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Health Finance and Governance Activity

Review of Medical Fee Schedules: Ministry of Health (Civil Insurance Fund) and Jordan Medical Association

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Acronyms

CIF	Civil Insurance Fund
CMS	Centers for Medicare and Medicaid Services
CPT	Current Procedural Terminology
ECG	Electrocardiogram
EEG	Electroencephalogram
GPCI	geographic practice cost index
HFG	Health Finance and Governance activity
HIA	Health Insurance Administration
ICD-10	International Classification of Diseases
JD	Jordanian Dinar
JMA	The Jordan Medical Association
MOH	Ministry of Health
MRI	Magnetic Resonance Imaging
RVU	Relative Value Unit
U.S.	United States
UNRWA	United Nations Relief and Works Agency for Palestine Refugees
USAID	United States Agency for International Development

Executive Summary

There are new efforts to reform the systems for billing health care services in Jordan. However, the definition of "billable health care service" and their assigned fees are outdated. To expand our understanding of the issues surrounding health care fees and reimbursement mechanisms in Jordan, two major public and private fee schedules for medical services are examined in this report.

There is limited costing information from public clinics and hospitals and prices in the private sector show great variation. The lack of health financing information and costs from public facilities as well as the limited information from insurance markets and private medical services prevents an efficient allocation, production and equitable distribution of health services in Jordan.

There are initiatives to change the way in which we apply health financing resources towards more effective approaches. Reforming the health care financing system requires changes to the way in which we pay for health services. Moving from historical budgets towards paying for results has the advantage of promoting quality and demanding better health outcomes.

Setting fee schedules to pay for physician services needs to be implemented with caution as it represents fee-for-service and it has typically been used by providers as a volume-based approach. Modern payment schemes are moving away from input-based budgeting and fee for services, towards strategic purchasing.

Provider payment reforms consists of paying for value instead of paying for volume. Any payment method has strengths and weaknesses and can be used to shape the behavior of health providers. In seeking greater value for money, we need to place attention on the operational design features of the payment system, ensuring that the structure of incentives changes providers behavior towards better health outcomes.

Fee schedules reviewed

This paper examines two key fee schedules for health care services, one public and one private. Both public and private fees are old and dating from 2004 and 2008, respectively. The "units" being costed, and the health care services and procedures themselves, do not share standard definitions. These "home grown" definitions are different between sectors in Jordan. While private sector fees cover professional services only, the public fees cover both the professional and facility components of a service.

The methodologies to develop fee schedules in both the public and private sectors lack any supporting documentation or institutional memory. The basis for setting public fees is unknown. The Jordan Medical Association (JMA) set fees for the private sector; however, there is not supporting documentation and this process relies on subjective physician opinions about the levels of medical effort required to perform services. Despite the lack of explicit methodology in which physician effort is converted into monetary values, the 2017 proposed fees were increased significantly.

Methods

We compared fee schedules for a sample of 30 services frequently provided at public and private facilities. The analysis involved reviewing fees to determine if services requiring more costly resource inputs have higher fees. In other words, if the services within a fee schedule are ranked from lowest to highest price, does the order of services make sense given the inputs required for the service. We also conducted a comparison analysis against a well-known benchmark, the US-Medicare Fee Schedule (MFS). Since it is nearly impossible to calculate the market value for individual procedures in Jordan, it is acceptable for the Jordanian's fees to be benchmarked against an external set of standards. One interesting feature of the MFS is that it is based on the Resource-Based Relative Value Scale (RBRVS). According to the American Medical Association (AMA), in this system, payments are determined by the resource costs needed to provide them, with each service divided into three components: 1. physician work; 2 practice expense; and 3. professional liability insurance. The RBRVS is based on the principle that payments for physician services should vary with the resource costs for providing those services and is intended to improve and stabilize the payment system while providing physicians an avenue to continuously improve it. While the structure and level of salaries in Jordan are different than in the USA, the RBRVS reflects the amount of work done by medical professions and it is directly related to reimbursements. The scale is expressed in relative value units (RVU), so that the greater the effort, the larger number of RVUs and therefore the higher the payment. This benchmark helps us to make the comparison and identify if the Jordanian fees are in any way correlated to a highly standardized reference scale.

Findings

The two fee schedule sets were compared to each other to determine relative consistency. Even if the prices are not the same in the public and private sectors, it is reasonable to expect the rank order of the services by price in both sectors to be quite similar. For example, the least expensive services should be similar and the most expensive as well as those mid-range. But this is not the case; out of 30 procedures, the ranking was the same for 12 services and was different for the other 18. Relative consistency does not exist. Neither the public nor private fee schedule is internally consistent.

Public sector fees are highly subsidized and yet do not cover the production costs -- even when including the 40% mark-up. Generally, public fees are significantly lower than private fees. The JMA fees are based on physician effort units. When procedures are ranked from low to high based on work effort, they should be ranked very similarly, but this is not the case. Overall, lower fee schedules were observed in the public sector with the highest differences observed for normal delivery, colonoscopy and esophago-gastro-duodenoscopy. For example, a general practitioner visit in the public sector has a fee of US$ 0.60 while in the private sector it is US$ 10.00.

When compared to the Medicare fee schedule, we observed that most of procedures evaluated (61%) are reimbursed at a higher rate in the private Jordan market as compared to the U.S. The

proposed 2017 fee schedule will increase these differences further. Jordan's public-sector fees charges three procedures at higher prices than the U.S. Dialysis treatments are less expensive in the U.S. than in both the public and private sectors in Jordan. We also estimated the correlation between Medicare and Jordanian fees and found a low correlation with the private sector Jordan Medical Association fees (person correlation r=0.49) and even a weaker correlation with the public sector Civil Insurance Fund (person correlation r=0.24).

Discussion

Typically, in health systems like Jordan's, the prices of commonly defined health care services are negotiated between insurers and providers and based on reference costs. Meaningful health care fees use reliable and accurate reference costs to produce health services. The direct negotiation ensures prices are not set too low -- as the provider would be unable to cover their production costs, and prices are not set too high -- as the insurers would not be able to pay above the revenue collected from premiums. In Jordan, where one standard fee schedule does not exist, we found a six-fold difference between private and public fee schedules for treatments and procedures. While the GOJ heavily subsidizes public sector fees, neither of the fee schedules reflect the amount of resources commensurate to service and there is not a resource-based relative value scale that reflect differentials of a physician's level of effort especially for labor intensive procedures. Technology intensive procedures in Jordan are priced too high and probably there is not clear distinction in pricing labor, equipment, consumables and facilities.

The major payer for services in the public sector includes the Health Insurance Administration (HIA) and its Civil Insurance Fund (CIF). Currently HIA does not pay the providers in its home network for services and collections from other payers is not reimbursed directly to the providers. Not compensating providers directly for their services means revenues collected (based on fees) are never used to cover the costs of those providers producing services. Revenues and costs are not reconciled. The public system is designed to avoid pricing and reimbursement accountability by not separating payer and provider. Importantly, the setting of public fees is not consistent with the laws governing it.

The USAID Health Finance and Governance Activity is working with different stakeholders to implement a variety of solutions leading to efficient distribution of health care resources, including the establishment of fair and equitable fee schedules for health care services -- ultimately ensuring the long-term sustainability of the health system.

Observations

- The Ministry of Health has the mandate to regulate the health sector in a fair, transparent and predictable manner by developing payment systems that are consistent with government policy and sensitive to stakeholder interests.
- This report provides the bases to justify the development of a new fee schedule to reimburse services and the need to create a sensible billing system.
- A fair and reasonable value for payments in the public and private sectors should include subsidized and subsidy-free payments.

- An appropriate mechanism for implementing a fair and reasonable value of fee schedules, tariffs and reimbursements requires the development of benchmarks. These benchmarks could inform stakeholders and consumers of the potential fair and reasonable value of health services.
- A comprehensive health system modelling is warranted to calculate the impact of payments on the public and private health sector.
- Updating the current fee schedule is warranted as it will prevent serious sustainability problems of the health sector.
- Fee setting and its updating in Jordan does not follow the instructions of the law. Overall changes made to fee schedules do not follow the regulatory and legal framework in place.

Recommendations

1. In order to avoid significant payment disputes, providers should proactively use international codes for diseases and procedures and include these in their current contracts and negotiations.
2. It is essential that Jordan's public and private health insurers adopt standard definitions for medical procedures such as ICD-10 ensuring that procedures linked to tariffs are comparable.
3. It is advisable for the health sector stakeholders to develop comprehensive tariffs as opposed to physician fees. These tariffs should represent boundless comprehensive services, aligned with clinical guidelines aiming to compensate packages of services including physicians, facilities, medicines and diagnosis.
4. Reliable and accurate reference costs should be set through a multi-stakeholder commission and supported by modern information technologies and using international standard classification for diagnosis, treatments and procedures.
5. The government should constitute a tariff setting committee in charge of reviewing reference costs and prices in the public and private sectors and develop a transparent methodology for pricing health care services. This committee will be responsible for setting and maintaining updated public and private fees and will have wide representation (public and private sector, medical associations, hospitals, insurers and academia).

1. Review of Medical Fee Schedules: Ministry of Health (Civil Insurance Fund) and Jordan Medical Association

Prices are much more than the amount of money paid when buying a good or service. Reflecting the value or worth of goods or services, including the costs of production, prices serve the practical purpose of rationing limited goods and services. Those who pay the price get the good or service and those who do not pay go without it. Equally important, the prices paid compensate

those who provide desired goods and services while those producing unwanted goods and services go uncompensated.

Meaningful health care prices determine the efficient distribution of health care resources. To the extent a competitive market in medical care exists, resources will be allocated in a socially desirable way. Efficiency in production, cost minimization and the correct levels of quantity and quality of medical services will be achieved.

The ability to make smart health care choices requires the relative prices of health care services to reflect relative costs. Meaningful relative prices can be distorted by many things including administrated rather than market-based fees, subsidies and insurance. A fee lower than the real cost affects both the choice of services and quantity used. Patients pay a price for care that does not reflect their marginal valuation of using those services. The delivery system cannot meet people's wants (Feldstein, 2011; Zweifel and French, 2012). If fees are prevented from rising naturally as they would under shortage conditions, there is no extra financing available to enhance production to meet wants. There is a perennial shortage, characterized by queues, crowds, waits, and deteriorating quality of services. The problem of shortages or queues is exacerbated in health care due to its triage system. The individuals pushed to the front of the queues are those most in need of services. This means there is a tendency to select the most serious cases driving up the use of higher level, curative care.

Many health sectors are challenged by health services pricing including tax-based and single payer systems. For example, the UK's National Health Service is designed to be administratively simple requiring minimal paperwork and free to anyone who needs it. Most patients never see a bill. It is characterized by shortage problems including aging infrastructure, inadequate facilities, lagging technology, insufficient and inattentive staffing, long waits even for essential procedures, crowded waiting rooms, shortage of beds, delays in emergency room (ER) care with some waits up to 12 hours, and rising costs. Similar issues are found in Sweden and Malaysia too. Furthermore, in Malaysia, 73% of those who were ill sought outpatient treatment from private doctors. However, for catastrophic care, the highly subsidized public sector was used by 89% (New York Times, Feb. 6, 2018; WHO/EIP, June 2004.)

On the other hand, if health care prices are too high, the delivery system has the capacity to produce more than what is wanted. This results in empty beds in certain facilities or wards, unused equipment or machines, wasted space, and/or idle time. When health care prices are too high or too low, people who want health care go without it, and natural, invisible economic forces not controlled by policy makers, government leaders or health care managers, take over the job of rationing.

Both health care shortages and surpluses exist in Jordan. Especially in the public sector there is an undersupply of health workers and there are complaints of long queues and extremely limited provider/patient interaction. Pay is low and working conditions unsatisfactory leading to attrition with some moving to the private sector, going abroad, or changing professions. In the private sector there is ample supply of providers offering access to beds and medical technologies. There is excess capacity. These conditions reflect confounded resource distribution within the health

subsectors, and between the health sector and other sectors of the economy. Relative prices for public health services, private health services and all other goods and services in the economy are severely distorted in Jordan.

Typically, in health systems like Jordan's, the prices of commonly defined health care services are negotiated between insurers and providers and based on reference costs. Meaningful health care fees use reliable and accurate reference costs to produce health services. The direct negotiation ensures prices are not set too low -- as the provider would be unable to cover their production costs, and prices are not set too high -- as the insurers would not be able to pay above the revenue collected from premiums.

To better understand the issues surrounding health care prices and fee schedules in Jordan, two key fee schedules used to price services are examined in this review. They are the public-sector fee schedule associated with the CIF, and the private sector fee schedule established by the Jordan Medical Association (JMA). Both are compared to the U.S. Medicare provider fee schedule, the basis for both public and private professional fees in the U.S.

2. Ministry of Health (Civil Insurance Fund) Fees

The Health Insurance Administration (HIA) administrates a price list of fees payable to public sector providers. The fee schedule is applied when either an uninsured person or an individual covered under private insurance receives healthcare in a public facility. There are 27 purchaser groups that contract with the HIA (see Appendix A).

While there is reference to the fee schedule being based on a pricing study which took place in 1997, there is no information available on the study, the authors, or the methodology employed. Over the years, percentage increases have been applied, but there is no information regarding the triggers for changes, when the changes occurred, or the sizes of increases. The most recent fee schedule was revised in 2004.

According to Number 14 of the Civil Insurance Bylaw Number 83 of 2004 (see Appendix C for a list of how fee schedules are set for different health sectors), "the fees/prices of treatment in hospitals and health centers shall be determined by a decision of the Council of Ministers upon the recommendation of the Minister of Health," and "the treatment fees/prices shall be reviewed annually so that after five years they are equal to the actual cost."

In 2014 HIA staff reportedly reviewed the fee schedules and requested that the MOH conduct a new pricing study – that better reflected actual costs of medical treatment – be completed. This request was not acted upon.

The public fee schedule groups medical services into the following categories:

1. Hospital accommodation fees
2. Radiology fees
3. Dental fees
4. Special medical procedure fees
5. Hearing test fees
6. Ophthalmic treatment fees
7. Kidney treatment fees
8. Surgical operation fees
9. Childbirth/delivery fees
10. Cancer treatment for non-Jordanians
11. Forensic medicine fees
12. MRI and bone density fees
13. Durable medical equipment
14. Splints
15. Lab tests for financially secure

Specific procedures are assigned numbers consecutively (e.g., 1, 2) within each section. Services/Procedures are not defined according to any international standard.

When medical services in the public sector are rendered, the fee schedule is applied in one of two ways:

1. *Uninsured, capable Jordanians* are charged the baseline rate (see Table 1 sample below). To assess the rates charged in the public and private sectors, thirty procedures that were similarly defined in both the public and private sector fee schedules were identified. Table 1 lists the 30 procedures with their accompanying public fees.

Table 1: Public Baseline Fee Schedule (Uninsured, self-pay) – 2004 in ascending JD order[1]

Pub Rank No.	Procedure	Price in (JD)
1	GP Fees (doctor visit)	0.40
2	Circumcision	2.00
3	Pap Smear	2.00
4	ECG	2.20
5	Chest (diagnostic radiology)	2.20
6	Sinuses (diagnostic radiology)	2.20
7	Spine, each part (radiology)	2.20
8	Medical Report per patient request	2.20
9	Audiogram	3.00
10	EEG	5.50
11	Abdomen Ultrasound	5.50
12	Mammography	5.50
13	Esophagus, Gastro and Duodenoscopy	5.50
14	Colonoscopy	11.00
15	First Class Accommodation	11.00
16	Renal biopsy, bile ducts, pancreas	11.00
17	Normal Delivery	15.00
18	CT Spine One Disc Space	22.00
19	Tonsillectomy	25.00
20	Removal of Corneal Stitches, OR	30.00
21	Glaucoma/ Laser Iridotomy	45.00
22	Cataract/ Laser Trabeculoplasty	45.00
23	Tracheostomy	45.00
24	Nasal Polypectomy	45.00
25	Kidney Dialysis	60.00
26	Peritoneal Dialysis	60.00
27	Splenectomy	65.00
28	Bronchoscopy	65.00
29	Abdominal &Vaginal Hysterectomy	65.00
30	MRI per Examination (with contrast)	120.00

2. *Members and beneficiaries of the military and members of the 27 groups* that contract with the HIA who receive medical care in the public system are charged the baseline fee plus 40%. According to the HIA, the 40% increase was not based on a formal study but was decided on by the Prime Ministry as a best guess of the actual costs.

In addition, there is a small set of discounted outpatient fees for HIA CIF members who have forgotten their membership card at the time of service. This appears to be an "exception" that

[1] Fees mentioned in this table are procedure fee only without facility fees, consumables and medication.

resulted in creating a random discount for selected procedures. We could not find evidence of how this decision came about, why specific codes were selected, or how this exception is applied within the public facilities.

In summary, there are multiple serious concerns with the process for establishing and administrating public sector medical fees in Jordan. The HIA is currently working as the revenue collector for the MOH delivery system, even though this is not the role of a public insurer. This confusion about the role of the HIA clearly demonstrates the HIA is not functioning as a typical insurer. If it were truly responsible for paying providers as an insurer should be, there would be a huge conflict of interest to have the HIA set the prices of the services it pays for, especially when there is no formal and rational method for doing so.

This confusion about the role of the HIA as both a payer and price maker is rooted in the fact that Jordan's public sector fees are not paid directly to its public providers. The insurer does not pay the providers in its home network and public provider compensation collected from other payers is not reimbursed to the public providers who rendered the services. If prices were rationalized, the fees would have to cover the costs of resources spent to produce care. For example, a visit with a general practitioner is priced 0.40 JD for a person without public sector insurance coverage. Thus, the 0.40 JD is meant to reflect the full cost of providing the visit with no public subsidy. In another example, a Tonsillectomy (25.00 JD) is reimbursed at a higher rate than a Normal Delivery (15.00 JD). Again, the fees do not reflect the true costs of each medical service, even with an additional markup of 40%. Nor do the two fees represent rational relative pricing for two very different medical services.

Thus, the public-sector fee schedule is dated and there is no method for commonly defining the health care services priced. It is not explicitly stated whether the fees are intended to cover both professional and facility components, or whether such distinctions are considered. Importantly, the setting of fees is not consistent with the laws governing it. Fee setting and updating does not follow the instructions of the law. Also, changes are made to fees outside of the law.

3. Jordan Medical Association and Private Fees

In the private sector, physician professional fees and facility fees are managed separately. Professional fees are created and maintained by the Jordan Medical Association (JMA). The JMA was founded in 1954. The law allows the JMA Board to develop regulations. The JMA fee schedule is primarily used by private health insurers. However, if a private-pay individual believes he/she has been overcharged and complains to the JMA, any overages based on the fee schedule will be repaid to the complainant. Facility charges are determined by individual hospitals who submit rates to the MOH for approval. This report does not evaluate facility fees.

The JMA originally compiled a price list for physician fees in 1989. There is no documentation regarding the methodology used to determine the costs, except that they were the product of the JMA membership. This means there was not a formal pricing study to determine correct fees. Instead, providers discussed the procedures and what they believed would be adequate reimbursement.

The most recent version of the fee schedule is from 2008. The procedures, again not defined by any international standard, are grouped into 22 categories as follows:

1. General Physician
2. Internal Medicine
3. Digestive System
4. Kidney
5. Neurological Diseases
6. Chest
7. Dermatology
8. Pediatrics
9. Psychology
10. Natural Medicine and Rehabilitation
11. Anesthesia, Recovery and Pain Treatment
12. Radiation and Nuclear Medicine
13. Chemotherapy
14. General Surgery
15. Ophthalmic Surgery
16. Ear, Nose and Throat
17. Obstetrics and Gynecology
18. Orthopedic Surgery
19. Brain and Nerve Surgery
20. Heart, Chest and Circulatory Surgery
21. Plastic Surgery and Restoration
22. Child Surgery

Most procedures are given a unit value to represent physician effort; however, there is no defined methodology or evidence used to determine the different levels of physician effort. To derive the price for procedures with a physician effort unit value, the unit value is multiplied by a JD value. The JD value was established via the Internal Regulations for Medical Fees No. 46 in 1989. There is a minimum and maximum JD value. One physician effort unit equals from 2.80 JD to 3.50 JD. The private provider can negotiate these values with the payer.

Some procedures that occur in a clinic and minor surgical procedures are not given effort unit values. Some are only assigned JD amounts. Unfortunately, there is no defined method to identify which procedures are priced at a flat dinar value and which are priced with units.

An additional complication arises as there are some exceptions in applying the fees depending on a variety of factors including the time of day of the visit, or the years of physician experience or specialty. For a full list of the exceptions, see Appendix B.

Table 2 is a list of medical procedures and fees in the private sector.

Table 2: JMA Fees –2008 in ascending JD order

JME Rank No.	Procedure	Physician Effort Points	JD
1	GP Fee (doctor visit)	NA	5.00-8.00
2	Medical Report per patient request	NA	4.00
3	Chest (diagnostic radiology)	NA	13.00
4	Audiogram	NA	13.00
5	Removal of Corneal Stitches, OR	NA	13.00
6	ECG	5	14.00-17.50
7	Pap Smear	5	14.00-17.50
8	Circumcision	NA	15.60
9	Sinuses (diagnostic radiology)	NA	19.50
10	Spine, each part (radiology)	NA	19.50
11	EEG	NA	26.00
12	First Class Accommodation	NA	36.00
13	Abdomen Ultrasound	NA	39.00
14	Mammography	NA	39.00
15	Kidney Dialysis	15	42.00-52.50
16	Peritoneal Dialysis	15	42.00-52.50
17	Nasal Polypectomy	NA	45.00
18	CT Spine One Disc Space	NA	65.00
19	Glaucoma / Laser Iridotomy	NA	65.00
20	Esophagus, Gastro and Duodenoscopy	25	70.00-87.50
21	Cataract/ Laser Trabeculoplasty	NA	78.00
22	Renal Biopsy / bile ducts, pancreas	35	98.00-122.50
23	Colonoscopy	40	112.00-140.00
24	Bronchoscopy	40	112.00-140.00
25	Normal Delivery	50	140.00-175.00
26	Tonsillectomy	50	140.00-175.00
27	Splenectomy	75	210.00-262.50
28	Tracheostomy	90	252.00-350.00
29	MRI, per Examination (with contrast)	NA	260.00
30	Abdominal and Vaginal Hysterectomy	100	280.00-350.00

In summary, the JMA private sector professional fees are old and based on a nontransparent process with no formal, rational methods. At the most basic level, the list and definition of physician services for payment are not standard. The JMA relies only on subjective physician opinions about the levels of physician effort required to perform these non-standardly defined services without requiring any objective evidence. Dinar values are assigned to the effort units based on a regulation which is also without rationale. There are no clear objective guidelines or rules for determining which medical services are priced based on physician effort and which are not.

The 2008 JMA fee schedule presents many of the same issues identified in the public-sector fee schedule. For example, while the cost of visiting a general practitioner is higher in the private sector than in the public sector, it still appears low at 5.00 to 8.00 JD in the JMA fee schedule. Typically, in a private sector setting, too low of a fee discourages a diligent patient evaluation or

is made up for by performing other services for additional fees. Many service levels of effort appear random and do not make quantitative sense. According to the private schedule a Total Hysterectomy requires twice as much physician effort as a Normal Delivery. Specialists and older physicians are given higher fees which makes no sense when pay is based on effort. Certain kinds of specialists are the only ones who can perform certain services, so they have exclusive ability to earn money from those services. Similarly, experienced physicians who can perform more services in a given time-period earn more than those who perform fewer services in the same time-period. There is no need for extra payment solely because professionals are specialists or have longer work experience.

a. 2017 JMA Fee Schedule Changes Pending

In 2015, a new board of 12 private physician leaders was elected at the JMA. They believed the prices on the 2008 fee schedule were too low and excluded new technologies and treatments. Rather than setting up a formal pricing study and/or developing a methodology to evaluate the fees, specialists met to discuss the procedures and the fees. They provided opinions regarding price increases as well as adding procedures that were missing from the 2008 schedule. As a result of these efforts, a proposed fee schedule includes the following changes:

- Increased *value units* (work effort) based on 30% inflation and discussions within the provider community. While it is generally true health care costs have increased since 2008, there is no data evidence showing the work effort units involved in performing specific medical procedures have significantly increased. The JMA created a health care services pricing method they are not following as value units no longer measure work effort. If the physician work effort has not changed and the actual costs to perform a procedure have increased, the solution is for the JMA to lobby for increases in the monetary value of effort units or to acknowledge that the cost of a procedure is determined by more than physician effort and develop ways to measure those other expenses. Note, the reimbursement per unit stayed the same (2.80 JD - 3.50 JD).

- Additional new procedures and technologies were introduced, but it is unknown how many and within which specialties. Anecdotally, the providers expressed their challenges when seeking reimbursement from a payer for a procedure not listed in the 2008 fee schedule. For example, *High Intensity Focused Ultrasound* technology was not available in 2008, so there is not a fee associated with it. It is a newer technology with a variety of potential uses for non-invasive treatment. It shortens the length of hospitalization and reduces potential infection rates associated with surgical procedures, leading to overall improved clinical outcomes. In the case of prostate cancer, surgeons determine where the most aggressive cancer is located and without destroying any tissue or surrounding nerves, a highly focused beam targets and kills the cancer[2]. This technology can also treat

[2] "New prostate cancer treatment offers non-surgical alternative" Eyewitness News, Healthy Living. January 11, 2016. http://abc7.com/health/new-prostate-cancer-treatment-offers-non-surgical-alternative/1154669/

other health issues including uremic secondary hyperparathyroidism [3] and uterine fibroids.[4]

The specialists participating in the process identified new procedures that did not exist in 2008 and estimated the costs of these new procedures based on professional opinion, but not based on formal analysis and evaluation. It is not known how the physicians estimated costs, nor which costs were estimated.

- Cardiology and vascular surgery were put into two separate categories instead of being combined into one.

It is important to note the proposed 2017 fee schedule does not include a standard procedure coding classification system. While proposed changes may help private providers obtain the higher compensation they prefer, the process for making adjustments is not consistent with the original JMA fee setting process. All fee setting continues to be arbitrary and unsupported by objective evidence. There are no checks or balances on the fees; providers simply say what they want without negotiation of changes.

4. Comparison of Jordanian Ministry of Health (Civil Insurance Fund) and Private Fee Schedules

Similarities between the public and private fee schedules in Jordan are:

- Each is used in respective private and public facilities.
- Each includes a spectrum of health services and none of the services are classified according to international standard.
- Neither fee setting methodology is based on a documented scientific and objective process. Methods are arbitrary, not transparent, and not evidence-based in both sectors.
- The relative prices for different services within sectors and between sectors do not make sense.
- Both effective fee schedules are old and there is no regular maintenance of fees schedules.

The core differences between the public and private fee schedules are:

- The way medical procedures and services are itemized and defined for pricing are different. Typically, this is done through standard, international procedure codes not used in Jordan.

[3]Kovatcheva Roussanka D. et al. "High-intensity focused ultrasound (HIFU) treatment in uraemic secondary hyperparathyroidism." Nephrology Dialysis Transplantation. Published 2012 Jan; 27 (1): 76-80. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3276310/

[4] "Philips and Farah Hospital expand therapy options for women with painful uterine fibroids in the Middle East" Philips News Center June 10, 2013. https://www.philips.com/a-w/about/news/archive/standard/news/press/2013/20130610-Philips-and-Farah-Hospital-expand-therapy-options-for-women-with-uterine-fibroids-in-the-Middle-East.html

- There are 2,219 non-standard procedure codes in the private sector. There is not an estimate of the current number of codes in the public sector and it does not organize codes based on provider specialty as seen in the private sector.
- The public schedule has JD values only, and the private sector fee schedule has a mix with some fees built on units of effort converted into JD values.
- Based on the 30 procedures reviewed, the fees in the private sector are generally higher than in the public sector.
- Private sector pricing is meant to compensate the professional component of services only. It is unknown if public sector fees represent professional, facility or both professional and facility resources.

To expand on the differences in the public and private sector fees, Table 3 compares the public (2004 rates) with the JMA (2008 rates) including procedures that were similarly defined in both fee schedules. Even though both fee sets are outdated, they are currently used to price services.

Table 3: Comparison of Public and JMA fee schedule sorted in ascending % difference

Pub Rank	JMA Rank	Procedure	Public in JD[5]	JMA in JD	% difference public to average JMA
20	5	Removal of Corneal Stitches, OR	30.00	13.00	(57%)
25	15	Kidney Dialysis	60.00	42.00-52.50	(21%)
26	16	Peritoneal Dialysis	60.00	42.00-52.50	(21%)
24	17	Nasal Polypectomy	45.00	45.00	0%
21	19	Glaucoma/ Laser Iridotomy	45.00	65.00	44%
22	21	Cataract/ Laser Trabeculoplasty	45.00	78.00	73%
8	2	Medical Report per patient request	2.20	4.00	82%
28	24	Bronchoscopy	65.00	112.00-140.00	94%
30	29	MRI Per Examination (with contrast)	120.00	260.00	117%
18	18	CT Spine One Disc Space	22.00	65.00	195%
15	12	First class Accommodation	11.00	36.00	227%
27	27	Splenectomy	65.00	210.00-262.50	263%
9	4	Audiogram	3.00	13.00	333%
10	11	EEG	5.50	26.00	373%
29	30	Abdominal & Vaginal Hysterectomy	65.00	280.00-350.00	385%
5	3	Chest (diagnostic radiology)	2.20	13.00	491%
19	26	Tonsillectomy	25.00	140.00-175.00	530%
23	28	Tracheostomy	45.00	252.00-350.00	569%
11	13	Abdomen Ultrasound	5.50	39.00	609%
12	14	Mammography	5.50	39.00	609%
4	6	ECG	2.20	14.00-17.50	616%
2	8	Circumcision	2.00	15.60	680%
3	7	Pap Smear	2.00	14.00-17.50	688%
6	9	Sinuses (diagnostic radiology)	2.20	19.50	786%

[5] Fees mentioned in this table are procedure fee only without accommodation, consumables and medication

Pub Rank	JMA Rank	Procedure	Public in JD[5]	JMA in JD	% difference public to average JMA
7	10	Spine, each part (radiology)	2.20	19.50	786%
16	22	Renal Biopsy / bile ducts, pancreas	11.00	98.00-122.50	902%
17	25	Normal Delivery	15.00	140.00-175.00	950%
14	23	Colonoscopy	11.00	112.00-140.00	1045%
13	20	Esophagus, Gastro and Duodenoscopy	5.50	70.00-87.50	1332%
1	1	GP Fees (doctor visit)	0.40	5.00 – 8.00	1525%

Since neither public nor private fees are based on an evidence supported method or logical rationale, it is difficult with just these two fee schedules to argue which fees are most sensible. However, both should reflect resources used to produce the services, and resources needed clinically should be very similar in both sectors. Therefore, it is reasonable to expect the rank order of the services by price in both sectors to be quite similar. For example, the least expensive services should be similar and the most expensive should be similar, as well as those mid-range. But this is not the case. Of the 30 procedures, ranking is the same or similar for 12 services and different for 18. The biggest difference in rank is 15 and it occurs for Removal of Corneal Stitches, ranking 5 out of 30 (low price) in private fees and 20 out of 30 (higher price) in public fees. The public price is more than twice the private, which makes no sense. Other significant differences in rank between the sub sector fees are Kidney Dialysis 10, Colonoscopy 9, Normal Delivery 8, Endoscopy 7, Tonsillectomy 7, and Nasal Polypectomy 7. Comparatively, the relative rankings make little sense.

Prices for the 30 comparable procedures evaluated range from a low of 0.40 JD to a high of 120 JD in the public sector. Private fees have a wider range from 6.50 JD to 315 JD and are generally higher than public. Private sector radiology treatments largely are more expensive than in the public sector, averaging 600% more. The highest fee differences in the sample appear for Normal Delivery costing 950% more, a Colonoscopy costing over 1000% more, and an Esophagi-gastro-duodenoscopy costing 1332% more than in the public sector. While the largest price difference is in the fee to visit a general practitioner at 1525% more in the private sector, both fees are unrealistically very low (0.40 JD public sector, 5.00 JD private sector).

Consider, a public-sector Tonsillectomy is reimbursed at a higher rate than a public sector Normal Delivery. This is surprising as the work effort involved in a Normal Delivery is significantly more than that involved in a Tonsillectomy. The internal logic of the public fee schedule is not apparent. In the private sector the fees associated with Tonsillectomies and Normal Deliveries are equal even though the resources associated with these procedures are very different. The internal logic of the private fee schedule is not apparent.

Fees for three procedures are higher in the public sector than in the private, Removal of Corneal Stitches and two types of dialysis treatment. There is no clinical or operational reason why the costs of producing these services should be higher in the public sector. With the high rates of dialysis in Jordan as well as in the Syrian community, the lower prices of dialysis in the private sector are notable.

5. Comparison of Jordanian Fee Schedules to the US

To provide additional context, the public and private fee schedules in Jordan were compared to U.S. prices. First, medical services to be examined were mapped into standard Current Procedural Terminology (CPT) codes. This allows the prices for the same procedures to be compared. In the U.S., Relative Value Units (RVUs) are used to determine professional payments for over 7,500 physician services.[6] Having meaningfully defined procedures such as multiple types of office visits defined by time and type of patient, for example, requiring different levels of resources is critical to the method. The RVUs represent the professional resources used to provide each procedure.

The Centers for Medicare and Medicaid Services (CMS), a federal agency, convenes professional working groups to create and manage the definition of medical procedures and RVUs. When determining RVUs, the working groups consider three types of resources required for each procedure: physician work, practice expense, and professional liability insurance. The RVUs are multiplied by a geographic practice cost index (GPCI) that accounts for variations in the costs of practicing medicine in different regions across the country. The geographically adjusted RVUs are then multiplied by a conversion factor to arrive at a dollar amount or price. The conversion factor, updated annually, is calculated by use of a complex formula that considers the overall state of the U.S. economy, the number of beneficiaries, the amount of money spent in prior years, and changes in the regulations governing covered services.[7] Also, RVUs are evaluated and updated regularly, though not annually necessarily.

The conversion factor represents the amount the federal government is willing and able to pay per RVU for services delivered to Medicare participants. Thus, the Medicare conversion factor is the same for all providers in the US; there is no distinction between generalist or specialist or a provider's years of experience. Why? Because the professional resources required to perform the medical service vary by the nature of the service not the type of provider. Providers are compensated for what they produce, not who they are. In this way, more experienced providers who are able to perform more services earn more. Specialists who deliver higher RVU procedures that only specialists can deliver earn more.

CPTs and RVUs form the basis of both public sector and private sector professional provider reimbursement in the U.S. All billers and payers use the same procedure coding and RVUs. The

[6] National Health Policy Forum, January 12, 2015. "The Basics, Relative Value Units (RVUs). The George Washington University, Washington, DC.

[7] Seidenwurm, DJ and HK Burleson, "The Medicare Conversion Factor" Health Care Reform Vignette http://www.ajnr.org/content/ajnr/35/2/242.full.pdf

core difference is that non-Medicare providers and insurers negotiate the value of the conversion factor. It is possible different professionals in a geographic area get paid differently for the same procedure delivered to non-Medicare patients because the providers and insurers can negotiate different conversion factors than Medicare's.

In the table below, the physician effort RVUs and Medicare fees in the U.S. are reported. To determine 2017 prices, 2017 RVUs for physician work are multiplied by the 2017 CMS conversion factor of $35.0870. No geographic practice cost index (GPCI) is used, which is the same as assuming the geographic average cost index (= 1) is used. U.S prices are converted into JD amounts (10/31/2017, rate of 1.4055).

Table of US Fees, in ascending JD order

Table 4: Medicare fee schedule sorted in ascending JD/ work effort order

No.	Procedure	Medicare RVUs	Medicare in JD
1	First class Accommodation		
2	Medical Report per patient request		
3	ECG	0.17	4.34
4	Sinuses (diagnostic radiology)	0.17	4.34
5	Chest (diagnostic radiology)	0.18	4.60
6	Spine, each part (radiology)	0.22	5.62
7	Pap smear	0.45	11.49
8	Audiogram	0.6	15.32
9	Abdomen Ultrasound	0.81	20.68
10	GP fees (doctor visit)	0.97	24.77
11	Mammography	1.00	25.53
12	Glaucoma/ Laser iridotomy	1.00	25.53
13	CT Spine One Disc Space	1.22	31.15
14	EEG	1.51	38.56
15	Kidney dialysis	1.56	39.83
16	Circumcision	1.9	48.52
17	MRI Per Examination (with Contrast)	2.26	57.71
18	Renal Biopsy / bile ducts, pancreas	2.38	60.77
19	Removal of Corneal Stitches OR	2.50	63.84
20	Peritoneal Dialysis	2.52	64.35
21	Bronchoscopy	2.53	64.60
22	Colonoscopy	2.72	69.45

No.	Procedure	Medicare RVUs	Medicare in JD
23	Cataract/ Laser Trabeculoplasty	3.00	76.60
24	Tonsillectomy	3.45	88.09
25	Esophagus, Gastro and Duodenoscopy	3.49	89.12
26	Tracheostomy	7.17	183.08
27	Abdominal & Vaginal hysterectomy	13.36	341.14
28	Nasal polypectomy	16.90	431.53
29	Splenectomy	19.55	499.20
30	Normal delivery	32.16	821.19

The RVUs and Medicare fees in the U.S. are compared with Jordan's public and private sector fee schedules in the following table. Even though the fee schedules originate in different time periods, all are used to determine 2017 prices.

Table 5: Comparison of JMA and Medicare Effort RVUs, and comparison of JMA, Public, and U.S. fees in ascending % difference in fees (JMA to Medicare)

Rank JMA (by cost)	Rank US (by cost)	Procedure	JMA Points	Medicare Effort RVUs	Average JMA Fee in JD	Medicare Fee in JD	% Change JMA Fee to Medicare	Public Fee[8]	% Change Public Fee to Medicare
17	28	Nasal polypectomy	NA	16.9	45.00	431.53	(859%)	45.00	(859%)
25	30	Normal delivery	50	32.16	157.50	821.19	(421%)	15.00	(5375%)
5	19	Removal of Corneal Stitches, OR	NA	2.5	13.00	63.84	(391%)	30.00	(113%)
1	10	GP fees (doctor visit)	NA	0.97	6.50	24.77	(281%)	0.40	(6092%)
8	16	Circumcision	NA	1.9	15.60	48.52	(211%)	2.00	(2326%)
27	29	Splenectomy	75	19.55	236.25	499.20	(111%)	65.00	(668%)
11	14	EEG	NA	1.51	26.00	38.56	(48%)	5.50	(601%)
16	20	Peritoneal Dialysis	15	2.52	47.25	64.35	(36%)	60.00	(7%)
4	8	Audiogram	NA	0.6	13.00	15.32	(18%)	3.00	(411%)

[8] Fees mentioned in this table are procedure fee only without accommodation, consumables and medication

Rank JMA (by cost)	Rank US (by cost)	Procedure	JMA Points	Medicare Effort RVUs	Average JMA Fee in JD	Medicare Fee in JD	% Change JMA Fee to Medicare	Public Fee[8]	% Change Public Fee to Medicare
20	25	Esophagus, Gastro and Duodenoscopy	25	3.49	78.75	89.12	(13%)	5.50	(1520%)
30	27	Abdominal & Vaginal hysterectomy	100	13.36	315.00	341.14	(8%)	65.00	(425%)
21	23	Cataract/ Laser Trabeculoplasty	NA	3	78.00	76.60	2%	45.00	(70%)
15	15	Kidney Dialysis	15	1.56	47.25	39.83	16%	60.00	34%
7	7	Pap Smear	5	0.45	15.75	11.49	27%	2.00	(475%)
14	11	Mammography	NA	1	39.00	25.53	35%	5.50	(364%)
28	26	Tracheostomy	90	7.17	301.00	183.08	39%	45.00	(307%)
26	24	Tonsillectomy	50	3.45	157.50	88.09	44%	25.00	(252%)
23	22	Colonoscopy	40	2.72	126.00	69.45	45%	11.00	(531%)
22	18	Renal Biopsy/ bile ducts, pancreas	35	2.38	110.25	60.77	45%	11.00	(452%)
13	9	Abdomen Ultrasound	NA	0.81	39.00	20.68	47%	5.50	(276%)
24	21	Bronchoscopy	40	2.53	126.00	64.60	49%	65.00	1%
18	13	CT Spine One Disc Space	NA	1.22	65.00	31.15	52%	22.00	(42%)
19	12	Glaucoma/ Laser Iridotomy	NA	1	65.00	25.53	61%	45.00	43%
3	5	Chest (diagnostic radiology)	NA	0.18	13.00	4.60	65%	2.20	(109%)
10	6	Spine, each part (radiology)	NA	0.22	19.50	5.62	71%	2.20	(155%)
6	3	ECG	5	0.17	15.75	4.34	72%	2.20	(97%)
9	4	Sinuses (diagnostic radiology)	NA	0.17	19.50	4.34	78%	2.20	(97%)
29	17	MRI per Examination (with Contrast)	NA	2.26	260.00	57.71	78%	120.00	52%
12	1	First class accommodation	NA		36.00			11.00	
2	2	Medical Report per patient request	NA	NA	4.00			2.20	

Comparing Units

U.S. RVUs include physician effort, practice expense, and liability insurance, more inputs than the physician work effort captured by the JMA units. It is important to note however, the vast majority of U.S. RVUs for a single procedure are physician labor; the two other components are usually quite small. For this comparison only, the physician effort component of the RVU is used. In Jordan we cannot assume one JMA unit of work effort is the same as one RVU. Therefore, the focus is not on comparing the absolute amounts of effort units and RVUs for a procedure, but on the procedure's rank order by units, the relative unit amounts. For the sample of comparable procedures, RVUs range in value from a low of 0.17 to a high of 32.16. JMA effort units range from 0.97 to 100. Thus, Jordan allows for a much wider range of provider effort.

When procedures are ranked from low to high based on work effort, they should be ranked in the same order or very similarly. For example, procedures with high RVUs also should have higher JMA units, but this is not the case. In this sample, a Normal Delivery has the highest RVUs. Other surgical procedure RVUs relate to those for Normal Delivery as follows: Splenectomy 59%, Hysterectomy 40%, and Tonsillectomy 10%. In Jordan, the procedure with the highest unit rank is Hysterectomy, requiring twice the provider effort as a Normal Delivery or Tonsillectomy. The effort for a Splenectomy is midway between a Normal Delivery and Tonsillectomy.

Dissimilar rankings exist for exploratory procedures as well. An ECG has the lowest RVUs. It is followed by Endoscopy with 5 times the RVUs of an ECG, Colonoscopy and Bronchoscopy with 8 times the RVUs, and Tracheostomy with 18 times the RVUs. Similarly, the JMA ranks an ECG the lowest and a Tracheostomy the highest in provider work effort. But the relativities and order of other procedures between the common extremes are quite different. A Tracheostomy is 42 times the ECG, suggesting it takes 42 times the physician work effort. A Bronchoscopy and Colonoscopy similarly require 15 times the effort of an ECG, which is considerably more than 8 times the effort in the U.S. An Endoscopy requires only 5 times the effort of an ECG in the U.S. while in Jordan it takes 20 times the effort. Again, because the physician effort required to perform these procedures should not be much different in different places, these widely varying relative findings about work effort and RVUs is troubling.

Comparing Prices

In both the U.S. and Jordan, work effort units are converted to money values through a money scaler. Thus, the variation in the prices of procedures reflects the variation in RVUs and JMA units. In the U.S., the scaler is called the Conversion Factor and each RVU is worth about 25 JD.

Comparing relative prices for the sample of medical procedures offers very similar results to comparing units, as it should. Prices are simply scaled up versions of units. In the U.S., the lowest priced service is the ECG at 4.34 JD and the highest is a Normal Delivery at 821.19 JD. The lowest priced service in Jordan is a GP Office Visit at 6.50 JD and the highest is a Hysterectomy at 315 JD. It is concerning the services at the extremes are not the same in both countries, given both fee sets are driven by work effort.

The actual range of prices of services is bigger in the U.S. due to the higher monetary value of an RVU. The highest price in the U.S. is almost three times the highest in Jordan. The U.S. is well known to have the highest prices for health care services in the world, although Medicare is not the highest payer in the U.S. It is alarming that the majority of procedures evaluated (61%) are reimbursed at higher prices in the private Jordan market than in the U.S., and this is not using the 2017 proposed increases to the JMA fee schedule which will raise prices further. Some of the biggest fee differences occur in radiology where the price for reading an MRI in the private sector is reimbursed 78% more than in the U.S. In another example, Tonsillectomies are more in the Jordan private sector (157.50 JD) than in the U.S. (88.09 JD). Three procedures are reimbursed in the public sector at a higher fee than the U.S. These are MRI with Contrast (52%), Laser Iridotomy (43%), and Renal Dialysis (34%).

6. Summary:

The current public and private sector fee schedules in Jordan are unsound in many important ways and this brings with it important negative consequences for the health sector.

Medical Services- Neither public nor private method uses a medical services classification system, leaving the unit being priced ambiguous and undefined. Instead, each sector has developed singular terminology, unique definitions and fees, and the intent is to keep these separate. This decision impedes the development of electronic solutions and information systems in health. It impedes the collection and use of quality health care data which is critical if analysis of patterns of treatment are of interest. It impedes developing common public/private sector solutions to healthcare delivery including Public-Private Partnerships. The unwillingness to adopt commonly defined medical procedures makes health administration more complex and extremely inefficient, unnecessarily raising the cost of operating the health system.

Price Disparities- At the same time, the fee disparities across the sectors are impossible to reconcile as selected examples below highlight. Public fees appear unusually low with few exceptions. For example, 0.40 JD cannot possibly cover the costs of a GP Visit, 15 JD cannot cover the cost of a Normal Delivery and 65 JD cannot cover the cost of resources used in a Hysterectomy. In the private sector, 63% of the procedures cost more (based on the JMA 2008 fee schedule) than in the U.S. A Pap smear is 15.75 JD in JMA, 11.50 JD U.S.; a Colonoscopy is 126 JD JMA compared to 69.45 JD U.S.; a JMA MRI is 260 JD compared to 58 JD U.S.

Additionally, very dissimilar professional services are priced similarly. Tonsillectomies are reimbursed at the same amount as a Normal Delivery, when the physician work and risks involved are significantly different. This suggests an absence of an effective, logical method of assigning fees. This includes the proposed 2017 JMA fee schedule which proposes a significant increase in the work effort behind procedures without demonstrating there is an increased work effort.

Perhaps most worrisome is the apparently random development of fee schedules in the sample procedures reviewed. Dialysis treatments are less expensive in the U.S. than in both the public and private sectors in Jordan. Additionally, the work effort to perform a Tonsillectomy is

significantly less than to deliver a baby. Yet in the public sector a Tonsillectomy is reimbursed almost twice as much as a Normal Delivery, and in the private sector the fees are equal.

Fee setting is the process for determining the amount a payer reimburses to a provider for the provision of services. It is usually negotiated with payers willing to reimburse providers for efficient and effective care at reasonable prices. Proper fee setting affords fiscal integrity and includes: establishing deliberate approaches for how each service is paid, creating ways to ensure proper pre- and post-payment control, and developing means for monitoring service utilization and payment trends over time.[9]

In the U.S. there are Federal Regulations related to payments for medical services including the requirement the government (payer of publicly funded medical care) must describe the policy and methods used in setting prices for each type of service. Additionally, it must assure appropriate audit of records if payment is based on costs of services or on a fee plus cost of materials.[10]In the Jordanian context, there is not a documented policy or description of the methods used in setting fees. Additionally, while the local regulations require application of the fee schedule, an audit of this process would provide evidence of the level at which this occurs.

All of these issues negatively impact the sustainability of the current healthcare system. When prices are random and do not reflect the actual costs of production, they are not meaningful and cannot be used to determine efficient distribution of health care resources. When fees are abnormally low, as is the case in the public sector, providers must under-treat unless they receive adequate subsidy from elsewhere. If fees are abnormally high, as appears to be the case in the private sector, the health system becomes unaffordable leading to empty beds, unused equipment or machines. In either situation, Jordanians in need of healthcare are penalized. Furthermore, widely varying health care prices for the same medical services confound reporting aggregates such as health care expenditures, National Health Accounts, and Gross National Product. Lack of transparent pricing processes and methods contributes to distorted medical fees that distort health care expenditures and hide the true cost of health care.

Observations

- The Ministry of Health has the mandate to regulate the health sector in a fair, transparent and predictable manner by developing payment systems that are consistent with government policy and sensitive to stakeholder interests.
- This report provides the bases to justify the development of a new fee schedule to reimburse services and the need to create a sensible billing system.
- A fair and reasonable value for payments in the public and private sectors should include subsidized and subsidy-free payments.
- An appropriate mechanism for implementing a fair and reasonable value of fee schedules, tariffs and reimbursements requires the development of benchmarks. These

[9] Centers for Medicare and Medicaid, "Documentation of Rate Setting Methodology" https://www.medicaid.gov/medicaid/hcbs/downloads/hcbs-1b-transparent-documentation.pdf
[10] Code of Federal Regulations (CFR): 42 CFR 447.201-202

benchmarks could inform stakeholders and consumers of the potential fair and reasonable value of health services.

- A comprehensive health system modelling is warranted to calculate the impact of payments on the public and private health sector.
- Updating the current fee schedule is warranted as it will prevent serious sustainability problems of the health sector.
- Fee setting and its updating in Jordan does not follow the instructions of the law. Overall changes made to fee schedules do not follow the regulatory and legal framework in place.

7. Recommendations

6. In order to avoid significant payment disputes, providers should proactively use international codes for diseases and procedures and include these in their current contracts and negotiations.
7. It is essential that Jordan's public and private health insurers adopt standard definitions for medical procedures such as ICD-10 ensuring that procedures linked to tariffs are comparable.
8. It is advisable for the health sector stakeholders to develop comprehensive tariffs as opposed to physician fees. These tariffs should represent boundless comprehensive services, aligned with clinical guidelines aiming to compensate packages of services including physicians, facilities, medicines and diagnosis.
9. Reliable and accurate reference costs should be set through a multi-stakeholder commission and supported by modern information technologies and using international standard classification for diagnosis, treatments and procedures.
10. The government should constitute a tariff setting committee in charge of reviewing reference costs and prices in the public and private sectors and develop a transparent methodology for pricing health care services. This committee will be responsible for setting and maintaining updated public and private fees and will have wide representation (public and private sector, medical associations, hospitals, insurers and academia).

Appendix A: List of companies with whom the HIA contracts

1) Balqa Applied University
2) The World Islamic Sciences and Education University
3) Al Hussein Bin Talal University
4) Al Al-Bayt University
5) The Hashemite University
6) Tafilah Technical University
7) The Jordan University of Science and Technology
8) UNRWA
9) Medexa
10) NatHealth
11) MedService
12) CareCard
13) Electricity Distribution Company
14) Jordan Phosphate Mines Company
15) Ministry of Social Development
16) Caritas Jordan
17) Health Aid Society
18) Euro Arab Insurance Group
19) Indo Jordan Chemicals Company
20) American Life Insurance Company – Alico
21) SCOPE Health Insurance Management Company
22) MedNet Jordan
23) Arab Life and Accident Insurance Company
24) Omni Care
25) Jordan Bar Association
26) Medgulf (Medivisa)
27) Royal Medical Services

Appendix B: JMA Exceptions list

- Fees incurred at the physician's home or in his clinic outside of working hours shall be paid double the fees
- A day or visit to the patient's home shall be paid three times the minimum limit of the fees. A night visit to the patient's home shall be paid three times the maximum limit of the fees
- A follow-up visit for the same disease within 10 days of the initial visit shall be reimbursed at half of the fees. However, a visit to the physician to have him/her read the reports of lab tests and radiograph reports shall be free of charge.
- Specialist physician visit from outside the hospital to the patient in the emergency department shall be paid 20 JD in the day time and 30 JD in the night time
- Medical supervision at the hospital shall be reimbursed 18 JD
- Medical supervision for intensive care and premature patients shall be reimbursed at 30 JD per day
- Medical supervision for suite patients shall be reimbursed at 35 JD per day
- Medical supervision before surgeries shall be free of charge for one day and in case it exceeds one day, the physician shall receive the fees of one ordinary day
- Medical supervision after surgeries for a period not exceeding 7 days shall be included in the surgery fees. In case supervision exceeds 7 days, the physician shall receive the fees of daily supervision for the remaining stay
- In case more than one physician of the same specialization supervises the patient, medical supervision fees shall be the same as one physician. However, if the patient or his family requests supervision or consultation of another physician having the same specialization, each physician shall receive full fees pursuant to the fees list

Regarding surgeries:

- If the surgeon undertakes two or more surgeries in the operating room, the fees shall be full fees (100%) for the surgery of the highest cost plus 50% of the fees of the additional surgeries that are medically necessary

Regarding other medical procedures

- If the physician completes two or more surgeries, full fees shall be charged for the first surgery (having the highest fees) in addition to 50% of the fees of each following procedure(s).

Additionally

- If two surgeons or more participated in the same surgical procedure for the same patient in the operating room the fees for the second surgeon are paid at 75%
- If two surgeons are in surgery for more than two different diseases each surgeon receives full fees

- In urgent surgeries, with two surgeons of the same specialization, the consulting surgeon receives 50% of the fees and the original surgeon receives 50% of the fees
    - If the physician consulted is of another specialization and it was found that the patient is in need of that specialization, then he shall be the surgeon and shall receive 60% of the fees and the first treating physician shall receive 40% of the fees
    - Physicians providing assistance in a major surgery (as assistant surgeon) shall receive 10% of the identified fees
- Specialist physicians shall receive 60 JD for any surgery or medical procedure made under general or local anesthesia in the hospital
- The physician shall receive the cost of medical consumables used in the clinics by a percentage not exceeding 15% of the professional fees for such procedures
- The physician may make a discount for the patient or group contract not exceeding 20% of the fees

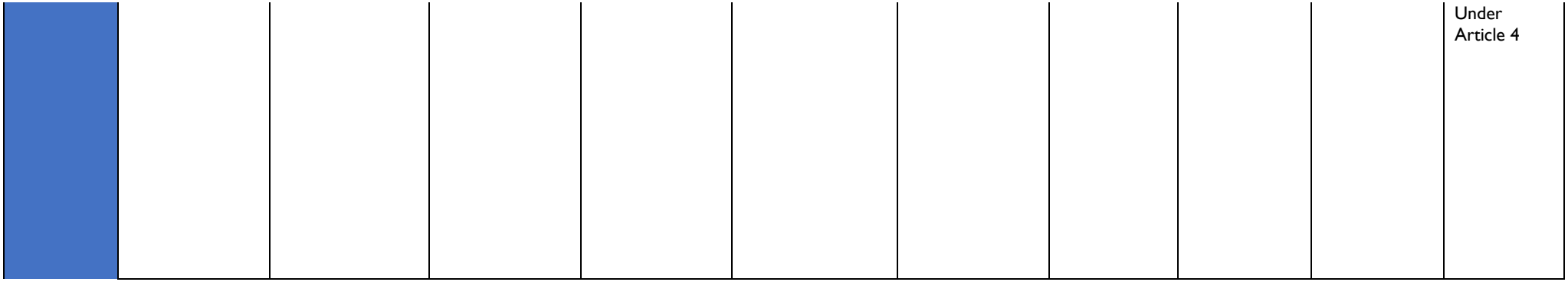
Finally

- The specialist physician of the following experience in medical practice shall be entitled to the following increases:
    - 10 to 15 years of experience – increase of 10% of the identified fees
    - 15 to 20 years of experience – increase of 15% of the identified fees
    - 20 and over – increase of 20% of the identified fees

Appendix C: list of how fee schedules are set for different health sectors

	MOH Hospitals	Prince Hamzah Hospital	RMS	Jordan University Hos.	King Abdallah University Hos.	Al Hussein Cancer Center	National Center for Diabetes, Endocrinology and Genetics	Private Hospitals	Private Labs	Private Clinics
Inpatient	**Decision** by Council of Ministers based on the Minister's recommendation In accordance with Article 14 of the Civil Health Insurance Bylaw.	The Prince Hamza Hospital Board which is headed by the Minister. In accordance with Article 5 of the Prince Hamza Hospital Bylaw. List shall be endorsed by the Minister of Health. is subject to endorsement of the Ministry of Health. This process does not cover bilateral agreements.	Decision by the Chairman of the Joint Chiefs of Staff of the Jordanian Armed Forces. Based on the recommendation of a commission in the Directorate headed by the Chairman of the Joint Chiefs of Staff of the Jordanian Armed Forces. In accordance with Article 10 of the Health Insurance Bylaw of the Armed Forces. This process does not cover bilateral agreements	Decision by the University Board, based on the recommendation of the Hospital Board a Committee, establish a formal fee for treatment in the Hospital. The Board may amend this fee whenever necessary. Article 3 in the treatment regulation at the hospital of the University of Jordan	The Hospital Board of Directors shall have the following powers, responsibilities and functions: 1. Determining the fees charged by the hospital instead of its services and the prices of the materials it provides, with the recommendation of the executive office (not including the agreements) Article 8	Board of Trustees endorses the schedule, based on the recommendation of the Board of Directors and the Council of the Center in accordance with article 12 (which has been amended and repealed) b. Fees of the therapeutic services and other services provided by the Center and approved by the Board of Trustees	According to Article 9 the Board of Directors of the Center is by the Center's System (indirectly)	Minister of Health endorses the list, that if recommended by the Secretary General, which is submitted by the Private Hospital. In accordance to Article 18 of the Private Hospitals by-Law	0	0
Labs	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	The Licensing Committee for Private Medical Laboratories established by the Ministry of Health in accordance	The Licensing Committee for Private Medical Laboratories established by the Ministry of Health in accordance	

								with Article 8 of the Special Medical Laboratory Licensing Law and its amendments	with Article 8 of the Special Medical Laboratory Licensing Law and its amendments	
Radiation	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the List of Wages		
Medical supplies	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the List of Wages		
Doctors	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Board of the Jordan Medical Association in accordance with Article 35 of the Physicians Association Act under the doctors fees system	0	Board of the Jordan Medical Association in accordance with Article 35 of the Physicians Association Act under the doctors fees system
Dentists	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	Included in the Medical fee schedule	The committee at the dentist association union for pricing, recommends the Minister of Health system of fixing the treatment fees for dentists Under Article 4	0	The committee at the dentist association union for pricing, recommends the Minister of Health system of fixing the treatment fees for dentists


Under
Article 4