. Furthermore, some non-heroin opioid cases are likely captured in the “heroin-related” category.*
The rate of opioid-related hospital discharges varies significantly across the Commonwealth (mapped by patient’s zip code, not site of care).

Source: HPC Analysis—CHIA, Hospital Inpatient Discharge Database and Emergency Department Database, 2014; 2010-2014 American Community Survey 5 year estimates

Note: Hospital discharges include both ED and inpatient discharges, but not observation stays. Rate per 100,000 is comprised of averaged census data between 2010 and 2014.
Several hospitals across the Commonwealth treat large numbers of patients for opioid-related illness (mapped by total volume per hospital).

**Source**: HPC Analysis—CHIA, Hospital Inpatient Discharge Database and Emergency Department Database, 2014

**Note**: Hospital discharges includes both ED and inpatient discharges, but not observation stays.
Males, young adults and individuals from low-income communities were more likely to have opioid-related inpatient discharges in 2014.

**Inpatient Discharges by Gender**

*Opioid-related inpatient discharges per 100,000, 2014*

**Inpatient Discharges by Age**

*Opioid-related inpatient discharges per 100,000, 2014*

**Inpatient Discharges by Income Quartile**

*Opioid-related inpatient discharges per 100,000, 2014*

Source: HPC Analysis—CHIA, Hospital Inpatient Discharge Database, 2014; 2010-2014 American Community Survey 5 year estimates

Note: Data includes only inpatient discharges not ED discharges or observation stays. Rate per 100,000 is comprised of averaged census data between 2010 and 2014.
Public payers cover the majority of cost of opioid-related inpatient discharges

Source: HPC Analysis—CHIA, Hospital Inpatient Discharge Database, 2014

Note: The percentages indicate the principal payer for opioid-related inpatient discharges in 2014 (n=17,756). For those dually eligible for Medicaid and Medicare, Medicare is the principal payer. Data includes only inpatient discharges, and does not include ED discharges or observation stays.
The rate of neonatal abstinence syndrome (NAS) is increasing as the opioid epidemic worsens, due to increased rates of in utero exposure to opioids.

NAS is a clinical syndrome caused by in utero exposure to opioids or other substances* that is marked by low birth weight, respiratory distress, feeding difficulty, tremors, increased irritability and crying, diarrhea, and occasionally, seizures.

Nationally, the number of infants born with NAS has increased fivefold in the past decade.

In 2009, the rate of NAS in Massachusetts was approximately three times higher than the national average.

Although pharmacologic treatment (e.g., buprenorphine, methadone) can cause NAS, pregnant women should not have limited access to treatment, due to the associated risk of addiction relapse, which can cause far greater harm to fetal development and early development.

* (e.g., selective serotonin reuptake inhibitors, benzodiazepines, inhalants, and methamphetamine).

Source:
The volume of NAS varies among hospitals and across the Commonwealth.

Note: Only includes hospitals with 12 or more NAS discharges using ICD-9-CM diagnosis code 779.5 (drug withdrawal syndrome in a newborn). Data does not include ED discharges or observation stays.

Source: HPC analysis of Center for Health Information and Analysis, Inpatient Discharge Database, 2014
High rates of opioid-related hospital utilization suggest outpatient pharmacologic treatment options are not easily accessible

Opioid addiction is most effectively treated with protocols that combine prescription medication with behavioral health services. Pharmacologic treatment reduces rates of addiction, infectious disease transmission, and opioid-related hospital utilization.

Yet, pharmacologic treatments for opioid use disorder are not widely utilized – in 2012, fewer than 50% of adults and adolescents suffering from opioid addiction received pharmacologic treatment (nationally).

<table>
<thead>
<tr>
<th>Three types of pharmacologic intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Methadone</strong> – Reduces addiction cravings and blocks opiate receptors. Must be administered daily in <em>federally licensed</em> Opioid Treatment Program, which can limit access due to travel and cost constraints; many patients are not able or willing to attend and/or pay for daily visits.</td>
</tr>
<tr>
<td><strong>Buprenorphine</strong> – Reduces addiction cravings and blocks opiate receptors. Patients can receive a prescription from any buprenorphine-licensed <em>physician</em>, rather than having to regularly visit a specialized clinic.</td>
</tr>
<tr>
<td><strong>Naltrexone</strong> – Blocks opiate receptors. Can be prescribed by any health care <em>provider</em> licensed to prescribe medications.</td>
</tr>
</tbody>
</table>

Availability of pharmacologic treatment intervention varies widely by region, with no clear relationship to the burden of the epidemic

On July 6, 2016, the U.S. Department of Health and Human Services increased the federal buprenorphine patient cap from 100 to 275

Source:
- Naltrexone: Prescriber lists provided by Alkermes Pharmaceuticals (data received on 8/20/2015). Naltrexone list include only those who prescribed Vivitrol for 10 or more patients between July 2014 and June 2015
There is regional variation in the percentage of patients who had opioid-related hospital discharges who would have to travel more than 5 miles to access pharmacologic treatment for opioid use disorder.

Source: HPC analysis-CHIA Hospital Inpatient Discharge Database and Emergency Department Database, 2014
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### Integrating behavioral health into primary care: PCMH PRIME

<table>
<thead>
<tr>
<th>Criteria (practice must meet ≥ 7 out of 13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The practice has MOUs with BHPs and/or co-located BHPs (e.g., same building)</td>
</tr>
<tr>
<td>The practice integrates BHPs within the practice</td>
</tr>
<tr>
<td>The practice collects and regularly updates a comprehensive health assessment that includes behaviors affecting health and mental health/substance use history of patient and family</td>
</tr>
<tr>
<td>The practice collects and regularly updates a comprehensive health assessment that includes developmental screening using a standardized tool</td>
</tr>
<tr>
<td>The practice collects and regularly updates a comprehensive health assessment that includes depression screening using a standardized tool</td>
</tr>
<tr>
<td>The practice collects and regularly updates a comprehensive health assessment that includes anxiety screening using a standardized tool</td>
</tr>
<tr>
<td><strong>The practice collects and regularly updates a comprehensive health assessment that includes SUD screening using a standardized tool (N/A for practices with no adolescent or adult patients)</strong></td>
</tr>
<tr>
<td>For patients who have recently given birth, the practice screens for post-partum depression using a standardized tool (e.g., at 6 weeks and 4 months)</td>
</tr>
<tr>
<td>The practice tracks referrals until the consultant or specialist’s report is available, flagging and following up on overdue reports</td>
</tr>
<tr>
<td>The practice implements clinical decision support following evidence based guidelines for a mental health and substance use disorder</td>
</tr>
<tr>
<td>The practice establishes a systematic process and criteria for identifying patients who may benefit from care management. The process includes consideration of behavioral health conditions</td>
</tr>
<tr>
<td><strong>The practice has at least one clinician who is providing treatment for substance use disorder with both medication-assisted treatment (MAT) and behavioral therapy. Behavioral therapy may be provided either directly or via referral.</strong></td>
</tr>
<tr>
<td>If practice includes a care manager, s/he must be qualified to identify/coordinate behavioral health needs</td>
</tr>
</tbody>
</table>
HPC is working with Health Management Associates to create, monitor, manage the technical assistance program that includes each of the 13 PRIME criteria.

<table>
<thead>
<tr>
<th>Requirement for TA</th>
<th>Description</th>
</tr>
</thead>
</table>
| Includes mix of broad and practice-specific TA modes | • Includes some one-on-one practice coaching opportunities  
• Includes broad-based learning opportunities for all practices (e.g. learning collaboratives)  
• Does not rely on webinars or online modules  
• Matches practices with appropriate content and mode |
| Focuses on most challenging PCMH PRIME criteria | • Prioritizes delivering TA on the criteria practices need most help with  
• Able to offer TA on any of the 13 PCMH PRIME criteria as needed |
| Accommodates practices on different timelines | • Allows multiple opportunities for practices to receive similar content/assistance  
• Ensures whenever a practice enters the TA program, it has opportunities to learn from other practices |
| Delivers maximum value to practices and HPC | • Hiring one vendor instead of multiple minimizes administrative costs and maximizes the share of contract dollars spent on direct practice TA  
• Utilizes current TA available / partners with MA organizations already providing support to practices  
• Reports regularly to HPC on practice progress |
Fully integrated care delivery systems: ACO certification

Vision of Accountable Care

A health care system that efficiently delivers well-coordinated, patient-centered, high-quality health care, integrates behavioral and physical health, and produces optimal health outcomes and health status.

Behavioral Health Integration and Accountable Care

ACO certification criteria incents providers to better meet the needs of patients with behavioral health disorders. For example:

- An ACO must routinely stratify entire patient population and use the results to implement programs targeted at improving health outcomes for highest need patients. At least one program must address behavioral health and at least one program must address social determinants of health to reduce health disparities within the ACO population.

- To coordinate care and services across the care continuum, the ACO must collaborate with providers outside the ACO as necessary, including behavioral health providers, specialists, post-acute care and hospitals.
HPC CHART investments: Supporting broad-based community health coalitions

Highlight: Beth Israel Deaconess Hospital - Plymouth

- Working to reduce ED utilization for patients with a primary behavioral health diagnosis through its Integrated Care Initiative (ICI)
- The ICI provides patients with an addiction assessment in the ED, coupled with follow-up services and linkage to detox, outpatient MAT and primary care
- Partnership with Clean Slate Centers and Harbor Health Services to provide outpatient MAT upon discharge from ED
- Collaboration with the Plymouth Police Overdose OUTREACH (Opioid User Taskforce to Reduce Epidemic And Care Humanely) Program to provide outreach and services to patients that have overdosed
- ICI clinicians provide referrals to the Plymouth Drug and Mental Health Court for patients with open charges that appear to be related to addiction.

Other CHART Investments Profiled

- Berkshire Medical Center
- Harrington Memorial Hospital
- Hallmark Health System
- HealthAlliance Hospital

This slide provides a sample of CHART initiatives focusing interventions for patients with opioid dependence and is not exhaustive.
HPC Investments: Testing and scaling promising models of care delivery that improve access to and/or quality of behavioral health services

1. **Mother and Infant-Focused NAS Interventions**
   Investing in hospital quality improvement initiatives to reduce TCOC between delivery and discharge of opioid exposed newborns and working with DPH to improve retention in pharmacologic treatment for pregnant and post-partum women

2. **Targeted Cost Challenge Investments**
   Funding collaborations that improve SUD care coordination and increase access to and efficiency of treatment while reducing TCOC

3. **Telemedicine Pilots**
   Increasing access to SUD treatment by funding bedside consults and post-discharge follow-up for patients hospitalized with co-morbid diagnoses

4. **Initiation of pharmacologic treatment for SUD in the ED setting**
   Initiating pharmacologic treatment and establishing partnerships that will facilitate connection with outpatient providers

5. **Data-Driven Provider Performance Improvement Initiatives**
   Providing prescribers with data to improve ability to address pain in ED settings
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Proposed policy recommendations for discussion

- **Improved data collection & monitoring:** the Commonwealth should systematically track the impact of the opioid epidemic on the health care system and the availability of evidence-based pharmacologic treatment.

- **Care delivery integration & payment reform:** the Commonwealth should increase access to opioid use disorder treatment by integrating pharmacologic interventions into systems of care.

  Payers should support the **integration** of opioid use disorder treatment into **primary care**, ensure **adequate networks of community-based behavioral health providers** to improve access to community-based care, support **initiation of opioid use disorder treatment in acute care settings** in coordination with accountable, integrated systems that allow for timely access to follow-up care, and **facilitate collaboration** between providers of different levels of care to **minimize loss to follow-up during transitions between settings**.

- **Community-based multi-stakeholder coalitions:** the Commonwealth should support coordinated, multi-stakeholder coalitions to address the impact of the opioid epidemic locally.

- **Testing & scaling innovative care models to improve access to and quality of treatment:** the Commonwealth should test, evaluate, and scale innovative care models for treating opioid use disorder and related conditions (e.g., NAS).
Vote: Issuance of report on opioid use disorder in Massachusetts

Motion: That, pursuant to section 31 of chapter 258 of the Acts of 2014, the Commission hereby authorizes the issuance of the attached report on opioid use disorder in Massachusetts.
Bill. No. 4056

Passed unanimously and signed on March 14, 2016 by Governor Baker

Includes a number of recommendations from the Governor’s Opioid Working Group

Key provisions relating to health care system

**Mandatory evaluation of patients presenting with opioid overdose symptoms (effective July 1, 2016)**
- Must be conducted w/in 24 hrs of arrival at ED
- If treatment is indicated, must be offered (inpatient or outpatient)
- If patient refuses treatment, must be provided with information on outpatient resources
- Evaluation must be covered by all payers

**7-Day supply limit on opiate prescriptions (effective immediately)**
- First time prescriptions to adults cannot exceed 7 day supply
- No prescription to minor can exceed 7 day supply
- Exceptions for emergencies, chronic pain, palliative care, oncology

**Partially filling prescriptions (effective immediately)**
- Pharmacist may partially fill schedule 2 drug at patient’s request, but may elect not to
- Unfilled portion of prescription is void
An Act relative to Substance Use, Treatment, Education and Prevention (2/2)

Sections of particular relevance to the HPC

1. Requires the HPC, in consultation with DPH and DMH, to study and report on the availability of health care providers that serve patients with dual diagnoses of substance use disorder and mental illness, in inpatient and outpatient settings. The commission shall report to the joint committee on mental health and substance abuse and the house and senate committees on ways and means no later than 12 months following completion of the study.

2. Establishes a special commission to examine the feasibility of establishing a pain management access program, with the goal of increasing access to pain management for patients in need of comprehensive pain management resources. The executive director of the HPC shall serve on the commission. The commission shall begin meeting in June, 2016, and submit its recommendations along with drafts of any legislation by December 1, 2016.

3. Requires carriers to report to the Office of Patient Protection (OPP) on the total number of medical or surgical claims and mental health or substance use disorder claims submitted to and denied by the carrier.

4. Amends statute governing consumer appeal process for risk-bearing provider organizations (RBPOs) & accountable care organizations (ACOs) to require provider denials to inform patients of the right to appeal the decision to the OPP.
DPH data on opioid-related deaths demonstrate marked increase in opioid use disorder since 2000

Source: Massachusetts Department of Public Health, August 2016
Note: Suicides are excluded from this analysis.
The rate of opioid-related drug overdose deaths in Massachusetts increased more rapidly than nationally (2010-2014)

Source: Multiple Cause of Death data (1999-2014) are produced by the Division of Vital Statistics, National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), United States Department of Health and Human Services (US DHHS)

Note: Rates based on NCHS data differ from DPH published rates because DPH uses a statistical file that is closed later than the NCHS file and includes more cases that have a final cause of death assigned. Massachusetts numbers are not included in the age-adjusted weighted national average. 2015 data are not yet available from the CDC.
Innovative ways to make practice pattern data available to providers improves ability to treat pain in emergency settings

Source: Data provided by Hallmark Hospital System. Figure adapted from the Health Policy Commission Community Hospital Acceleration, Revitalization, and Transformation Program: Phase 1 – Foundational Investments for Transformation Report
### ICD-9-diagnosis codes used in HPC and DPH opioid-related hospital discharge analyses

<table>
<thead>
<tr>
<th>ICD-9-CM diagnosis code</th>
<th>Description</th>
<th>HPC</th>
<th>DPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>304</td>
<td>OPIOID DEPENDENCE-UNSPECIFIED</td>
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<td></td>
</tr>
<tr>
<td>304.01</td>
<td>OPIOID DEPENDENCE-CONTINUOUS</td>
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</tr>
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<td>304.02</td>
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<td></td>
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<tr>
<td>304.03</td>
<td>OPIOID DEPENDENCE, IN REMISSION</td>
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<td>304.7</td>
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<td>OTHER OPIATES AND RELATED NARCOTICS CAUSING ADVERSE EFFECTS IN THERAPEUTIC USE</td>
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</tr>
</tbody>
</table>

**Note:** HPC’s methodology is adapted from a method developed by AHRQ ([http://www.ncbi.nlm.nih.gov/books/NBK246983/](http://www.ncbi.nlm.nih.gov/books/NBK246983/)).