ABSTRACT
Globally, CPD systems vary widely. In Japan, the Japanese Medical Association (JMA) is responsible for identifying content and developing education for its specialty practice physicians. The JMA was concerned about persistent low levels of participation in its CME activities and wanted to better understand the root causes. The analysis would provide an opportunity to restructure its programme informed by the needs of its practising clinicians. The JMA engaged a global education provider to conduct an independent analysis of its CME programme. Using a mixed-methods approach, the education provider conducted an on-line survey (N = 338) and held two in-person focus groups (N = 24) to better understand the perspectives of physicians in specialty practice. The on-line survey was sent to over 7,000 practising physicians throughout Japan. Respondents reflected a variety of medical and surgical specialities and length in clinical practice. They described factors that influenced or were barriers to participation in JMA-sponsored education. Respondents also suggested changes to the current model of CME in Japan and expressed an ongoing commitment to lifelong learning and achieving the goals set forth in Japan’s vision for health care in 2035: Leading the World Through Health. Globally, medical associations are challenged with developing education that meets the needs of a diverse physician workforce. Improved understanding of the perspectives of its physician members and implementation of collaborations with specialty societies may be one strategy to improve quality and address healthcare population needs. Lessons learned from this analysis may help other medical associations with similar challenges.

Problem
Globally, continuing professional development (CPD) systems vary widely. The Japanese Medical Association (JMA), through a Continuing Medical Education (CME) Promotions Committee, is responsible for identifying content and developing education for its specialist physicians. Few specialist physicians participate in JMA-sponsored CME activities; however, despite a country-wide initiative focused on improving population health and the expectation by Japanese citizens that physicians should demonstrate involvement in lifelong learning (Sakamoto et al., 2018). The JMA wanted to better understand the root causes of the low participation rates and to increase the engagement of its specialist physician workforce.

Purpose
The purpose of this analysis was to discover why specialist physicians in Japan did not participate in CME provided by its medical association and to explore how it might restructure its programme to meet the needs of practising clinicians. Lessons learned through this analysis could also be shared with other medical associations experiencing the same challenges.

Background
Since 1987, the JMA has provided CME activities for Japanese physicians in specialty practice based on recommendations established by its CME Promotions Committee, an advisory committee to the JMA. This Committee is responsible for selecting topics and developing curricula which are offered to specialist physicians. The content is updated regularly and is generally focused on evidence-based medicine including differential diagnoses and initial treatments for common clinical conditions, with consideration of appropriate referrals to specialists. The JMA expects specialist physicians to engage in educational activities...
that include the required curriculum and local medical associations are expected to develop CME in accordance with the required curriculum[1].

In 1994, the JMA implemented a formal system for CME accreditation. Accreditation requirements outline who is eligible to participate in JMA-sponsored education, how CME credit can be awarded, how curriculum codes must be used, the methods of earning CME credit, how CME credit must be reported, how credit certificates can be awarded, and how the physician can earn the 3-year CME Completion Recognition Certificate. This Certificate is awarded to physicians who successfully complete 60 CME credits over a 3-year period[1].

In 1997, the JMA began reporting specialist physician participation in CME to the local medical associations (prefecture-based) as one strategy to increase participation rates. The JMA also expanded opportunities for physicians to participate in recognised CME activities by awarding credits for responses to questions posed in its Association Journal, preparation of questions for the national medical examination, and for serving in a supervisory role for medical trainees[1].

The rate of participation in JMA-sponsored CME grew until 2009, when 74.4% of the specialist physicians completed the recommended CME credits. In 2010, participation rates began to fall precipitously. The JMA CME Promotions Committee overhauled its CME programme in 2009 and launched an updated version in April 2010. There was an immediate response from the specialist physician community. The new programme was perceived as too restrictive and specialist physicians had some specific complaints. It required specialist physicians to obtain a portion of CME credit based on the CME Promotions Committee’s specified curriculum regardless of whether they had identified learning gaps in that subject area. Specialist physicians also reported that the proportion of CME credit based on curriculum requirements (codes) was too rigid and the required paperwork to obtain credit was too complex. The JMA again revised its programme to permit specialist physicians to engage in a more flexible model of CME designed to meet their individual learning needs. Under the revised programme, physicians could earn CME credit through a variety of methods including attending lectures, supervising physicians in training, answering questions in medical journals, completing JMA e-learning modules, completing hands-on learning (e.g., case studies, practising clinical skills, etc.), preparing questions for a national examination, and writing medical papers and books. Specialist physicians were still expected to obtain 60 CME credits over a period of 3 years to obtain the CME Completion Certificate[1].

Rates of participation failed to increase and between 2010 and 2017, averaged 61.1% annually (range 58.8–62.9%).

Unlike physicians practising in many other countries, Japanese physicians are not required to participate in CME to maintain licensure. Historically, the JMA has been opposed to linking CME to the medical licence renewal system as it believes CME should remain separate from governmental regulation. There is increasing pressure, however, for the JMA to demonstrate that its physician workforce is engaged in lifelong learning. One source of this pressure is the Japan Vision: Health Care 2035 initiative which strives “to build a sustainable health care system that delivers better health outcomes through care that is responsive and equitable to each member of the society and that contributes to prosperity in Japan and the world”. This vision, similar to that in many other countries, challenges the Japanese health system to move from “inputs to outcomes, from quantity to quality and efficiency, from cure to care, and from specialisation to integrated approaches across all sectors”.[2]

As a result of both increasing societal pressure and concern about low participation rates in JMA-sponsored educational activities, the JMA CME Promotions Committee engaged a global education provider to conduct an independent analysis of its CME programme and identify root causes of lack of engagement. The JMA wanted to use the analysis to reflect on its CME programme and restructure, if necessary, to meet the needs of its speciality practice workforce.

**Assessment**

The global education provider chose to conduct the analysis of the Japanese CME system by using a mixed methods approach, using both a quantitative survey distributed electronically to specialist physicians and focus groups of practising specialist physicians to discover the root causes of low participation rates.

The global education provider created an on-line survey that was reviewed by a Japanese specialist physician and medical education expert, (one of us, HN) who is also a professor in a Japanese university. The survey was disseminated electronically to a distribution list consisting of up to 10,500 practising specialist physicians in Japan using a batch approach until the response rate no longer increased. The practising specialist physicians were included in the survey distribution regardless of whether they were members of the JMA or not. The survey was sent over a period of 4 months in two separate outreach periods in late...
2017 and early 2018. Reminders were sent, but there was no incentive offered to participate.

A total of 267 specialist Physicians responded in the first outreach period, and 71 specialist Physicians responded in the second outreach period for a total of 338 respondents (response rate of 3.2%). The online survey consisted of 28 questions and included demographic variables as well as items that reflected respondents’ self-reported perceptions of the CME system.

After the survey was completed, two educational focus group meetings were convened during which Physicians from different specialities and practice settings discussed the survey results and provided more detailed information regarding the state of CME in Japan.

The two focus groups took place in Tokyo, Japan and Osaka, Japan and included a total of 24 Physicians who practise in and around each city. Both focus group discussions lasted approximately 4 hours and were moderated by a professional medical educator (LS) and a Japanese specialist physician and medical educator (HN). Each focus group began with a review of the survey results followed by an open discussion, during which the moderators further explored clinicians’ perceptions of the current CME system and suggested improvements that the JMA might want to consider for the future. The focus groups were conducted in both the Japanese and English languages.

Survey Results

Demographics

The majority of respondents practised in the field of Internal Medicine or an Internal Medicine sub-speciality (40%); practised in a general hospital or clinic setting (60%); and practised in medium to large cities (94%) (Table 1–3). Most respondents had more than 20 years in clinical practice (57%) (Table 4). Almost half of all respondents cared for 30 or more patients per day (43%) (Table 5), and more than half reported that they were responsible for educating medical students or residents at their practice sites (52%).

| Speciality Practice Area          | Total Number |
|----------------------------------|--------------|
| General medicine                 | 10           |
| Internal medicine                | 90           |
| Internal medicine subspeciality  | 46           |
| Obstetrics/Gynaecology           | 28           |
| Other                            | 14           |
| Paediatrics                      | 48           |
| Psychiatry                        | 34           |
| Surgery                           | 40           |
| Surgical speciality              | 28           |
| **Grand Total**                  | **338**      |

Table 2. Practice setting.

| Type of Practice Setting         | Total Number |
|----------------------------------|--------------|
| City                             | 3            |
| Clinic                           | 114          |
| Community hospital               | 10           |
| General hospital                 | 89           |
| Not Active                       | 1            |
| Other                            | 5            |
| Prefecture                       | 5            |
| Private                          | 24           |
| Public/Community Hospital        | 15           |
| Teaching hospital                | 31           |
| University Hospital              | 25           |
| University                       | 16           |
| **Grand Total**                  | **338**      |

Table 3. Practice location.

| Practice Location                          | Total Number |
|-------------------------------------------|--------------|
| Large City (>500,000)                     | 148          |
| Medium City (>30,000)                     | 169          |
| Small Town (3000–30,000)                  | 15           |
| Rural (<3000 ppl)                         | 6            |
| **Grand Total**                           | **338**      |

Table 4. Years in practice.

| Years in Practice | Total Number |
|-------------------|--------------|
| < 5               | 11           |
| 6 – 10            | 40           |
| 11 – 15           | 41           |
| 16 – 20           | 53           |
| 21 – 25           | 62           |
| > 26              | 131          |
| **Grand Total**   | **338**      |

Table 5. Number of patients seen per day.

| Categories          | Total Number |
|---------------------|--------------|
| Don’t see patients  | 22           |
| < 10                | 28           |
| 11–15               | 34           |
| 16–20               | 28           |
| 21–30               | 70           |
| >31                 | 146          |
| **Grand Total**     | **328**      |

Perceptions of the Current CME System

The majority of specialist Physicians responding to this survey were not aware of JMA requirements for CME (67%), and more than half had not participated in any JMA-sponsored education in the previous 12 months (54%). A large number of respondents believed that participating in some form of CME increased their competence and skill (41%). Slightly more respondents said that specialist Physicians should engage in mandatory CME (47%) than primary care Physicians (43%).

When asked about barriers to participating in CME, respondents cited the following as the most common: not offered at convenient times (61%); topics not relevant/clinically important (23%); learning objectives not
clear (21%); quality is not high (20%); and not covered by their budget (19%).

When asked what is missing from the current CME system in Japan, respondents cited: ability to choose education that meets their needs (38%); ability to keep up with current research (32%); content that is current/ up to date (30%); and more frequent and more diverse programmes (24%).

Interviews with the focus group participants provided greater insight into current challenges and opportunities for the future. The participants confirmed the findings from the online survey and emphasised that CME programmes should focus on building clinical skills as well as non-clinical skills such as communication. Participants also noted that practising physicians should be more actively involved in determining the content of CME programmes which should provide appropriate content in a format that is applicable to their clinical practice. Participants described their drive for life-long learning in speciality practice and how they search out content to meet their personalised learning needs, often turning to the internet to identify resources (e.g. association meetings, study groups) As participants became more expert in their speciality practice area, content was most often sought in relation to the relevant speciality (e.g. cardiology or neurology) as opposed to general internal medicine.

As the discussion evolved in the focus group meetings, participants described recommendations for the future. They consistently sought out education that improved their clinical skills in speciality practice, and hands-on seminars were described as particularly valuable. Participants wanted more options for education that was relevant and able to be accessed at the point of care via different platforms.

The topic of interprofessional continuing education arose at one of the focus group meetings. Participants agreed that there is a need for team-based education in addition to single profession education but felt it was dependent upon topic and environment, and will take some time to be accepted as a recognised form of CPD in Japan.

**Perceptions of Industry-supported CME**

The vast majority of respondents in this survey were unaware that CME could be developed by an independent education provider while being commercially supported by industry (88%), and only 9% of respondents had knowingly participated in industry-supported, independent education. Almost half of the respondents to this survey (49%) stated that they would be willing to participate in an industry-supported CME activity if it was developed by an independent education provider. However, only 24% of the respondents agreed or strongly agreed that CME supported by the pharmaceutical industry could be free from bias, and a large number of respondents had no opinion or had never participated in an industry-sponsored CME (49%).

Only 38% of respondents believed that the pharmaceutical industry had no influence on the content and speaker selection; 27% of respondents believed that the pharmaceutical company supporting the education collaborated with education providers to develop content; and 12% believed that the pharmaceutical company could suggest speakers for CME activities. Only 26% knew that the content could be developed in an independent manner by an education company to address the needs of the learners.

Those attending the focus groups confirmed the widespread beliefs that any education in which the pharmaceutical industry is involved, is promotional, and that industry-supported CME has an inherent bias despite limited exposure. Focus group participants made statements such as “seminars with a company’s name seem unfair” and “based on the current model in Japan, if the pharmaceutical industry is involved, the resulting education is not and cannot be independent”. Despite expressing concern, however, most focus group participants also agreed that contributions from pharmaceutical companies are important in helping specialty physicians to access CME activities.

**Discussion**

Findings from this survey and focus group discussions identified a number of root causes for low specialist physician participation in JMA-sponsored CME activities. Analysis of the CME system in Japan also provided an opportunity for the JMA to consider how it might restructure its programme to better engage its specialist physician workforce in lifelong learning and support the Japan Vision: Health Care 2035 initiative.

The majority of respondents from this survey believed that participation in CME is important; will help improve knowledge, skills and abilities; and contributes to improved practice and patient outcomes. Respondents wanted CME in easily accessible formats using educational approaches that maximise the application of knowledge to clinical practice. Respondents were frustrated when CME was not offered at a time or setting convenient for their workplace, and the current CME content in Japan was not considered of high-quality or relevant to practice. Respondents reported that learning objectives in
JMA-sponsored CME activities were often not clear, thereby making it difficult for a specialist physician to make an informed decision about participating. There exist some budgetary constraints for specialist physicians responding in this survey to participate in CME. The majority of respondents were unaware of JMA expectations to participate in CME and did not want CME tied to regulatory licencing requirements.

Specialist physicians in Japan express a desire to be able to select which CME activities meet their self-identified professional practice gaps (as opposed to the JMA CME Promotions Committee dictating content). Content should include current research or best-practices and more frequent and diverse CME educational modalities. Respondents also wanted to build up both clinical and non-clinical skills to improve their ability to provide high-quality care. They wanted to be actively involved in selecting and/or developing content for JMA-sponsored CME.

Overall, specialist physicians had little exposure to industry-sponsored, independent CME and while willing to participate, were sceptical about alleged independence. Respondents did agree that the industry could provide much-needed financial support and address barriers related to budget constraints.

**Recommendations**

Respondents in this survey described changes they would make to the current model of CME in Japan. They suggested that there be a collaboration between the speciality medical societies and the JMA to develop a system that met their educational needs and included a sustainable funding mechanism. They suggested incorporating a continuous learning and assessment model, involving learners in identifying relevant practice gaps, developing faculty skills, incorporating interprofessional education, and expanding delivery platforms. These recommendations are congruent with best practices for educational design whether for single profession or interprofessional CE activities[3]. They were hopeful that changes could be implemented in a structured, iterative model over time. They expressed an ongoing commitment to lifelong learning and achieving the goals set forth in the *Japan Vision: Health Care 2035* proposal.

**Limitations**

The response rate of 3.2% limits the generalisability of findings. External survey response rates average 10 – 15%.

Therefore, this response rate is lower than expected. The focus group participants may not be reflective of all speciality practice physicians in Japan.

**Lessons for Practice:**

1. When medical associations understand the perspectives of their speciality practice physicians and collaborate with speciality societies to develop education that meets physicians’ learning gaps, they can improve quality and address healthcare population needs.

2. Physicians in speciality practice want CME in easily accessible formats using educational approaches that maximise the application of knowledge to clinical practice.

3. In Japan, speciality physician participation in CME is critical for its health system to move from “inputs to outcomes, from quantity to quality and efficiency, from cure to care, and from specialisation to integrated approaches across all sectors”.

**Acknowledgements**

The authors wish to thank Kathy Chappell, PhD, RN, FNAP, FAAN for her assistance in the review and preparation of this article.

**Disclosure statement**

No potential conflict of interest was reported by the authors.

**Funding**

Funding for this project was provided by Pfizer through an independent educational grant to the Academy for Global Interprofessional Learning and Education.

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