The American University in Cairo

School of **Global Affairs** and **Public Policy**

THE PUBLIC POLICY HUB

Increasing the Retention of the Health Workforce in Egypt: Improving Work Environments
A Policy Paper

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Problem Statement

According to the World Health Organization (WHO), an average of 4.45 health workers per 1,000 population is required to reach the Sustainable Development Goals' (SDGs) health-related targets[1]. This amounts to a total global deficit of 17.6 million health workers relative to the current supply with a projected deficit of 13.6 million health workers on Low-and Middle- Income Countries (LMICs) alone[2].

Egypt, a lower-middle income country in the Middle East and North Africa (MENA) region, faces an urgent public health crisis which is a shortage in its health workforce retention.[3] The Egyptian medical syndicate states that, as of September 2020, there were 229,033 registered physicians in the Ministry of Health (MoHP)[4]. However, the actual number of working physicians in the public health sector in Egypt represented in the MoHP nears 108,000 physicians, not counting other essential health workers (nurses, dentists, pharmacists, physical therapists, and laboratory technicians)[5] . This means that, in reality, more than half of the above stated health workforce does not actively provide health services in the public health sector in Egypt. This deficit is significantly less than the WHO-recommended "4.45 health workers per 1000 population", leaving the Egyptian public sector of health unable to achieve health-related SDGs and Egypt's Vision for Health in 2030.

The shortage in physicians alone in Egypt (not targeting nurses and other health workforce members) is calculated at 1.3 physician to 1000 population in Egypt, which is nearly half the recommended WHO average of 2.3 physicians to 1000 population[6].

This deficiency requires a set of short, intermediate, and long-term actions from multiple stakeholders in the country. One immediate action is the retention of the current available health workforce in the public sector, while the intermediate and long-term actions consider the production of more health workforce members (in terms of quantity and quality). The focus of this policy paper is to suggest policy options to retain the current Egyptian health workforce in the public sector represented in the Egyptian MoHP.

To retain the current health workforce, a deeper understanding of the push and pull factors for the health workforce is needed. It is critical to underpin the driving forces which trigger healthcare migration from the MoPH. It is equally important to provide policy options to retain the existing healthcare workforces. This paper examines these issues.

There are numerous reasons to explain the "brain drain" phenomena, where physicians leave the public sector to seek better opportunities and expectedly it is due to the healthcare working environment. Upon primary data collection from the head of the "Health Workforce Affairs Unit" in the MoHP and interviews with doctors, four main causes emerged:

- Fluctuating trust levels of the healthcare workers towards their establishment.
- The need for better incentives (Financial and Non-financial).
- The administrative complexities facing the Egyptian health workforce.
- A lack of continuous systematic capacity building of the health workforce.

[1] https://apps.who.int/iris/bitstream/handle/-9789241511407/250330/10665eng.pdf
[2] World Health Organization. (2019). Global Spending on Health: A World in Transition. WHO | World Health Organization. https://www.who.int/health_financing/documents/health-expenditure-report2019-.pdf?ua=1
[3] World Integrated Trades Solutions. (2020). Egypt, Arab rep. Trade statistics | WITS. World Integrated Trade Solution (WITS) | Data on Export, Import, Tariff, NTM. Retrieved January 2021 ,23, from https://wits.worldbank.org/CountryProfile/en/EGY
[4] الوحدة المركزية لشئون مقدمي الخدمة الطبية. (٢٠٢٠). دراسة عن الوضع الحالي والاحتياجات المستقبلية من المهن الطبية في جمهورية مصر العربية.
[5] الوحدة المركزية لشئون مقدمي الخدمة الطبية. (٢٠٢٠). دراسة عن الوضع الحالي والاحتياجات المستقبلية من المهن الطبية في جمهورية مصر العربية.
[6] EDHS. (2014). Overview of the Health System in Egypt. The DHS Program - Quality information to plan, monitor and improve population, health, and nutrition programs. https://dhsprogram.com/pubs/pdf/SPA02/5chapter02.pdf

Policy Options

Three options are suggested to address the problems causing the low retention rates of the health workforce in the Egyptian public health sector. In this policy paper, we suggest three policy options that address each of the root causes:

- Enhancing healthcare workers organizational trust within the MoHP
- Providing a combination of financial and non-financial incentives
- Developing a digital human resources system providing multiple services

For each policy option, we will provide a comprehensive analysis and we will outline the unexpected consequences, so that they are taken into account in the policy making process. Furthermore, we will highlight both the advantages and disadvantages of each option. We will also assess the economic constraints and the political feasibility for each option. Finally, we will provide recommendations for policymakers in the conclusion of the paper to enable action towards improved working environments and a higher retention of the health workforce in the Egyptian MOHP.

Policy Option 1: Enhancing the healthcare workers' organizational trust within the Ministry of Health and Population

<u>Background</u>

Organizational trust is a belief held by an individual, or a group, that their establishment will exert real efforts to abide by implicit or stated commitments. It is also the belief that the organization is transparent in negotiating commitments and that it will not take advantage of its employees if possible[7].

Trust encompasses dimensions like competence, integrity, reliability, and openness. Moreover, trust includes concern for employees and identification (the level of commonality of goals, values and norms between the organization and its employees). Furthermore, satisfaction, commitment, control mutuality (the level of agreement between parties on who has a rightful power or influence on the other), exchange relationships, and communal relationships are considerable dimensions when thinking about trust. These dimensions are identified in annex I[8].

A pathology in organizations is Organizational Trust Failure (or Deficit), that is either a single significant incident, or "cumulative series of incidents, resulting from the action (or inaction) of organizational agents that threatens the legitimacy of the organization and has the potential to harm the well-being of one or more of the organization's stakeholders"[9].

<u>Why is it important?</u>

Extensive literature points out that Organizational Trust is a strong predictor of job satisfaction and commitment in the health sector[10]. With an improved job satisfaction, the health workforce is significantly retained[11].

[7] Cummings L, Bromiley P. (1996) The organizational trust inventory (OTI). In R Kramer & T Tyler (Eds.), Trust in organizations: Frontiers of theory and research. Thousand Oaks: Sage Publishers,330-302.

[8] Paine, K. D. (2003). Guidelines for measuring trust in organizations. The institute for public relations, 10-9 ,2003.

[9] Gillespie, N., & Dietz, G. (2009). Trust repair after an organization-level failure. Academy of management review, 145-127 ,(1)34.

[10] Gider, Ö., Akdere, M., & Top, M. (2019). Organizational trust, employee commitment and job satisfaction in Turkish hospitals: implications for public policy and health. Eastern Mediterranean Health Journal, 9)25).

[11] Wang, L., Tao, H., Ellenbecker, C. H., & Liu, X. (2012). Job satisfaction, occupational commitment and intent to stay among Chinese nurses: a cross□sectional questionnaire survey. Journal of advanced nursing, 549-539 ,(3)68.

Policy Options

Organizational trust was shown to be associated with employee diligence and performance beside the willingness to stay in the organization[12]. That said, **"when the level of trust increased, the level of intent to stay at work also increased."**[13]

Organizational trust is hence a key determinant of health workforce retention. Thus, careful consideration must be given to enhance the health care working environment and to retain physicians in the public sector. In several interviews with physicians, lack of trust came up as a main theme leading to unsatisfactory working environments and triggering physicians' migration either to the private sector or to seeking jobs abroad.

Policy makers can adopt proactive policies to start a positive feedback mechanism of enhanced trust, transformed working environments, deepened job satisfaction, improved performance, and heightened intent to stay and serve. To start with, measuring organizational trust could be considered as a baseline to implement strategic change.

What to Do? Trust Repair and Enhancement

It starts with measuring trust within the organization and identifying existing problems. Surveys measuring trust are a significant tool. A sample of trust measurement tools is readily available in Annex II[14]. The tool can be used to measure dimensions of the most common trust issues as synthesized by literature. The literature identifies trust issues as follows: disrespectful behaviors, unmet expectations, communication issues, ineffective leadership, unwillingness to acknowledge performance issues, incongruence (gap between announced values and executed ac-

tions), and structural issues (lack or excessive structure, imbalance between authority and responsibility). These notions are defined in Annex III.[15]

Several scholars describe the process of identifying trust deficits as **"Trust Repair".** **Decision makers are to solve existing trust problems first.** Three main approaches for repairing trust are:[16]

1. Verbal accounts (explanations, accounts, and apologies).
2. Actions taken to fix existing problems and accepted by affected parties.
3. Structural solutions (that help avoid future trust violations).

As trust issues are gradually tackled, organizations have a crucial role to promote a positive culture of trust (Figure 1). This approach is beyond restoring trust deficits and solving problems. It is positive in the sense that it is a proactive effort to instill trust within the health workforce.

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[12] Altuntas, S., & Baykal, U. (2010). Relationship between nurses' organizational trust levels and their organizational citizenship behaviors. Journal of nursing scholarship, 194-186 ,(2)42.

[13] Atiyeh, H. M., & AbuAlRub, R. F. (2017, October). The relationship of trust and intent to stay among registered nurses at Jordanian hospitals. In Nursing forum (Vol. 52, No. 4, pp. 277-266).

[14] Paine, K. D. (2003). Guidelines for measuring trust in organizations. The institute for public relations, 10-9 ,2003

[15] Kramer, R. M., & Lewicki, R. J. (2010). Repairing and enhancing trust: Approaches to reducing organizational trust deficits. Academy of Management Annals, 277-245 ,(1)4.

[16] Ibid., 255-254

Policy Options

Trust needs assessment

1

Trust repair:
Solving existing trust problems

Trust Building:
Promoting a culture of trust

Normative

2

Is there a trust problem arising because of an exiting, outdated or absent text?

Normative

4

Are there ways of building more trust within employees by removing, changing or adding codified policies?

7

3 Actual

Are there commonly reported frustrations and trust problems becuase of non abidance to rules?

5 Actual

6

Are there ways to improve monitoring of adherence to rules to increase the trust in the system and leadership?

Negative approach

Iterative process
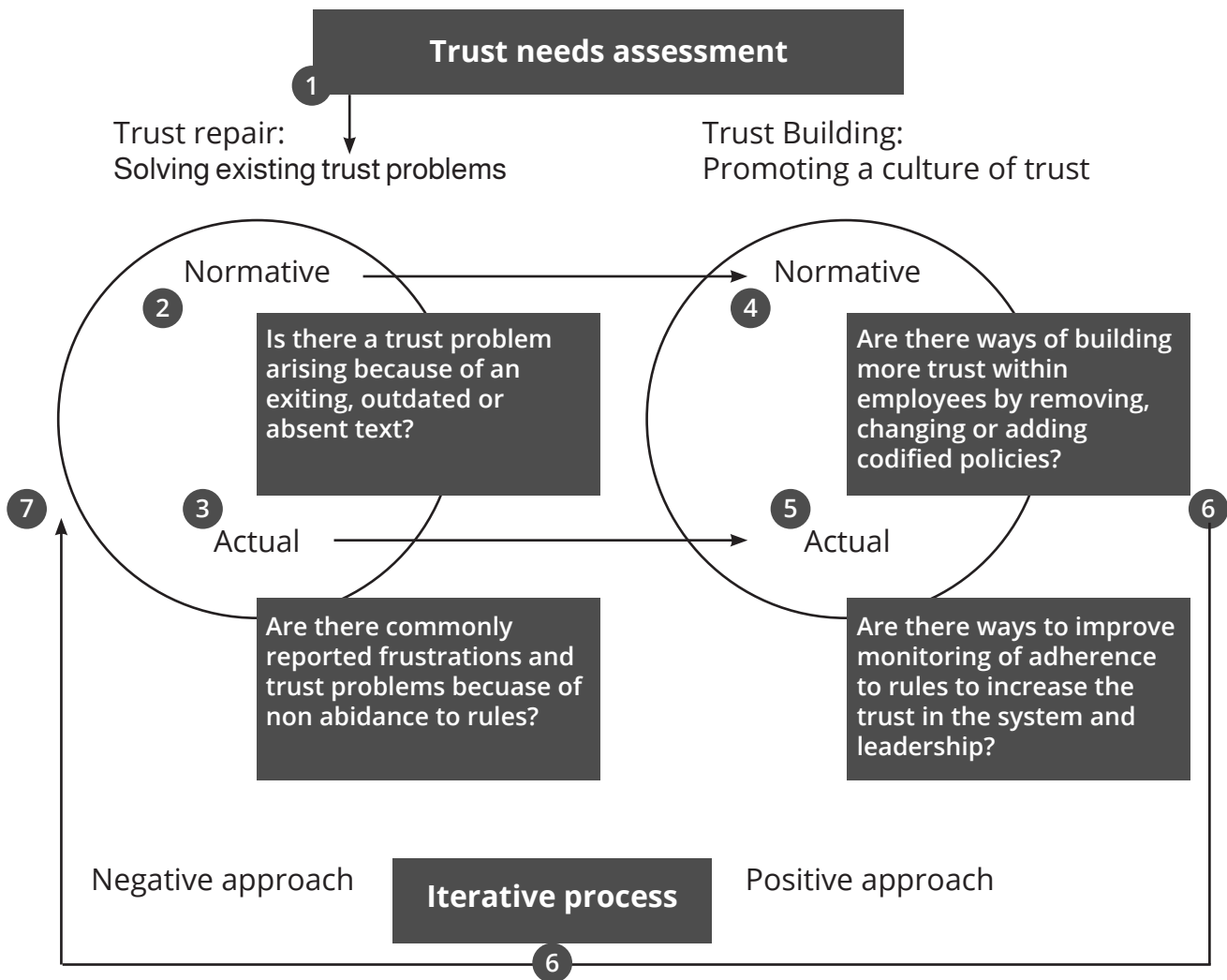
Positive approach

6

Figure 1: Trust Repair And Building: From Negative To Positive

This trust has four foundations:[17]

1. Identity-based trust: A sense of belonging to the same group reinforces feelings and beliefs of trust within individuals. What is needed is a common feeling of a shared organizational identity as a cornerstone for trust.

2. Role-based trust: Role-based knowledge is an important tool of impersonal trust and it creates synergy of social relations. It creates positive and clear mutual expectations between different organization members within different functionalities. The trust is in the complementary of functions, the system in which roles and responsibilities are distributed, not in specific people.

3. Rule-based trust: Organizational rules are a constitutive pillar of trust. They are the codifications of protocols and norms of conduct within the organization, and they too allow individuals to have clear expectations from each other. For the rule-based trust to function, there must be a shared understanding of these codes of conduct and individuals are protected from violations of these rules. Rule-based policies and activities are subtle but powerful tools reinforcing commonly shared expectations.

Policy Options

4. Leader-based trust: Organization leaders have a crucial role in promoting trust. It is documented that trust in leadership is associated with many positive organizational outcomes. Leaders are responsible for the things that happen, and that do not, in the organization. Trust builders in the organization should include leaders in the trust building process.

Initiatives can be taken for each level of analysis to repair and reinforce organizational trust within the Ministry of Health and General Authority for Healthcare as a step of improving the work environment for the health workforce. There is a great potential in what the Medical Service Providers Affairs Unit can do in terms of coordinating with different departments and directorates (horizontally and vertically) to deliver the targeted results of improved overall organizational trust levels.

Implementation

In brief, implementation steps can be as follows:

1. **Trust needs assessment:** Measurement of current levels of trust (within different departments, levels, directorates, or across the ministry depending on the capacities of the implementation body). The purpose is to identify trust building needs if any. As mentioned above, a sample of a Trust Measurement tool can be found in Annex II.[18]

2. **Development of an action plan** based on the results of needs assessment: The action plan prioritizes trust issues to be addressed. It also clarifies the decisions, actions, activities, or partnerships needed to address prioritized trust issues. Planning will need to consider the elements of trust repair (solving problems if any), then develop initiatives that positively build a culture of trust. When planning, it is also helpful to consider that interventions for repairing and building trust can be on two levels, the normative level, and the level of practice. The normative areas of work can include the existence (or absence) of clearly communicated, logical, just, updated, acceptable, and coherent regulations, norms, standard operating procedures (SOPs), or ways of doing things. Equally important is the level adherence to these norms, which pertains to the level of practice. Proper stakeholder engagement and consistent messaging about the exercise will ensure the common internal ownership and endorsement of the plan by colleagues across departments. Stakeholders will have informed opinions that can be used in the prioritization exercise.

3. **Implementation of planned actions on both normative and action based on identified needs.** In instances where there is lack of guiding frameworks, the development of clear regulations would be an area of intervention. Furthermore, there could be a lack of adherence to a specific regulation, this could be a result of an outdated normative text, or poor monitoring mechanisms that can be strengthened, which will reinforce trust in the system which would also require clear regulations on how to intervene. Most, if not all, interventions should involve stakeholders from different levels of the ministry (doctors, nurses, admins, and others). Other options to implement can be to promote a relationship-oriented culture, the facilitation of unambiguous signaling, consistent induction training, creating opportunities for meeting informally, and the day-to-day management of competencies.

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[18] Paine, K. D. (2003). Guidelines for measuring trust in organizations. The institute for public relations, 10-9 ,2003.
[19] Six, F., & Sorge, A. (2008). Creating a high trust organization: an exploration into organizational policies that stimulate interpersonal trust building. Journal of Management Studies, 884-857 ,(5)45.

Policy Options

4. **Monitoring and Evaluation:** It is important to measure the relevance and degree of achievement of objectives in relation to identified needs (based on the three previous steps), efficiency, effectiveness, impact, and sustainability of the work done.

5. **Repeat:** Change is an iterative and gradual process, and there is great potential and value in having the health workforce trusting in their establishment, the MoHP. Improved trust, as a result of improved working conditions, will improve health workforce performance, their intent to stay and the legitimacy of incumbent leadership, the last being crucial in times of crises like COVID-19 and in the long run.

Applicability

The solution proposed is applicable as it only requires a dedicated body, consistent messaging, and enacted feedback loops.

Equity

Considerations should be taken to ensure that the process of trust repair and building for medical staff does not affect the perceptions and trust of the administrative staff. The implementing department can plan and convey that trust building and repair is not only for medical staff but as an inclusive process that will take place gradually.

Economic considerations

This is a solution that is very cost effective as it only requires actions within the organization with no to low investment in human resources and IT needs. Cost effective ways of follow-up with and across departments can be identified.

Monitoring and evaluation

The proposed policy option is heavily dependent on consistent monitoring, evaluation, follow-up, learning and accountability. Consistent measurements of trust across the organization, and activities for trust building need to be monitored and evaluated to ensure positive steps are taken towards announced trust goals. The designated department will be able to hold other departments accountable in this matter, across different vertical levels of the organization including the Minister of Health, who will be seen as championing an approach of trust in the messaging of trust initiatives.

Policy Option 2: Financial and non-financial incentives

Background

This policy option draws on an extensive literature review and information gathered from the field. Through interactions with various health care practitioners, improving the remuneration of physicians was urgently identified. Arguably, this issue has been brought up to the MoHP's attention and extensive efforts were considered to resolve the situation. As a result, a process of reforms in Egypt took place. With the promulgation of the Universal Health Insurance (UHI) in 2018[20], the MoHP introduced a salary increase for the workforce working under the umbrella of the Universal Health Insurance Authority. In parallel, the MoHP has recently proposed an incremental increase in the salaries of the workforce in governorates where UHI is yet to be introduced. However, certain caveats remain in these public institutions which do not fall under UHI law and are negatively impacting the quality of the working environment for physicians. Hence, the need to re-engineer the payment structure (including salaries and other payment arrangements)

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[20] Devi, S. (2018). Universal health coverage law approved in Egypt. The Lancet, 194 ,(10117)391. doi: 10.1016/s6-30091(18)6736-0140

to influence financial incentives was recognized as an important policy option. Furthermore, non-financial incentives were equally identified by healthcare workers to have a role in enhancing the working environment and this is consistent with the literature which urges policymakers to combine both financial and non-financial incentives to enhance the working conditions of the workforce.[21]

A. Financial incentives

Applicability

Introduction of performance-based financing (PBF)

Since different payment methods create a different set of incentives, careful consideration for the design of payment method in public services under the Health Insurance Organization (HIO) is crucial. Payment methods could either be prospective, which pay providers before the services, for example, budgets, salaries, and capitation payment, or they could be retrospective, which reimburse providers after provision, like Fee for Service (FFS). In the Egyptian public sector, salaries are the dominant provider payment arrangement[22], which are good for expenditure growth but generally do not have an impact on productivity[23]. In the private sector, FFS is the dominant type of payment arrangements[24]. FFS is more lucrative for physicians and consequently leads them to migrate from the public services hospitals and to seek work in the more profitable private sector institutions.

The policy option proposes the introduction of performance-linked incentives parallel to the incremental increase in the salaries which is planned to take place in facilities that fall under the HIO[25]. Performance-based financing (PBF) makes use of incentives to promote better health service coverage and results, by linking financial incentives to desired outputs and encouraging increased effort (i.e., output-based payments, for example, capitation-based payments). Under capitation payments physicians are provided a fixed amount per-patient payment for a set of services over a certain time frame. When capitation is combined with patient registration and follow up, providers become more financially satisfied and patient receive better care as well. Experience from other middle-income countries shows that implementing a mix of capitation-based payments with performance linked incentives positively impacted health care providers and the overall quality of care.[26]

The applicability of PBF will heavily depend on the integration with public financial management (PFM) systems with processes like budget formation, expenditure control and reporting. To allow the transition to PBF, budget structures must be sufficiently flexible to enable provider payment systems to move from paying inputs to paying outputs.[27]

[21] Mathauer, I., & Imhoff, I. (2006). Health worker motivation in Africa: the role of non-financial incentives and human resource management tools. Human Resources for Health, 1)4). doi: 24-4-4491-1478/10.1186

[22] Mathauer I, Khalifa A, Mataria A. (2018). Implementing the Universal Health Insurance Law of Egypt: What are the key issues on strategic purchasing and its governance arrangements? Case study, Department of Health Systems Governance and Financing, Geneva: World Health Organization on, (WHO/UHC/HGF/HFCase Study/19.13). Licence: CC BY-NC-SA 3.0 IGO.

[23] WHO. (2019). Financing for Universal Health Coverage: Dos and Don'ts (pp. 27-26). World Health Organization. Retrieved from https://p4h.world/en/news/financing-universal-health-coverage-dos-and-donts

[24] Mathauer I, Khalifa A, Mataria A. (2018) Implementing the Universal Health Insurance Law of Egypt: What are the key issues on strategic purchasing and its governance arrangements? Case study, Department of Health Systems Governance and Financing, Geneva: World Health Organization on; 2018 (WHO/UHC/HGF/HFCase Study/19.13). Licence: CC BY-NC-SA 3.0 IGO.

[25] الوحدة المركزية لشئون مقدمي الخدمة الطبية. (٢٠٢٠). دراسة عن الوضع الحالي والاحتياجات المستقبلية من المهن الطبية في جمهورية مصر العربية.

[26] Cashin C, Charchi C, Pervin A. JLN/GIZ. (2017). Case Studies on Payment Innovation for Primary Health Care: Indonesian Capitation Payment for Primary Health Care with Performance Benchmarks. Washington, DC: Joint Learning Network.
27 WHO. (2020). Performance based financing missing info here

Policy Options

These types of incentives can be combined with salary increases. For example, in the United Republic of Tanzania, the Selective Accelerated Salary Enhancement scheme provided an opportunity for ministries to raise the levels of remuneration for high priority groups [28]

Consequently, a more harmonized payment arrangement was considered whilst eliminating any disparities in pay in the public sector. Hence, healthcare workers were more satisfied.

Equity

Proper reporting of performance is a cornerstone to the success of PBF incentive schemes. Several low- and middle-income countries have adopted these financial incentive schemes and reported unfair mechanisms to report on performance which negatively affected the implementation of the policy. Thus, it is important to set clear indicators prior to introducing these schemes. It is equally important to consider the allotted payments for providers in remote areas as inadequate consideration can affect the overall gains from this policy.

Monitoring and evaluation

An internal audit committee can oversee the implementation of a clear set of indicators and monitor reports to ensure that physicians are being remunerated in parallel to the performance delivered. Additionally, implementing performance-based incentives will require a reform in the Electronic Medical Records (EMR) systems to properly capture progress and pay providers accordingly. When the information system is weak, it is difficult for policy makers to continuously monitor provider performance.

Non-financial incentives

Non-financial incentives involve no direct transfers of monetary values or equivalents to an individual or group. They focus on improving the conditions of work in terms of the safe and supportive work environment, career development programs, and health workers' training and development. [29] They provide opportunities for career development and make efforts to promote positive work environments, for example by providing supportive supervision,. [30,31]

The World Health Report 2006[32] classifies several tools for supporting motivation for healthcare workers. These include supervision schemes that facilitate clinical or professional supervision, recognition schemes, performance management schemes, professional development, leadership, and efficient intra-organizational communication processes. These tools reinforce professionalism and address the professional goals of physicians. Thus, non-financial incentives help enhance the motivation of the workforce. Literature demonstrates that interactions among individuals, cultural, and organizational factors predict motivation of the health workforce.

A useful way to conceptualize these interactions is through Mathauer and Imhoff›s framework of motivational determinants and processes depicted in annex IV. They point out that although individual characteristics and cultural norms lie outside the scope of human resource

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[28] WHO (2004) Health workforce challenges: lessons from country experiences. Abuja, High-Level Forum on the Health Millennium Development Goals.

[29] Kshirsagar M, Waghale VY.(2014). Impact of Financial and Non-financial Rewards on Employee Motivation. International Research Journal of Management and Commerce, 74–61 :(6)1.

[30] Luoma, Marc. (2006). Increasing the Motivation of Health-care Workers. Capacity Project Technical Brief 7.

[31] Joint Learning Initiative. (2204). Human resources for health: Overcoming the crisis. Cambridge (MA): Harvard University Press.

[32] WHO. (2006). The world health report: 2006: working together for health.

[33] Deshpande A, Levy J, Hastings MB. (2015). Gender transformative supportive supervision: a theoretical framework. In: Management sciences for Health Leadership, Management and Government project. Washington DC. where is the name of the publisher?

Policy Options

management, they influence the overall motivational process. These interactions lead to intrinsic motivational aspects that predict the "will do" and "can-do" behavior of physicians as defined by Kanfer. The **"will-do" behavior** pertains to questions like «What is the personal value of devoting more of my resources to the job?» or «What is the personal value of achieving higher job performance?». It results from the interaction of personal goals and organizational goals. In other words, it is the clear goal-setting approach that motivates the workforce and at the same time leads to better organizational outcomes. The **"can-do"** component is a result of reflecting on «How likely is it to achieve the desired level of job performance?». It results in goal achievement where the individual resources are mobilized to accomplish the desired level of job performance. Both behaviors are complementary and to be encouraged.

Applicability

Providing quality supervision is an important policy option[34]. This can be done by improving the overall quality of management. The literature points out that employing properly trained managers who can deliver constructive feedback for healthcare workers positively impacts their overall satisfaction. Furthermore, this communication process also allows for setting clear expectations of the roles and responsibilities of physicians [35] resulting in a positive working environment. Thus, supervision schemes impact motivation, support good practice and improve individual and facility performance. However, some implementation bottlenecks exist. For example, the low frequency and irregularity of supervision could negatively impact the outcomes. Furthermore, implementation sometimes could follow a top-down approach, resulting in fear and control rather than supervision and recognition. Hence, policy design needs to ensure that the voices of the physicians are heard, and that supervision is conducted constructively and frequently which helps motivation.

Monitoring and evaluation

The literature highlights different scales to monitor the motivation of the workforce. Scales that investigate management openness (Jordan) and management supportiveness (Georgia) were partly defined by questions successfully used and scales developed during the 360-degree assessment. Thus, these types of scales can be adapted to our context to monitor the health system workforce satisfaction.[36]

Policy Option 3: Creating a unified electronic system for human resources management

Background

The above-mentioned policy options (improving trust and providing incentives), and others, can be integrated in a digital system for HR management. The efficient management of healthcare workers, with the use of technology, will boost motivation, satisfaction, and performance. All these factors contribute to an improved working environment and a better retention of staff in the MoHP [37]. This solution reduces the burden of administrative obligations of all staff, creates communication channels between healthcare workers and decision-makers, and is a portal for the continual learning and career development of medical staff.

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[34] Rowe, A., de Savigny, D., Lanata, C., & Victora, C. (2005). How can we achieve and maintain high-quality performance of health workers in low-resource settings? The Lancet, 1035-1026 ,(9490) 366. doi: 10.1016/s6-67028(05)6736-0140
[35] WHO. (2006). The world health report: 2006: working together for health.
[36] Lynch, P., Eisenberger, R., & Armeli, S. (1999). Perceived organizational support: Inferior versus superior performance by wary employees. Journal of Applied Psychology, 483-467 ,(4)84. doi: 9010.84.4.467-0021/10.1037
[37] World Health Organization. (2016). Global strategy on human resources for health: workforce 2030.

Policy Options

Significant administrative services are still done in paper form and in the presence of the medical service provider. This costs the healthcare workers significant effort, time, and financial costs of transportation to remote governorates. The current administrative processes also make staff vulnerable to human errors and disputes with the public.

Another problem is the lack of communication channels between medical service providers and officials. Creating effective, technology-based mechanisms of exchange between the two parties will enhance the trust within the organization (referring to the first policy option) and will make problem solving more bottom-fed, efficient and impactful.

Moreover, research has shown that clinicians in the MoHP consider career development as indispensable[38] (liaising with non-financial incentives in policy option 2). The MoPH can leverage on this want and provide technical and managerial educational content through the platform as done by other organizations worldwide.

Thus, it is critical to strengthen Human Resources for Health (HRH) information systems and build the human capital required to operate them in alignment with the broader health management information systems, including the ability to utilize such systems during emergencies and disasters. The establishment of a high quality and comprehensive database of the health workforce, including its performance, is needed to gain a better understanding of the difficulties and the possibilities for health workforce enhancement. This should be done through the cooperation between governmental authorities, and through legislative frameworks, to regulate the collection of personal data that will guarantee the security and confidentiality of health workers.

Implementation

The final product is a unified electronic system for human resources management that includes the MoHP and its affiliations. Through making a database for all healthcare workers, data can be extracted from the directorates of health affairs and the authorities and partners associated with the MoHP. It would include the full name, position, and the national ID number. A profile for each healthcare worker can be created to enable him or her to submit their own requests and receive all services. In addition, they will be able to activate their own secret number to access services, extract documents and maintain the confidentiality of their data. The system can be web-based or a phone application.

Objectives:

1. Adding the online services currently provided to the comprehensive online portal so that the medical service provider can receive all services from one site only and automate the rest of the services that are still provided by traditional paper-based methods.

2. Facilitating procedures for medical service providers.

3. Saving time and effort to provide paper services to both the employee and the recipient of the service.

4. Reducing congestion in the departments of the Ministry of Health's office and reducing the risks of infection, especially during epidemics.

5. Saving the material costs wasted in providing paper services and their requirements.

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[38] AlSawahli, H. (2019). Physicians› motivation in the Ministry of Health and Population-Egypt: challenges and opportunities. Where are the rest of the details of this reference?

Policy Options

6. A permanent monitoring of government services and avoiding human errors and administrative corruption.

7. Electronic archiving of all services and documents that were submitted to the medical teams, and easy access to them.

8. Providing a database for all medical service providers that includes personal and job data, training courses and postgraduate studies, which facilitates the analysis of these data and statistics that are useful in knowing the requirements of medical staff and assists in decision-making.

9. Continuous communication with medical service providers electronically and following up on their complaints and suggestions.

10. Full communication between all departments, agencies and bodies and cooperation between them by sharing data, making use of it, and analyzing it in the work of statistics and studies.

11. Electronic payment for all services provided for a fee, through the comprehensive online portal or through phone companies, banks, or electronic payment companies such as Fawry.[39]

12. Developing statements for the medical service provider based on the services he/she has obtained, such as training courses, postgraduate studies, promotions, transfers, and vacancies, and these statements will be useful in choosing the appropriate manpower for curative medicine hospitals or the health care authority or working as a trainer in the Egyptian fellowship when required.

13. Providing the option of working from home for many employees, especially in cases of epidemics and disasters.

These services will be provided to the medical service provider on the comprehensive electronic portal. It has been observed that the healthcare worker provides the same documents to more than one place to obtain more than one service. It is possible for all departments to cooperate and share documents between them (such as graduation certificate, internship and birth certificate and a copy of the national ID card, etc.), and it will be uploaded to the doctor›s profile on the electronic portal to become available to all service departments including:

• Education and training courses services;
• Communication services;
• Employment services;
• Others (e.g., administrative services related to petitions and requests.)

A. Education and training courses services:

Postgraduate studies (currently a partially automated service)

Current situation: The General Administration for Grants and Scholarships has a website that identifies the conditions for registration for postgraduate studies and documents as well as on-site registration, but the medical service provider has to manually bring the documents to the administration, which makes the electronic service provided to him incomplete, forcing the physician to waste time and effort in addition to the administrative fees.

Training courses:

Current situation: Both the Training and Research Sector at the Ministry of Health and the Princess Fatima Academy for Continuing Medical Education offer many training courses for medical teams. However, it is necessary for physicians to attend the sector or academy to present

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[39] *Fawry is an E-payment platform in Egypt, offering financial services to consumers and businesses through more than 194,000 locations and a variety of channels.*

documents for applying for the training course or scholarship.

Proposal: To fully automate the service and to add an electronic portal where physicians can upload the documents related to the registration for post graduate studies or training application. In the event that it is necessary to verify the validity of the documents, this can be achieved checking with his work authority or the affiliated departments in the directorates of health affairs. This would save time and effort. Moreover, it would allow for other Ministry›s competent departments to know the postgraduate studies that the medical service provider has submitted to and evaluate and determine the extent of their benefit from it. The training and research sector in the ministry will also be enabled to follow up on training programs and scholarships that have been obtained, evaluate, and select them for jobs or leadership positions.

B. Internal communication function

Current situation: Since the methods of communication between the administrations and agencies are largely traditional methods, complaints are neither managed effectively nor efficiently.

Proposal: Develop and integrate a communication service in the system where medical service providers can submit their complaints or proposals and they are re-directed electronically to the department of Medical Service Providers Unit (or the relevant authority). The authority would assign one of its employees to follow up on the complaint, work to resolve it and to notify the healthcare worker electronically of what has been done. Through the comprehensive online portal, and in case the party is not competent to resolve the complaint, it would be transferred back to the competent authority.

Conducting opinion polls for all areas, services and proposals through the comprehensive online portal and the electronic

application for phones in order to evaluate the services provided, or poll in advance for proposals and decisions that affect medical service providers and find out the extent of their satisfaction with them to achieve the required balance between duties and rights, between the interest of the health system and the interest of the medical service provider.

C. Employment services:

I. Assignment, residency and fellowship movements (a largely automated service that needs some development and its inclusion in the comprehensive electronic portal)

Proposal: Digitalizing services provided by the General Assignment Administration and linking them with the Basic Care Administration and the curative medicine sector to consider the health workers' needs from the medical professions directly and electronically.

The grievance services can also be automated by submitting the grievance documents to the online portal, and in case it is necessary to verify the authenticity of the documents, this can be achieved by reviewing the personnel affairs departments in the health affairs directorates on the documents and matching them to the site and marking them electronically so that the employees of the General Assignment Administration know that they are correct. Thus, time and effort are saved, the personnel are satisfied, and the role of sub-departments are activated in the directorates. It will also enable us to work out statistics and study the causes of grievances in details.

Policy Options

II. Job promotions

The job promotion service can be automated by uploading the documents related to promotion on the online portal. In case it is necessary to verify the authenticity of the documents, this can be achieved by informing the Personnel Affairs department in the Health Affairs directorates on the documents and matching them to the site and marking them electronically so that the employees of the General Administration for assignment are informed that they are correct. Thus, centralizing the service will save time, effort and activate the role of sub-departments in the directorates. It will also facilitate the follow-up and evaluation of the employment history of all healthcare workers and the obstacles they face in the way of advancement.

III. Contracts and progression to leadership positions:

The Ministry of Health, directorates of health affairs, the Health Care Authority, comprehensive health insurance), the Egyptian Fellowship, and various bodies affiliated with the MoHP need to contract healthcare workers, especially in urgent specialties that suffer from a shortage.

Contracting staff through the digital portal would facilitate the announcement of the entities' needs of required jobs and specializations. Digitalizing contracting would also aid in the follow-up on progress, compare it with the desired results and ensure that resources are not wasted by strict mechanisms.

D. Other administrative services (submitting requests for amendment, petitions and extracting documents):

Proposal: To create a general administration of the comprehensive electronic portal: The department would be responsible for operating the electronic portal and supervising all its concerns, and it is subdivided into:

- Informatics and Statistical Administration: Concerned with making statistics, analyzing data and submitting studies to the office of the Minister of Health and strategic technical teams.

- Technical Department and Technical Support: A team of engineers and technicians specialized in technical maintenance and development of the electronic portal, as well as a technical support team to help the users of the portal, whether from leaders, employees, or medical service providers.

- Technical Training Department: It includes technical experts to train employees and leaders in using and monitoring the portal.

Conclusion and Recommendations

To conclude, improving work environments of the health workforce is of crucial importance to retain medical and paramedical staff, especially in the public sector. **In this** **policy paper, we propose three interrelated policy options and approaches.** (Figure 2):

1. Enhancing organizational trust

Supervision & Recognation schemes

Trust Building & Repair

Improved working enviroment & retenation of health workforce

2. Financial & non financial incentives

Performance linked payment

Donors

Digital Communication channels

Training & development

3. Digital HR Management system
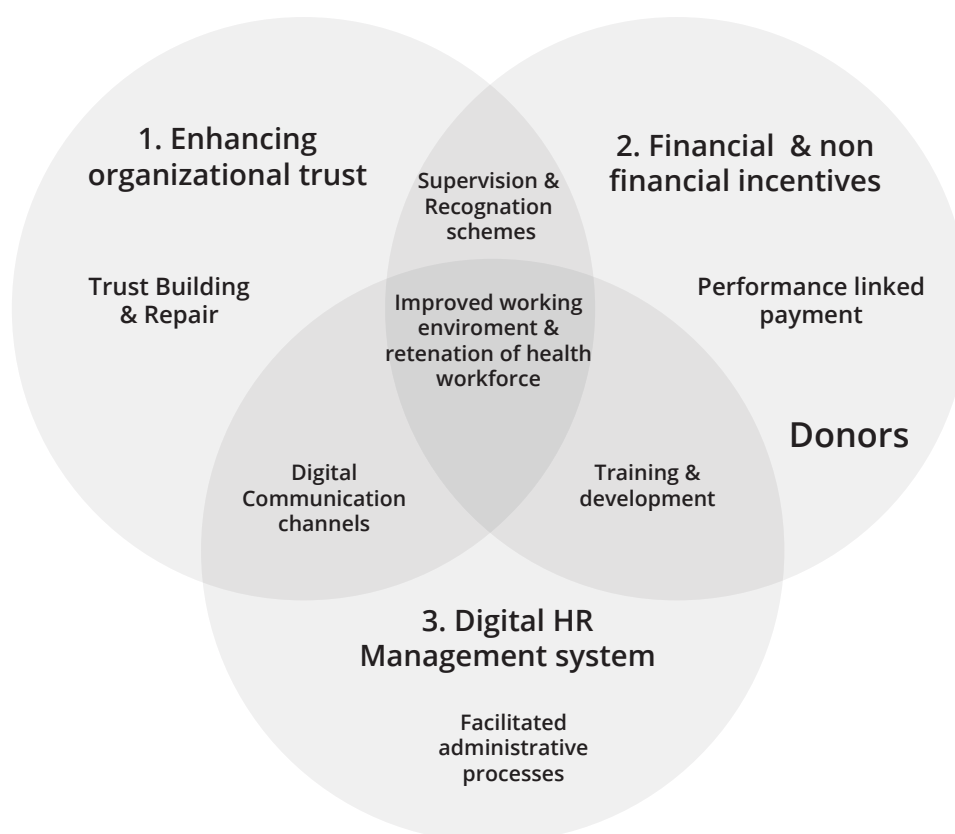
Facilitated administrative processes

Figure 2: Policy options to improve working environments and retain the health workforce

The criteria of selection of the recommended policy option relies on two important decision rules: economic feasibility and political acceptance. The economic feasibility weighs the net benefits of wage increase for healthcare workers and providing necessary resources for the digitalization of the healthcare system and the cost-effective measures for the health budget and GDP to achieve the objectives at least cost and maximum social satisfaction. The political acceptance lens weighs the conflict between stakeholders (whether in the healthcare workplace, government, professional healthcare workers, private sector, or the community).

Solutions vary in terms of economic feasibility and political acceptance. They also vary in possible timeframes for implementation. While enhancing trust and improving non-financial incentives are short to medium term solutions, improving financial incentives and building a digital HR portal will require significant investments that would be implemented gradually on the long run. All in all, it is indispensable to take action to improve the environments where the health workforce works. The COVID-19 crisis, more than ever, has shed the light on the importance of the health workforce. Policies adopted will be a key determinant in retaining the health workforce and in responding to the accruing health needs of the growing Egyptian population.

Conclusion and Recommendations

Policy Option 1, enhancing organizational trust, is cost-effective and relies on the contextualization of ready-made tools. While acknowledging the political sensitivity of the issue, the suggested option is in line with the government's efforts to win the health workforce's trust especially post COVID-19. If implemented wrongly, or with no real commitment, this option can have undesirable and counterproductive results. Therefore, implementation needs to be context sensitive, responsive to changes, and inclusive of stakeholders' interests and demands. It can be considered as an accompanying measure to other policy options.

Policy Option 2, financial and non-financial incentives, aligns well with the needs of the health workforce. Non-financial incentives, like training and motivation schemes, are affordable compared to other options. Financial incentives like performance-based financing may be more expensive and will require structural reforms that can take time. Thus, it can be implemented as a long-term action plan, under the Egyptian Universal Health Coverage Scheme.

Policy Option 3, creating a unified electronic system for human resources management can provide a balance between the economic and political rule since it aligns will with the overall political will to digitalize various sectors in Egypt by 2030. This option includes elements from the other policy alternatives (improving trust and training as a non-financial incentive). It might be perceived as expensive, but as it is in line with the political will, and responding to demands of the 21st century, it can be a major transition in the ways of work in the MoHP.

Limitations and Potential Challenges:

There are various sets of limitations and challenges expected to face the implementation of the recommended policies in place. These challenges include the following:

1. Measuring trust, if wrongly implemented, can cause unintended and counter-productive consequences among staff.

2. Financial and non-financial incentives will require systemic interventions that need political endorsement.

3. Weak technical infrastructure (internet connection, hardware and software) & poor digital skills among the staff may make relying on an online HR portal difficult.

That said, it is expected that with adequate decentralized implementation of the policy in hand, and a strong feedback system that targets the creation of user-friendly experience to both the administrative officers and the health workforce, a successful implementation of the policy option lies ahead.

Policymakers can start immediately with their trust repair and trust building initiatives (by revising norms and practices) as a cost-beneficial solution. In parallel, they may gradually build a digital system for HR management in the MoHP.
The electronic system is a short-medium term solution; decision makers would prioritize services to be based on needs assessments to ensure that their choices of services are strategic and relevant to the needs and preferences of the health workforce. The digital system can be one tool among others to implement the suggested alternatives (trust and non-financial incentives like training) while facilitating administrative processes for the MoHP staff. Performance-based payments require structural reforms and can be better considered as a long-term option to improve the working environment and retention of the health workforce.

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Annexes:

Annex I: Definitions of the dimensions of trust

Source: Paine, K. D. (2003). Guidelines for measuring trust in organizations. The Institute for Public Relations, 5-6.
Trust encompasses dimensions like:

1. Competence: The conviction that the organization is effectively capable of doing what is promised and communicated

2. Integrity: The belief that an organization is fair and just.

Reliability: The belief that the organization will do what it says.

3. Openness/honesty: The belief that needed and accurate information will be shared with sincerity and appropriately.

4. Vulnerability: The willingness of the organization to be appropriately vulnerable to its employees.

5. Concern for employees: The sentiment of care about and be flexible with the employees conveyed from the organization through messaging and actions.

6. Identification: the level of commonality of goals, values and norms between the organization and its employees.

7. Control mutuality: The level of agreement between parties on who has a rightful power influence one another.

8. Satisfaction: The level positive feelings towards one another when positive expectations are mutual reinforced, and advantages outweigh disadvantages.

9. Commitment: The belief held by an individual that the organization is proactive about maintaining and promoting their relationship.

10. Exchange relationships: When an actor provides favors for another in expectation of favors in return in the future or as a repayment of previous favors

11. Communal relationships: Where actors within an organization provide benefits to each other because they are concerned for the welfare of the other—even when they get nothing in return.

Annexes:

Annex II: "A typical trust measurement questionnaire"

Source: Paine, K. D. (2003). Guidelines for measuring trust in organizations. The Institute for Public Relations, 9-10.

Dimensions	Questions
Integrity, Competence and Dependability	1. This organization treats people like me fairly and justly. (Integrity) 2. Whenever this organization makes an important decision, I know it will be concerned about people like me. (Integrity; original dimension: faith). 3. This organization can be relied on to keep its promises. (Dependability) 4. I believe that this organization takes the opinions of people like me into account when making decisions. (Dependability) 5. I feel very confident about this organization's skills. (Competence) 6. This organization can accomplish what it says it will do. (Competence) 7. Sound principles seem to guide this organization's behavior. (Integrity) 8. This organization does not mislead people like me. (Integrity) 9. I am very willing to let this organization make decisions for people like me. (Dependability) 10. I think it is important to watch this organization closely so that it does not take advantage of people like me. (Dependability) (Reversed) 11. This organization is known to be successful at the things it tries to do. (Competence)
Control Mutality	1. This organization and people like me are attentive to what each other say. 2. This organization believes the opinions of people like me are legitimate. 3. In dealing with people like me, this organization tends to throw its weight around. (Reversed) 4. This organization really listens to what people like me have to say. 5. The management of this organization gives people like me enough say in the decision-making process. 6. When I have an opportunity to interact with this organization, I feel that I have some sense of control over the situation. 7. This organization won't cooperate with people like me. (Reversed) 8. I believe people like me have influence on the decision-makers of this organization.

Annexes:

Commitment	1. I feel that this organization is trying to maintain a long-term commitment to people like me. 2. I can see that this organization wants to maintain a relationship with people like me. 3. There is a long-lasting bond between this organization and people like me. 4. Compared to other organizations, I value my relationship with this organization more. 5. I would rather work together with this organization than not. 6. I have no desire to have a relationship with this organization. (Reversed) 7. I feel a sense of loyalty to this organization. 8. I could not care less about this organization. (Reversed)
Satisfaction	1. I am happy with this organization. 2. Both the organization and people like me benefit from the relationship. 3. Most people like me are happy in their interactions with this organization. 4. Generally speaking, I am pleased with the relationship this organization has established with people like me. 5. Most people enjoy dealing with this organization. 6. The organization fails to satisfy the needs of people like me. (Reversed) 7. I feel people like me are important to this organization. 8. In general, I believe that nothing of value has been accomplished between this organization and people like me. (Reversed)
Communal relationships	1. This organization does not especially enjoy giving others aid. (Reversed) 2. This organization is very concerned about the welfare of people like me. 3. I feel that this organization takes advantage of people who are vulnerable. (Reversed) 4. I think that this organization succeeds by stepping on other people. (Reversed) 5. This organization helps people like me without expecting anything in return. 6. I don't consider this to be a particularly helpful organization. (Reversed) 7. I feel that this organization tries to get the upper hand. (Reversed)

Annexes:

Exchange Relationships	1. Whenever this organization gives or offers something to people like me, it generally expects something in return. 2. Even though people like me have had a relationship with this organization for a long time, it still expects something in return whenever it offers us a favor. 3. This organization will compromise with people like me when it knows that it will gain something. 4. This organization takes care of people who are likely to reward the organization.

Annex III: Definitions of Trust Issues in Organizations

Source: Kramer, R. M., & Lewicki, R. J. (2010). Repairing and enhancing trust: Approaches to reducing organizational trust deficits. Academy of Management Annals, 4(1), 245-277.

1. "Disrespectful behaviors: discounting people or their contributions, disregarding feelings and input, and blaming other people for problems;
2. Communication issues: not listening to others, not working to understand the other party, and breakdown in communication around major changes;
3. Unmet expectations: broken promises, breaches in the psychological contract, breach of confidentiality, and breach of rules;
4. Ineffective leadership: punishing those who challenged authority, poor decisions, favoritism, or unwillingness to address major issues;
5. Unwillingness to acknowledge taking no responsibility for mistakes or issues, not owning issues or the violation itself, placing self before the group;
6. Performance issues: unwilling or unable to perform basic job duties, making mistakes, issues of general competence;
7. Incongruence: misaligned with or not honoring core values, mission, practices; actions do not match words
8. Structural issues, including changes in systems and procedures, lack of structure or too much structure, and misalignment of job duties and authority"

Annexes:

Annex IV: Mathauer And Imhoff's Framework of Motivational Determinants and Processes
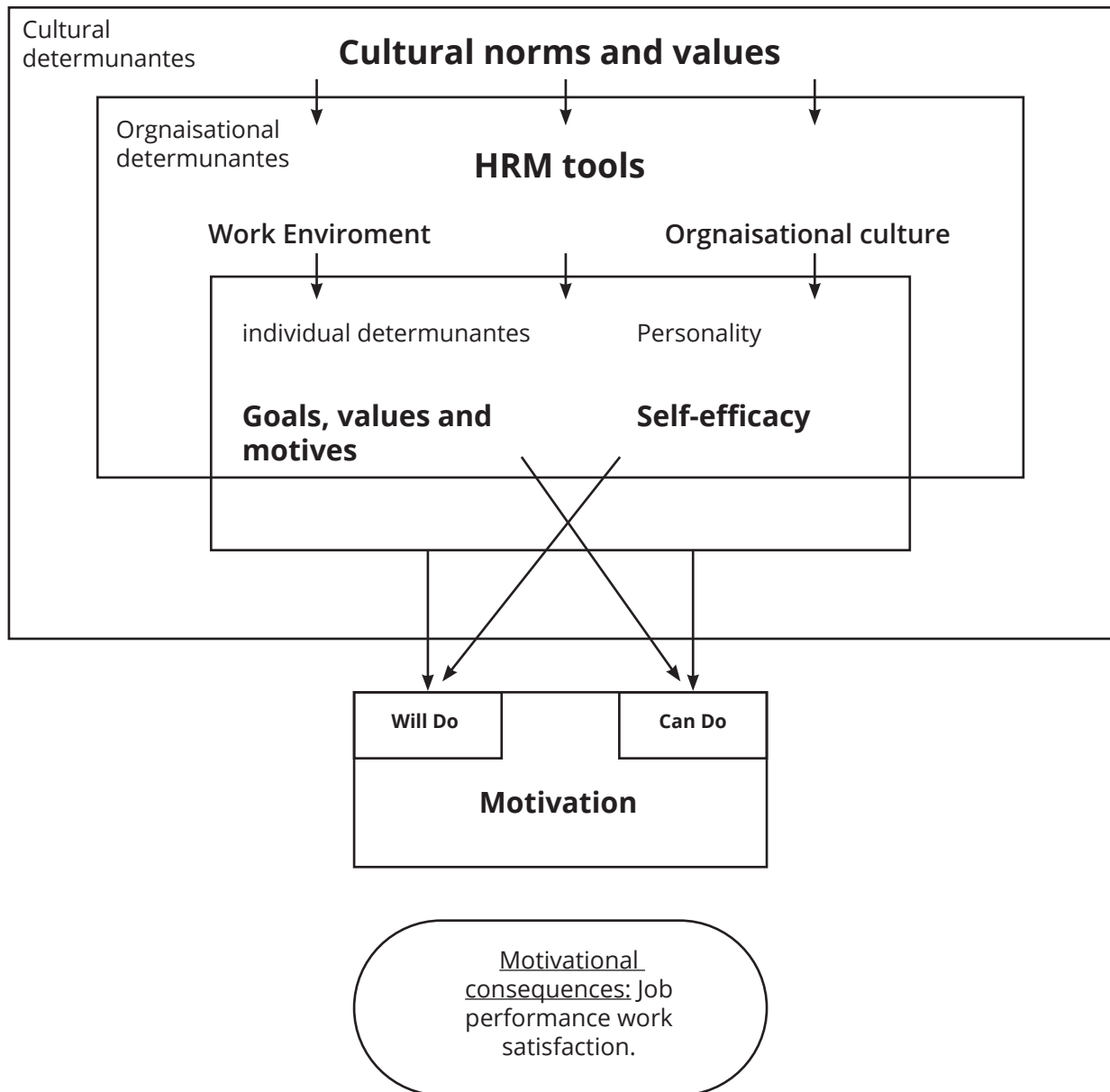

Figure 3: Mathauer And Imhoff's Framework of Motivational Determinants and Processes

THE PUBLIC POLICY HUB

Where Rigour Meets Creativity

The Public Policy HUB is an initiative that was developed at the School of Global Affairs and Public Policy (GAPP) in October 2017. It was designed to fill in the policy research gap in Egypt. It provides the mechanism by which the good ideas, plausible answers, and meaningful solutions to Egypt's chronic and acute policy dilemmas that are proposed by the country's best minds, the experienced and the creative from different age brackets, can be nurtured, discussed, debated, refined, tested and presented to policymakers in a format that is systematic, highly-visible and most likely to have a lasting impact.

It is designed to develop a cadre of well-informed and seasoned policy developers and advocates, while simultaneously fostering and promoting creative solutions to the challenges facing Egypt today. The project provides a processing unit or hub where policy teams are formed on a regular basis, combining experienced policy scholars/mentors with young creative policy analysts, provide them with the needed resources, training, exposure, space, tools, networks, knowledge and contacts to enable them to come up with sound, rigorous and yet creative policy solutions that have a greater potential to be effectively advocated and communicated to the relevant policymakers and to the general public.

Since its establishment, the Public Policy HUB has been supported by Carnegie Corporation of New York, UNICEF Egypt, and Oxfam. The Hub had partnerships with different ministries and governmental institutions like the Ministry of Social Solidarity, Ministry of Planning, Ministry of Health, Ministry of Trade and Industry, Ministry of Local Development, Ministry of Education, Ministry of Environment, National Council for Childhood and Motherhood, National Population Council, and General Authority For Transportation Projects Planning.

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