

## **COSHEP Success Story in Reducing Workplace Fatalities & Promoting OSH Culture in Palestine (West Bank Case Study)**

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**Abstract**-According to The Palestinian National Center of Occupational Safety, Health, and Environmental Protection (COSHEP) published workplace statistics, workplace fatalities in Palestine's manufacturing sector decreased significantly, A 43.2% reduction in workplace fatalities was achieved from 2021–2023, with a slight increase to 26 in 2024. COSHEP led a transformative effort to promote an Occupational Safety and Health (OSH) culture across the Palestinian labor market. Through extensive workshops, hundreds of OSH activities, and publicizing fatality statistics, COSHEP fostered widespread awareness and safety improvements. This case study offers a model for OSH professionals, aligning with the ILO's Global Strategy on OSH.

### **Introduction**

In reference to the International Labor Organization (ILO) reports, 2.93 million workers die each year as a result of work-related factors, 395 million workers worldwide sustain a non-fatal work injury each year, \$361 billion could be saved globally by implementing improved safety (ILO, 2023). Moreover, 2.41 billion workers are exposed to excessive heat each year (ILO, 2024).

Palestine's manufacturing sector faces significant OSH challenges, including high occupational accident rates and limited regulatory frameworks. In 2021, 37 workplace fatalities underscored the urgent need for change. As Director of COSHEP from 2021 to 2024, I spearheaded initiatives to reduce fatalities and promote a preventative safety culture. By 2023, fatalities dropped to 21, with a slight rise to 26 in 2024 as a result of Gaza war. This article details the strategies, including workshops, media campaigns, and data transparency, that drove this progress and achievement.

### **About COSHEP**

Palestine Polytechnic University (PPU) is one of the leading polytechnic universities in Palestine. It has been founded in 1978 by the University Graduates Union (UGU), which is a non-profit organization in Hebron governorate. Its primary mission is to emphasize quality vocational and technical engineering and professional education.

In the year (2013), PPU has established COSHEP, within the EU support programme to TVET development in the Occupied Palestinian Territories,

being implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the German Ministry for Economic Cooperation and Development (BMZ), in partnership with the Palestinian Ministry of Labor (MoL) and Ministry of Education and Higher Education (MoHE). Hence; COSHEP is the only National Center which is responsible for occupational safety and health services in Palestine.

Moreover; COSHEP has a documented partnership governed by signed MOUs with the MoL, Palestinian Civil Defense (PCD) and Hebron Chamber of Commerce and Industry (HCCI), in addition to other MOU's signed with the Engineers Association – Jerusalem Center (JCEA), Palestinian Standards Institution (PSI), and Al-Ahli Hospital – Hebron.

In accordance with the mission of PPU, and responding to the tremendous changes in the Palestinian community, COSHEP is introducing various flexible opportunities in vocational education and training (VET), and in technical and consultation services in the field of occupational and environmental safety and health issues, and targets a wide range of beneficiaries that include - but not limited to - local organizations and NGO's, ministries and governmental bodies, industrial and private sector, in addition to individuals who are willing to develop their skills and abilities in the field of occupational safety and health.

COSHEP provides short-term training courses, professional vocational programs, and professional diploma degrees of 1-year, such as: Public Safety and Health (PSH) training courses, Specialized Occupational Safety and Health (OSH) training courses, Preparing Occupational Safety and Health (OSH) supervisors training programs, Preparing safety officers training programs, and so many other.

COSHEP vision is to have a community with high level of commitment towards the measures and standards of occupational safety and health. Whereas its mission is providing effective training, studies, researches, consultations and awareness in fields related to occupational safety and health issues, in hand with providing qualified work force in highly needed specialties.

COHEP has four main highly equipped training labs namely: First Aid lab, Personal Protective

Equipment lab, Environmental and Engineering hazards testing lab, and fire detection and fighting training lab. Hence, the aforementioned labs are unique in the region.

Meetings with local community associations, needs assessments, data and statistics, interviewing with local business owners, showed that there is a crucial demand for adopting and applying occupational safety and health measures in all daily life activities, where in general all institutions and enterprises suffer from the lack of firm policies related to safety and health, in addition to the lack of awareness, specialists and trained personnel in fields related.

In this scheme, **COSHEP** can tackle the previous issues due to the following strength points:

1. **COSHEP** has highly qualified staff in fields related to occupational safety and health theoretically and technically.
2. **COSHEP** has four highly equipped labs and workshops with most up-to-date equipment and devices related to the field of safety and health.
3. **COSHEP** has a firm ability to cope with unlimited issues, and can handle with a large number of organizational activities and missions towards the community.
4. **COSHEP** is a unique certified center of related specialties in Palestine as being a national center accredited by the ministry of labor.
5. **COSHEP** works under an Administrative - Academic - Community supervisory, through a joint advisory committee.

From 2021 to 2024, COSHEP director coordinated extensive training, policy advocacy, and stakeholder collaboration with the partnering entities. By recording and publishing workplace fatality statistics annually & semiannually, COSHEP enhanced transparency and accountability, driving sector-wide safety improvements.

### **Methodology**

COSHEP effectively helped in lowering workplace fatalities & promoting OSH culture by implementing several interventions such as creating the Palestinian Club for Occupational Safety, Health and Environmental Protection, holding tens of promotional OSH workshops for various industrial entities, talking over local radios on day-to-day OSH issues and accidents, participating in OSH shows and exhibitions.

Moreover, COSHEP is one of the accredited centers from the Palestinian Ministry of Labor to deliver OSH courses in the west bank, especially Decree-Law No. (3) of 2019 regarding occupational safety

and health committees and supervisors in establishments.

### ***The Palestinian Club for Occupational Safety, Health and Environmental Protection***

This club created in 2021, & with over +6,100 participants till this moment, this club aims to raise people's awareness about the fatal incident's occurrence & the importance of safety and health standards in workplaces and to promote sustainable environmental practices, can be accessed on (<https://www.facebook.com/share/g/15cWGRU3YC/>). In this club, also workplace injuries, OSH awareness materials & videos from other official authorities such as the Palestinian MoL & PCD are published as well.

### ***Posting in Workers Facebook Groups***

Another excellent OSH promotional technique, was sharing the club news on over 12 checkpoint Facebook groups, which were created by workers who works inside the green line, each group holds up to +10,000 worker in it. Some fatal accidents posted in these groups reached over +44,000 hits and viewed by audience inside and outside Palestine, also some participants share the club posts and promotional OSH materials to achieve more reach out and increases people's awareness and attention.

### ***Immediate follow-up procedures & Posts***

COSHEP's approach to raising awareness among the public and workers about workplace fatalities — and the importance of implementing OSH measures — involves adopting immediate follow-up procedures after any fatal accident. Real-time updates are then shared across various social media platforms. This proactive methodology has achieved several advantages:

1. Faster Accountability – Immediate action forces employers and regulators to address hazards right away, preventing further incidents.
2. Deterrent Effect – Publicizing fatalities in real time creates urgency, pushing companies to improve safety before more accidents occur.
3. Transparency & Trust – Workers and the public see that incidents are taken seriously, rather than hidden until an annual report.
4. Rapid Learning – Sharing details quickly helps other workplaces implement corrective measures before similar accidents happen.
5. Prevents Underreporting – Real-time updates make it harder for companies to conceal or downplay incidents.

Conversely, COSHEP has noted that official institutions, including the Palestinian Ministry of Labor and the Ministry of Health, issue annual

reports on workplace fatalities. Yet, the practice of year-end reporting and delayed announcements presents several limitations:

1. Delayed Action – Waiting months (or a year) to analyze fatalities means preventable risks may persist.
2. Less Public Awareness – People forget or overlook annual reports, reducing pressure for change.
3. Bureaucratic Filtering – Data can be sanitized or aggregated, losing the urgency of individual cases (SR Veil et al, 2011).

### ***Promoting Safety Culture in Palestine***

According to Cooper, 1998, safety culture could be defined as: ‘... the product of individual and group values, attitudes, competencies, and patterns of behaviour that determine the commitment to, and the style and proficiency of, an organisation’s health and safety programmes. Organisations with a positive safety culture are characterised by communications founded on mutual trust, by shared perceptions of the importance of safety, and by confidence in the efficacy of preventative measures.’. The ‘culture’ of an organisation can be defined as ‘the way we do things around here’ (Cooper, 1998). At its simplest, this refers to how tasks and activities are carried out within the organization — and, critically, whether they are done in a safe manner or not.

COSHEP also serves as a consulting body for local entities, offering services such as risk assessment, occupational hygiene, and environmental studies. With over 12 years of experience providing support to local organizations, COSHEP has observed that the Palestinian labor market is characterized by a weak safety culture, which is evident in the following indicators:

- High Incident and Injury Rates.
  - Lack of Leadership Commitment to Safety.
  - Inadequate Reporting and Investigation.
  - Poor Communication and Awareness.
  - Insufficient Training and Competence.
  - Minimal Worker Involvement in Safety.
  - Lack of Resources for Safety Measures.
  - Poor Housekeeping and Worksite Conditions.
  - Acceptance of Unsafe Behaviors.
  - No Continuous Improvement Process
- Canada Safety Training. (n.d.).

Unfortunately, there are relatively few published studies on OSH and safety culture in Palestine. However, one notable study by Al-Sari’ and Al-Khatib (2012), titled (*Workers’ Safety in the Construction Industry in the Southern West Bank of Palestine*), assessed workers’ experiences and

perceptions of safety at construction sites in the Hebron and Bethlehem governorates. Through direct interviews with 349 construction workers, the study found that 34.6% had experienced work-related accidents; 13.0% reported their workplace lacked a first-aid kit, and 65.6% indicated there was no trained first-aid specialist. Additionally, 35.8% stated their work sites lacked safety tools, and 83.7% had not received any safety training. These findings clearly reflect a poor safety culture within the construction sector.

In another study conducted by Aladini et al. (2023), in which the author of this paper also participated, titled (*Knowledge, Attitude, and Practices of Occupational Health and Safety among Health Care Workers at Al-Shifa Medical-Complex in Gaza-Strip, Palestine*). The study recruited 330 healthcare workers (HCWs) from various departments. Results showed that nurses had the highest levels of occupational health and safety (OHS) knowledge (54.9%), positive attitudes (47.7%), and good practices (50.4%), whereas administrative staff, engineers, technicians, and radiologists scored lower, with many exhibiting poor knowledge, negative attitudes, and inadequate practices. Notably, 80.3% of HCWs had not received any OHS training. The study concluded that, despite nurses performing better than other HCWs, significant gaps remain, highlighting the need for focused OHS training programs to improve knowledge, attitudes, and practices across all hospital staff, thereby enhancing the overall safety culture within healthcare settings.

### ***COSHEP adapted many interventions to promote OSH Culture in Palestine***

- **Widespread Awareness Campaigns:** COSHEP launched immersive outreach across the West Bank, utilizing radio interviews, TV broadcasts, and social media platforms like Facebook to promote OSH practices. These campaigns reached diverse audiences, fostering a culture of safety.
- **Extensive Workshops and Activities:** Over the four years, COSHEP organized tens of workshops and hundreds of activities targeting all sectors, including Food industries, Plastic industries, Educational Establishments, Metallic Industries, Stones & Marbles industries, Leather industries, Construction Industries, Technical & Vocational Centers. These sessions trained over 5,000 workers and employers in hazard recognition and safety protocols.
- **Stakeholder Collaboration:** Partnerships with the MoL, (PCD) (HCCI), (JCEA), (PSI), and Al-Ahli Hospital and the ILO strengthened data collection and policy enforcement.

- **Technology Integration:** Piloted digital tools for training, aligning with global OSH digitalization trends.
- **Participating in OSH Exhibitions:** Presenting OSH tools and PPE in the Occupational Safety, Health, and Environment Day, Jenin, Nablus, Pal Construction Industries Expo.
- **Celebrating ILO World Safety Day for the years:** 2021 world safety day (Invest now in resilient occupational safety and health systems), 2022 world safety day (Act together to build a positive safety and health culture), 2023 world safety day (A safe and healthy working environment is a fundamental principle and right at work), 2024 world safety day (Climate change and safety and health at work), 2025 world safety day (Revolutionizing health and safety: The role of AI and digitalization at work).
- **Publishing informative articles During COVID19 pandemic:** COSHEP director published many articles during the Covid19 pandemic in many crucial topics such as; Can Masks Be Worn While Exercising?, Wearing gloves gives people a false sense of protection During COVID 19, Does Wearing A Mask Reduce Oxygen Levels Or Increase Carbon Dioxide Levels In The Body?, Impact Of COVID-19 On Occupational Accidents, Using Ventilation During COVID 19.

**Reducing workplace fatalities in numbers (West Bank)**

As a result of COSHEP strenuous efforts, workplace fatalities decreased from 37 in 2021 to 26 in 2022, 21 in 2023, and slightly increased to 26 in 2024, reflecting a 43.2% reduction from 2021 to 2023 in the west bank labor market only. Figure 1 illustrates this trend:

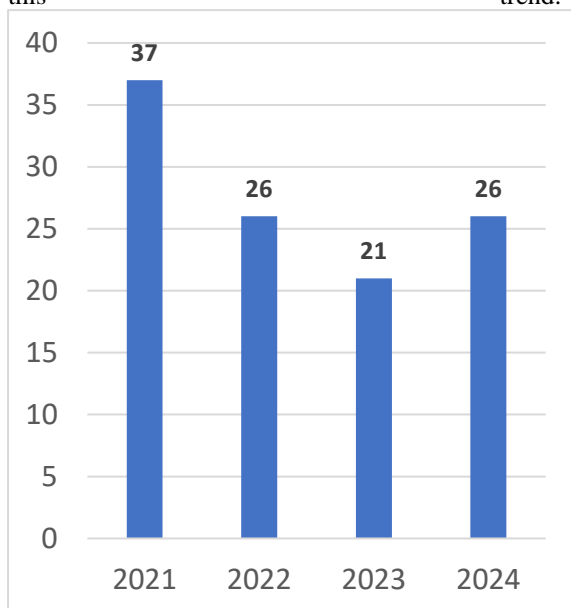


Figure 1. Workplace Fatalities in Palestine, 2021–2024 (COSHEP).

**Statistics Breakdown**

The four-years statistical details, analyzed by geographical distribution, age and gender, economic sectors, and frequency.

**Geographical Distribution**

Figure 2 illustrates the distribution of workplace incidents across the West Bank based on the collected data. From 2021 to 2023, most fatalities occurred in the southern governorates of Hebron and Bethlehem, while in 2024, the majority were reported in the central governorates, including eastern Jerusalem, Ramallah, and Jericho.

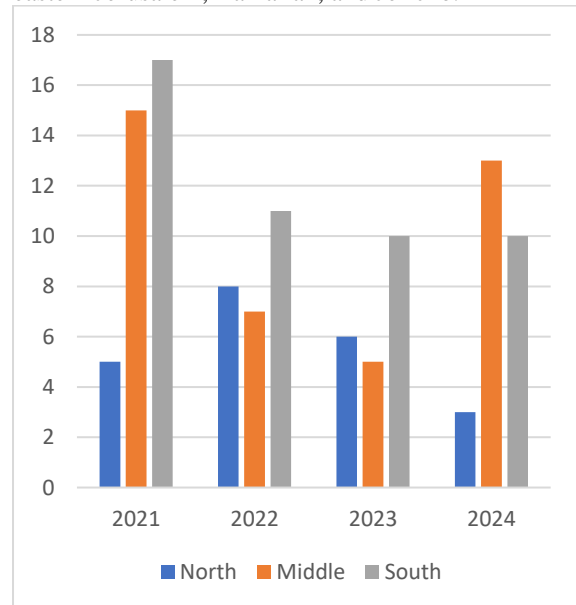


Figure 2. Workplace Fatalities distribution in the West Bank, 2021–2024 (COSHEP).

**Age Categories & Gender**

Figure 3 illustrates the age distribution of workplace fatalities. Between 2021 and 2022, most fatalities occurred in the 20–30 age group, whereas in 2023–2024, the majority were in the 40–50 age group. Regarding gender, between 2021 and 2024 only one female worker died—an incident in a plastic factory caused by asphyxiation during a fire.

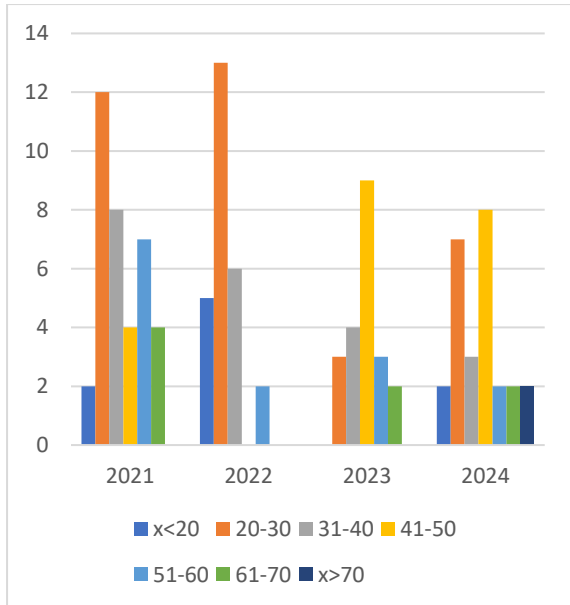


Figure 3. Age distribution of workplace fatalities in the west bank, 2021–2024 (COSHEP).

### Economic sectors

Figure 4 illustrates the sectors with the highest number of fatalities from 2021 to 2024. Construction ranks first, reflecting its high-risk nature, followed by agriculture, and then transportation and storage. These findings are consistent with international statistics.

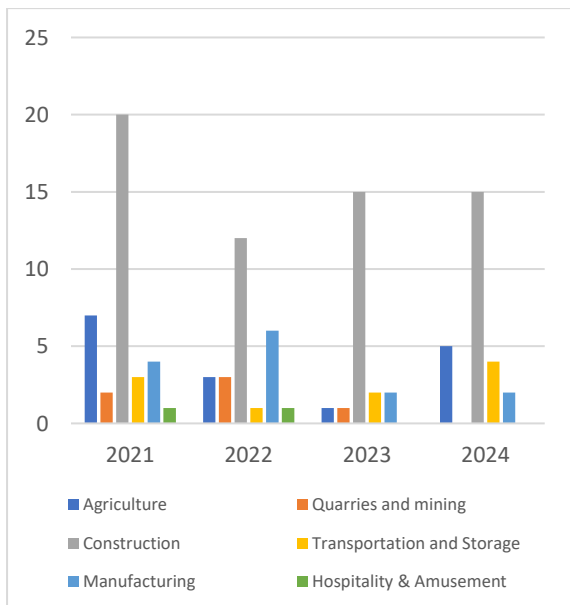


Figure 4. Economic sectors with the highest number of fatalities, 2021–2024 (COSHEP).

### Fatalities Frequency

Figure 5 illustrates the frequency of fatalities over the four-year period. Falls from height were the most common cause of death, followed by tractor or truck rollovers, primarily in the agricultural

sector, and thirdly, incidents in the manufacturing sector.

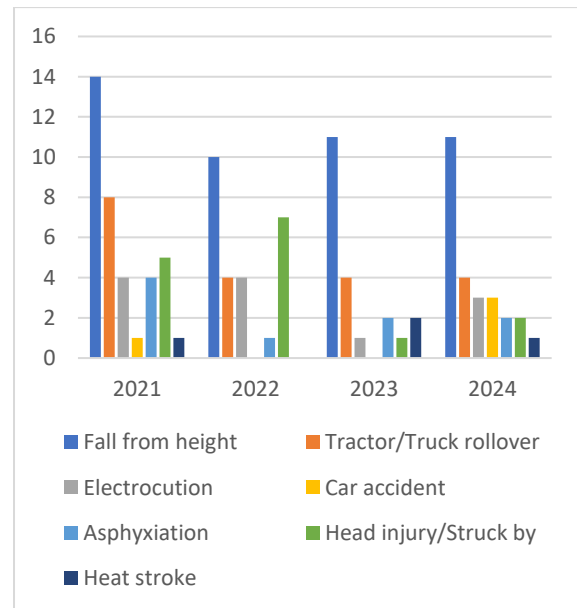


Figure 5. Frequency of the fatalities, 2021–2024 (COSHEP).

### War Impact on OSH Reality & Statistics

It's believed that the current war and the broader political and humanitarian crisis in Palestine—especially since October 2023, are very likely to have a direct and indirect impact on the increase in workplace fatalities in the West Bank in 2024. Herein some few possible factors that could explain the rise:

- *Collapse or Weakening of Safety Oversight*

During times of conflict, government institutions and labor inspectorates often become less functional or are redirected to other emergency tasks. This is true in the Palestinian context, due to the Israeli roadblocks and closure of the cities and around and movement restrictions.

- *Economic Pressure and Informal Work*

War increases economic hardship, pushing more people into unsafe, informal, or unregulated work just to survive. Workers might accept dangerous jobs or ignore hazards due to desperation. A notable example occurred when many “green line” workers, previously employed within the Israeli labor market, lost their jobs. Many then sought work in the West Bank, where workplace safety standards were generally lower than those in their former positions inside the green line (International Labour Organization (2024)).

- *Mental Stress and Fatigue*

Prolonged exposure to trauma, stress, and uncertainty affects concentration and decision-

making. Workers under stress are more prone to accidents, especially in hazardous sectors like construction, agriculture, or manufacturing (Hakhmigari and Diamant, 2025).

- *Disrupted Supply Chains and Poor Equipment*

War can lead to shortages in safe materials, equipment, and protective gear, increasing the chance of fatal accidents. Repairs and maintenance of machines or infrastructure may be delayed or ignored.

- *Neglect of Safety Culture*

In times of crisis, safety takes a backseat to immediate survival or production needs. Training programs are often paused, safety signage and protocols neglected, and the value of human life in the workplace becomes undervalued.

- *Displacement and Untrained Labor*

People displaced from other areas may seek work in unfamiliar environments. These workers often lack proper training or experience, increasing the risk of workplace injuries or deaths.

According to the aforementioned points, the current war is very likely a key contributor to the rise in workplace fatalities in 2024. It affects not only physical infrastructure and labor systems, but also the human, social, and institutional capacity to maintain safety in the workplace.

No doubt that Gaza war increased unemployment levels in the west bank, but according to Wafa (2025) report (Decline in the Number of Workers in the Local Market in the West Bank Between 2023 and 2024). The number of workers in the local market in the West Bank decreased from 685,000 in 2023 to around 650,000 in 2024, representing a 5% drop. The results indicated that this decline was due to a reduction in the number of workers in the construction sector, followed by other service activities, then the trade, restaurants, and hotels sector, and finally the mining and manufacturing sector.

### **Discussion**

COSHEP's multi-faceted approach transformed Palestine's OSH landscape. The extensive workshops and media campaigns through social media platforms, local radio & TV stations cultivated a preventative safety culture, aligning with the ILO's global standards & the Palestinian MoL strategic goals. Publishing fatality statistics annually and semiannually enhanced accountability, works as a deterrent effect, encouraging employer compliance & learning from incidents. Compared to global benchmarks, Palestine's fatality rate remains higher than Europe's, for example if compared to the

UK fatality rate in 2023/2024, 138 workers lost their lives in workplace accidents (Health and Safety at Work: Vital Statistics 2024 (A3 poster)), whereas 26 workers lost their lives in the Palestinian labor market. To calculate and compare the fatal injury rate per 100,000 workers:

Fatal injury rate in Palestine =  $\frac{26}{700,000} * 100,000 \sim 3.71$  fatality.

While in the UK =  $\frac{138}{30,000,000} * 100,000 \sim .46$  fatality.

Fatal injury rate in the UK is far lower than that in the Palestinian labor market, and this can be attributed to stronger regulatory system, fines and awareness campaigns. To lower the fatal injuries in Palestine, further efforts should be applied, such as awareness campaigns and stronger regulatory laws and deterring fines (Tuhul et al., 2021).

### **Conclusion**

The reduction in workplace fatalities from 37 in 2021 to 21 in 2023, despite a slight rise to 26 in 2024, underscores the impact of COSHEP's leadership in promoting an OSH culture. COSHEP journey in this regard, marked by hundreds of OSH workshops, media outreach, and data transparency, offers a scalable model for resource-constrained settings. Continued investment in training, technology, and stakeholder collaboration is critical to sustaining progress. Palestine's journey proves that OSH culture saves lives—yet more investment is needed. We urge policymakers, donors, and employers to scale COSHEP's model across the Arab region."

### **Recommendations**

- Institutionalize real-time fatality reporting as a legal requirement.
- Increase OSH inspectorate resources to match high-risk sectors.
- Enforce deterrent fines for non-compliance, aligned with ILO standards.
- Expand OSH education into school and vocational curricula.
- Scale the COSHEP model to other Arab countries with similar labor market challenges.

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