

Commons as Building Blocks for Polycentric Governance: Lessons from U.S. Health Reform

Michael D. McGinnis

Political Science and Ostrom Workshop, Indiana University, Bloomington

mcginnis@indiana.edu

Keynote Address

*2nd Thematic Conference on Knowledge Commons:
Governing Pooled Knowledge Commons,
with Special Attention to Fields of Medicine and the Environment*

International Association for the Study of the Commons (IASC),
New York University (NYU) School of Law,
Engelberg Center on Innovation Law & Policy,
Sept. 4, 2014



Elinor Ostrom

Received the 2009 Nobel Memorial Prize in Economic Sciences
"for her analysis of economic governance, especially the commons"

She entitled her Nobel Address
"The Polycentric Governance of Complex Economic Systems"

What can we learn from Ostrom about U. S. health care?

Tragedy of the Commons:

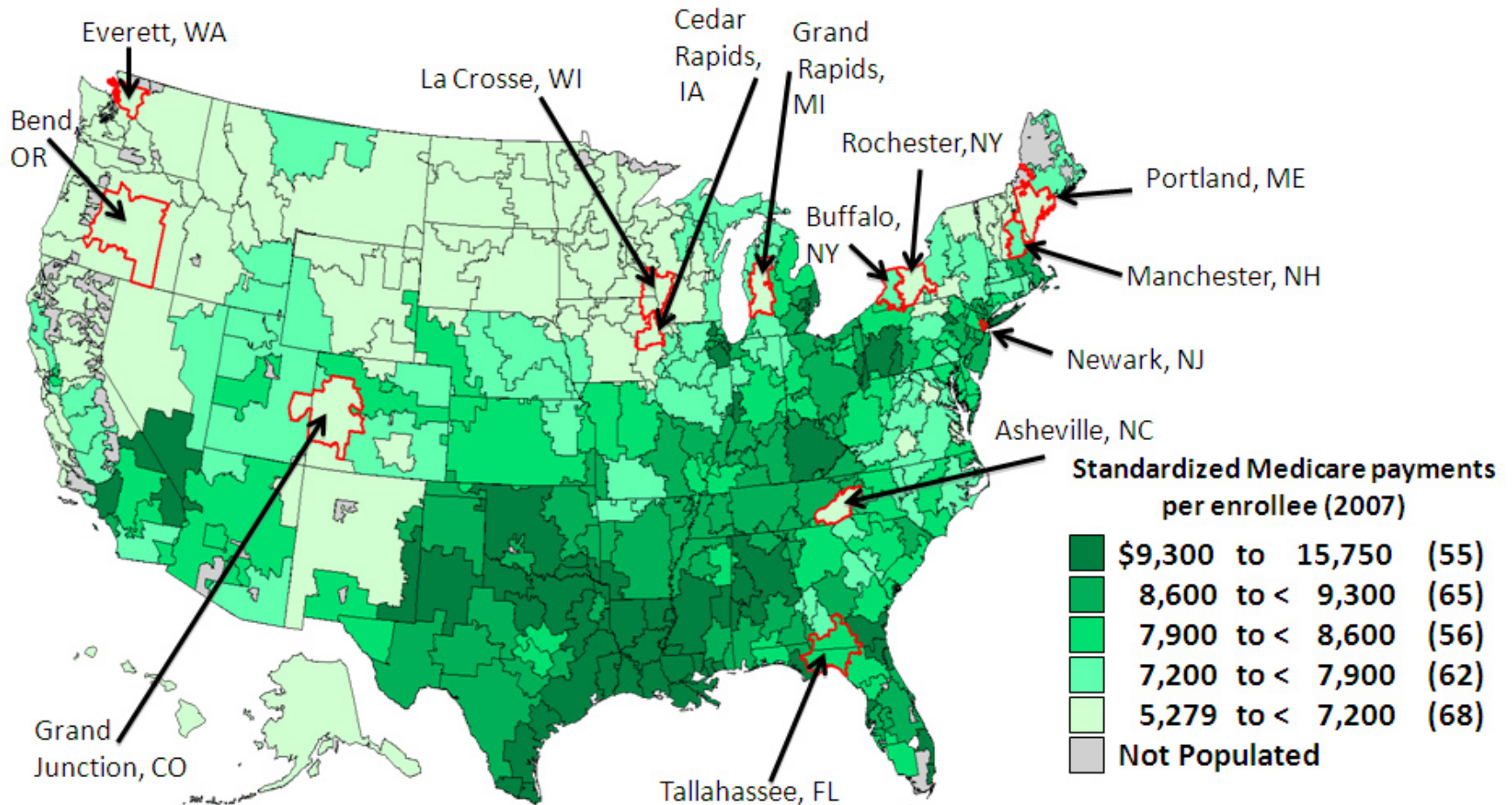
From Hardin to Ostrom



- **Commons**: natural or constructed **resources** available for use by some group.
- If too many resources are extracted, or too little concern for replenishment or maintenance, result will be depletion or destruction (**tragedy of the commons**)
- **Garrett Hardin** (1968) saw only two solutions:
 - **privatization** or **central control**
- **Elinor Ostrom** highlighted a third alternative: a community-based resource management regime, based on rules on access, withdrawal, maintenance
 - **Developed 8 Design Principles that support sustainability**
 - **Are they relevant to health policy?**

How Will We Do That?

Participating Hospital Referral Regions



Revisiting the Concept of a Commons

- **A commons links public and private in a specific way:**
 - **Public access:** A shared pool of resources, open to all or to some group
 - **Private use:** Extraction & consumption of resource may be rivalrous or not
 - If rivalrous it's a CPR, if not it's a public good (for all or for some group)
 - Resource pool may be automatically replenished, or require human action
 - And some resource pools are created by human action, including knowledge commons
- So we can distinguish $2 \times 2 \times 2 = 8$ **configurations of commons**
 - Open to all or a group; rivalrous or not; automatic or not
- **Rules (and norms) are required for all but one of these types**
 - Open access to an automatically replenished supply of nonrivalrous goods
- All the rest require **rules regarding one or more of the following:**
 - **Access or group membership** (to define rights of access to resource pool)
 - **Contribution** to construction or maintenance of infrastructure
 - **Allocation** of private uses, through definition of property rights and operation of some mechanisms to deal with externalities and redistribution

Commons as Linked Processes

For this analysis, a commons consists of inter-linked processes

1. Appropriation (extraction and use of resources)
2. Provision (construction & maintenance of resource pools)
3. Rule-making
4. Monitoring
5. Sanctioning
6. Dispute resolution
7. Coordination
8. Forming and working in teams

Implication: no one commons exists in splendid isolation

Design Principles, Common Property, and Key Processes

1. Appropriation (resource use)
2. Provision or (Construction, Maintenance of Shared Resources
3. Rule-Making
4. Monitoring & Sanctioning & Dispute Resolution
5. Forming & Working in Teams



Terraced fields in the Dang Valley region of Nepal. The photo also contains farm houses. 1990-04 From [Digital Library of the Commons](#), IU.



Local farmers standing near an earthen irrigation canal in the Dang Valley region of Nepal 1990-04 DLC

Design Principles for a Sustainable Commons

1. Clearly Defined **Boundaries** (on authorized users and resources)
 2. Wide **Participation** in making decisions about rules on appropriation & provision
 3. **Congruence** between rules and local conditions, with results seen as fair
 4. **Monitoring** by users or monitors responsible to them
 5. **Graduated sanctions**, with opportunity for remaining in group
 6. **Conflict resolution** mechanisms are available and reinforce local procedures
 7. **Recognition of rights** to organize
 8. **Nested enterprises** for specialized tasks
- Plus (implicitly assumed by Ostrom)
9. **Shared Goal of Sustainability**
 10. **Distributed Leadership**

Key Processes

Design Principles for a Sustainable Commons

*Appropriation
& Provision*

1. Clearly Defined **Boundaries** (on authorized users and resources)

Rule-Making

2. Wide **Participation** in making decisions about rules on appropriation & provision

3. **Congruence** between rules and local conditions, with results seen as fair

*Monitoring & Sanctioning
& Dispute Resolution*

4. **Monitoring** by users or monitors responsible to them

5. **Graduated sanctions**, with opportunity for remaining in group

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*Team-Building
& Coordination*

7. **Recognition of rights** to organize

8. **Nested enterprises** for specialized tasks

(implicit in all processes)

Plus (implicitly assumed by Ostrom)

9. **Shared Goal of Sustainability**

10. **Distributed Leadership**

Seeing the Design Principles in Action



Farmers repairing an earthen irrigation canal in the Dang Valley region of Nepal. **Upon discovering that a local farmer had diverted the irrigation canal, the farmers immediately rushed to repair the canal and sanction the offending party.** 1990-04 DLC

**BUILDING
A COMMONS PERSPECTIVE
ON U.S. HEALTH CARE**

Collective Action is Common in U.S. Health System

U.S. health care system is more than just markets and regulations

Most forms of medical care require coordination of resources and skills under control of different kinds of professionals

- Team-based clinical treatment
 - Quality improvement programs
 - Community clinics
 - Emergency response
 - Health promotion campaigns
-
- Each of these joint ventures are “owned and operated” by multi-stakeholder partnerships
 - Can be understood as constructed micro-commons

A Hard Example: Operating Rooms as Commons?



<http://anesthesia.iu.edu/Portals/0/UltraPhotoGallery/499/1/1.9076.jpg>

Shared resources include

1. the room and time to use it,
2. all the medical technology available in or near that room,
3. the financial capital invested in relevant provider organizations,
4. lots of human capital (the technical expertise of everyone involved),
5. and social capital (their experience working as part of a team)

**All of these resources need to be respected, and not wasted;
And all involved share in this responsibility!**

Design Principles in the OR

1. **Clear boundaries** on participants and their duties (*appropriation*), and shared responsibilities for arranging and cleaning the space, maintaining the equipment in sterile conditions, and keeping up the pace (*provision*)



[Aaron Cohen-Gadol](#) directs a colleague during a brain tumor removal at IU Health Methodist Hospital.
Photo By Erik Markov

2. **Participation:** All rules and procedures should be known to all participants, with changes announced at the beginning “time-out”.
3. **Congruence:** These rules and procedures should be based on current best practices and should follow the rules of that hospital or clinic.
4. Everyone shares responsibility for **monitoring** each other, especially regarding potential errors or breeches of sterile conditions.
5. **Graduated Sanctions:** Mistakes should be acknowledged and reported, with this record used to make future improvements (and not as a reason for punishment, under normal conditions).
6. Multiple procedures for **dispute resolution** are available if needed. ¹⁴



<https://iuhealth.org:8443/methodist/surgery>

Recognition of nested enterprises (teams and sub-teams) in two senses:

7. The OR fits within the broader structure of IU Health, and the practices of the surgeons and anesthesiologists, and
 8. The OR team includes specialized teams with specific responsibilities (prep, anesthesia, surgery, technicians, etc.) before, during, and after surgery, as well as others who may be called in as necessary.
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9. **Shared goal:** should be centered on **patient safety**.
 10. **Distributed Leadership:** The burden of leadership cannot, and should not, be placed entirely on the lead surgeon – all participants need to be willing and able to step forward when needed.

Shared Rights and Responsibilities in U.S. Health Care

- **Shared Access to Care**
 - Members of an insurance group have similar access to types of care and levels of coverage
 - **All members of a “disease group” have potential access to relevant care resources and knowledge, but their access need not be equitable**
- **Shared Consumption**
 - Community health is maintained by clear water, vaccination, etc.
 - Healthy workforce is a shared resource that all employers draw upon
 - **Emergency departments in any hospital receiving government support are open to all members of the community, even non-citizens**
- **Shared Production**
 - Community health resources are typically owned/maintained by public agencies and paid for by citizens via taxes
 - **Resources for medical care are used for private treatment, but nearly all treatments required resources and skills of different kinds of professionals**
 - Co-production of individual health: Each individual’s health is determined not primarily by access to or utilization of care, but instead by behavior and interactions within social networks

Shared Rights and Responsibilities in U.S. Health Care (2)

- **Shared Financing**

- Members of insurance plans pool their risks
- Public agencies often require matching funds for special programs
- Community clinics receive public grants and private donations
- **Charity care supported by tax revenues, tax exemptions for community benefit requirements, and by other customers**

- **Shared Rule-Making**

- Public agencies at national, state, and local levels certify and regulate health care professionals and care facilities
- **Professional associations determine professional standards and educational requirements**

- **Shared Monitoring and Sanctioning**

- **Private entities, esp. the Joint Commission, certify quality of facilities**
- Public agencies monitor performance and rule compliance of facilities;
- News media and nonprofits may publish comparative performance data

- **Shared Responsibility for Reform**

Limitations of Current Health Micro-Commons

- Lots of innovative and cross-stakeholder programs in all communities, but some problems emerge with regularity:
 - **Programs end when external funding runs out**; no one takes responsibility for making sure successful programs are sustained
 - Small-scale successes can't be **replicated** elsewhere or at larger **scales**
 - Effects of one program on another are rarely considered by either group, and programs often run at **cross-purposes**
- To do better we need to make sure the system is:
 - **Open to innovation**, in order to build programs to their most effective **scales** of operation
 - **Ownership** responsibilities taken on by relevant actors, in order to achieve **sustainability** after external funding runs out
 - **Oversight and coordination** to recognize priority programs and to find ways to help them reinforce each other for mutual **support**

Common Sources of Coordination Failure in Health Commons

- **Missing institutions** preclude effective coordination, absence of
 - Inter-operability of **electronic medical records** used by different care organizations
 - Full communication between patients and clinicians on available options (**shared decision-making** protocols)
 - Closer coordination among caregiver types engaged in diverse forms of care (**care transitions**, continuum of care, **PCMHs**, etc.)
 - Alignment of financial interests of care providers and sources of funding (**ACOs** involving care providers, insurance, employers, etc.)
 - Fuller involvement of **social support networks** in health promotion campaigns, ACOs, PCMHs, even SDM
 - **Shared stewardship at the local or regional level** (multi-stakeholder leadership teams including providers, payers, public health officials, community organizations, and patients/citizens)
- **But none of these are new ideas:** SDM from 1980s, ACO a variant of HMOs from 1970s, and PCMHs and regional coordination suggested as early as 1932

EFFECTIVE STEWARDSHIP OF A REGIONAL HEALTH COMMONS:

LESSONS FROM GRAND JUNCTION, COLORADO

Mesa County Health Leadership Consortium (MCHLC) (Grand Junction, CO)

Health Plan

- Rocky Mountain Health Plans

Physicians

- Mesa County Independent Physicians Association
- Primary Care Partners

Hospitals

- Family Health West
- Community Hospital
- St. Mary's Hospital & Regional Medical Center

Hospice

- Hospice & Palliative Care of Western Colorado

Home Health

- Home Care of the Grand Valley

Public Health

- Mesa County Health Department

Behavioral Health

- Colorado West, Inc.

Health IT

- Quality Health Network

Underserved Populations

- Mesa County Human Services
- Marillac Clinic
- Hilltop Community Resources
- Mesa Developmental Services

Business

- Grand Junction Area Chamber of Commerce
- City of Grand Junction

Critical programs from Grand Junction, CO

- **Financial Pool** to equalize reimbursement
- **Physician Incentives:** Monitor physician performance to reward excellence and encourage improvement
- **Marillac Clinic** (for uninsured patients)
- **B4 Babies and Beyond** (pre-natal and infant care), Hilltop
- **Quality Health Network:** Health information technology
- **Primary Care Physician recruitment**
- **Recent programs:** new community clinic, consolidated hot-lines for suicide prevention, etc.

MCHLC sets priorities and coordinates resources allocated to these programs, thereby managing the regional commons as a whole (but with minimal public profile and no official authority)

How the Grand Junction “Model” Works

Step 1: They made top priority programs sustainable.

Step 2: They slowly expanded the coverage of these programs, added new programs, and built habits of regular consultation and collaboration.

- CEOs of all major stakeholders meet regularly
- Share plans & listen to concerns of other stakeholders
- Align organizational goals to community interests
- Build capacity to cope with remaining gaps, in ways that do not result in increased competitive pressure

In sum, they built a system of shared stewardship.

But this model is not easily replicated, took a long time to establish, and has not yet had great success on several public health issues.

**TOWARDS
POLYCENTRIC GOVERNANCE
OF HEALTH AND HEALTH CARE**

Polycentric Governance

Polycentric governance is a technical term from political science, public policy, political economy (Vincent Ostrom, Tiebout, and Warren 1961) designating a complex political system **in which any group with a common problem or shared aspirations has multiple opportunities to find the support they need for effective collective action.**

- Lots of political and other options available to new claimants
- And operates within a broader system of laws and social expectations

A system that facilitates the formation of all kinds of commons, at all levels of aggregation, built by various groups of producers and consumers

Fragmented, but requires at least minimal coordination

Polycentric Care across the Continuum

Complementary options across entire continuum of care

- **When healthy:** easy access to health information & preventive health (workplace, pharmacies, schools, etc.)
- **When concerned about specific problem:** mental and behavioral care counseling, more general counseling
- **When need 1st contact:** 24/7 access (virtual & urgent care)
- **Primary care options:** physicians, PCMH teams, nurse practitioners, iphone doctors)
- **Acute care:** comparative data, shared decision-making
- **Chronic care:** multiple clinics, in-home monitoring
- **Palliative care:** nursing homes, hospice, in-home care
- **Community discussion and stewardship:** public forums, web portals, and leadership meetings

System should combine virtual and personal contact in each context, and actively engage actors beyond the usual suspects (providers and payers)

Huge challenge, but a more compelling vision

**CONCLUSIONS FOR
HEALTH REFORM
AND FOR
COMMONS RESEARCH**

Revisiting the Concept of a Commons

- **Commons can mean more than sharing access**
 - If a commons involves sharing of the rights and responsibilities for all critical processes or functions, then we need to look at **shared consumption, production, management, implementation, reform**
- If all these functions are realized by pretty much the same group of actors, then success may be determined by **Ostrom's design principles**
 - If different groups are responsible for different functions, then we should expect to see a **polycentric arrangement** of relationships among groups

Take Away Points (1)

- **Our current healthcare system includes many, many small-scale examples of common property or commons,**
 - All are based on a foundation of inter-related knowledge commons
 - They all need to be recognized as commons, made more sustainable, and better coordinated so they can reinforce each other
- **Coordination failures** are so common in health care because there are so many **missing institutions:**
 - Ties to social support networks in clinical care, PCMHs, ACOs, SDM, etc.
 - Community level stewardship of public health and resource pool for medical care, as complementary aspects of a regional health commons
- We need to **more fully recognize, and more effectively build upon, our current system of overlapping property relationships** related to resources relevant to health and health care, among which diverse forms of common property play a surprisingly common and crucial role.

Take Away Points (2)

- **Few, if any, commons exist in splendid isolation**
 - More secure if embedded within a polycentric system of order
- **We are all patients and care-givers.**
 - In one commons all share rights & responsibilities;
 - In complex systems of commons, groups take on different responsibilities for each other
 - Shared responsibilities for each other

Recognizing that we all live in health commons,
as well as many other kinds of commons,
may help revitalize a sense of community and
reinforce our collective capacity for self-governance