

INCREASING PHYSICIAN ENGAGEMENT: LITERATURE REVIEW

A summary of evidence describes practices, processes or approaches to increasing physician engagement in the context of the Facility Engagement Initiative and the Memorandum of Understanding.

INTRODUCTION

All health systems face pressure to deliver quality healthcare and engage in continuous improvement while still containing costs. Physicians are one of the main professional groups who deliver care, and their direct experience imbues them with important knowledge and skills that can contribute to the capacity of organizations to solve problems and cope with changing demands. While the literature about physician engagement shows that facilities with higher levels of engagement have better patient outcomes and greater work satisfaction, there is limited agreement about how best to increase physician engagement.

CONTEXT

Literature in this area is dominated by studies and commentary largely initiated from an administrative or leadership perspective as opposed to conceived and implemented from a physician point of view. Health systems are complex, however, and policies and influences on physician engagement at the facility level may be initiated at many points. Furthermore, this review includes international studies where health systems and incentive structures may differ in important ways, and results should be interpreted with this in mind.

ARTICLE REVIEW

Five main approaches to increasing physician engagement are described in articles and examples or practices in Table 1.

1. **Assess the problem - acknowledge and assess barriers and challenges including the socio-political environment as part of planning for increased engagement.** The nature of the particular organizational context and needs are crucial to the success of efforts to increase levels of engagement.
2. **Develop meaningful targets and encourage participation in meeting them. Ensure feedback by designing processes to monitor progress toward measurable results.** Shared focus on concrete goals that everyone involved can agree on brings people together, increases sense of agency, and encourages problem solving. Positive results can be shared to reinforce progress toward meaningful engagement. Although it may appear that a deliberate focus on physician wellness, safety, or quality improvement reduces building engagement to a secondary goal, this theme is often described as part of making the value of engagement clear to physicians.
3. **Strengthen physician leadership and expand the role of physicians to include consideration of organisational goals.** High-quality leadership that draws from the expertise of physicians is critical to employee engagement, as well as to the financial performance of the organization
4. **Use appropriate rewards and incentives.** Compensating physicians for their leadership and participation in meetings is very important. Physicians experience rewards in many ways and some

incentives can be experienced as offensive or manipulative and can undermine intrinsic motivation.

5. **Align values and strengthen culture, community and communication within and across roles and departments.** Working together to achieve a valued shared goal is an important part of building engagement that relies on reliable and trusting relationships and effective communication. The development of a culture of improvement and collaboration underpins many other processes.

Although these approaches or strategies are listed here as discrete options, there is a strong argument for system-oriented efforts that combine multiple approaches or that consider engagement strategies in stages or phases at several levels in the health system. This type of thinking has been influential in planning the evaluation of the FEI. Cloutier et al. (2016) describe four types of institutional work—relational, structural, conceptual and operational—as being required in a balanced way to effect sustainable change at an organisational or system level. Cloutier et al’s work has shaped the FEI evaluation design, as it serves to depict the type of organisational change that appears to be the target of the MOU. Three examples of approaches that employ a systems focus are included in Table 2. Each of these more comprehensive approaches involves a rigorous assessment of the problem in its specific context as the starting point for deciding what is most important and to consider the optimum sequence of intervention.

The literatures about distributed leadership and organizational change—which may be highly relevant to promoting physician engagement for the purposes of increasing the flexibility and efficiency of health systems—are only partially represented here. With the exception of some multi-faceted approaches, this review is limited to inclusion of articles that explicitly address discrete strategies or interventions to increase physician engagement. Studies that consider the interplay between different types of institutional structures and institutional work required for sustainable change were outside of the scope of this review.

PREPARED BY:

Graham Shaw, PhD Candidate at University of British Columbia
Asif Khowaja, PhD Candidate at University of British Columbia
Neale Smith, Research Coordinator at University of British Columbia

REVIEWED BY:

Craig Mitton, Professor at University of British Columbia
Chris Lovato, Professor at University of British Columbia

METHODS AND REFERENCES:

To see the original research document, contact jbarr@doctorsofbc.ca



Table 1: Summary of emerging processes, approaches and practices around physician engagement

Note: The study location and classification of the evidence source are included to help interpret the nature and weight of evidence. Some articles are labeled with more than one descriptor.

- Case study refers to studies that reported using a case study approach to systematically investigate the effects of an intervention in one or more cases.
- Cross sectional study refers to quantitative analysis of survey data at a single point in time
- Expert opinion refers to articles describing what the authors recommend based on their experience in current and previous work (including their interpretation of the literature).
- Literature review refers to articles where the primary source of evidence appears to be other studies.
- Mixed methods refer to articles describing methodological detail of both quantitative and qualitative methods.
- Process description refers to articles that report on a specific intervention at one or more sites from the perspective of someone involved.
- Qualitative inquiry refers to studies that prioritize qualitative methods in determining what to do to improve engagement.
- Quantitative data refers to the use of quantitative tools to track change attributed to an intervention.

Theme	Emerging processes/approaches/ practices	Facilitator	Barriers
<p>1. Assess the problem: Acknowledge barriers and challenges including the socio-political environment as part of planning for increased engagement.</p>	<p>Collect data to understand the challenges of physician engagement in the specific setting. Data collection efforts demonstrate management’s willingness to listen to physicians' concerns to build trust and to shape the intervention. Suggested processes for data collection:</p> <ul style="list-style-type: none"> • Surveys • Town hall meetings • Radio broadcasts • Letters • Video interviews • Face-to-face meetings involving clinical divisions. • Online surveys <p>Share data. Discuss aggregated results in dedicated forums. Spell</p>	<p>Maintaining a big picture focus on patient outcomes</p> <p>Openness to reflection</p> <p>Naming the problem: “A system that wants only good news risks sweeping its problems under the carpet until the consequences can</p>	<p>Lack of explicit strategy to engage physicians.</p> <p>Idea that engagement activities will be expensive and will conflict with organization goals</p> <p>Organizational mobility (short term positions and appointments)</p>

Theme	Emerging processes/approaches/ practices	Facilitator	Barriers
	<p>out problems in a systematic, sustained fashion, to engage people in solving them. Systematically engage units to identify opportunities for improvement & local factors.</p> <p>Decide what engagement means in each particular setting and consider all of the dynamics surrounding how individuals and their organizations perceive engagement.</p> <p>Create processes to let stakeholders shape the initiative’s vision. Assess strategic goals, values, and objectives for alignment.</p> <p>Assess the context, and adjust expectations and interventions according to the situation, and system level. Find ways that engagement activities can support the organisational mission, vision, values, and goals (for example” “Listen Act Develop Model”).</p> <p>Consider:</p> <ul style="list-style-type: none"> • “Polarity” between physicians and administration • Value differences between hospital-based and external physicians who work at the hospital. • The need for involvement of middle managers 	<p>no longer be ignored.”</p>	<p>Professional beliefs and values can present obstacles to a culture of change.</p> <p>Rigid boundaries in perceptions of professional expectations and responsibilities.</p>

Theme	Emerging processes/approaches/ practices	Facilitators	Barriers
<p>2. Develop meaningful shared targets and encourage participation in meeting them. Ensure feedback by planning processes to monitor progress toward measurable results.</p>	<p>Begin with a target clear to everyone. Start by setting meaningful targets and objectives that are important to physicians and other caregivers (e.g. patient safety, patient satisfaction, service quality, physician wellness, or employee work satisfaction). Set bold objectives for improvement Build engagement toward achieving the identified priority outcome.</p> <p>Suggested processes: --Invite physician input into specific organizational decision-making processes. --Promote programs valued by physicians and build targeted communication processes. --Gain the support of physicians and have them become leaders in the effort with responsibility for quality outcomes and cost --Ask key physicians to lead projects with specific improvement objective/s --Promote education and leverage physician champions. --Involve physicians in developing policies, practices and procedures from the early stages.</p> <p>Improve clarity and transparency of decision-making processes.</p> <p>Patient safety matters to doctors so leverage this as a strategy that can contribute to physician engagement in health system decision-making. Specific approaches include --Use mandatory "huddles" to discuss safety issues. --Meet with hospital leaders and system leaders to discuss any safety</p>	<p>Availability of evidence to show that changes have previously led to improved efficiency and patient outcomes.</p> <p>“Physicians are data connoisseurs; it is imperative to get accurate data”.</p> <p>Challenge physicians: take advantage of physician’s competitive nature</p> <p>Leadership support for maintenance of physician competencies (provincial medical licensing boards, and governing boards)</p>	<p>Past negative experiences with unsuccessful efforts</p> <p>Without follow through to implementation , three distinct phases can be expected: enthusiasm, then antipathy, and finally ambivalence.</p>

Theme	Emerging processes/approaches/ practices	Facilitators	Barriers
	<p>events or near misses.</p> <p>--Use physician-led chart audits.</p> <p>--Conduct patient safety walkabouts to provide frontline staff with an opportunity to discuss issues relating to patient safety, and other wider concerns, with senior leaders and managers.</p> <p>--Use the engineering science of high reliability organizations. For example, analyze a surgical case in which harm occurred, by considering issues at 3 levels: human error, interpersonal, and systemic issues.</p> <p>Construct a formal physician compact: A living, breathing, dynamic reciprocal agreement that aligns expectations between the organization & physicians.</p> <p>Use data to show improvement, to measure progress toward the achievement of targeted quality outcomes.</p> <p>Carefully selected use of data comparisons: Be cautious using individual level data in the early stages. Start with comparisons between the system or hospital vs. national numbers rather than individual level performance.</p> <p>Other strategies employ individual-level data comparisons. Understand who excels and how they do it, and then share this information with other physicians in the hospital --Develop dashboards to enable doctors to see how their performance compares on measures such as patients' length of stay (door-to discharge or -admission times); exploring patient-experience data; and reporting on number of visits. Ensure physicians are involved in receiving patient feedback.</p> <p>The following three principles support this strategy:</p> <ol style="list-style-type: none"> 1. Addressing the psychological needs of people; 2. Developing constructive; organisation-physician relationships 3. Sponsoring physician leadership development. 		

Theme	Emerging processes/approaches/ practices	Facilitators	Barriers
<p>3. Strengthen physician leadership and expand the role of physicians to include consideration of organisational goals.</p>	<p>Identify physician champions through open competition, proposing role clarity, maintaining gender balance, and developing shared vision/goals.</p> <p>Provide training in quality and effective leadership. E.g., LEAD-foster development of others through ongoing training, coaching and mentoring support toward targets.</p> <p>Create pathways (i.e. structure, process, and programs) for physicians to adapt to leadership roles as part of a transition plan.</p> <p>Use physician-manager dyads: whereby a physician leader is paired with a non-physician manager at each level in the organization; creating doctor-manager positions; and physician administration partnerships.</p> <p>Provide monitoring and feedback processes for leaders: e.g., 360-degree feedback (which goes across organizational levels), annual surveys, and term limits for leaders.</p> <p>Ensure physicians receive credit for participating in processes such as developing standards, viewing webcasts, and accreditation related activities (e.g., working as a surveyor)</p> <p>Develop leadership processes which harness physician talents in order to support organizational objectives: Develop customized reporting formats such as a one-page analytics form inclusive of cost per case/diagnosis-related group per physician along with quality outcomes; and assessing comparative effectiveness of alternative clinical decisions (i.e., current, versus new products).</p>	<p>Stable leadership</p> <p>Leadership openness to culture transformation</p> <p>Leadership that offers a high level of support and interest in opinions or suggestions.</p>	<p>Physician perceptions of strategic procrastination, strategic ambiguity, and ignorance of conflicting signals on the part of middle management</p> <p>Adversarial physician-management relations.</p> <p>Hard boundaries of professional identity</p>

Theme	Emerging processes/approaches/ practices	Facilitators	Barriers
	<p>Win trust and reputation through open communication/feedback, appreciation, respect for others, interpersonal relationship, fairness in decision-making, innovation and commitment to resolve the differences.</p> <p>Be visible-and-available; Use the Listen-Act-Develop model;</p> <p>Provide feedback and celebrate success.</p> <p>Developing, monitoring and evaluating performance benchmarks (i.e. power of appraisal) to ensure leadership accountability.</p>		

Theme	Emerging processes/approaches/ practices	Facilitators	Barriers
<p>4 Use appropriate rewards and incentives</p>	<p>Avoid strong focus on financial incentives. Financial incentives to engage with programs showed mixed results. [at best] If financial incentives are to be used in efforts to increase engagement: Pay for performance or salaried compensation models are recommended over pay for productivity. If the latter is used incorporate dimensions of self-care and well-being as part of the formula to calculate productivity-based pay. Blended forms of remuneration (such as fee for service and salary) may be preferable to fee for service.</p> <p>Assign 20% of physicians' potential compensation to their performance against certain goals or, in many cases, on how they do as a team.</p> <p>Structure compensation to facilitate both individual and organisational health over the long-term. e.g., Allow productive physicians to shape their work to create personal and professional fulfillment by allowing greater flexibility, protected time to pursue personally meaningful aspects of work; autonomy where possible; e.g. a role managing the calendar, control over workload, respect. Provide a system of incentives (and/or disincentives) to align physician interests with the strategic interests of the Region.</p> <p>Literature indicates that nonfinancial incentives are worth exploring: Include values based motivators as well as financial compensation; provide recognition for good work and for being engaged; and tie promotion to outcomes and participation in quality-and-safety activities Patient respect is noted as a motivation for participation with an example of recognition in the form of a Safety Champion poster in the hospital lobby.</p>	<p>Internal physicians are typically easier to engage and play more significant roles in implementation policies and practices than external physicians.</p> <p>Valuing physician leadership,</p> <p>Reward collaboration, and communicate.</p> <p>Watch for conflicts of interest</p> <p>Personal experiences of professional fulfilment serve to reinforce physician engagement in healthcare development activities.</p>	<p>Remuneration models can discourage participation in anything but direct patient care.</p> <p>Attaching large sums to single targets,</p> <p>Bureaucratic processes (hierarchical workplaces, poor organisational communication practices/conflict)</p> <p>Ingrained skepticism about rewards for spending time on leadership, as opposed to the evident value of treating patients.</p> <p>Absence of sincere efforts to address system-based issues can lead to</p>

Theme	Emerging processes/approaches/ practices	Facilitators	Barriers
	<p>Recognize disincentives e.g. frustration from lack of uptake of ideas or suggestions.</p> <p>Reward physicians taking up leadership roles and participating in engagement activities. Ensure guaranteed remuneration/ salary for time required to build engagement. Pay physicians for their time on committees, and attending meetings.</p> <p>Redefine professional boundaries to reward physician leadership. Harness negotiating skills to engage clinicians in service delivery issues.</p> <p>Harness the love physicians have for sharing their personal experiences and the competitive nature that pushes them to be the best diagnostician, the best clinician, the best healer. <i>One author proposes that physicians are best motivated by competition and by data that supports what is asked of them, They like to demonstrate their skills in solving complex problems</i></p> <p>Explain how innovations can positively impact physician resources such as workflow efficiency while not increasing administrative burden or taxing their time.</p>		<p>scepticism and resistance.</p>

Theme	Emerging processes/approaches/ practices	Facilitators	Barriers
<p>5. Align values and strengthen culture, community and communication (within and across roles and departments).</p>	<p>Invest in social avenues for peer support and alliances, since <i>spending time with physician colleagues alleviates symptoms of burnout and promotes wellbeing</i>. Examples include:</p> <ul style="list-style-type: none"> --Provide dedicated social space with fruit and beverages --Arrange meal together at restaurant in town once every two weeks --Sports events like charity runs. --Sending season’s greetings --Organizing physician orientation programs for newcomers. <p>Formalize channels for two-way communication. This includes embracing tradition as to how physicians in the organization would effectively interact. Emphasis should be drawn on listening and responding, closing the feedback loop to confirm what actions had or hadn’t been taken and why. Examples include:</p> <ul style="list-style-type: none"> --Define how quickly physician can respond to paging; --face-to-face meetings with senior leadership within and/between departments <p>Create data sharing and/or information technology-(IT) platforms to foster learning environment, e.g., web-based reports on quality of care indicators (i.e., length of stay, waiting times, and patient outcomes).</p> <p>Speed-dating event whereby clinicians and non-clinicians from various departments participate in workshop; work with medical faculties in specialty areas; physician administration partnership;</p> <p>Make connections to see the greater context of care through regional or national health care system. Examples include: Mayo clinic’s proposition that “the needs of the patient come first”; and using patient stories to galvanize doctors’ buy-in.</p> <p>Encouraging value services, and professional fulfillment through leadership support and team building.</p>	<p>Leadership that embraces clinicians as partners in the delivery of patient care.</p>	<p>Part-time physicians are less engaged simply because they are not on site as much and their affiliation is spread across multiple healthcare organizations and responsibilities.</p> <p>Silos that create barriers to strategic thinking and planning.</p>

Table 2: Multi-faceted approaches or strategies

This table is included to illustrate that there may be strategic benefit in considering where the facility is in the process of change and what opportunities are available for staged or synergistic interventions. Strategy in this form is likely to require the full participation of administrators/managers.

Systemic, or phased approaches		
A Phased process	Mcguire et al, (2012)	<p>Phase One: We aimed to achieve agreement on our institutional definition of physician engagement. We wanted to focus on quality and use this definition to guide our work.</p> <p>Phase Two: We conducted a formal survey to measure the state of physician engagement. We identified our unique institutional drivers of engagement, particularly those associated with opportunities for improvement.</p> <p>Phase Three: Having surveyed local drivers and barriers to engagement, we adapted and refined our strategy.</p> <p>Phase Four: Informed by phases one, two, and three, we adopted best practice strategies that aligned with our objectives, and retained a focus on physician engagement in improved quality of care.</p> <p>Phase Five: The 2009 evaluation identified clinical work processes, performance measurement, administrative management processes, organisational reputation, and health and wellbeing as areas with the greatest potential for physician engagement.</p>
A Multifaceted strategy	Kaissi 2012 (reporting on Rienertsen 2007)	<ol style="list-style-type: none"> 1. Discover common purpose: improving outcomes and efficiency. 2. Reframe values and beliefs: making physicians partners in, not customers of, the organisation, and promoting individual responsibility for quality. 3. Segment the engagement plan: fine-tuning engagement to reach different types of staff and physicians, identifying and encouraging champions, educating leaders, developing project management skills and working with laggards. 4. Use “engaging” improvement methods: using performance data in a way which encourages buy-in rather than resistance and making it easy for doctors to do the right thing for patients. 5. Show courage: supporting physician leaders all the way to the board. 6. Adopt an engaging style: involving doctors from the beginning, working with real leaders and early adopters, choosing messages and messengers carefully, making physician involvement visible, communicating candidly and often, and valuing physicians’ time by giving management time to them.

<p>A Sequential procedure</p>	<p>Shanafelt, 2017; Swenson, 2016 Listen Act Develop model at Mayo Clinic</p>	<p>Four step process repeated as cycles – focused on burnout but shows benefits in building engagement</p> <ol style="list-style-type: none"> 1. Listen: <ul style="list-style-type: none"> • Understand drivers (of burnout) • Convene focus groups to discuss and identify unique local opportunities • Listen to physician’s concerns • Create a single meaningful actionable plan based on driver of greatest importance in data collection 2. Act: <ul style="list-style-type: none"> • Empower physicians to develop and implement solutions • Identify physician champions and work with them • Assemble a multidisciplinary, fully resourced team with ample funded time for all members. • Find a solution or refine the process. Facilitate implementation. • Monitor outcomes. • Recognize accomplishments • Communicate results 3. Develop: <ul style="list-style-type: none"> • Select and develop physician leaders in the context of the improvement work. • Use the Listen-Act-Develop model as part of the leadership development process • Support physician leadership development with action learning, coaching, mentoring, assessment, assignments, and thoughtful planning of goals. • Provide feedback to frontline leaders from the colleagues with whom they work. • Provide resources to help them continue to develop as a leader. • Provide support including executive coaching and other offerings specifically designed to enhance a leader's ability to engage staff and mitigate burnout. 4. Repeat: <ul style="list-style-type: none"> • Commit to a continuous cycle of performance improvement. • Revisit findings from focus groups to identify the next round of improvement work related to drivers of engagement and burnout
-------------------------------	---	--

References:

- American Hospital Association (2016) Physician engagement: A necessary ingredient for the transformation of health care. *Hospitals & Health Networks*. 90, (9), 46-50.
- Atkinson, S., Spurgeon, P., Clark, J. and Armit, K. (2011), *Engaging Doctors: What Can We Learn from Trusts with High Levels of Engagement?*, NHS Institute for Innovation and Improvement and Academy of Medical Royal Colleges, University of Warwick, Coventry, retrieved Jan 30, 2017 from http://www.aomrc.org.uk/wp-content/uploads/2016/05/Engaging_Doctors_trusts_with_high_level_engagement_2011.pdf
- Barkholz, D. (2016). 'there's a culture of physician engagement and transparency'; Q&A Carl Armato. Chicago: Crain Communications, Inc.
- Clark, J. (2012). Medical leadership and engagement: No longer an optional extra. *Journal of Health Organization and Management*, 26(4), 437-443. doi:10.1108/14777261211251517
- Clement, L., Soroka, S., & Roblee, J, A. (2012), *Increasing Physician Engagement*. In *Qmentum Quarterly*, 4(3), 20-25. <http://www.accreditation.ca/sites/default/files/qg-2012-december.pdf>
- Cloutier, C., Denis, J., Langley, A., & Lamothe, L. (2016). Agency at the managerial interface: Public sector reform as institutional work. *Journal of Public Administration Research and Theory*, 26(2), 259-276. doi:10.1093/jopart/muv009
- Courchesne, C., Lorenzen, M. & Langlais C. (2012). Physician Engagement in Canadian Forces Health Services Accreditation. *Qmentum Quarterly* 4 (3): 10-13. <http://www.accreditation.ca/sites/default/files/qg-2012-december.pdf>
- Cowell, J.W., McBrien-Morrison, C., & Flemens, W. (2012) *Physician Advocacy, Physician Engagement - Two Sides of the Same Coin*, *Qmentum Quarterly* 4(3), 26 – 29. <http://www.accreditation.ca/sites/default/files/qg-2012-december.pdf>
- Denis J-L., Black C., Langley A., Lawless, B., Leblanc, D., Lusiani M., Hepburn C.M., Pomey M.P. (2013). *Exploring the Dynamics of Physician Engagement and Leadership For Health System Improvement*. <http://www.cfhi-fcass.ca/sf-docs/default-source/reports/Exploring-Dynamics-Physician-Engagement-Denis-E.pdf?sfvrsn=0> (Accessed, March 29, 2017).
- Dickson, G. (2012), "Anchoring physician engagement in vision and values: principles and framework", available at: http://www.cp-net.ca/site/ywd_dd_76/assets/pdf/anchoring_physician_engagement_in_vision_and_values_with_cover_lb_rev.pdf
- Gitkind, M. J., Perla, R. J., Manno, M., & Klugman, R. A. (2014). The "Physician-led chart audit: " engaging providers in fortifying a culture of safety. *Journal of Patient Safety*, 10(1), 72-79. doi:10.1097/PTS.0000000000000057
- Grimes, K. & Swettenham, J., Metrics@Work Inc. (2012). *Compass for Transformation: barriers and facilitators to physician engagement*. http://www.cp-net.ca/site/ywd_dd_76/assets/pdf/physician_engagement_4_-_lb_rev.pdf
- Hewison, A., Gale, N., Yeats, R., & Shapiro, J. (2013). An evaluation of staff engagement programmes in four National Health Service acute trusts. *Journal of Health Organization and Management*, 27(1), 85-105. doi:10.1108/14777261311311816
- Ignatowicz, A., Greenfield, G., Pappas, Y., Car, J., Majeed, A., & Harris, M. (2014). Achieving provider engagement: Providers' perceptions of implementing and delivering integrated care. *Qualitative Health Research*, 24(12), 1711-1720. doi:10.1177/1049732314549024
- Johnson, K., et al. (2014) *Engaging the Medical Staff Partnering with Doctors to Achieve Mutual Goals*. The Advisory Board Company, (exclusive use by members) https://www.advisory.com/-/media/ABI/Research/COB/Studies/2014/Engaging-the-Medical-Staff/28042_COB_Engaging_Medical_Staff_Final2.pdf
- Kaissi, A. (2012). *Roadmap for trust: Enhancing physician engagement*. http://www.cp-net.ca/site/ywd_dd_76/assets/pdf/a_roadmap_for_trust_with_cover___preface_-_lb_rev.pdf (Accessed January 19, 2017).
- Kaissi, A. (2014). *Enhancing physician engagement: An international perspective*. *International Journal of Health Services*, 44(3), 567-592. doi:10.2190/HS.44.3.h
- Kippist, L., & Fitzgerald, J. A. (2014). Professional identity: Enabler or barrier to clinical engagement? *Employment Relations Record*, 14(2), 27-48.
- Kreindler SA, Larson BK, Wu FM, Gbemudu JN, Carluzzo KL, Struthers A, et al. (2014) *The rules of engagement: physician engagement strategies in intergroup contexts*. *J Health Organ Manag* 28(1):41-61. Available: <http://doi.org/10.1108/JHOM-02-2013-0024>
- Langley, A. (2014). *Vers de nouvelles pistes de partenariat médico-administratif*. https://www.amq.ca/images/Medecins-gestionnaires/Partenariat-medico-adm/Projets-pilotes/2.2.2.3_Part_Med_Adm_Rapport_Final_2014-11-18.pdf (Accessed March 25, 2017)

- Lee, T., & Cosgrove, H. (2014). Engaging Doctors in the Health Care Revolution. *Harvard Business Review*, 235- 241.
- Lindgren, Å., Bååthe, F., Dellve, L., Institutionen för Vårdvetenskap, & Högskolan i Borås. (2013). Why risk professional fulfilment: A grounded theory of physician engagement in healthcare development. *The International Journal of Health Planning and Management*, 28(2), e138-e157. doi:10.1002/hpm.2142
- Lowe, G. (2012). Physician Engagement and Outstanding Care Qmentum Quarterly 4(3) 30 – 34. <http://www.accreditation.ca/sites/default/files/qq-2012-december.pdf>
- Magee, F. (2012). Physician engagement. Qmentum Quarterly 4(3): 34-36. <http://www.accreditation.ca/sites/default/files/qq-2012-december.pdf>
- Mays, N., Roberts, E., & Popay, J. (2001). Synthesising research evidence. In N. Fulop, P. Allen, A. Clarke, & N. Black (Eds.), *Studying the organisation and delivery of health services: Research methods* (pp. 188-219). London: Routledge.
- McGuire, S., Kitts, J., Turnbull, J. (2012). Developing an organizational strategy to support physician engagement and quality. Qmentum, 4(3) 14 - 17. <http://www.accreditation.ca/sites/default/files/qq-2012-december.pdf>
- Merlino, J., & Raman, A. (2013). Health care's service fanatics. *Harvard Business Review*, Watertown: Harvard Business School Publishing Corporation.
- Milliken, A. (2014). Physician engagement: A necessary but reciprocal process. *Canadian Medical Association Journal*, 186(4), 244-245. doi:10.1503/cmaj.131178
- Pannick, S., Sevdalis, N., & Athanasiou, T. (2016). Beyond clinical engagement: A pragmatic model for quality improvement interventions, aligning clinical and managerial priorities. *Bmj Quality & Safety*, 25(9), 716-725. doi:10.1136/bmjqs-2015-004453
- Schaufeli, W. B., Martínez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33(5), 464-481. doi:10.1177/0022022102033005003
- Scott, C, Theriault, A., McGuire S. et al. (2012). Developing a physician engagement agreement at The Ottawa Hospital: a collaborative approach. *Healthcare Quarterly* 15(3): 50-53.
- Silbaugh, B. (2012). Engaging physicians in teamwork. Qmentum, 4 (3), 18 – 20.
- Skillman, M., Cross-Barnet, C., Singer, R. F., Ruiz, S., Rotondo, C., Ahn, R., . . . Moiduddin, A. (2017;2016;). Physician engagement strategies in care coordination: Findings from the centers for medicare & medicaid services' health care innovation awards program. *Health Services Research*, 52(1), 291-312. doi:10.1111/1475-6773.12622
- Spurgeon, P., Mazelan, P.M., & Barwell, F. (2011). Medical engagement:a crucial underpinning to organizational performance. *Health ServicesManagement Research*, 24(3):114-120.
- Spurgeon, P., Long, P., Clark, J., & Daly, F. (2015). Do we need medical leadership or medical engagement? *Leadership in Health Services*, 28(3), 173.
- Suelflow, E. (2016). Systematic literature review: An analysis of administrative strategies to engage providers in hospital quality initiatives. *Health Policy and Technology*, 5(1), 2-17. doi:10.1016/j.hlpt.2015.10.001
- Swensen, S., Kabcenell, A., & Shanafelt, T. (2016). Physician-organization collaboration reduces physician burnout and promotes engagement: The mayo clinic experience. *Journal of Healthcare Management*, 61(2), 105-127.
- Taitz, J.M., Lee, T.H., & and Sequist, L.D. (2012) A framework for engaging physicians in quality and safety. *BMJ Quality & safety*, 21(9): p. 722-728.
- Vath, R. (2014). Engaging physician leaders for improved outcomes. *Health Progress*, 95(3), 21
- Whitlock, D. J., & Stark, R. (2014). Understanding physician engagement - and how to increase it. *Physician Leadership Journal*, 1(1), 8.
- Yardley, J., George, M., Hancharyk, & Vrieswyck, J. (2012) Physician Engagement: A Qualitative Study of Systems, in *Metrics@Work Inc.*, Grimes, K. & Swettenham, J. (2012). Compass for Transformation:barriers and facilitators to physician engagement. http://www.co-net.ca/site/ywd_dd_76/assets/pdf/physician_engagement_4_-_lb_rev.pdf