

Letter to the Editor

Dear Editor

Rising healthcare costs, widespread complaints about quality, inadequate coverage and inequity in access to health services have all given rise to 'value' and 'value units' within health sector.^{1,2} Such an emphasis on 'value' (*vs.* price) is important in rationing the scarce resources for system enrichment, and improving the cost-effectiveness of service delivery, predominantly around the purchase of medical supplies and equipment, personal healthcare products and physician reimbursement.³ Yet, determining the precise 'value' of these products and supplies in the context of healthcare purchasing is not well-understood, and remains a challenge for health economists and policy-makers.^{4,5}

Relative Value Units (RVUs) is widely recognized as a prevailing model to gauge multi-specialty group physician's practices and physician reimbursement.^{6,7} It is known as a helpful means of measuring healthcare providers' productivity and job performance.^{7,8} RVUs [as a part of the whole system of Resource-based Relative Value Scale (RBRVS)] consists of several resources listing as relative work, expenses of physician's practice, and malpractice costs (professional liability insurance) of healthcare services. Often, Medicare reimburses physicians mainly through a Fee-for-Service (FFS) Schedule based on RVUs.⁹

In Iran, healthcare and medical procedures have long been defined according to Current Procedural Terminology (CPT) coding system, so-called California system, a system that is primarily enforced for diagnostic and therapeutic procedures in the California region.^{5,10} CPT was initially introduced to give physicians, patients, health insurance companies and other stakeholders easy access to the uniform database and data collected about health and medical procedures, so that these entities can appropriately communicate with each other.⁵ In Iran, RVUs, fee schedule status indicators and various payment policy indicators have been similarly updated and adjusted in accordance with RVUs under California Medicare system,⁹ needed for payment adjustment for physician services.

Studies conducted by the Iranian Ministry of Health and Medical Education (MoHME) demonstrate that policy payments based on the past RVUs have broadly led to chaos in healthcare system in the country. As such, several medical initiatives and procedures have been developed to reflect the actual payments to medical practitioners for treating a variety of medical conditions; however, such efforts have found very little place in the expansion and improvement of the Iranian provider payment system.¹¹ Current evidence suggests that no similar or equivalent procedures in CPT exist to refer to, and that the relative values are possibly different from their counterparts in other systems like Medicare.¹² Yet, reviewing the old RVUs have long been a major priority for MoHME since the commencement of Iran's Fifth Development Plan between 2010 and 2015. The RVUs continues to improve but more effort is required to fully accommodate it within the health sector.¹⁰

The RVUs applied to the Iranian health system is rooted in different contexts with different configurations of regulatory mechanisms that has no practical application to the Iranian healthcare system, largely due to incontrovertible diversities

(e.g. health technologies, burden of disease, health education system and so forth) existing in various health systems across those countries.^{12,13} Each country has its own unique context and policy environment which need to be taken into account while designing health priorities and policy solutions.^{7,10} The Iranian medical fee schedule and tariff system should therefore be fairly adjusted in accordance with socio-cultural, political, technological, educational, geographical differences and other significant factors.¹⁴

In some cases, for instance, physicians spend different amount of time and effort whilst providing the same services.¹⁵ Appropriate mechanisms should be in place to adjust coefficients to compensate the physicians for differences in time-varying and modified activities. Policy decisions could be also shaped based on RVUs to inspire the medical graduates to choose any specific specialty career, or to encourage them to work in remote or deprived areas in accordance with the population needs (i.e. a higher coefficient might be used on tariffs for those who choose to work in rural and remote areas).^{11,16}

The Iranian Ministry of Health has recently initiated and implemented new RVUs as part of the 2014 Health Sector Evolution Plan.¹⁷ According to this initiative, the Iranian version of CPT and coding system were refined¹⁰ and the new RVUs were determined and adjusted in accordance with the context of the country. While this and other similar initiatives look promising, and different medical professional groups and delegates in the MoHME and other relevant health organizations have made efforts to perform them,¹⁸ there is still a long way forward before we reach a common vision and conclusion on its application in the country.

Early research from the National Institute of Health Research (NIHR) shows degrees of satisfaction with the new RVUs amongst the general public;¹⁷ however, there may be other factors contributing to their satisfaction. Some researchers report that less satisfaction exists among healthcare professionals who had methodological/technical concerns about the application of new RVUs.¹⁹ There is evidence to suggest that such dissatisfaction with the new initiative can lead to more induced demand and informal payments.⁷ Even by implementing new and updated RVUs, there are still claims about insufficient income level and income inequalities within and between groups that work in the health sector.¹⁶ A recent report by NIHR indicates that some of these groups have lobbied and attempted to sabotage this reformatory health plan.^{18,20} The dissatisfaction with new RVUs can be possibly offset by revising the whole provider payment mechanism throughout the country.

Cross-specialty alignment and cross-linking method are the very essence of establishing more realistic relative values amongst various medical specialty procedures.²¹ Cross-specialty should be accurately estimated considering all work measurements (Pre, intra- and post-service work), instead of concentrating on just intra-service work value.²² Some studies recommend utilizing both "equivalent services" and "the same services" to establish a better scale for estimating the work values across specialties; however, selecting these services is not an easy task most of the time.^{6,10,22}

Major stakeholders, mainly healthcare providers and insurance companies, are required to be trained and equipped with the basics of RVUs, so that they can fully understand the primary concepts, effectively communicate and more efficiently implement the adjusted RVUs. The new RVUs should be flexible enough to address as much as possible all current and future challenges, with consideration of uncertainty and unpredictability.^{2,23,24} Appropriate monitoring and evaluation programs should be in place to adapt the RVUs to any policy circumstances and systemic and environmental changes, with an aim to generate sustainable solutions for the whole health system survival.¹⁰ As part of the assessment process, a bonus scheme may be applied for incentivizing medical doctors towards increased productivity and quality of care.^{25,26}

The emphasis on 'value' generation, 'value analysis', and 'value-based purchasing' – not solely on monetary results – is becoming increasingly embedded in all facets of health and social care. To achieve this priority with better outcomes, rigorous policies and practices are required to be in place to ensure that the satisfaction of both care-providers and receivers is at the forefront of any services delivered and funded.

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Saeideh Babashahy PhD¹, Abdolvahab Baghbanian PhD^{2*}

Authors' affiliations: ¹Department of Economics, Otago Business School, The University of Otago, Dunedin, New Zealand, ²Health Systems and Global Populations, Faculty of Health Sciences, The University of Sydney, Australia.

*Corresponding author: Abdolvahab Baghbanian PhD, Faculty of Health Sciences, The University of Sydney, Australia. Tel: +61 2 9036 7370, E-mail: Saeideh.babashahi.postgrad.otago.ac.nz, abdlvahab.baghbanian@sydney.edu.au.

References

1. Wilson H, Gole J, Mishra B, Mishra J. Value based healthcare. *Advances in Management*. 2016; 9(1): 1 – 8.
2. Baghbanian A, Esmaeili S. Introducing economic evaluation as a decision support tool in health care: A case review of I. R. of Iran. *Journal of Health Scope*. 2012; 1(3): 20 – 28.
3. Brown M, Brown G, Sharma S, Landy J. Health care economic analyses and value-based medicine. *Survey of Ophthalmology*. 2003; 48(2): 204 – 223.
4. E. Porter M. A strategy for health care reform-toward a value-based system. *N Engl J Med*. 2009; 361: 109 – 112.
5. Babashahy S, Baghbanian A, Manavi A, Akbari Sari A, Olyae Manesh A, Ghaffari S, et al. Insight into provider payment mechanisms in healthcare industry: A case of Iran. *Iran J Public Health*. 2016; 45(5): 693 – 695.
6. Hsiao W, Braun P, Edmund B, Thomas S. The Resource-based relative value scale: Toward the development of an alternative physician payment system. *JAMA*. 1987; 258(6): 799 – 802.
7. Johnson SE, Newton WP. Resource-based relative value units: A primer for academic family physicians. *Fam Med*. 2002; 34(3): 172 – 176.
8. Albritton TA, Miller MD, Johnson MH, Rahn DW. Using relative value units to measure faculty clinical productivity. *Journal of General Internal Medicine*. 1997; 12(11): 715 – 717.
9. Manchikantia L, Hirsch JA. Medicare physician payment rules for 2011: A primer for the Neurointerventionalist. *AJNR*. 2011; 32: 101 – 104.
10. Olyaeemanesh A, manavi A, Monazzam k. Documentation and studies conducted at the department of health economics 2004-2009. Iran: Department of Health, Ministry of Health and Medical Education, 2010.
11. Babashahy S, Baghbanian A, Manavi A, Akbari Sari A, Olyae Manesh A. Towards reforming health provider payment methods: Evidence from Iran. *J Health Scope*. 2016; In press
12. Babashahy S, Akbari Sari A, Rashidian A, Olyae Manesh A. Payments of Physicians employed in public and private hospitals after modification of surgical and invasive services tariffs. *Hakim Research Journal*. 2012; 15(1): 38 – 43.
13. Pouvoirville Gd. Le Palement de L 'Acte MODOcale: Une Comparaison Entre France, Les Etats Unis et le Quebec. Paris: Ecole Polytechnique, Centre de Recherche Gestio, 1985.
14. Rodwin VG, Grable H, Thiel G. Updating the Fee Schedule for Physician Reimbursement: A Comparative Analysis of France, Germany, Canada, and the United States. New York City: Advanced Management Program for Clinicians (AMPC), Wagner School of Public Service, New York University, 1989.
15. Stecker EC, Schroeder SA. Adding value to relative-value units. *N Engl J Med*. 2013; 369: 2176 – 2179.
16. Overeem K, Wollersheim HC, Arah OA, Cruisberg JK, Grol RP, Lombarts KM. Evaluation of physicians' professional performance: An iterative development and validation study of multisource feedback instruments. *BMC Health Services Research*. 2012; 12: 80.
17. MoHME. Health Sector Evolution Portal. Iran: MOHME; 2014. Available from: URL: <http://tahavol.behdasht.gov.ir/index.aspx?fkeyid=&siteid=426&pageid=52443>. (Accessed Date: 2015)
18. Akbari Sari A, Babashahy S, Ghanati E, Naderi M, Tabatabaei Lotfi S, Olyae Manesh A, et al. Implementing the full-time practice in Iran health system perceptions of the medical university chancellors on its challenges, consequences and effective solutions. *Journal of Kerman University of Medical Sciences*. 2013; 20(1): 40 – 51.
19. Moradi-Lakeh M, Vosoogh A. Health sector evolution plan in Iran; equity and sustainability concerns. *International Journal of Health Policy and Management*. 2015; 4(10): 637 – 640.
20. Hashemi B, Baratloo A, Forouzafar M, Motamedi M, Tarkhorani M. Patient satisfaction before and after executing health sector evolution plan. *Iran J Emerg Med*. 2015; 2(3): 127 – 133.
21. Sohn M, Park E, Gon Kang H, Kim HJ, Hur YJ. Cross-specialty linkage and extrapolation of resource – based relative value scales. *Yonsei Medical Journal*. 1996; 36(6): 497 – 507.
22. Morton SC, Kominski GF, Kahan JP. An Examination of the resource-based relative value scale cross-specialty linkage method. *Med Care*. 1994; 32(1): 25 – 39.
23. Baghbanian A. Health scope in Iran: The way forward. *Journal of Health Scope*. 2012; 1: 2.
24. Baghbanian A, Hughes I, Khavarpour F. Resource allocation and economic evaluation in Australia's healthcare system. *Australian Health Review*. 2011; 35(3): 278 – 283.
25. Baghbanian A, Hughes I, Kebriaei A, Khavarpour F. Adaptive decision-making: how Australian healthcare managers decide? *Australian Health Review*. 2012; 36(1): 49 – 56.
26. Young JG, Meterko M, Beckman H, Baker E, B W, Sautter MK, et al. Effects of Paying Physicians Based on their Relative Performance for Quality. *Journal of General Internal Medicine*. 2007; 22(6): 872 – 876.