

IMPROVEMENT STRATEGIES MODEL: AVAILABILITY OF EFFECTIVE PRIMARY HEALTH CARE SERVICES: PROVIDER MOTIVATION

CORE PRINCIPLES OF AVAILABILITY OF EFFECTIVE PRIMARY HEALTH CARE SERVICES

The subdomain Availability of Effective PHC Services includes the presence of competent, motivated health workers at a health facility or in a community when patients seek care. Effective PHC also requires that providers and their patients build participatory relationships and a foundation of trust and respect. Health worker motivation is critical as it is associated with technical and experiential quality as well as effectiveness. Finally, effective PHC also requires safe practices routinely followed in the delivery of care.

PROVIDER AVAILABILITY

Availability is defined as the presence of a trained provider at a facility or in the community when expected and providing the services as defined by his or her job description. Availability is important because, while there are often shortages in human resources, deployed providers are frequently inappropriately absent or, when present, are not actively delivering health care because they are engaged in other duties.

PROVIDER COMPETENCE

Provider competence entails having and demonstrating the “knowledge, skills, abilities, and traits” to successfully and effectively delivery high-quality services.(1) Competency can be built during pre-service education as well as in-service education and is not limited to technical knowledge. A competent provider must also have strong empathy and communication skills, and these are considered important components of “experiential quality”, from the patient perspective.

PROVIDER MOTIVATION

“Motivation in the work context can be defined as an individual’s degree of willingness to exert and maintain an effort towards organizational goals.”(2) Motivation captures intrinsic and extrinsic characteristics that affect the behavior and performance of providers in a health system. Intrinsic motivation is the feeling of accomplishment driven by organizational goals and the impact of one’s work on patients and communities. Alternatively, extrinsic motivation is driven by monetary or non-monetary individual or environmental incentives.(2) Within motivation, the literature has a particular focus on degree of provider autonomy, degree of remunerative motivation, supportive supervision, options for professional development, and level of burnout.

PATIENT-PROVIDER RESPECT AND TRUST

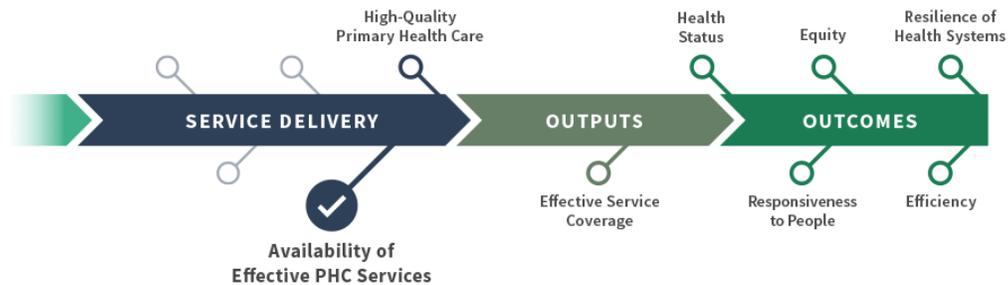
Patient-provider respect and trust refers to a relationship between patients and providers that is mutually respectful and trusting. Respect and trust between providers and patients can improve communication and provider motivation and contribute to the formation of continuous relationships over time.

SAFETY

“Patient safety is the absence of preventable harm to a patient during the process of health care and reduction of risk of unnecessary harm associated with health care to an acceptable minimum.”(3)

WHAT COULD YOUR COUNTRY ACHIEVE BY FOCUSING ON AVAILABILITY OF EFFECTIVE PHC SERVICES?

Improvements in availability of effective PHC services can lead to improvements in the following areas:



AVAILABILITY OF EFFECTIVE PHC SERVICES: WHAT ARE THE FIRST STEPS?

STEP 1: ENSURE AN ADEQUATE SUPPLY OF HEALTH WORKERS

An adequate supply of human resources for health on a national and subnational level is a foundation for implementing interventions intended to improve availability of effective PHC services. Training, recruiting, and deploying an appropriately sized and adequately trained workforce is discussed in greater detail in the Workforce module (forthcoming). However, an adequate supply of competent providers is only a first step towards achieving high-quality, available, and effective services.(4)

STEP 2: ENSURE THAT TRAINED AND COMPETENT PHC PROVIDERS ARE AVAILABLE TO PATIENTS

The presence of an appropriate number of providers is of limited benefit if providers are absent from their planned shifts or if service delivery is structured in such a way that patients are unable to access a skilled provider at convenient times. Patients can only receive high-quality care from competent providers if those providers are present in facilities or communities and trained in the relevant care. If provider absenteeism is driven by facility-level factors such as inadequate supervision, poor remuneration, a sense of ineffectiveness due to poor training or inadequate supplies, or a lack of professional development, improving provider motivation may concurrently address provider availability.

Even with the availability of large numbers of health workers, inadequately trained and skilled providers will likely not contribute to improving either individual or population-level health outcomes. Frontline primary care service delivery is a highly complex task, requiring the ability to diagnose and manage a wide range of possible illnesses in undifferentiated patients presenting at the first contact point with the health system. Additionally, providers health workers require appropriate and comprehensive training in prevention and promotion to engage with individuals and communities to promote health and wellbeing and address risk factors. Competency at these tasks requires substantial experience and training that often goes beyond typical academic degree-based educational programs, requiring post-graduate

experience and supervision. It is this comprehensive set of skills effectively applied in community settings that are likely to be responsible, at least in part, for overall improvements in morbidity and mortality.

STEP 3: ENSURE RESPECT AND SAFE PRACTICES THROUGHOUT

There are some overlaps between provider competence and patient-provider respect and trust.

Experiential quality of care - measured from the patient perspective - may influence patient choice and utilization of primary care facilities. Competence and safety have similar overlaps - a system staffed with a workforce without the necessary clinical competency will most certainly perform poorly on safety.

Safety includes not only provider knowledge in safe diagnostic, prescribing, and procedural practices, but also accessibility to the necessary supplies and equipment for a provider to perform his or her job.

What it is

PROVIDER MOTIVATION

What others have done

How to get started

How to succeed

“Motivation in the work context can be defined as an individual’s degree of willingness to exert and maintain an effort towards organizational goals.”(2) Motivation captures intrinsic and extrinsic characteristics that affect the behavior and performance of providers in a health system. Intrinsic motivation is the feeling of accomplishment driven by organizational goals and the impact of one’s work on patients and communities. Alternatively, extrinsic motivation is driven by monetary or non-monetary individual or environmental incentives.(2) Within motivation, the literature has a particular focus on degree of provider autonomy, degree of remunerative motivation, supportive supervision, options for professional development, and level of burnout.

WHAT SHOULD I KNOW BEFORE BEGINNING IMPLEMENTATION?

Work motivation has been defined as an “individual’s degree of willingness to exert and maintain an effort toward organizational goals” and is the result of a provider’s interactions with team members and other co-workers, organizational goals and culture, and larger socio-cultural expectations and values.(2) Provider motivation is closely related to both burnout and satisfaction. Providers who are more satisfied with their jobs are often more motivated, and burnout typically occurs when providers are overworked and unsatisfied. However, even providers who are experiencing burnout may still be motivated if they are intrinsically committed and passionate about the work they do and the impact they drive. Therefore, motivation is typically considered from two dimensions: extrinsic motivation and intrinsic motivation.

EXTRINSIC MOTIVATION

Extrinsic motivation refers to motivation that is incentivized by anything other than personal drive and commitment. Extrinsic motivation may be related to monetary or non-monetary individual incentives or environmental incentives. Individual monetary incentives may include: salary, pensions, insurance, travel, child care, rural location, heat, retention allowances, subsidized meals, subsidized clothing, and subsidized accommodation.(5)

It is important to note that all provider payment methods result in different incentives for providers. These incentives are described in Table 1. The Joint Learning Network has developed a [useful resource](#) on financing and payment models based on country implementation experience as well as a [manual](#) and [online course](#) on costing of health services for provider payment. Payment systems will be discussed in greater detail beyond their relevance to provider motivation within the Health Financing module (forthcoming).

Payment mechanism	Definition	Implementation of this mechanism may cause providers to...
Fee-for-service	Providers are paid for each service provided, and fees are fixed in advance for each service or group of services.	Increase the number of cases seen, increase service intensity, provide more expensive services

AVAILABILITY OF EFFECTIVE PRIMARY HEALTH CARE SERVICES > PROVIDER MOTIVATION

Case payment	Hospitals are paid a fixed amount per admission or discharge depending on the patient and clinical characteristics.	Increase number of cases seen, increase service intensity, provide more expensive services
Daily charge	Hospitals are paid a fixed amount per day for each admitted patient. The payment may differ based on department, patient, clinical characteristics, or other factors.	Increase the number of bed days through longer stays or more cases
Capitation	Providers are paid a fixed amount in advance to provide a defined set of services for each enrolled individual for a fixed period of time.	Attract more patients to register while minimizing the number of contacts with each and minimizing service intensity
Global budget	Providers receive a fixed amount for a specified period to cover aggregate expenditures to provide an agreed-upon set of services. Budget is not tied to line items.	Reduce the number of patients and the number of services provided
Performance-based financing	Providers are paid some, all, or a bonus of their salary based on their performance relative to a pre-specified set of criteria.	Provide care according to the set criteria to the detriment of other considerations.

What it is

Source: adapted from Hongoro 2006 and JLN Costing of Health Services for Provider Payment (5,6)

What others have done

Performance-based financing (PBF - also called results-based financing or pay-for-performance) is a mechanism that is commonly used to motivate improved quality of care and increase volume of services. PBF approaches are typically used in conjunction with other provider payment mechanisms and can be adapted to incentivize particular actions.(7) However, successful implementation of PBF is contingent upon strong managerial capacity and effective information systems to track performance.(8)

How to get started

How to succeed

PBF approaches have been implemented in various LMICs over the past decade. There is mixed and limited evidence of their effectiveness. In some instances, PBF has been found to be expensive, inequitable, promotive of perverse incentives, and as a result of poor design and adaptation, it may be deleterious to service delivery.(9) Implementation of PBF may detract from other infrastructure or human resource investments if not carefully designed. Additionally, in LMIC, PBF has been nearly always funded by donors, raising concerns about appropriate contextual adaptation, ownership, and sustainability.

Non-financial individual incentives that influence provider motivation include: vacation days, flexible working hours, access to training and education, sabbatical and study leave, planned career breaks, occupation health, functional and professional autonomy, technical support and feedback systems, transparent reward systems, and being valued by the organization.(5) These incentives can be planned and implemented at the facility level and require the oversight and leadership of facility managers.

Finally, environmental incentives relevant to provider motivation include amenities, transportation, job for spouse, and school for children. Improving these environmental conditions require intersectoral collaboration and action. These environmental conditions also influence provider availability, particularly in rural areas.(5)

INTRINSIC MOTIVATION

Intrinsic motivation is the feeling of accomplishment or satisfaction with organizational goals and with the impact of one’s work.(2) Most motivation-related incentives and interventions are monetary, and relying on these methods alone may not be sufficient to improve all aspects of motivation.(10) However, these interventions can be paired with efforts to improve provider satisfaction through intrinsic (or internal) motivation. Interventions related to intrinsic motivation are typically pursued at the facility or community-level.

Patient-provider interactions as experienced from the perspective of patients are addressed in provider competence (forthcoming) and [patient-provider respect and trust](#). However, patient-provider interactions from the providers’ perspective are an important determinant of providers’ intrinsic motivation. For that reason, community engagement and support may help foster relationships between providers and communities and contribute to improved intrinsic provider motivation. A study in Ghana evaluated the effect of Systematic Community Engagement (SCE) on intrinsic motivation among health workers.(10) SCE was pursued through community group assessments of healthcare quality based on participants’ most recent experiences in a given facility.(11) These assessments were used to guide facility management and subsequent interventions. The findings from this study suggested that intrinsic motivation was stronger among providers in intervention facilities compared with facilities that did not implement SCE. The implementers hypothesized that providers working in facilities that were assessed by community members would have more positive interactions with patients than those working in facilities that were not assessed by community members. While promoting intrinsic motivation through community engagement should not replace monetary incentives, it may be effective in complementary ways.

While the purpose of community engagement in the Ghanaian example above was to receive feedback on facility-level quality, more direct interactions between community members and providers may also be a

What it is

strategy for improving provider motivation. Particularly when providers are posted in unfamiliar or remote areas, community support is important to make health workers feel welcomed and to connect them with the community, which may in turn help promote intrinsic motivation.(12) Although it has not been studied in the context of provider motivation, the Community Health Planning and Services (CHPS) program in Ghana has integrated community engagement into many aspects of implementation. In particular, community-based providers are introduced to and approved by the community during community meetings, called durbars.(13) By socializing providers and the services they deliver with communities, providers may feel more supported in the work they provide and motivated by the impact they make.

What others have done

How to get started

How to succeed

Facility managers have an important role in provider motivation and can help support and foster intrinsic motivation with their staff. The Institute for Healthcare Improvement has developed a guide for conversations between leaders and colleagues related to satisfaction and joy. The strategy - called “Joy in Work” - suggests that by encouraging joy and engagement in work, providers will experience reduced burnout and improved patient care.(14) They identify four steps for managers to follow in order to foster these conversations:

- ▶ Ask colleagues “what matters to you?”
- ▶ Identify unique impediments to joy in work in the local context
- ▶ Commit to a systems approach to making joy in work a shared responsibility at all levels of the organization

Use improvement science to test approaches to improving joy in work in your organization

The framework identifies the following elements as promoting a happy, healthy, productive workforce: physical and psychological safety, meaning and purpose, choice and autonomy, recognition and rewards, participative management, camaraderie and teamwork, daily improvement, wellness and resilience, and real-time measurement. The [guide](#) includes tools such as conversation guides, change ideas, and assessment guides.

What it is

WHAT HAS BEEN DONE ELSEWHERE TO IMPROVE PROVIDER MOTIVATION?

What others have done

How to get started

How to succeed

MONETARY EXTRINSIC MOTIVATION - THAILAND, COSTA RICA, ESTONIA

Over the last several decades, performance-based financing (PBF) has been used to motivate health workers and improve quality of care. However, PBF can be integrated into provider payment mechanisms in a variety of ways, and the success of each is contingent upon local context. While there are observed challenges associated with PBF, the case studies below focus on relatively successful interventions of PBF that also highlight the complexities of measure selection.

Thailand implemented PBF for primary care providers in 2013 using the UK Quality and Outcomes Framework.⁽¹⁵⁾ The PBF program is supplemental to capitated payments which are the primary method of provider payment in Thailand. Thailand's program was designed to incentivize the provision of health promotion and disease prevention, primary care services, organizational development and management, and services targeted to local needs. In pursuit of this latter goal, the indicators that providers are evaluated against differ between regions in order to address local health problems and facilitate decentralized decision-making power. Program implementation was challenging due to a number of factors. Most importantly, the program was not piloted prior to widespread implementation, and although policy-makers did anticipate challenges due to the health system differences between Thailand and the UK, they planned to adapt the program during implementation. Additionally, while local indicators were needed to develop the program, dissemination of details related to the program was poorly timed, resulting in a delay in initial implementation. Finally, the information systems were not reliable to perform the tasks necessary for successful implementation of the PBF program.

Following the initial implementation of this program and feedback that the indicators had poor validity, the quality indicators were adapted through collaboration with the National Institute of Health and Care Excellence. An extensive indicator development and testing plan was developed.⁽¹⁶⁾ Through this process, implementers were able to evaluate the validity and reliability of the indicators in practice and adapt as necessary. Details on the process can be found in [this](#) paper. To our knowledge, there has yet to be an evaluation of the implementation of these revised indicators.

Costa Rica has achieved remarkable population health outcomes due to a strong focus on and commitment to primary health care and community-based services since the early 1990s.⁽¹⁷⁾ In 1996, Costa Rica instituted a version of PBF, called management commitments. In this model, the Costa Rican social security agency - the Coja Costarricense de Seguro Social (CCSS) - and service providers agree to performance indicators and targets on an annual basis. However, an early evaluation of this program found mixed results. Not only were the monetary incentives insufficient, but providers felt that the achievement of targets detracted from their work and sometimes prevented them from providing people-centered, comprehensive, and compassionate care.⁽⁸⁾ Often, indicators and targets measured activities and performance rather than outcomes, leaving providers little freedom to provide care tailored to specific patients' needs. The management commitment process has since been reformed; indicators and targets are now instead centered on outcomes and system improvements.⁽¹⁷⁾ This new process has enabled providers to focus more on preventive care and proactive health needs.

Provider payment in Estonia includes a mix of monthly allowances, fee-for-service, and PBF through the Quality Bonus System (QBS). The QBS was introduced in 2006 and became mandatory for all family physicians in 2016. In this model, providers earn points based on annually revised indicators related to disease prevention, chronic disease management, and other activities.⁽⁷⁾ However, like Costa Rica, the performance indicators incentivized providers to prioritize specific services rather than focus on more holistic, comprehensive care.⁽¹⁸⁾ Despite this, there is evidence of improvement in most of the indicators

What it is

measured through the QBS. However, improvement cannot be entirely attributed to QBS because it was implemented concomitantly with other primary health care strengthening strategies such as organizational reforms, strengthened workforce, and improved information systems. (19)

What others have done

How to get started

How to succeed

In these geographically diverse cases, the indicators and targets initially chosen for PBF schemes limited providers' autonomy and ability to practice person-centered care. (8,15,18) Revision of indicators to instead measure outcomes has been shown to improve provider acceptability. (17) However, the success of these schemes is also dependent upon robust capacity and infrastructure to measure performance and monitor programs. PBF is discussed here as an example of a payment scheme that can affect provider motivation; it will also be discussed in payment systems (forthcoming) along with other provider payment mechanisms. To our knowledge, PBF is the most empirically researched of the various monetary external motivation strategies. However, there are many others including pensions, insurance, travel, child care, rural location, heat and retention allowance; and subsidized meals, clothing, and accommodation. (5)

MEASUREMENT - MULTIPLE COUNTRIES

Motivation and satisfaction can be challenging to measure because they are often influenced by local values, resources, and practices. While there are many tools that can be used to measure motivation in developed settings, they may not be applicable in developing countries, and few have been extensively tested. (20) The absence of these measures has been particularly evident in the context of interventions designed to improve provider motivation, such as the Quality of Prenatal and Maternal Care: Bridging the Know-Do Gap (QUALMAT) project in Burkina Faso, Ghana, and Tanzania. A primary objective of this project was the development of a clinical decision support system for pregnancy care to improve competence and motivation. (21) In an effort to evaluate this project, researchers developed a tool to measure provider motivation in these countries. (20) The initial tool was developed through consideration of the QUALMAT conceptual framework, qualitative research, and a literature review. Experts and senior health staff reviewed measures for validity. The final instrument includes measures related to four areas: demographics, management, performance, and individual factors. The instrument can be found in [this paper](#). When the evaluators compared results across contexts, they found that some internal consistency was lost, and they attributed this to the culturally-specific nature of motivation. (20)

Similar strategies have been used to develop instruments to measure provider motivation in [Kenya](#) and [India](#). These instruments may be a valuable resource for implementers seeking to evaluate provider motivation in other low and middle-income settings; however, extensive time must be planned to adapt the instrument to the local context.

What it is

What others
have done

How to get
started

How to
succeed

WHAT QUESTIONS SHOULD BE CONSIDERED TO BEGIN IMPROVEMENTS?

The questions below may be a useful starting place for determining if provider motivation is an appropriate area of focus for a given context and how one might begin to plan and enact reforms:

IF THERE ARE PERFORMANCE-BASED FINANCING MECHANISMS IN PLACE, HOW WERE INDICATORS AND TARGETS SELECTED? DO THEY DESCRIBE ACTIVITIES OR OUTCOMES?

Selection of appropriate indicators is a critical component of a successful PBF system. Indicators should align with improved outcomes in primary health care and allow providers to flexibly practice person-centered care.

WERE PROVIDERS CONSULTED DURING THE PROCESS OF DETERMINING PERFORMANCE-BASED FINANCING INDICATORS AND TARGETS, AND AT WHAT LEVEL ARE THEY DETERMINED?

Indicators should be realistic to providers and flexible enough to align with local needs and priorities. Providers can provide important insight into this process.

CAN TARGETS AND INDICATORS BE MEASURED USING THE EXISTING INFORMATION TECHNOLOGY? IS COLLECTION OF THESE INDICATORS BURDENSOME ON PROVIDER?

PBF systems may not be feasible in settings that do not have the means to record, track, and analyze these data. Additionally, it is important to understand how collection of indicators will impact workflow and if data collection can easily integrate into existing systems or if restructuring of responsibilities and/or additional training is necessary.

DO THE SYSTEMS GENERATE PERVERSE OR NON-PATIENT CENTERED INCENTIVES? ARE THEY ADAPTABLE?

If they are not well designed, PBF schemes may incentivize providers to deliver care that is counter to their best judgement and not patient-centered. It is important to understand how measures that comprise a PBF system change provider behavior. Choosing indicators that are based on outcomes instead of activities may help.

WHAT OTHER MONETARY MOTIVATIONAL INCENTIVES ARE OFFERED TO PROVIDERS?

Monetary compensation is not the only means of improving extrinsic motivation. Other lifestyle incentives such as insurance, travel, allowances for child care, subsidized meals, clothing, and accommodation may be equally valuable to providers, particularly those posted in underserved areas.

DO PROVIDER HAVE THE APPROPRIATE SUPPLIES AND INFRASTRUCTURE TO EFFECTIVELY CARRY OUT THEIR JOBS?

If providers are not supported by the necessary supplies and facility infrastructure to carry out their tasks, they may be more likely to experience burnout. These may include drugs, medical tools, running water, light, and sterilization equipment.

What it is

What others
have done

How to get
started

How to
succeed

WHAT KIND OF SUPERVISION, TRAINING, AND MENTORSHIP DO PROVIDERS RECEIVE? WHAT CAREER DEVELOPMENT OPPORTUNITIES ARE AVAILABLE? ARE JOB DESCRIPTIONS CLEAR TO PROVIDERS? IS PROVIDER CASELOAD APPROPRIATE?

Provider support systems are important determinants of motivation. Facility managers should ensure that providers receive regular supervision and training, opportunities to improve their skills and grow within their professional track, and are not overworked.

IS COMMUNITY ENGAGEMENT ACTIVELY SOLICITED? ARE COMMUNITIES SUPPORTIVE OF PROVIDERS' WORK, PARTICULARLY OUTREACH ACTIVITIES IN COMMUNITIES AND HOMES?

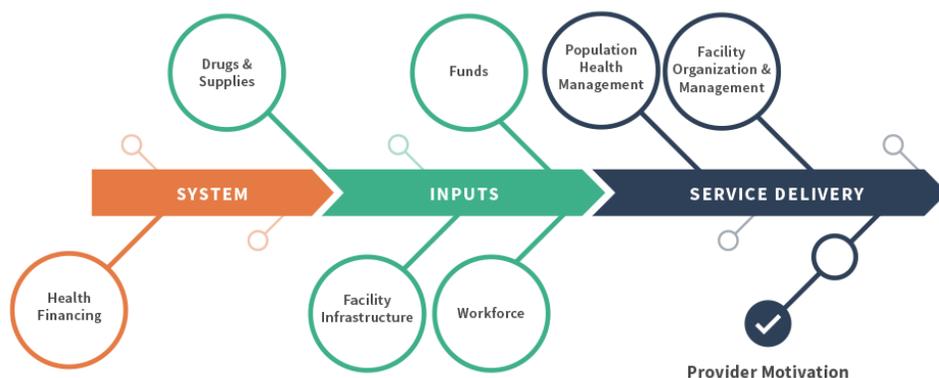
Providers may be likely to feel intrinsically motivated if they feel they are supported by the community and providing services that are appreciated and valued. This can be achieved by active and continuous engagement with community members.

DO PROVIDERS ENJOY THEIR JOBS? DO FACILITY MANAGERS ASK PROVIDERS ABOUT JOY AND MOTIVATION? HOW DO THEY USE THESE CONVERSATIONS TO GUIDE CHANGES IN SERVICE DELIVERY OR FACILITY ORGANIZATION?

It is important to engage in active and ongoing conversations about providers' happiness, satisfaction, motivation, and joy. This can be promoted by facility leaders.

WHAT ELEMENTS SHOULD BE IN PLACE TO SUPPORT EFFECTIVE IMPROVEMENTS?

In order for interventions aimed at improving provider availability to be most successful, the following elements of the PHCPI Conceptual Framework should be in place or pursued simultaneously:



B4. WORKFORCE

Provider caseload is significant determinant of motivation and satisfaction. (22,23) It is important that there is a sufficiently sized workforce to ensure that providers are not overworked and are given enough time to receive in-service training, engage in career development-related activities, and meet with supervisors. All of these activities can contribute to improved motivation and satisfaction and reduce burnout.

C2. FACILITY ORGANIZATION AND MANAGEMENT

There are a number of contextual factors that determine provider satisfaction and motivation and many, of these can be addressed at the facility level and are influenced by management processes within a facility. For instance, supervision, training, and opportunities for upward mobility can all be fostered and encouraged by facility leadership. Additionally, effective performance measurement and management practices can help identify weaknesses within the current system that are placing unnecessary burdens on providers, such as lack of drugs and equipment, inefficient patient flow, or laborious and time-intensive data reporting requirements. Providers should have adequate input into facility flow and support structures to best support their success and improve their motivation.

A2.A & B5 PAYMENT SYSTEMS & FUNDS

Each of the common provider payment methods promotes unique motivational incentives for providers and/or care teams. Most fundamentally, receiving compensation in a timely and reliable manner is an important element of both provider availability and motivation. Providers cannot be expected to be motivated and have the means to support themselves if they are not reliably compensated for their work.(5) Therefore, even before changing provider payment systems to promote provider motivation, it may be important to build the necessary structures to ensure timely compensation.

B1. & B2. DRUGS & SUPPLIES AND FACILITY INFRASTRUCTURE

Environmental factors and facility inputs are an important determinant of health worker motivation.(5) Providers should be supported by all of the tools and infrastructure needed to effectively carry out their

What it is
 What others
 have done
 How to get
 started
**How to
 succeed**

expected responsibilities. Insufficient inputs may place an unnecessary burden on providers and contribute to provider burnout or even unsafe provision of care.

C1.B COMMUNITY ENGAGEMENT

Community oversight of facility activities and community approval and support of providers and their services may be a valuable tool for improving provider motivation. (10,12) Communities should be involved in the evaluation of facilities and services and also the selection and socialization of providers, particularly community-based providers in rural areas. This interaction between patients and providers may encourage stronger relationships and contribute to intrinsic motivation of providers.

Suggested citation: “Availability of Effective Primary Health Care Services: Provider Motivation.” *Improvement Strategies*. Primary Health Care Performance Initiative, 2018, <https://improvingphc.org/provider-motivation>. Accessed [insert date].

REFERENCES - AVAILABILITY OF EFFECTIVE PHC SERVICES: PROVIDER MOTIVATION

1. Kak N, Burkhalter B, Cooper M. Measuring the Competence of Healthcare Providers. *Qual Assur*. 2001;2(1):1-28.
2. Franco LM, Bennett S, Kanfer R. Health sector reform and public sector health worker motivation: a conceptual framework. *Soc Sci Med*. 2002;54(8):1255-66.
3. Patient safety. World Health Organization.
4. Cometto G, Witter S. Tackling health workforce challenges to universal health coverage: setting targets and measuring progress. *Bull World Health Organ*. 2013 Nov;91(11):881-5.
5. Hongoro, Charles; Normand C. Health Workers: Building and Motivating the Workforce. In: *Disease Control Priorities in Developing Countries*, 2nd Edition. 2006.
6. Ozaltin A, Cashin C. Costing of Health Services for Provider Payment: A Practical Manual Based on Country Costing Challenges, Trade-offs, and Solutions [Internet]. Joint Learning Network for Universal Health Coverage. 2014. Available from: <http://www.jointlearningnetwork.org/resources/costing-of-health-services-for-provider-payment-a-practical-manual>
7. Financing and payment models for primary health care: six lessons from JLN country implementation experience [Internet]. Available from: <http://www.jointlearningnetwork.org/resources/phc-financing-and-payment-models>
8. Soors W, De Paepe P, Unger J-P. Management commitments and primary care: another lesson from Costa Rica for the world? *Int J Health Serv* [Internet]. 2014;44(2):337-53. Available from: <http://journals.sagepub.com/doi/10.2190/HS.44.2.j>
9. Paul E, Albert L, Bisala BN, Bodson O, Bonnet E, Bossyns P, et al. Performance-based financing in low-income and middle-income countries: isn't it time for a rethink? *BMJ Glob Heal* [Internet]. 2018;3(1):e000664. Available from: <http://gh.bmj.com/lookup/doi/10.1136/bmjgh-2017-000664>
10. Alhassan RKA, Nketiah-Amponsah E, Spieker N, Arhinful DK, De Rinke Wit TF. Assessing the impact of community engagement interventions on health worker motivation and experiences with clients in primary health facilities in Ghana: A randomized cluster trial. *PLoS One*. 2016;11(7):1-19.
11. Alhassan RK, Nketiah-Amponsah E, Spieker N, Arhinful DK, Ogink A, Van Ostenberg P, et al. Effect of community engagement interventions on patient safety and risk reduction efforts in primary health facilities: Evidence from Ghana. *PLoS One*. 2015;10(11).
12. Prytherch H, Kagoné M, Aninanya GA, Williams JE, Kakoko DC, Leshabari MT, et al. Motivation and incentives of rural maternal and neonatal health care providers: a comparison of qualitative findings from Burkina Faso, Ghana and Tanzania. *BMC Health Serv Res* [Internet]. 2013;13(1):149. Available from: <http://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-13-149>
13. Koku Awoonor-Williams J, Tادiri E, Ratcliffe H. Translating research into practice to ensure community engagement for successful primary health care service delivery: The case of CHPS in Ghana [Internet]. Primary Health Care Performance Initiative. [cited 2017 Aug 9]. Available from: <http://phcperformanceinitiative.org/translating-research-practice-ensure-community-engagement-successful-primary-health-care-service-delivery-case-chps-ghana>
14. Perlo J, Balik B, Swensen S, Kabcenell A, Landsman J, Feeley D. *IHI Framework for Improving Joy in Work*. IHI White Paper. Cambridge, Massachusetts; 2017.
15. Khampang R, Tantivess S, Teerawattananon Y, Chootipongchaivat S, Pattanapesaj J, Butchon R, et al. Pay-for-performance in resource-constrained settings: Lessons learned from Thailand's Quality and Outcomes Framework. *F1000Research* [Internet]. 2016;5(0):2700. Available from:

- <https://f1000research.com/articles/5-2700/v1>
16. Khampang R, Teerawattananon Y, Tantivess S, Cluzeau F, Foskett-Tharby R, Gill P. Developing and testing quality indicators for the Thai Quality and Outcomes Framework. *Saf Heal* [Internet]. 2017;3(1):14. Available from: <https://safetyinhealth.biomedcentral.com/articles/10.1186/s40886-017-0065-6>
 17. Pesec M, Ratcliffe HL, Karlage A, Hirschhorn LR, Gawande A, Bitton A. Primary Health Care That Works: The Costa Rican Experience. *Health Aff (Millwood)*. 2017 Mar;36(3):531-8.
 18. The World Bank Group. *The State of Health Care Integration in Estonia*. 2015.
 19. Pay for performance in Estonia: A transformative policy instrument to scale up prevention and management of noncommunicable diseases [Internet]. 2015. Available from: <http://www.euro.who.int/en/health-topics/Health-systems/health-systems-response-to-ncds/publications/2015/pay-for-performance-in-estonia-a-transformative-policy-instrument-to-scale-up-prevention-and-management-of-noncommunicable-diseases-2015>
 20. Prytherch H, Leshabari MT, Wiskow C, Aninanya GA, Kakoko DC V, Kagoné M, et al. The challenges of developing an instrument to assess health provider motivation at primary care level in rural Burkina Faso, Ghana and Tanzania. *Glob Health Action* [Internet]. 2012 Jan [cited 2015 Aug 18];5:1-18. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3464065&tool=pmcentrez&rendertype=abstract>
 21. Blank A, Prytherch H, Kaltschmidt J, Krings A, Sukums F, Mensah N, et al. “quality of prenatal and maternal care: Bridging the know-do gap” (QUALMAT study): An electronic clinical decision support system for rural Sub-Saharan Africa. *BMC Med Inform Decis Mak*. 2013;13(1).
 22. Dawson AJ, Nkowane AM, Whelan A. Approaches to improving the contribution of the nursing and midwifery workforce to increasing universal access to primary health care for vulnerable populations: a systematic review. *Hum Resour Health* [Internet]. 2015;13:97. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26684471>
<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC4683743>
 23. Belita A, Mbindyo P, English M. Absenteeism amongst health workers - developing a typology to support empiric work in low-income countries and characterizing reported associations. *Hum Resour Health* [Internet]. 2013;11(1):34. Available from: <http://human-resources-health.biomedcentral.com/articles/10.1186/1478-4491-11-34>