THE JOURNAL OF THE MINNESOTA MEDICAL ASSOCIATION

MINNESOTA MEDICINE

SEPTEMBER 2014

A NEW DIRECTION

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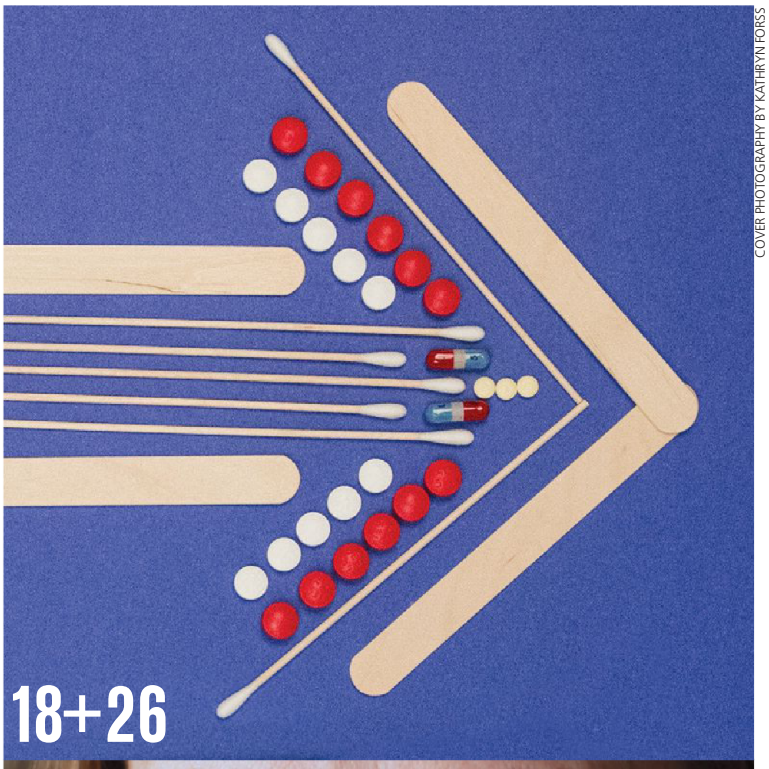

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PHOTO BY SCOTT WALKER

Charles R. Meyer, M.D., Editor in Chief

The need to reinvent

Our church's former senior minister used to say that a person should reinvent himself every 10 years. That phrase had an appealing ring. Like buying a new car, one could select a new you with new upholstery and gadgets, start life afresh. As he described it, the process was more substantive than having a midlife crisis, going to an Esalen retreat or having plastic surgery. I have known quite a few people who would qualify for the label "reinvented"—business leaders who head to seminary, practicing physicians who go into business, clergy who become stockbrokers. We've had presidents who had first careers as generals or movie actors and reinvented themselves through the political process to achieve the highest office in the country. But what if you're an organization, deciding you need to change and trying to figure out what the next "you" looks like?

Organizations or companies that opt for reinvention see that the world is different and that they need to change or else be mothballed.

The urge to reinvent for an individual frequently starts with a sense that what you're doing just isn't working, that the world around you has changed and that there could be something "more" to your life. Similarly, organizations or companies that opt for reinvention see that the world is different and that they need to change or else be mothballed. Visionaries look at their companies, plagued by sluggish growth and dire predictions of imminent death, and reinvent them. Steve Jobs saw a computer-dominated world that was escaping the cubicle and becoming more mobile, so he reinvented the company that now produces what virtually everybody carries in their pocket for all their information needs. Jobs reinvented Apple and changed the world forever.

Organized medicine may seem slightly less glitzy than Apple Computer, but the problems it faces are similar. The population it serves has changed radically in the past two decades. Today, there are more two-profession households that are frequently two-physician households, physicians are less available than they were in the past, and more are employees than entrepreneurs. The "typical" physician no longer is white and male. Where big government used to be the universal whipping boy of many medical organizations, big insurance is now the elephant in the corner and its influence seems to affect different physicians differently, challenging medical organizations to construct helpful remedies. Like Apple's was, the demise of organized medicine has been predicted and in some states, societies are mere shadows of their former selves.

So this newly diverse group of physicians staring organized medicine in the face is asking, "Why do we need an organization?" And organized medicine is being challenged to supply enticing answers. One of the MMA's answers has been to tackle juicy topics such as medical marijuana and a single-payer system that have provoked spirited debate from physicians of all stripes, or to organize community health projects that everyone can get excited about. Streamlining the organization is another answer, stripping away lugubrious processes to produce an organization that is a force as much as a forum.

Our former senior minister moved on to another prominent pastorate, where he stayed about 10 years and then went on to another, more retired, rendition of himself. Not every individual reinvention produces a shinier "you" or a U.S. president, and not every organization reinvention results in an Apple Computer, but a new "you" is worth the pursuit.

Charles Meyer can be reached at charles.073@gmail.com.

Victoza®—a force for change in type 2 diabetes.

A 52-week, double-blind, double-dummy, active-controlled, parallel-group, multicenter study. Patients with type 2 diabetes (N=745) were randomized to receive once-daily Victoza® 1.2 mg (n=251), Victoza® 1.8 mg (n=246), or glimepiride 8 mg (n=248). The primary outcome was change in A1C after 52 weeks.

novo nordisk®

The change begins at **VictozaPro.com**.

VICTOZA®
liraglutide (rDNA origin) injection

Indications and Usage

Victoza® (liraglutide [rDNA origin] injection) is indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus.

Because of the uncertain relevance of the rodent thyroid C-cell tumor findings to humans, prescribe Victoza® only to patients for whom the potential benefits are considered to outweigh the potential risk. Victoza® is not recommended as first-line therapy for patients who have inadequate glycemic control on diet and exercise.

Based on spontaneous postmarketing reports, acute pancreatitis, including fatal and non-fatal hemorrhagic or necrotizing pancreatitis has been observed in patients treated with Victoza®. Victoza® has not been studied in patients with a history of pancreatitis. It is unknown whether patients with a history of pancreatitis are at increased risk for pancreatitis while using Victoza®. Other antidiabetic therapies should be considered in patients with a history of pancreatitis.

Victoza® is not a substitute for insulin. Victoza® should not be used in patients with type 1 diabetes mellitus or for the treatment of diabetic ketoacidosis, as it would not be effective in these settings.

Victoza® has not been studied in combination with prandial insulin.

Important Safety Information

Liraglutide causes dose-dependent and treatment-duration-dependent thyroid C-cell tumors at clinically relevant exposures in both genders of rats and mice. It is unknown whether Victoza® causes thyroid C-cell tumors, including medullary thyroid carcinoma (MTC), in humans, as human relevance could not be ruled out by clinical or nonclinical studies. Victoza® is contraindicated in patients with a personal or family history of MTC and in patients with Multiple Endocrine Neoplasia syndrome type 2 (MEN 2). Based on the findings in rodents, monitoring with serum calcitonin or thyroid ultrasound was performed during clinical trials, but this may have increased the number of unnecessary thyroid surgeries. It is unknown whether monitoring with serum calcitonin or thyroid ultrasound will mitigate human risk of thyroid C-cell tumors. Patients should be counseled regarding the risk and symptoms of thyroid tumors.

Do not use in patients with a prior serious hypersensitivity reaction to Victoza® or to any of the product components.

Postmarketing reports, including fatal and non-fatal hemorrhagic or necrotizing pancreatitis. Discontinue promptly if pancreatitis is suspected. Do not restart if pancreatitis is confirmed. Consider other antidiabetic therapies in patients with a history of pancreatitis.

When Victoza® is used with an insulin secretagogue (e.g. a sulfonylurea) or insulin serious hypoglycemia can occur. Consider lowering the dose of the insulin secretagogue or insulin to reduce the risk of hypoglycemia.

Renal impairment has been reported postmarketing, usually in association with nausea, vomiting, diarrhea, or dehydration which may sometimes require hemodialysis. Use caution when initiating or escalating doses of Victoza® in patients with renal impairment.

Serious hypersensitivity reactions (e.g. anaphylaxis and angioedema) have been reported during postmarketing use of Victoza®. If symptoms of hypersensitivity reactions occur, patients must stop taking Victoza® and seek medical advice promptly.

There have been no studies establishing conclusive evidence of macrovascular risk reduction with Victoza® or any other antidiabetic drug.

The most common adverse reactions, reported in ≥5% of patients treated with Victoza® and more commonly than in patients treated with placebo, are headache, nausea, diarrhea, dyspepsia, constipation and anti-liraglutide antibody formation. Immunogenicity-related events, including urticaria, were more common among Victoza®-treated patients (0.8%) than among comparator-treated patients (0.4%) in clinical trials.

Victoza® has not been studied in type 2 diabetes patients below 18 years of age and is not recommended for use in pediatric patients.

There is limited data in patients with renal or hepatic impairment.

In a 52-week monotherapy study (n=745) with a 52-week extension, the adverse reactions reported in ≥ 5% of patients treated with Victoza® 1.8 mg, Victoza® 1.2 mg, or glimepiride were constipation (11.8%, 8.4%, and 4.8%), diarrhea (19.5%, 17.5%, and 9.3%), flatulence (5.3%, 1.6%, and 2.0%), nausea (30.5%, 28.7%, and 8.5%), vomiting (10.2%, 13.1%, and 4.0%), fatigue (5.3%, 3.2%, and 3.6%), bronchitis (3.7%, 6.0%, and 4.4%), influenza (11.0%, 9.2%, and 8.5%), nasopharyngitis (6.5%, 9.2%, and 7.3%), sinusitis (7.3%, 8.4%, and 7.3%), upper respiratory tract infection (13.4%, 14.3%, and 8.9%), urinary tract infection (6.1%, 10.4%, and 5.2%), arthralgia (2.4%, 4.4%, and 6.0%), back pain (7.3%, 7.2%, and 6.9%), pain in extremity (6.1%, 3.6%, and 3.2%), dizziness (7.7%, 5.2%, and 5.2%), headache (7.3%, 11.2%, and 9.3%), depression (5.7%, 3.2%, and 2.0%), cough (5.7%, 2.0%, and 4.4%), and hypertension (4.5%, 5.6%, and 6.9%).

Please see brief summary of Prescribing Information on adjacent page.

1013-00018617-1 December 2013

Victoza® (liraglutide [rDNA origin] injection)
Rx Only
BRIEF SUMMARY. Please consult package insert for full prescribing information.

WARNING: RISK OF THYROID C-CELL TUMORS: Liraglutide causes dose-dependent and treatment-duration-dependent thyroid C-cell tumors at clinically relevant exposures in both genders of rats and mice. It is unknown whether Victoza® causes thyroid C-cell tumors, including medullary thyroid carcinoma (MTC), in humans, as human relevance could not be ruled out by clinical or nonclinical studies. Victoza® is contraindicated in patients with a personal or family history of MTC and in patients with Multiple Endocrine Neoplasia syndrome type 2 (MEN 2). Based on the findings in rodents, monitoring with serum calcitonin or thyroid ultrasound was performed during clinical trials, but this may have increased the number of unnecessary thyroid surgeries. It is unknown whether monitoring with serum calcitonin or thyroid ultrasound will mitigate human risk of thyroid C-cell tumors. Patients should be counseled regarding the risk and symptoms of thyroid tumors *[see Contraindications and Warnings and Precautions]*.

INDICATIONS AND USAGE: Victoza® is indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus. **Important Limitations of Use:** Because of the uncertain relevance of the rodent thyroid C-cell tumor findings to humans, prescribe Victoza® only to patients for whom the potential benefits are considered to outweigh the potential risk. Victoza® is not recommended as first-line therapy for patients who have inadequate glycemic control on diet and exercise. Based on spontaneous postmarketing reports, acute pancreatitis, including fatal and non-fatal hemorrhagic or necrotizing pancreatitis has been observed in patients treated with Victoza®. Victoza® has not been studied in patients with a history of pancreatitis. It is unknown whether patients with a history of pancreatitis are at increased risk for pancreatitis while using Victoza®. Other antidiabetic therapies should be considered in patients with a history of pancreatitis. Victoza® is not a substitute for insulin. Victoza® should not be used in patients with type 1 diabetes mellitus or for the treatment of diabetic ketoacidosis, as it would not be effective in these settings. The concurrent use of Victoza® and prandial insulin has not been studied.

CONTRAINDICATIONS: Do not use in patients with a personal or family history of medullary thyroid carcinoma (MTC) or in patients with Multiple Endocrine Neoplasia syndrome type 2 (MEN 2). Do not use in patients with a prior serious hypersensitivity reaction to Victoza® or to any of the product components.

WARNINGS AND PRECAUTIONS: Risk of Thyroid C-cell Tumors: Liraglutide causes dose-dependent and treatment-duration-dependent thyroid C-cell tumors (adenomas and/or carcinomas) at clinically relevant exposures in both genders of rats and mice. Malignant thyroid C-cell carcinomas were detected in rats and mice. A statistically significant increase in cancer was observed in rats receiving liraglutide at 8-times clinical exposure compared to controls. It is unknown whether Victoza® will cause thyroid C-cell tumors, including medullary thyroid carcinoma (MTC), in humans, as the human relevance of liraglutide-induced rodent thyroid C-cell tumors could not be determined by clinical or nonclinical studies. In the clinical trials, there have been 6 reported cases of thyroid C-cell hyperplasia among Victoza®-treated patients and 2 cases in comparator-treated patients (1.3 vs. 1.0 cases per 1000 patient-years). One comparator-treated patient with MTC had pre-treatment serum calcitonin concentrations >1000 ng/L suggesting pre-existing disease. All of these cases were diagnosed after thyroidectomy, which was prompted by abnormal results on routine, protocol-specified measurements of serum calcitonin. Five of the six Victoza®-treated patients had elevated calcitonin concentrations at baseline and throughout the trial. One Victoza® and one non-Victoza®-treated patient developed elevated calcitonin concentrations while on treatment. Calcitonin, a biological marker of MTC, was measured throughout the clinical development program. The serum calcitonin assay used in the Victoza® clinical trials had a lower limit of quantification (LLOQ) of 0.7 ng/L and the upper limit of the reference range was 5.0 ng/L for women and 8.4 ng/L for men. At Weeks 26 and 52 in the clinical trials, adjusted mean serum calcitonin concentrations were higher in Victoza®-treated patients compared to placebo-treated patients but not compared to patients receiving active comparator. At these timepoints, the adjusted mean serum calcitonin values (~1.0 ng/L) were just above the LLOQ with between-group differences in adjusted mean serum calcitonin values of approximately 0.1 ng/L or less. Among patients with pre-treatment serum calcitonin below the upper limit of the reference range, shifts to above the upper limit of the reference range which persisted in subsequent measurements occurred most frequently among patients treated with Victoza® 1.8 mg/day. In trials with on-treatment serum calcitonin measurements out to 5-6 months, 1.9% of patients treated with Victoza® 1.8 mg/day developed new and persistent calcitonin elevations above the upper limit of the reference range compared to 0.8-1.1% of patients treated with control medication or the 0.6 and 1.2 mg doses of Victoza®. In trials with on-treatment serum calcitonin measurements out to 12 months, 1.3% of patients treated with Victoza® 1.8 mg/day had new and persistent elevations of calcitonin from below or within the reference range to above the upper limit of the reference range, compared to 0.6%, 0% and 1.0% of patients treated with Victoza® 1.2 mg, placebo and active control, respectively. Otherwise, Victoza® did not produce consistent dose-dependent or time-dependent increases in serum calcitonin. Patients with MTC usually have calcitonin values >50 ng/L. In Victoza® clinical trials, among patients with pre-treatment serum calcitonin <50 ng/L, one Victoza®-treated patient and no comparator-treated patients developed serum calcitonin >50 ng/L. The Victoza®-treated patient who developed serum calcitonin >50 ng/L had an elevated pre-treatment serum calcitonin of 10.7 ng/L that increased to 30.7 ng/L at Week 12 and 53.5 ng/L at the end of the 6-month trial. Follow-up serum calcitonin was 22.3 ng/L more than 2.5 years after the last dose of Victoza®. The largest increase in serum calcitonin in a comparator-treated patient was seen with glimepiride in a patient whose serum calcitonin increased from 19.3 ng/L at baseline to 44.8 ng/L at Week 65 and 38.1 ng/L at Week 104. Among patients who began with serum calcitonin <20 ng/L, calcitonin elevations to >20 ng/L occurred in 0.7% of Victoza®-treated patients, 0.3% of placebo-treated patients, and 0.5% of active-comparator-treated patients, with an incidence of 1.1% among patients treated with 1.8 mg/day of Victoza®. The clinical significance of these findings is unknown. Counsel patients regarding the risk for MTC and the symptoms of thyroid tumors (e.g. a mass in the neck, dysphagia, dyspnea or persistent hoarseness). It is unknown whether monitoring with serum calcitonin or thyroid ultrasound will mitigate the potential risk of MTC, and such monitoring may increase the risk of unnecessary procedures, due to low test specificity for serum calcitonin and a high background incidence of thyroid disease. Patients with thyroid nodules noted on physical examination or neck imaging obtained for other reasons should be referred to an endocrinologist for further evaluation. Although routine monitoring of serum calcitonin is of uncertain value in patients treated with Victoza®, if serum calcitonin is measured and found to be elevated, the patient should be referred to an endocrinologist for further evaluation. **Pancreatitis: Based on spontaneous postmarketing reports, acute pancreatitis, including fatal and non-fatal hemorrhagic or necrotizing pancreatitis, has been observed in patients treated with Victoza®. After initiation of Victoza®, observe patients carefully for signs and symptoms of pancreatitis (including persistent severe abdominal pain, sometimes radiating to the back and which may or may not be accompanied by vomiting). If pancreatitis is suspected, Victoza® should promptly be discontinued and appropriate management should be initiated. If pancreatitis is confirmed, Victoza® should not be restarted. Consider antidiabetic therapies other than Victoza® in patients with a history of pancreatitis.** In clinical trials of Victoza®, there have been 13 cases of pancreatitis among Victoza®-treated patients and 1 case in a comparator (glimepiride) treated patient (2.7 vs. 0.5 cases per 1000 patient-years). Nine of the 13 cases with Victoza® were reported as acute pancreatitis and four were reported as chronic pancreatitis. In one case in a Victoza®-treated patient, pancreatitis, with necrosis, was observed and led to death; however clinical causality could not be established. Some patients had other risk factors for pancreatitis, such as a history of cholelithiasis or alcohol abuse. **Use with Medications Known to Cause Hypoglycemia:** Patients receiving Victoza® in combination with an insulin secretagogue (e.g., sulfonylurea) or insulin may have an increased risk of hypoglycemia. The risk of hypoglycemia may be lowered by a reduction in the dose of sulfonylurea (or other concomitantly administered insulin secretagogues) or insulin **Renal Impairment:** Victoza® has not been found to be directly nephrotoxic in animal studies or clinical trials. There have been postmarketing reports of acute renal failure and worsening of chronic renal failure, which may sometimes require hemodialysis in Victoza®-treated patients. Some of these events were reported in patients without known underlying renal disease. A majority of the reported events occurred in patients who had experienced nausea, vomiting, diarrhea, or dehydration. Some of the reported events occurred in patients receiving one or more medications known to affect renal function or hydration status. Altered renal function has been reversed in many of the reported cases with supportive treatment and discontinuation of potentially causative agents, including Victoza®. Use caution when initiating or escalating doses of Victoza® in patients with renal impairment. **Hypersensitivity Reactions:** There have been postmarketing reports of serious hypersensitivity reactions (e.g., anaphylactic reactions and angioedema) in patients treated with Victoza®. If a hypersensitivity reaction occurs, the patient should discontinue Victoza® and other suspect medications and promptly seek medical advice. Angioedema has also been reported with other GLP-1 receptor agonists. Use caution in a patient with a history of angioedema with another GLP-1 receptor agonist because it is unknown whether such patients will be predisposed to angioedema with Victoza®. **Macrovascular Outcomes:** There have been no clinical studies establishing conclusive evidence of macrovascular risk reduction with Victoza® or any other antidiabetic drug.

ADVERSE REACTIONS: Clinical Trials Experience: Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice. The safety of Victoza® has been evaluated in 8 clinical trials: A double-blind 52-week monotherapy trial compared Victoza® 1.2 mg daily, Victoza® 1.8 mg daily, and glimepiride 8 mg daily; A double-blind 26 week add-on to metformin trial compared Victoza® 0.6 mg once-daily, Victoza® 1.2 mg once-daily, Victoza® 1.8 mg once-daily, placebo, and glimepiride 4 mg once-daily; A double-blind 26 week add-on to glimepiride trial compared Victoza® 0.6 mg daily, Victoza® 1.2 mg once-daily, Victoza® 1.8 mg once-daily, placebo, and rosiglitazone 4 mg once-daily; A 26 week add-on to metformin + glimepiride trial, compared double-blind Victoza® 1.8 mg once-daily, double-blind placebo, and open-label insulin glargine once-daily; A double-blind 26-week add-on to metformin + rosiglitazone trial compared Victoza® 1.2 mg once-daily, Victoza® 1.8 mg once-daily and placebo; An open-label 26-week add-on to metformin and/or sulfonylurea trial compared Victoza® 1.8 mg once-daily and exenatide 10 mcg twice-daily; An open-label 26-week add-on to metformin trial compared Victoza® 1.2 mg once-daily, Victoza® 1.8 mg once-daily, and sitagliptin 100 mg once-daily; An open-label 26-week trial compared insulin detemir as add-on to Victoza® 1.8 mg + metformin to continued treatment with Victoza® + metformin alone. *Withdrawals:* The incidence of withdrawal due to adverse events was 7.8% for Victoza®-treated patients and 3.4% for comparator-treated patients in the five double-blind controlled trials of 26 weeks duration or longer. This difference was driven by withdrawals due to gastrointestinal adverse reactions, which occurred in 5.0% of Victoza®-treated patients and 0.5% of comparator-treated patients. In these five trials, the most common adverse reactions leading to withdrawal for Victoza®-treated patients were nausea (2.8% versus 0% for comparator) and vomiting (1.5% versus 0.1% for comparator). Withdrawal due to gastrointestinal adverse events mainly occurred during the first 2-3 months of the trials. *Common adverse reactions:* Tables 1, 2, 3 and 4 summarize common adverse reactions (hypoglycemia is discussed separately) reported in seven of the eight controlled trials of 26 weeks duration or longer. Most of these adverse reactions were gastrointestinal in nature. In the five double-blind clinical trials of 26 weeks duration or longer, gastrointestinal adverse reactions were reported in 41% of Victoza®-treated patients and were dose-related. Gastrointestinal adverse reactions occurred in 17% of comparator-treated patients. Common adverse reactions that occurred at a higher incidence among Victoza®-treated patients included nausea, vomiting, diarrhea, dyspepsia and constipation. In the five double-blind and three open-label clinical trials of 26 weeks duration or longer, the percentage of patients who reported nausea declined over time. In the five double-blind trials approximately 13% of Victoza®-treated patients and 2% of comparator-treated patients reported nausea during the first 2 weeks of treatment. In the 26-week open-label trial comparing Victoza® to exenatide, both in combination with metformin and/or sulfonylurea, gastrointestinal adverse reactions were reported at a similar incidence in the Victoza® and exenatide treatment groups (Table 3). In the 26-week open-label trial comparing Victoza® 1.2 mg, Victoza® 1.8 mg and sitagliptin 100 mg, all in combination with metformin, gastrointestinal adverse reactions were reported at a higher incidence with Victoza® than sitagliptin (Table 4). In the remaining 26-week trial, all patients received Victoza® 1.8 mg + metformin during a 12-week run-in period. During the run-in period, 167 patients (17% of enrolled total) withdrew from the trial: 76 (46% of withdrawals) of these patients doing so because of gastrointestinal adverse reactions and 15 (9% of withdrawals) doing so due to other adverse events. Only those patients who completed the run-in period with inadequate glycemic control were randomized to 26 weeks of add-on therapy with insulin detemir or continued, unchanged treatment with Victoza® 1.8 mg + metformin. During this randomized 26-week period, diarrhea was the only adverse reaction reported in ≥5% of patients treated with Victoza® 1.8 mg + metformin + insulin detemir (11.7%) and greater than in patients treated with Victoza® 1.8 mg and metformin alone (6.9%).

Table 1: Adverse reactions reported in ≥5% of Victoza®-treated patients in a 52-week monotherapy trial

	All Victoza® N = 497	Glimepiride N = 248
Adverse Reaction	(%)	(%)
Nausea	28.4	8.5
Diarrhea	17.1	8.9
Vomiting	10.9	3.6
Constipation	9.9	4.8
Headache	9.1	9.3

Table 2: Adverse reactions reported in ≥5% of Victoza®-treated patients and occurring more frequently with Victoza® compared to placebo: 26-week combination therapy trials

Add-on to Metformin Trial			
	All Victoza® + Metformin N = 724	Placebo + Metformin N = 121	Glimepiride + Metformin N = 242
Adverse Reaction	(%)	(%)	(%)
Nausea	15.2	4.1	3.3
Diarrhea	10.9	4.1	3.7
Headache	9.0	6.6	9.5
Vomiting	6.5	0.8	0.4
Add-on to Glimepiride Trial			
	All Victoza® + Glimepiride N = 695	Placebo + Glimepiride N = 114	Rosiglitazone + Glimepiride N = 231
Adverse Reaction	(%)	(%)	(%)
Nausea	7.5	1.8	2.6
Diarrhea	7.2	1.8	2.2
Constipation	5.3	0.9	1.7
Dyspepsia	5.2	0.9	2.6
Add-on to Metformin + Glimepiride			
	Victoza® 1.8 + Metformin + Glimepiride N = 230	Placebo + Metformin + Glimepiride N = 114	Glargine + Metformin + Glimepiride N = 232
Adverse Reaction	(%)	(%)	(%)
Nausea	13.9	3.5	1.3
Diarrhea	10.0	5.3	1.3
Headache	9.6	7.9	5.6
Dyspepsia	6.5	0.9	1.7
Vomiting	6.5	3.5	0.4
Add-on to Metformin + Rosiglitazone			
	All Victoza® + Metformin + Rosiglitazone N = 355	Placebo + Metformin + Rosiglitazone N = 175	
Adverse Reaction	(%)	(%)	
Nausea	34.6	8.6	
Diarrhea	14.1	6.3	
Vomiting	12.4	2.9	
Headache	8.2	4.6	
Constipation	5.1	1.1	

Table 3: Adverse Reactions reported in ≥5% of Victoza®-treated patients in a 26-Week Open-Label Trial versus Exenatide

	Victoza® 1.8 mg once daily + metformin and/or sulfonylurea N = 235	**Exenatide 10 mcg twice daily + metformin and/or sulfonylurea** N = 232
Adverse Reaction	(%)	(%)
Nausea	25.5	28.0
Diarrhea	12.3	12.1
Headache	8.9	10.3
Dyspepsia	8.9	4.7
Vomiting	6.0	9.9
Constipation	5.1	2.6

Table 4: Adverse Reactions in ≥5% of Victoza®-treated patients in a 26-Week Open-Label Trial versus Sitagliptin

	All Victoza® + metformin N = 439	**Sitagliptin 100 mg/day + metformin** N = 219
Adverse Reaction	(%)	(%)
Nausea	23.9	4.6
Headache	10.3	10.0
Diarrhea	9.3	4.6
Vomiting	8.7	4.1

Immunogenicity: Consistent with the potentially immunogenic properties of protein and peptide pharmaceuticals, patients treated with Victoza® may develop anti-liraglutide antibodies. Approximately 50-70% of Victoza®-treated patients in the five double-blind clinical trials of 26 weeks duration or longer were tested for the presence of anti-liraglutide antibodies at the end of treatment. Low titers (concentrations not requiring dilution of serum) of anti-liraglutide antibodies were detected in 8.6% of these Victoza®-treated patients. Sampling was not performed uniformly across all patients in the clinical trials, and this may have resulted in an underestimate of the actual percentage of patients who developed antibodies. Cross-reacting anti-liraglutide antibodies to native glucagon-like peptide-1 (GLP-1) occurred in 6.9% of the Victoza®-treated patients in the double-blind 52-week monotherapy trial and in 4.8% of the Victoza®-treated patients in the double-blind 26-week add-on combination therapy trials. These cross-reacting antibodies were not tested for neutralizing effect against native GLP-1, and thus the potential for clinically significant neutralization of native GLP-1 was not assessed. Antibodies that had a neutralizing effect on liraglutide in an *in vitro* assay occurred in 2.3% of the Victoza®-treated patients in the double-blind 52-week monotherapy trial and in 1.0% of the Victoza®-treated patients in the double-blind 26-week add-on combination therapy trials. Among Victoza®-treated patients who developed anti-liraglutide antibodies, the most common category of adverse events was that of infections, which occurred among 40% of these patients compared to 36%, 34% and 35% of antibody-negative Victoza®-treated, placebo-treated and active-control-treated patients, respectively. The specific infections which occurred with greater frequency among Victoza®-treated antibody-positive patients were primarily nonserious upper respiratory tract infections, which occurred among 11% of Victoza®-treated antibody-positive patients; and among 7%, 7% and 5% of antibody-negative Victoza®-treated, placebo-treated and active-control-treated patients, respectively. Among Victoza®-treated antibody-negative patients, the most common category of adverse events was that of gastrointestinal events, which occurred in 43%, 18% and 19% of antibody-negative Victoza®-treated, placebo-treated and active-control-treated patients, respectively. Antibody formation was not associated with reduced efficacy of Victoza® when comparing mean HbA_{1c} of all antibody-positive and all antibody-negative patients. However, the 3 patients with the highest titers of anti-liraglutide antibodies had no reduction in HbA_{1c} with Victoza® treatment. In the five double-blind clinical trials of Victoza®, events from a composite of adverse events potentially related to immunogenicity (e.g. urticaria, angioedema) occurred among 0.8% of Victoza®-treated patients and among 0.4% of comparator-treated patients. Urticaria accounted for approximately one-half of the events in this composite for Victoza®-treated patients. Patients who developed anti-liraglutide antibodies were not more likely to develop events from the immunogenicity events composite than were patients who did not develop anti-liraglutide antibodies. *Injection site reactions:* Injection site reactions (e.g., injection site rash, erythema) were reported in approximately 2% of Victoza®-treated patients in the five double-blind clinical trials of at least 26 weeks duration. Less than 0.2% of Victoza®-treated patients discontinued due to injection site reactions. *Papillary thyroid carcinoma:* In clinical trials of Victoza®, there were 7 reported cases of papillary thyroid carcinoma in patients treated with Victoza® and 1 case in a comparator-treated patient (1.5 vs. 0.5 cases per 1000 patient-years). Most of these papillary thyroid carcinomas were <1 cm in greatest diameter and were diagnosed in surgical pathology specimens after thyroidectomy prompted by findings on protocol-specified screening with serum calcitonin or thyroid ultrasound. *Hypoglycemia:* In the eight clinical trials of at least 26 weeks duration, hypoglycemia requiring the assistance of another person for treatment occurred in 11 Victoza®-treated patients (2.3 cases per 1000 patient-years) and in two exenatide-treated patients. Of these 11 Victoza®-treated patients, six patients were concomitantly using metformin and a sulfonylurea, one was concomitantly using a sulfonylurea, two were concomitantly using metformin (blood glucose values were 65 and 94 mg/dL) and two were using Victoza® as monotherapy (one of these patients was undergoing an intravenous glucose tolerance test and the other was receiving insulin as treatment during a hospital stay). For these two patients on Victoza® monotherapy, the insulin treatment was the likely explanation for the hypoglycemia. In the 26-week open-label trial comparing Victoza® to sitagliptin, the incidence of hypoglycemic events defined as symptoms accompanied by a fingerstick glucose <56 mg/dL was comparable among the treatment groups (approximately 5%).

Table 5: Incidence (%) and Rate (episodes/patient year) of Hypoglycemia in the 52-Week Monotherapy Trial and in the 26-Week Combination Therapy Trials

	Victoza® Treatment	**Active Comparator**	**Placebo Comparator**
Monotherapy	**Victoza®** (N = 497)	**Glimepiride** (N = 248)	**None**
Patient not able to self-treat	0	0	—
Patient able to self-treat	9.7 (0.24)	25.0 (1.66)	—
Not classified	1.2 (0.03)	2.4 (0.04)	—
Add-on to Metformin	**Victoza® + Metformin** (N = 724)	**Glimepiride + Metformin** (N = 242)	**Placebo + Metformin** (N = 121)
Patient not able to self-treat	0.1 (0.001)	0	0
Patient able to self-treat	3.6 (0.05)	22.3 (0.87)	2.5 (0.06)
Add-on to Victoza® + Metformin	**Insulin detemir + Victoza® + Metformin** (N = 163)	**Continued Victoza® + Metformin alone** (N = 158*)	**None**
Patient not able to self-treat	0	0	—
Patient able to self-treat	9.2 (0.29)	1.3 (0.03)	—
Add-on to Glimepiride	**Victoza® + Glimepiride** (N = 695)	**Rosiglitazone + Glimepiride** (N = 231)	**Placebo + Glimepiride** (N = 114)
Patient not able to self-treat	0.1 (0.003)	0	0
Patient able to self-treat	7.5 (0.38)	4.3 (0.12)	2.6 (0.17)
Not classified	0.9 (0.05)	0.9 (0.02)	0
Add-on to Metformin + Rosiglitazone	**Victoza® + Metformin + Rosiglitazone** (N = 355)	**None**	**Placebo + Metformin + Rosiglitazone** (N = 175)
Patient not able to self-treat	0	—	0
Patient able to self-treat	7.9 (0.49)	—	4.6 (0.15)
Not classified	0.6 (0.01)	—	1.1 (0.03)
Add-on to Metformin + Glimepiride	**Victoza® + Metformin + Glimepiride** (N = 230)	**Insulin glargine + Metformin + Glimepiride** (N = 232)	**Placebo + Metformin + Glimepiride** (N = 114)
Patient not able to self-treat	2.2 (0.06)	0	0
Patient able to self-treat	27.4 (1.16)	28.9 (1.29)	16.7 (0.95)
Not classified	0	1.7 (0.04)	0

*One patient is an outlier and was excluded due to 25 hypoglycemic episodes that the patient was able to self-treat. This patient had a history of frequent hypoglycemia prior to the study.

In a pooled analysis of clinical trials, the incidence rate (per 1,000 patient-years) for malignant neoplasms (based on investigator-reported events, medical history, pathology reports, and surgical reports from both blinded and open-label study periods) was 10.9 for Victoza®, 6.3 for placebo, and 7.2 for active comparator. After excluding papillary thyroid carcinoma events *[see Adverse Reactions]*, no particular cancer cell type predominated. Seven malignant neoplasm events were reported beyond 1 year of exposure to study medication, six events among Victoza®-treated patients (4 colon, 1 prostate and 1 nasopharyngeal), no events with placebo and one event with active comparator (colon). Causality has not been established. **Laboratory Tests:** In the five clinical trials of at least 26 weeks duration, mildly elevated serum bilirubin concentrations (elevations to no more than twice the upper limit of the reference range) occurred in 4.0% of Victoza®-treated patients, 2.1% of placebo-treated patients and 3.5% of active-comparator-treated patients. This finding was not accompanied by abnormalities in other liver tests. The significance of this isolated finding is unknown. **Vital signs:** Victoza® did not have adverse effects on blood pressure. Mean increases from baseline in heart rate of 2 to 3 beats per minute have been observed with Victoza® compared to placebo. The long-term clinical effects of the increase in pulse rate have not been established. **Post-Marketing Experience:** The following additional adverse reactions have been reported during post-approval use of Victoza®. Because these events are reported voluntarily from a population of uncertain size, it is generally not possible to reliably estimate their frequency or establish a causal relationship to drug exposure: Dehydration resulting from nausea, vomiting and diarrhea; Increased serum creatinine, acute renal failure or worsening of chronic renal failure, sometimes requiring hemodialysis; Angioedema and anaphylactic reactions; Allergic reactions: rash and pruritus; Acute pancreatitis, hemorrhagic and necrotizing pancreatitis sometimes resulting in death.

OVERDOSAGE: Overdoses have been reported in clinical trials and post-marketing use of Victoza®. Effects have included severe nausea and severe vomiting. In the event of overdosage, appropriate supportive treatment should be initiated according to the patient's clinical signs and symptoms.

More detailed information is available upon request.

For information about Victoza® contact: Novo Nordisk Inc., 800 Scudders Mill Road, Plainsboro, NJ 08536, 1–877-484-2869

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WAYS DOCTORS GROUP

PHOTO BY KATHRYN FORSS

If the number of organizations for physicians is any indication, physicians like the company of other physicians. In Minnesota alone, there are a couple dozen specialty societies, plus the MMA, its component societies and a number of other organizations. Here's a look at ways doctors group themselves.

BY REGION
Minnesota Medical Association, component medical societies (Twin Cities Medical Society, Lake Superior Medical Society, etc.)

BY CAUSE
Physicians for a National Health Program, Physicians for Responsible Opioid Prescribing, Physicians for Social Responsibility, Physicians for Reproductive Health, Physicians for Human Rights

BY PERSPECTIVE
Minnesota Physician-Patient Alliance

BY SPECIALTY
American Academy of Pediatrics, American College of Surgeons, Minnesota Dermatological Society, etc.

BY TRAINING
Minnesota Osteopathic Medical Society

BY JOB
Minnesota Medical Directors Association, Minnesota Coroners' and Medical Examiners' Association

BY INVITATION
The Minnesota Academy of Medicine

BY GENDER
Minnesota Women Physicians

BY ETHNICITY AND CULTURE
Minnesota Association of Black Physicians, Association of American Indian Physicians

BY SEXUAL ORIENTATION
Gay and Lesbian Medical Association

BY RELIGION
Muslim American Physicians, Christian Medical and Dental Association, Catholic Medical Association

BY COUNTRY OF ORIGIN
American Association of Physicians of Indian Origin, Russian American Medical Association, Association of Minnesota Chinese Physicians, Chinese American Doctors Association

How do

MMA

The Minneapolis-based organization for Minnesota physicians practicing any specialty

Component Medical Societies

Regional (often county-based) organizations for physicians of any specialty.

Relationship to the MMA: Physicians automatically become a member of their component medical society when they join the MMA.

THE CHARITABLE ARM OF THE MMA

MMA Foundation

The charitable arm of the MMA. Its primary focus is improving access to care by helping physicians practice where they are needed most and addressing the educational debt crisis by providing scholarships to medical students.

Relationship to the MMA: It is a separate nonprofit 501(c)(3) organization. It is not funded by the MMA; however, it receives most of its contributions from MMA members. The MMA promotes its activities and causes.

THE POLITICAL ARM OF THE MMA

MEDPAC

The MMA's political action committee. MEDPAC endorses candidates for state office (the MMA does not do this), contributes to the campaigns of endorsed candidates, generates grassroots action and recommends congressional candidates to the AMA's political action committee.

Relationship to the MMA: It is a separate organization. MEDPAC solicits contributions from MMA members, but no MMA dues revenue goes toward MEDPAC or its causes. MEDPAC's leaders make decisions regarding its activities.

INDEPENDENT OF THE MMA

Specialty and other societies

Minnesota has about two dozen specialty societies as well as special groups for women physicians, black physicians, physicians who went to osteopathic medical schools and nursing home medical directors.

Relationship to the MMA: The MMA regularly partners with these groups on advocacy, professional issues and public health work. Recently, MMA and

How well do you know the MMA?

1. As an MMA member, am I automatically an AMA member? YES NO
2. Does the MMA fund political campaigns? YES NO
3. Do I need to be an MMA member to get MMIC insurance? YES NO
4. Does my specialty society membership make me an MMA member? YES NO
5. Do my MMA dues fund MMA Foundation work? YES NO
6. Can I be a member of my component society but not the MMA? YES NO

The answer to all questions is "no."

they relate?

MMA HELPED CREATE

MN Community Measurement

A nonprofit organization focused on quality measurement in health care. It collects information about measures (those mandated by law and others), reports to the public about the quality of care providers and develops new measures to help ensure health care quality.

Relationship to the MMA: In 2005, the MMA and Minnesota's health plans formed MN Community Measurement as a separate 501(c)(3) organization.

MMA CO-OWNS

Minnesota Credentialing Collaborative (MCC)

An effort to simplify the process of applying for credentialing from Minnesota's hospitals and health plans. The MCC allows physicians and other health care providers to apply online using a single application.

Relationship to the MMA: The MCC is co-owned by the MMA, Minnesota Council of Health Plans and Minnesota Hospital Association.

MMA HELPED CREATE/ENDORSES

Midwest Medical Insurance Company (MMIC)

A medical malpractice insurer

Relationship to the MMA: MMIC got its start in 1980, when the MMA and a group of physicians concerned about the cost of premiums and availability of insurance created the Minnesota Medical Insurance Exchange. In 1988, the organization was restructured into a stock company and became MMIC. The MMA endorses MMIC, and MMIC pays the MMA an annual royalty.

MMA HELPED CREATE

Minnesota Alliance for Patient Safety (MAPS)

A nonprofit organization dedicated to safe patient care. MAPS' activities include providing education about patient safety, promoting safe care methods, advocating for policy and establishing community standards for care.

Relationship to the MMA: MAPS is a separate 501(c)(3) organization. The MMA helped establish it in 2000, as a response to the 1999 Institute of Medicine Report "To Err is Human."

state specialty society leaders met to discuss ways their organizations might work together.

INDEPENDENT OF THE MMA

American Medical Association

The Chicago-based organization for U.S. physicians practicing any specialty

Relationship to the MMA: The MMA and AMA are separate organizations. The MMA is not bound by AMA policy, although it does look to the AMA for direction on some issues. The MMA sends a delegation to AMA meetings, and MMA members who are also AMA members hold AMA offices. Currently, Dionne Hart, M.D., chairs the AMA's Minority Affairs Section and Maya Babu, M.D., is serving a two-year term as the Resident and Fellow Section member of the AMA Board of Trustees.

PHOTO COURTESY OF DOMINIQUE TOBBELL

Dominique Tobbell, Ph.D.

The politics of the plow

A conversation with a medical historian about what we can learn from general practice physicians who took up a cause in the 1960s.

INTERVIEW BY CARMEN PEOTA

In a recently published article titled "Plow, Town, and Gown: The Politics of Family Practice in 1960s America," University of Minnesota medical historian Dominique Tobbell tells how general practice physicians in the 1960s organized and eventually wielded enough power to convince the Legislature and the University of Minnesota to create a department of family medicine. Tobbell points out that they framed their case in the context of physician shortages, arguing that the university, as a state institution, had an obligation to meet the needs of the public that supported it.

I recently spoke with Tobbell about her work and what we can learn from it.

What got you interested in this topic?
When I was doing the archival research for the Academic Health Center's Oral History Project, I discovered a lot of documents that were communications between the Minnesota Academy of General Practice and the medical school about the demand for a department of family practice. There also were tons of documents about shortages of physicians in general. The intersection of state legislators and the university's medical school really sparked my interest.

Other historians have written about this topic as well. What's new about your take on it?
The idea of the plow. The differences between town and gown physicians have been well-established. Private practice physicians say academic physicians don't know what it's like in the real world of clinical practice. Academic physicians say private practitioners don't understand science. I argue that a third group—rural physicians, "the plow"—were important. There was a lot of power in the rural part of the state.

Also, I'm writing about the role of general practitioners working on the ground. Others have described the establishment of family medicine as a specialty as a top-down effort. What I'm showing is that this was much more about rank-and-file general practitioners working through their major organizations and operating at the state level, going through the Legislature to pressure medical schools, using the argument that because medical schools received state funds, they were obligated to do this.

Why did rural physicians have such a strong voice?
Rural counties had small populations and physicians were prominent in those communities. At the time, in a predominantly rural state like Minnesota, rural legislators were influential at the Capitol.

Did the Minnesota Medical Association play a role?
It was really the Minnesota Academy of General Practitioners that was at the forefront of this. The MMA didn't have the same kind of stake in the issue. But once the university had set up the department and made an internist its chair, the Academy wasn't happy with the way it was training physicians and the fact the department was doing research rather than focusing solely on preparing practitioners. The state medical association then came out in alignment with the Academy.

General practitioners were in many ways in competition with internists and pediatricians. When general practice finally became family practice, internists, pediatricians and family physicians all came under the umbrella of primary care, and their interests were more aligned.

Does history show whether single-specialty groups or multi-specialty groups are better at getting physicians to take up a cause?
I think it depends on what the issue is. If you're talking about a more far-reaching issue, like national health insurance, or Medicare and Medicaid in 1965, then you definitely saw the MMA and AMA mobilized and the specialties mobilized. But when you have an issue that splits the specialties or is only of interest to one or two specialties, then the specialty society has more of a stake.

A couple of weeks ago, I gave a talk to the Minnesota Chapter of the American College of Obstetricians and Gynecologists, and the Hobby Lobby decision came up. That's an issue, not surprisingly, that ACOG and the MN chapter are working extremely hard on. I imagine they'll seek AMA and MMA support, but it's going to be ACOG that's driving that. They're the ones dealing with the patients it most affects.

It would appear the general practice doctors' actions had a lasting impact on the medical school. Do you agree?
Yes, the University of Minnesota has done very well. They established the Rural Physician Associate Program in 1972. That is a great success. That was innovative. And they set up the Duluth campus, taking students primarily geared to primary care and working with underserved populations. In a 2010 study, the medical school, both campuses collectively, was ranked 14th in producing primary care physicians. That's pretty good.

Then why do we still have a shortage of primary care physicians?
It comes down to real structural problems within institutions, but more than that, systemic structural problems with the reimbursement system, the health care delivery system and the reward system within medical schools and universities.

Can we learn anything from this time in history that can help us now?
I think what is to be learned is that something systemic, structural, needs to change if we are to solve the shortage problem. Unless we change the reimbursement system and provide incentives for going into primary care, we're always going to have this shortage. And we know from the recent and long history of health care reform, we don't like big structural changes in health care. They generate a lot of resistance.

Could a group of physicians take on systemic reform?
If you're going to try to change the reimbursement system, then you'd probably see the AMA and specialty groups mobilize politically. But it's no one group's job. I think it would have to be physicians and nurses and other health care providers in cooperation with health policy people, patients, health economists and legislators. Because the system is so complex, it would need to involve all the parties who have expertise in and understand the system and have a stake in it. The general practice doctors I described were focused on getting a department established in a medical school, which is much narrower than trying to achieve big structural change in our health care system. **MM**

Carmen Peota is an editor of *Minnesota Medicine.*

Excerpt from Tobbell's recently published article

"… General practitioners initially saw the establishment of departments of family practice within medical schools as the institutional key to asserting their relevance in the structure of academic medicine. To this end, in the 1960s, general practitioners organized themselves into a state-based nationwide political movement that lobbied state legislators and state-funded medical schools to create departments of family practice. They framed their calls in the context of the national shortages of primary care physicians by arguing that those medical schools that received state funding had an obligation to the state to train sufficient numbers of primary care physicians to ensure the health care needs of the state's residents would be met."

Source: Tobbell D. Plow, Town, and Gown: The Politics of Family Practice in 1960s America. Bull History of Med. 2013; 87(4):648-80 (published by The Johns Hopkins Press).

Read the article at: https://sites.google.com/site/dtobbell/plow-town-and-gown-1

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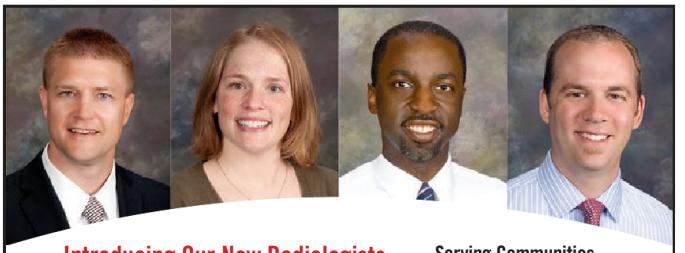

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Culture clubs

Organizations based on country of origin and ethnicity offer physicians support and a chance to give back.

BY SUZY FRISCH

Elena Polukhin, M.D., remembers what it was like to emigrate from Russia and struggle to fit in as a physician. It wasn't always easy. She was used to dressing to the nines at work—wearing high heels, fashionable clothes and lots of jewelry—and having animated discussions with her equally animated Russian patients and co-workers.

"I was energetic and smart, and when I came to Minnesota, I was dressed appropriately in my opinion, with a lot of style and flash," says Polukhin, a physical medicine and rehabilitation physician at Bloomington-based Rehabilitation Consultants. "Then I started working here, and at the bedside and the nursing home people looked at me like I fell from another planet. There was initially hostility and animosity, and it was difficult."

Elena Polukhin, M.D.

PHOTO COURTESY OF ELENA POLUKHIN

She is fortunate to have connected with other physicians from Russia and the former Soviet Republics through the Russian American Medical Association. Talking with others who were having similar experiences made her realize she wasn't alone. And, over time, Polukhin learned to slow down and soften both her style and manner of communication at work.

Minnesota is home to groups for Chinese, Russian, and African and African-American physicians. In addition, national organizations including the Association of American Indian Physicians have members in the state. Although the main purpose of these groups is to bring together physicians from similar backgrounds, many give back to their communities, seek to raise awareness about medical problems affecting certain populations, and help members of their community enter or advance in medicine.

Association of Minnesota Chinese Physicians

Huagui Li, M.D., a cardiologist at Fairview Southdale Hospital, became a member (he's now president) of the Association of Minnesota Chinese Physicians for both professional and social reasons. New to the community about eight years ago and feeling culturally isolated, Li wanted to meet other physicians who were from China. (There weren't many when the organization got off the ground about a decade ago.)

Through outings such as an annual summer picnic and Chinese New Year cel-

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ebration and forums on breast cancer, cardiovascular disease, avoiding malpractice litigation and other topics, the organization has connected Li with about 55 other physicians from China or with Chinese heritage living in the state.

Many of the physicians who belong to the association (including those who practice traditional Chinese medicine) volunteer their time at the Minnesota Chinese Health Center in Roseville. The bi-monthly free clinic helps people from China, including the parents of Chinese immigrants who might need medical care while visiting family here, as well as others who are uninsured.

Providing Chinese speakers with physicians who speak their language was another reason to start the clinic. "Many people come here for a second opinion because of language problems. Even for first-generation immigrants with professional jobs, language can be a problem when speaking about disease," says Jie Xia, a nonpracticing physician who co-founded the clinic and serves as its administrator. The clinic has treated more than 1,000 patients since it began. In addition, it hosts seminars on topics such as diabetes and stroke prevention at a nearby Chinese school so parents and grandparents can attend while their children attend language classes.

Li finds volunteering at the clinic rewarding. "A lot of people would rather come here to talk with someone directly than go through an interpreter," he says. "It's a good opportunity to serve the community."

Russian American Medical Association

The Russian American Medical Association—known locally as the East European Medical Society of Minnesota—offers support to Russian and other eastern European doctors and their families. A subset of female members meets to talk about issues such as combining career and family or being the breadwinner in the family; men have a similar group. "It's social and emotional support," says Polukhin, who is vice president of the national organization.

The national association raises money for medical care in Eastern Europe, and its members have traveled there and to countries around the world to provide free care. Polukhin went with other members to the Solomon Islands, Peru and Honduras, in partnership with Medical Mission International. She attended an international forum of Russian-speaking physicians in Latvia, where she talked about providing culturally sensitive medicine.

The society has compiled a directory of physicians in the region who are knowledgeable about the religious and cultural beliefs of Russian and other immigrants. It offers support groups for persons with Alzheimer's disease and their caregivers as well as for parents of children adopted from Russia. Its members also provide medical support at day programs for elderly or disabled Eastern European immigrants and do outreach to inform immigrants about supports such as Social Security and workers' compensation.


Tamiko Morgan, M.D.

PHOTO COURTESY OF TAMIKO MORGAN

Minnesota Association of Black Physicians

For Andrew Kiragu, M.D., assistant chief of pediatrics at Hennepin County Medical Center and medical director of its pediatric ICU, moving to Minnesota 20 years ago was a bit of a culture shock. Originally from Kenya, he attended medical school at Howard University in Washington, D.C., where both the student and patient populations are predominately African-American. When he came to Minnesota, he had to adjust to being the only black physician in his residency class at the University of Minnesota and one of a small group of black doctors locally. Today, he serves as president of the Minnesota Association of Black Physicians.

"One of the things that attracted me was to be together as a community of physicians who look like me and who may have faced similar challenges to the ones I was facing," he says.

The association's roughly 100 members work on eliminating health disparities and improving the health of communities of color. It recently cosponsored a forum with the Minnesota Medical Association, the American Indian Cancer Foundation and the Minnesota Department of Health's Office of Minority and Multicultural Health on reducing health disparities. Association members also write health-related articles for the *Minnesota Spokesman-Recorder* newspaper and speak on KMOJ radio, both of which target African-American audiences. At special events such as the Twin Cities Juneteenth Festival, Rondo Days and the Black History Expo, they speak about health topics and provide glucose screenings and blood pressure checks.

"We're trying to be a voice in the community on issues like health equity and reducing health care disparities among racial and ethnic groups," says Tamiko Morgan,

M.D., who serves as vice president. "That can be disparities in outcomes between patients with different conditions and illnesses, but it also can be disparities that exist on a professional level and equaling the playing field for everyone." Morgan, a pediatrician and chief medical officer of Metropolitan Health Plan, a nonprofit that serves Hennepin County residents, joined the association after moving to Minnesota from Chicago for residency.

The association's 100 members meet quarterly for social time and educational events. Family members and members of the Student National Medical Association for minority medical students also attend.

Some members work with young people to encourage them to pursue medical careers. Kiragu is involved with the Future Doctors program at the University of Minnesota. Morgan has been mentoring a medical student since she was in high school. The association is also involved with an International Leadership Institute program that sends high school students to Hennepin County Medical Center to learn about health care careers. In addition, members speak to youth organizations and at schools.

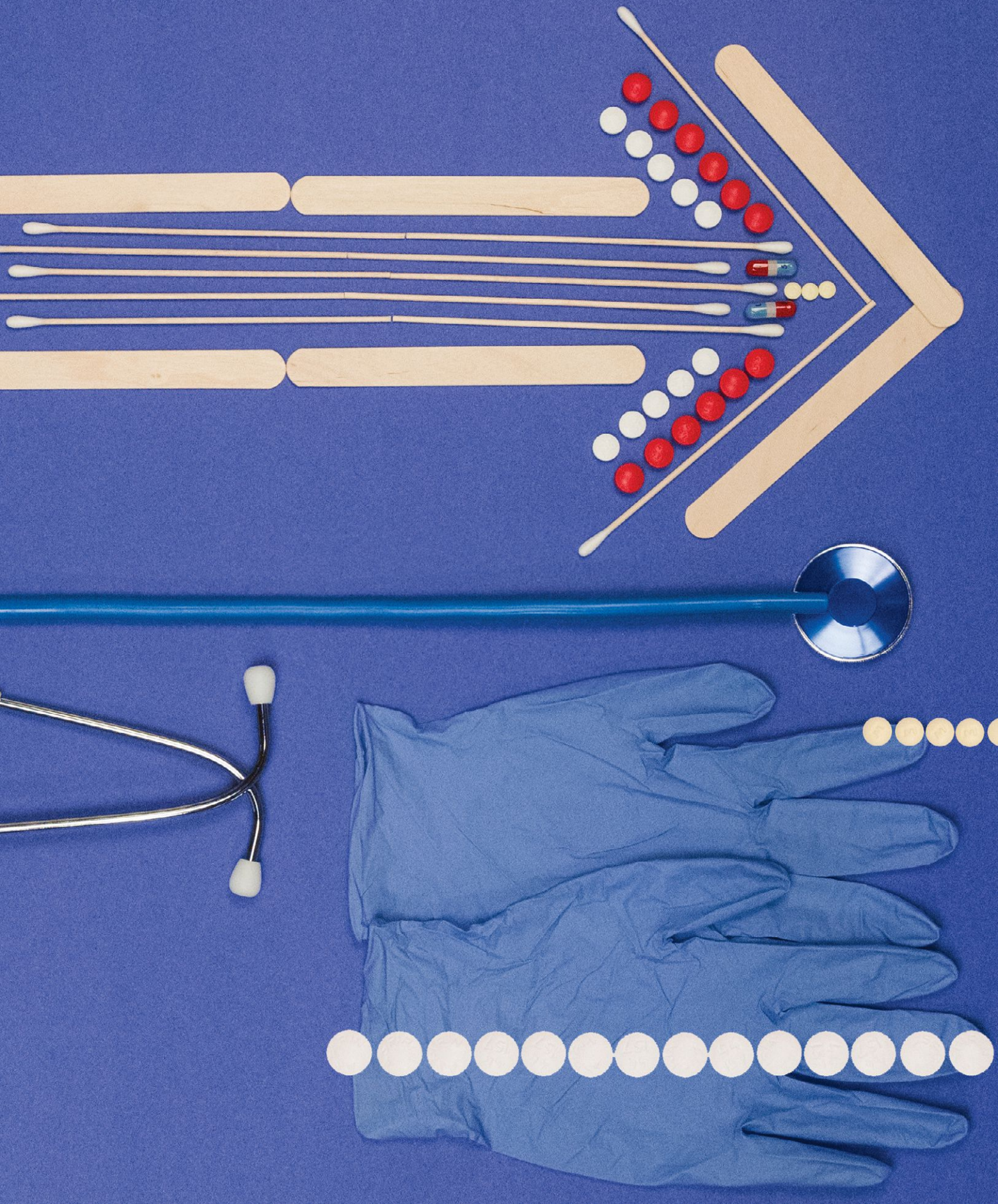
Association of American Indian Physicians

Internist Alan Johns, M.D., interim regional campus dean for the University of Minnesota Medical School, Duluth, says he got involved in the Association of American Indian Physicians 10 years ago specifically to try to increase the number of Native Americans applying to medical school.

Johns, who was one of the first Native American students to enroll in the Duluth medical school in 1972, often attends the two-day preadmissions workshop for undergraduate students the association holds in partnership with the University of Minnesota's Center of American Indian and Minority Health. The association also offers a week-long program in Washington, D.C., for high school students to expose them to medical careers; provides students assistance with obtaining scholarships; and works to improve public health among Native American people as well as communication between American Indian/Alaska Native people and health care providers.

Johns finds benefit in belonging to the national organization (there is no local chapter). He says it gives him a place to share concerns and experiences with his fellow Native American physicians. "There are problems across medicine that are universal," he notes, "and there are problems specific to Native Americans and medical care. This is the best forum to discuss them." **MM**

Suzy Frisch is a Twin Cities writer.



A NEW DIRECTION

HAS THE MMA FOUND THE RIGHT FORMULA TO ENGAGE PHYSICIANS?

BY GAYLE GOLDEN

PHOTOGRAPHY BY KATHRYN FORSS

Change is tough, especially for an organization with 160 years of tradition.

That was evident two years ago, when the annual meeting of the Minnesota Medical Association's House of Delegates ran overtime during a floor debate about proposed reforms to the organization's governance, one of which was abolishing the delegate body itself.

As the meeting went on, guests for a wedding reception, the next ballroom event at the Marriott City Center in Minneapolis, began gathering outside the doors. Hotel staff needed to set up tables. The delegates were finally forced to adjourn and exit through the kitchen.

"We had to be evacuated immediately because we couldn't solve the problem and make progress," says Will Nicholson, M.D., then one of the youngest MMA members, who recalls that his frustration mixed with fatigue from an overnight shift at St. John's Hospital in Maplewood. "It's just really hard to keep people engaged if we're not respectful of their time."

Two years since that meeting, change has certainly entered the room for the MMA.

After a lengthy debate in 2013, the House of Delegates did indeed agree to suspend itself for three years as the association moves forward with new strategies aimed at keeping younger, time-pressed physicians engaged and making the organization more nimble and relevant.

Since then, MMA staff members have reached out to doctors around the state through listening sessions, advocacy discussions and educational forums on issues such as health care disparities, opioids, medical marijuana and a single-payer system. The association is also in the process of trimming its Board of Trustees by half, has opened officer elections to the entire membership and has created a Policy Council of physicians from around the state to prioritize issues for board action.

This month, the MMA will for the first time host an annual *conference,* not an annual *meeting* as it was called when it served chiefly as the House of Delegates' session. The conference, called "Thriving in Change: Meeting the Challenges of Modern Medicine," will be open to all physicians, not just MMA members who are delegates. It will feature policy forums on telemedicine and the health care workforce along with one open-issue forum. Educational sessions will discuss leadership, well-being, burnout and digital innovation.

"The main reason we wanted to change was to create something that would light a fire under the physicians in this state, to find a way to get more people involved," says Cindy Firkins Smith, M.D., the current MMA president who has spent the past year traveling around to introduce these changes to the state's doctors. "The system we had before wasn't conducive to easy participation."

But the changes haven't come easily. Nor is it certain whether they will succeed in increasing membership in the state's only association serving all physicians regardless of specialty.

Although most applaud the MMA's new outreach efforts, some fear the loss of the House of Delegates will result in an organization driven solely by staff, not physician members, and that important individual voices may be lost amid the clamor of clickers, social media posts and triaged forums.

THE WINDS OF **CHANGE**

The MMA isn't the only state medical association trying to change with the times. In recent years, approximately 15 others have opted for or are considering new decision-making models. Here's a look at some of them:

Kansas Medical Society. In 2013, it approved plans to restructure its 37-member Council into a smaller Board of Trustees with 18 voting members. Board members for the most part will be elected by the membership at large.

Medical Society of Delaware. In 2011, it voted to replace its House of Delegates, Board of Trustees and Executive Committee with a 17-member Executive Board and 66-seat Council. It also eliminated its county medical societies and instead created geographic "affinity groups."

Iowa Medical Society. Earlier this year, it replaced its House of Delegates with a Policy Forum that will meet twice a year to create and amend policy. Any member can submit issues or concerns and participate in online debates. The Policy Forum, which will be made up of 19 elected members of the Board of Trustees, will consider those virtual discussions when making decisions about policy.

Pennsylvania Medical Society. In 2013, a work group recommended changes to the governance structure including replacing its 325-member House of Delegates with an eight-member Board of Trustees, a 19-member Executive Policy Council and a 122-member Representative Assembly. It also recommended streamlining the process for nominating and electing officers and new mechanisms for engaging members, including a revamped annual meeting.

Medical Society of Virginia. In 2013, it put forth recommendations to open up the election of leaders to all members, rather than just those participating in the House of Delegates. It also proposed reducing the size of its Board of Directors from 36 to no more than 15 members and making it the primary governing body of the society, with responsibility for setting policy. The society also wants to test new ways of gathering member ideas and feedback, including regional meetings, town hall discussions and an online forum.

Maine Medical Association. In 2003, it replaced its House of Delegates with a general membership meeting held annually. Members can still submit resolutions, but decisions about them will be made by a 25-member Board of Directors.

Oregon Medical Association. It established a Board of Trustees as its policy-making body and transformed its House of Delegates assembly into a meeting of all members.

Yet proponents say the changes are designed to include more, not fewer, voices and that the old way of doing business simply does not work for today's doctors.

"It's actually been a very good first year of transition," says MMA CEO Robert Meiches, M.D., who shepherded the reforms from conception to fruition over the last four years. "We now see people more satisfied, perceiving more value, and they think we are looking at the right issues, that our strategic plan is moving in the right direction."

Changing realities, declining membership

Four decades ago, when Paul Sanders, M.D., began practicing as a family physician, nearly every doctor in the state belonged to the MMA. For years, there had been a tacit agreement among doctors that they needed an organization to exchange information and promote the medical profession in the state.

"Everybody joined the medical association because that's what you did," says Sanders, who in 1990 became the first practicing physician to serve as the association's chief executive officer, a position he held for 12 years.

The organization served practical purposes when it was formed in 1853, upholding standards to guard against quacks, providing a forum for sharing medical developments and giving doctors a voice for urging action on public health issues such as vaccinations. For more than 100 years, most of the state's physicians looked to the MMA for education and professional connections. Then as medicine became more specialized and specialty associations assumed more continuing education, the MMA shifted its focus to advocacy, pushing for laws, regulations and policies to protect physicians and their patients.

"THE MAIN REASON WE WANTED TO CHANGE WAS TO CREATE SOMETHING THAT WOULD LIGHT A FIRE UNDER THE PHYSICIANS IN THIS STATE, TO FIND A WAY TO GET MORE PEOPLE INVOLVED."

—CINDY FIRKINS SMITH, M.D.

Like all member associations, the MMA relied heavily—as it still does today—on dues for revenue (currently 55 percent of the association's income comes from member dues) and on the volunteer efforts of physicians. Members served on committees.

They also sat on the 30-plus member MMA Board of Trustees. Once a year, local and specialty medical societies from around the state would elect doctors for a 270-seat House of Delegates, which also voted on resolutions and elected the board and officers.

But by the 1990s, when Sanders took over as CEO, membership was becoming harder to sell to doctors, who increasingly were leaving solo practices and small groups for large health care systems. Because those systems managed more decisions about workplace issues, physicians had fewer reasons to pay the MMA dues or devote time and energy to its causes.

One large employer, Sanders recalls, gave its doctors a choice of benefits that pitted membership in a medical association against dental insurance. "So when you have a young physician raising three or four kids, and they have to choose dental insurance over Minnesota Medical Association membership, that's not much of a choice," he says. "We tended to take the back seat."

Although the MMA took steps to regain membership in 2004 by discounting dues for certain groups or individuals, the number of members paying full dues began to decline. In the past five years, the percentage of members paying discounted rates has risen significantly, now accounting for about three-quarters of the membership. As a result, revenue from dues has dropped as a percentage of its $4 million operating budget.

Other state medical associations, and even the American Medical Association, have experienced the same downward trends in membership to varying degrees, says Peter Kernahan, M.D., a University of Minnesota medical historian. He cites a number a reasons including the growing diversity of practice models, the end of the connection between local society membership and hospital privileges, and increasing specialization. For the past two decades, he says, many physicians have been simply too busy at work and at home to join both a specialty group and a multispecialty association—particularly if they didn't see how it served their needs. "All of that has helped undermine an overarching identity for the medical profession," Kernahan says. "It's partly demographic, partly generational, partly just increasing demands on physicians' time."

Pediatrician Fatima Jiwa, M.B., Ch.B, joined the MMA as a new doctor in 2001 not out of great passion for organized medicine, she says, but because her physician group paid for it. At first, she wasn't quite sure of the organization's value, but her interest in culturally sensitive health care led her to the MMA's Committee on Minority and Cross-cultural Affairs, which she chaired for three years, and then to the Board of Trustees as an at-large member.

Yet she sometimes questioned the value of an association that operated with lots of formality and did not appear to reflect the full complexion of the state's doctors or passions. "When you went to the board meetings, you noticed you were in a group of middle-aged male physicians, a majority of whom are white," she says. "I don't want to discount physicians who are near retirement and who happen to be white. They've got a lot of wisdom. But it can be daunting."

Meanwhile, she says, her young physician peers were focused on patient care and didn't want to spend time serving as an MMA delegate or a committee member. "Many of the issues discussed in those meetings would not relate directly to a young physician's own clinical interests, or they couldn't see the value of a broad association that operated more like a big black box than a participatory forum."

Jiwa became a part of a task force, created in 2011, to evaluate how the MMA made decisions. Two years earlier at a board retreat, a consultant had suggested the organization's governance wasn't in step with the changing realities of medicine. As it turned out, many state medical associations were also struggling to stay relevant. Their struggles reflected a broader decline of all types of membership organizations whose lifeblood of volunteer staffing, face-to-face meetings and slow, risk-averse governance was often at odds with 21st century realities, says Harrison Coerver, a management consultant in Florida and co-author with Mary Byers of the 2011 book *Race for Relevance.* That book, which was used by the MMA governance task force, recommends empowering staff to represent members, building technology to reach members more quickly and, most of all, trimming old governance structures.

"You ask those doctors why do we have annual regional delegate meetings? Because in 1890, when the physician finished with his meeting, he—and it was a he—got on his horse and rode back to his home," Coerver says. "We are in a health care environment that is changing so rapidly that you can hardly keep track of it,

and yet you are going to get the group together once a year to set policy and make decisions? That's ludicrous."

A House divided

When the initial task force introduced its recommendations at the 2012 annual meeting—with the House of Delegates in the crosshairs—some longtime members were stunned. Nearly everyone recognized the delegate body's inefficiencies, and various resolutions through the years had been aimed at fixing those problems.

"AS SOMEWHAT INEFFICIENT AS IT USED TO BE, THE HOUSE OF DELEGATES AT LEAST GAVE ME A REASON TO SHOW UP ONCE A YEAR, GET TOGETHER, HEAR THE REPORTS. IT GAVE ME A CHANCE TO MEET THE LEADERSHIP."

—JIM DEHEN, M.D.

But axing it was strong medicine. "It was a controversial meeting," Meiches acknowledges. "Think about it. It's sort of like the U.S. Senate saying we're not needed any more and we're going to step aside."

Defenders of the House of Delegates argued the yearly delegate discussions and votes were part of a critical democratic right of members. They pointed out the AMA had a similar process that was highly successful.

The House of Delegates was especially important to rural physicians who were not connected to medical communities in metropolitan areas. "As somewhat inefficient as it used to be, the House of Delegates at least gave me a reason to show up once a year, get together, hear the reports," says Jim Dehen, M.D., a surgeon in Brainerd and a former MMA president. "It gave me a chance to meet the leadership."

That year, the delegates opted for a partial decision. Before adjourning through the kitchen, they agreed to shrink the size of the board from 33 to 14 members over three years and reshape it to reflect not only geography but also diversity, gender, type of practice or other expertise. The delegates also approved outreach efforts such as policy forums. But they stopped short of abolishing the House of Delegates, saying the idea needed more study.

When a second task force was formed and proposed the same recommendations a year later, a vigorous debate had already begun among MMA members. Some expressed concern the association's staff was steamrolling the recommendations to gain more

power. Others argued radical change was the only way to address problems. Debate ran strong at the 2013 annual meeting. In the end, delegates approved a recommendation that the House of Delegates be suspended temporarily and that it reconvene in 2016 to assess the success of the changes, which the MMA staff must clearly demonstrate in a report. The 40-member Policy Council, which meets at least twice a year, was also created as a kind of replacement for the waylaid delegate body.

After the meeting, a few longtime MMA members dropped their membership.

Dehen, who kept his and now sits on the new Policy Council, says he's worried that the suspension will be for good. Indeed, no other state medical association has reinstated its legislative body after disbanding it. No physicians in the state are mobilizing to resurrect it.

"Worst case scenario is that these changes are a failure. How do you reconstruct the House of Delegates when delegates have been out of the loop for three years?" he asks. "It's a lot easier to keep a customer than to get them back."

Creating a new order

MMA staff say most members don't think about governance. They think about what the MMA is doing for them. And for now, they say, they are working hard to connect with members in new and improved ways.

Since March of last year, staff and officers have organized seven policy forums and have held more than 46 listening sessions with doctors in practices small and large all through the state. Those activities alone have engaged more than 300 physicians, MMA staff say. In late July, the association's more than 9,000 members received email ballots for officers and delegates, a job formerly reserved for the House of Delegates. By mid-August, more than 300 ballots had been cast, more than three times the number cast by delegates who attended the annual meetings in recent years.

Younger doctors are clearly a target of staff efforts. In the past year, for example, the organization has sponsored sessions on contracts and financial planning, social events and a discussion about grassroots political action for residents.

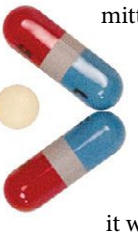
"We are very interested in advocacy issues, but there's a lot of uncertainly about how to get involved," says Matthew Kruse, M.D., a third-year psychiatry resident at the University of Minnesota who was recently at the MMA offices to learn about political activism with two colleagues. Leading the discussion was the MMA's energetic newly hired manager of grassroots political engagement, Evelyn Clark. Joining her was Nicholson, the same young physician who had expressed such frustration at the late-running 2012 House of Delegates meeting. He now serves as secretary of the MMA's political action committee, MEDPAC.

"I certainly have lots of passionate colleagues who are interested in being involved in organized medicine," Nicholson says, "but there were a lot of ways we did things that weren't that appealing to folks. The governance changes are going to offer inroads to more people."

Indeed, MMA staff say the new methods are already proving useful. Earlier this year, when the Legislature began considering a bill to legalize medical marijuana, the association held a policy forum on the issue. The discussion, as well as an online survey sent to all members, quickly shaped the MMA's opposition to the bill's early versions, says Dave Renner, director of the association's department of state and federal legislation.

"It was very helpful," Renner says of the forum, where participants discussed the issue and then used clickers to register their opinion. "It engaged our members in the issue more. We had a really good substance-based discussion on the pros and cons."

Dionne Hart, M.D., a psychiatrist from Rochester who has been active in the MMA since her residency seven years ago, says a June policy forum on health disparities energized minority physicians in a way she had never seen before. For years, Hart served with what she called "the same soldiers" as chair of the MMA's Minority and Cross-cultural Affairs Committee. When that committee was disbanded in May, Hart and others organized the disparities forum, hoping for at least 20 participants. More than 70 showed up.



"It was packed," she says. "And it wasn't just physicians in the room. It was social workers, community activists, hospital administrators, members of the LGBT community. It was a group of people we could not have captured with the committee model we had."

The MMA also has begun using technology to make it easier for members to participate in events virtually. It tested live streaming capabilities in August during a forum on single-payer health care that drew groups from as far as Detroit Lakes and Duluth.

Yet Hart and others remain concerned about what seems like the inevitable loss of the House of Delegates. Her experience as a delegate to the AMA, she says, has shown her how individual vot-

ing power inspires physicians to engage with issues more deeply. The new Policy Council, with its nonbinding recommendations, doesn't offer the same stakes.

V. Stuart Cox, M.D., a current MMA board member, says he worries the loss of member voting power may have driven out a cadre of committed older physicians without necessarily inspiring new ones. "Basically you're disenfranchising the members. If they don't feel they have any say, they're less likely to be involved," he says. "These public policy forums are nice and informative, but if physicians don't have any way of exercising power, why are they paying their dues?"

MMA CEO Meiches, for one, says he understands those concerns. But he contends the new structure will still permit individual proposals to prevail if they are compelling. Resolutions can be submitted to the Policy Council. Recommendations adopted by the council with a two-thirds majority cannot be rejected unless two-thirds of the board votes to do so. "We will still have an opportunity for people to bring forward other issues and throw those into the pot," he says. "Some of those, my guess is, will move up to the top, and some won't go anywhere because they won't be viewed as key. But it will be a much more robust and nimble process."

Meanwhile, the MMA is just beginning to figure out how to measure success. Membership numbers are a big metric.

"The success of membership is the key thing that tells us we're moving in the right direction," says Terry Ruane, the MMA's director of membership, marketing and communications. "If we continue to get members because of the things we do, then we're succeeding. If you do all these things and nobody comes, then have you truly succeeded?"

Although it's too early to tell, Ruane says he's already seen encouraging signs. This year, membership has inched 3 percent above what was forecasted. New groups, including the 82-member Mankato Clinic, have joined. At forums or in small-group discussions, people just seem more interested in the MMA's work, he says.

MMA president Cindy Firkins Smith says she's confident the changes, as controversial as some were, will ultimately inspire more doctors to engage with and join the MMA.

"Any time you make major changes in an organization, it's a struggle," she says.

She sees the MMA's niche as advocating for patient care in a way that transcends the siloes of specialty and practice size. "Physicians are not a homogenous group. Clinically we are extremely diverse. But no matter what our work or our political view or our practice specialty, at the end of the day, we want to do what's best for our patients." **MM**

Gayle Golden is a Twin Cities writer.

REGIONAL RELEVANCE

MINNESOTA'S COMPONENT MEDICAL SOCIETIES RECONSIDER THEIR ROLES.

BY KIM KISER

The Blue Earth County Medical Society hadn't held a meeting in nearly two years when the IRS came calling. A 2009 rule change required the society to submit paperwork, including its original statement of incorporation from 1869, to justify its status as a tax-exempt 501(c)(3) organization or pay thousands of dollars in back taxes.

Tom Drake, M.D., a retired Mankato ophthalmologist, who had been president "more by default than anything else" for the last 15 years, questioned whether it was worth the effort and toyed with dissolving the organization. With only 37 practicing physician members and 28 retired members, the society had been stagnating. "It's been very hard to keep it going," he says.

Drake informally polled the membership about what to do. The consensus: Keep it alive, if for no other reason than to support the Dr. W. C. Stillwell Foundation, which the society helped create in 1982. The Stillwell Foundation provides financial assistance to medical students from southern Minnesota. "We made frantic efforts to make sure we could stay viable for the sake of the foundation," he recalls.

Drake was able to make that happen by joining forces with other societies from southwestern Minnesota. Last fall, those organizations merged and became the Prairie Medical Society with the idea that as a larger, regional organization, they will be able to thrive and make a difference for physicians and patients in their part of the state (see "Prairie Medical Society: Stronger Together, p. 28).

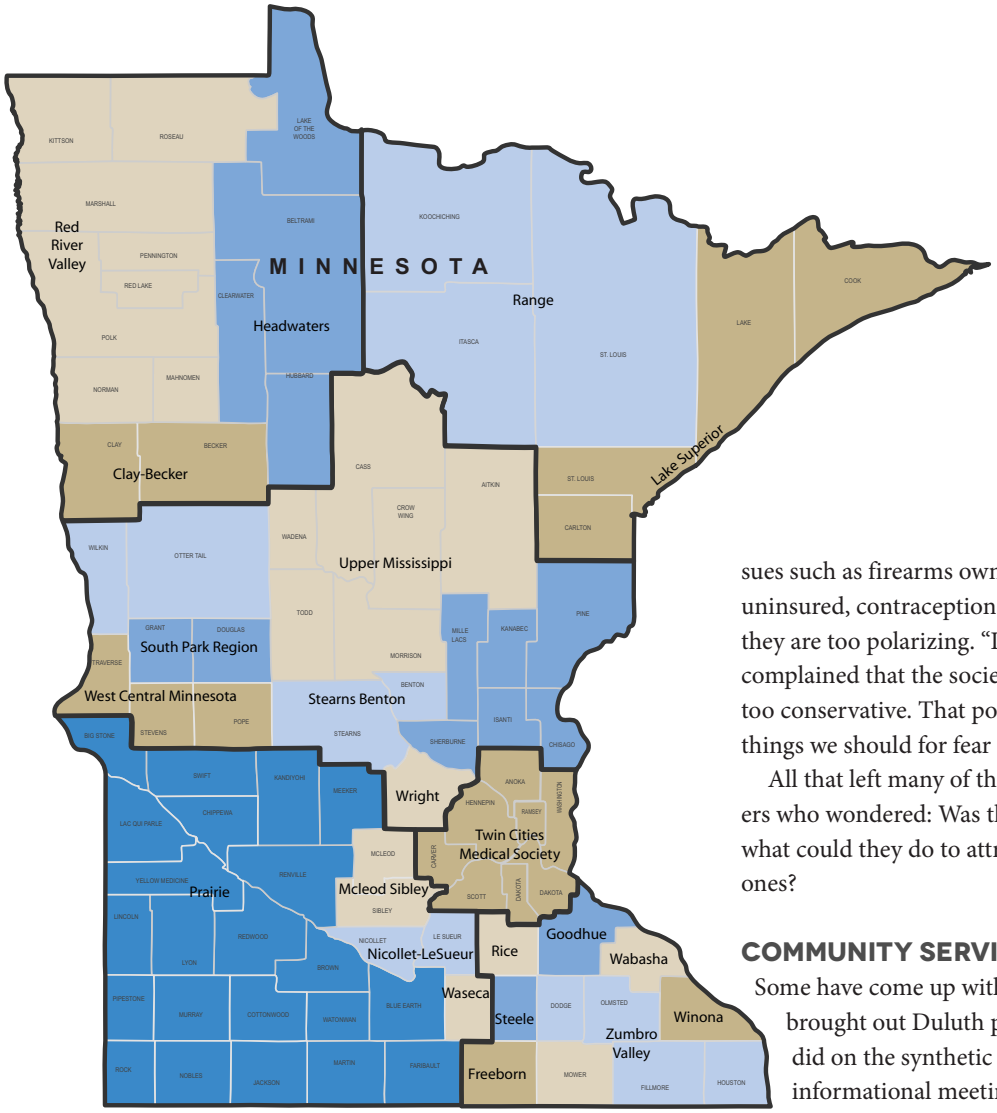
THE RISE AND FALL

The Prairie Medical Society is one of 22 component medical societies in Minnesota. Those societies serve as the regional or local arms of the MMA, as physicians who join the MMA also are members of their component society. For most of their history, the component societies sent resolutions on policy to the MMA's House of Delegates. They also appointed delegates, who voted on whether to turn those resolutions into initiatives or policy. (Following the MMA's governance change last year, they now appoint representatives to a Policy Council and submit ideas to the Council for consideration.)

Until about eight years ago, the Blue Earth County Medical Society met regularly for social time, business and, sometimes, continuing education. "In the hey-day, many of the society's 80 to 100 members attended our monthly meetings," Drake recalls. But times changed. Rather than spend their evenings with colleagues, more and more physicians—especially younger ones—wanted to spend them with their families.

"There are so many demands on our time that getting together for a meeting is another time-sink many physicians would like to forgo," says Cindy Firkins Smith, M.D., a dermatologist from Willmar and MMA president, who also helped create the Prairie Medical Society.

Larger shifts happening in and beyond medicine have had an even more profound impact on component society membership and involvement. When David Sproat, M.D., an internist with St. Luke's in Duluth, joined the Lake Superior Medical Society in 1979, "everyone was involved." "You came to town, you joined a practice and it was just part of the lifestyle. We paid the dues for



MINNESOTA'S COMPONENT MEDICAL SOCIETIES

membership out of our practice income. That was standard for everyone back then," he says.

That changed when larger organizations began buying up smaller groups and solo practices. Those systems stopped paying membership fees as part of a physician's employment package. Physicians began to rely on their employers for many of the benefits they once got from the MMA and their component society.

"A lot of those physicians felt their large organization had plenty of political and financial clout to do things for their profession that their medical society used to do," says Pat Zook, M.D., a family physician with the St. Cloud Medical Group and president of the Stearns Benton Medical Society (SBMS). "They felt less of a need to have a medical society to rally behind."

Consolidation also chipped away at the collegiality that was once the currency of component societies. "Specialists no longer need to maintain a relationship with their referral sources," Sproat says. "We're all part of the same system."

The political culture in recent years may have turned people off from their local societies and in some ways paralyzed them. Sproat says it's become impossible to discuss public health issues such as firearms ownership and suicide rates, caring for the uninsured, contraception and abortion, and end-of-life because they are too polarizing. "In our society, we've lost members who complained that the society either was too liberal for them or too conservative. That polarization prevents us from addressing things we should for fear that if we do, we could lose members."

All that left many of the component societies with aging leaders who wondered: Was their organization still relevant? And what could they do to attract physicians—especially younger ones?

COMMUNITY SERVICE

Some have come up with answers. Sproat says one thing that brought out Duluth physicians was a program the society did on the synthetic drug problem in the area. "It was an informational meeting just for physicians, and it was one of the most widely attended meetings the society has had for some time," he says. About 40 physicians attended. He says it's the kind of topic health systems in the area hadn't addressed. "Our industry is now focused on generating revenue and not providing public health," he says. "Public health could be a role for us."

Zook agrees. During a pertussis outbreak in the St. Cloud area in 2012, he saw an opportunity for the SBMS to take the lead on getting people vaccinated. He approached representatives from the medical, public health and business communities and launched the Central Minnesota Immunization Campaign.

With $10,000 in grant money from the CentraCare Foundation and SBMS, they created clever posters, placed ads in the newspaper, and provided clinics and pharmacies with information cards they could hand to patients and customers. Zook approached physicians personally, asking them to display the posters, staff information booths at public events and volunteer to work at mass vaccination events.

"We included the whole medical community—public health people, nurses, social workers, school nurses," he says, "and that helped." Among the physicians he approached were two Spanish-speaking doctors who had not been involved with the medical

society previously but who agreed to help at a Latino health expo; he also involved physicians from the VA, who hadn't been active with the society and who hadn't had much contact with other physicians in the community.

The society recently began another public health campaign, this time focused on opioid abuse. Zook worked with the sheriff's department on two medication drop-off events in August, during which people could safely get rid of unused drugs. He and others from SBMS are also trying to develop a prescribing policy for opioids and other controlled substances. He says they'll try to enlist members to introduce the policy to medical groups in the area.

Zook says addressing public health is one way component societies can remain relevant and raise their profile in the community. "We need campaigns around issues that have something for everyone," he says.

Sue Schettle, CEO of the Twin Cities Medical Society (TCMS), figured out that preventing exposure to second-hand smoke was one of those issues. Schettle was serving as project director for the smoke-free initiative in Hennepin, Washington, Ramsey and Scott

PRAIRIE MEDICAL SOCIETY **STRONGER TOGETHER**

Tom Drake, M.D., wasn't alone in dealing with an IRS rule change, requiring not-for-profit organizations such as the Blue Earth County Medical Society to prove their tax-exempt status. Nor was he alone in soul-searching over whether the society, of which he served as president for the last 15 years, could or even should survive.

Cindy Firkins Smith, M.D., a dermatologist from Willmar and a member of the Mid-Minnesota Medical Society, was wrestling with the same issues. "It was traumatic," she says.

Thinking it might be best to work together to meet the IRS's requirements, Smith contacted Drake and leaders (or the last-known leaders) of other local or "component" medical societies in southwestern Minnesota about hiring an accounting firm to walk them through the process. "I didn't want to see the organizations die," she says of the societies, which have a direct line to the MMA in terms of setting policy. "We sit out here isolated geographically from the hub of activity. If we don't have any representation [at the MMA], it was my opinion that our voices wouldn't be heard."

Because of Smith's efforts, six component societies (Mid-Minnesota, Lincoln-Lyon, Camp Release, Blue Earth County, Blue Earth Valley and Southwest) combined to form the Prairie Medical Society last year. (The Brown County Medical Society is in the process of joining.) The new society will include 364 physicians from 22 counties (including Brown County) from the southern and western parts of the state.

In July, Smith received a letter from the IRS allowing the Prairie Medical Society to move forward with electing officers, writing bylaws, formulating a mission and vision, and hiring part-time staff. Smith hopes that having one large society encompassing physicians from an entire corner of Minnesota will revive interest in organized medicine in the area. "When I contacted people about giving ideas for how to jump start the organization, they were excited," she says.—K.K.

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And see how the MMA is helping the cause at **www.mnmed.org/choosingwisely**.

Minnesota Medical Association

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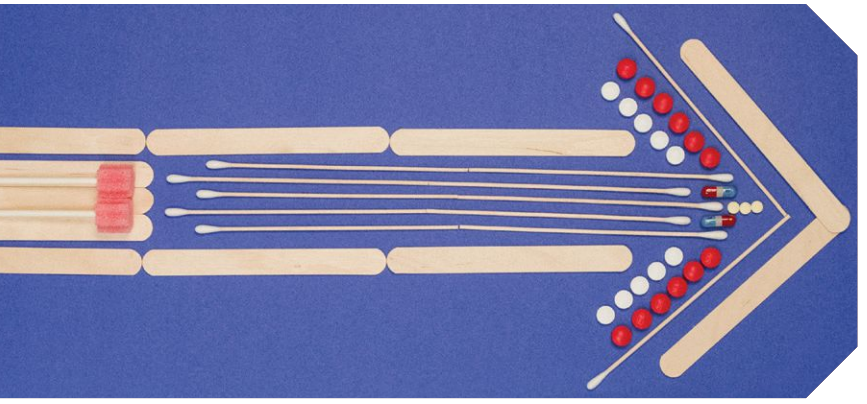
counties, when the City of Minneapolis was considering banning smoking in public places including bars and restaurants in 2004. Schettle and her staff sent out a postcard to members of what were then the East Metro and West Metro Medical Societies (they merged in 2010 and became the Twin Cities Medical Society), asking if they wanted to help with the campaign by learning more, contacting their elected officials, or being trained to speak at public events or testify at public hearings about the harmful effects of second-hand smoke. "We had more individual physicians and medical students step forward and volunteer than we've had for anything else we've worked on," she recalls. "Over 400 volunteered within a week."



"THE HEALTH CARE SYSTEMS THAT EMPLOY THOSE PHYSICIANS ARE SUPPORTING THE MEDICAL SOCIETY BY VIRTUE OF FUNDING THIS INITIATIVE."

– SUE SCHETTLE, TWIN CITIES MEDICAL SOCIETY CEO ON ITS HONORING CHOICES INITIATIVE

Later that year, Minneapolis banned smoking in public areas. Three years later, following pressure from the medical community, including the MMA, the state Legislature approved a similar statewide ban.

Schettle says TCMS hopes to replicate the model in an effort to ban the use of e-cigarettes in public places. "I see a clear path to replicate what we did with tobacco with e-cigarettes," she says.

BEYOND BOUNDARIES

But the game-changer for TCMS has been its Honoring Choices initiative, which started in 2008. Schettle recalls when Bob Moravec, M.D., presiding over his last meeting as president of the East Metro Medical Society's Foundation, suggested bringing Respecting Choices, a program created by Gunderson Health System in LaCrosse, Wisconsin, to the Twin Cities. Respecting Choices encourages patients and their families to have informed conversation about advance care planning. It uses trained facilitators to help patients and their families have those discussions.

"It seemed like a win-win," Schettle recalls of their decision to adapt the program and call it Honoring Choices Minnesota. "It was a leadership role we could take on, it would raise our profile with members and we might get some philanthropic dollars to support operations—and that could lead to other things we wanted to do."

Schettle and then-president Kent Wilson, M.D., went to the health systems and insurers in the metro area asking for support. "Some of the systems have aligned advance care planning with their strategic goals. Because of that, they've allocated dollars and resources to support advance care planning," she says. And when health systems support something at the corporate level, they encourage their physicians to support it as well.

TCMS members, including Wilson, currently serve as advisors for the program and encourage their patients to meet with volunteer facilitators who can help them articulate and share their wishes. "We have physicians opening doors to their networks and clinics," Schettle says. "It's a different level of involvement—it's not about advocacy, it's about patient-centered care."

Since Honoring Choices Minnesota began, more than 1,700 volunteer facilitators have been trained. Those facilitators go into hospitals, clinics, senior housing facilities, churches, community centers and other venues throughout the state to spread the message. "It has taken on a life of its own, and there's no end in sight," Schettle says, explaining that two of the five full-time staff at TCMS are devoted to the statewide initiative. "We are now connected to all the health and human services organizations, to hospice and palliative care, to other groups that share a similar

(FROM LEFT) Ken Kephardt, M.D., 2014 Honoring Choices Medical Director; Edwin Bogonko, M.D., 2013 TCMS President; and Sue Schettle, TCMS CEO

mission. TCMS would not have had those connections had it not been for Honoring Choices."

Recently, Schettle asked the funders to continue supporting Honoring Choices Minnesota for the next three years. "Even though we're not benefiting from dollars from individual dues-paying members," she says, "the health care systems that employ those physicians are supporting the medical society by virtue of funding this initiative."

REINVENT OR NOT?

It's hard to say whether the commitment to Honoring Choices Minnesota has drawn more physicians into TCMS. Schettle says if it has, the numbers aren't significant. (Today, membership stands at 4,538; it peaked at more than 6,000 within the last 10 years.) "I'm hearing from a lot of physicians who recognize the importance, and I hear from system leaders and physicians who understand the need and appreciate that TCMS has taken on this work," she says.

The success of Honoring Choices Minnesota has prompted Schettle and others to question what the role of a component medical society should be: Should it focus on population health initiatives? Should it continue to focus on advocacy, education and promoting the profession? Is there a way to do both?

"My colleagues across the country are all struggling with similar questions," Schettle says. In August, she spoke to them about the model for Honoring Choices Minnesota at a national conference in Louisville, Kentucky. She says medical societies in Wisconsin, Virginia, Oregon and Washington are among those that are implementing Honoring Choices or similar programs.

Schettle's answer is to be bold. "I think to survive, component medical societies have to be courageous leaders," she says. "They have to step out of their comfort zone and do something that's a little risky to remain relevant." MM

Kim Kiser is an editor of *Minnesota Medicine*.

One version of the trilogy

A reflection on the cycle of life

BY CHARLES BRANSFORD, M.D.

Throughout my whole life, during every minute of it, the world has been gradually lighting up and blazing before my eyes until it has come to surround me, entirely lit up from within.

—PIERRE TEILHARD DE CHARDIN

My friend Jeff died a year ago, and his wife, some other close friends and I placed some of his ashes on our local golf course. His ashes also were sent via friends to Nepal, dropped in Lake Superior and, recently, cast into his beloved St. Croix River. But there is no more appropriate place for Jeff's cremains than the copse below the elevated tee box at hole No. 13 on the Stillwater golf course.

Jeff and I hit shot after shot into the woods there while we were learning the game. We always gave each other at least three chances, shouting encouragement and, if requested, advice to each other. In the fall, the oaks, maples and birches in the copse mix and match their palate of colors with the ever-changing hues of blue in the sky dappled with inconstant clouds—true impermanence, but as real and relevant as the seemingly never-changing mountains of our earth.

Whenever I reach the 13th tee, I feel Jeff's presence. We met as 50-year-olds recovering from life-threatening illnesses—me leukemia and Jeff prostate cancer. We became children together as we learned the miraculous game of golf. For the first year, we spoke of nothing but the game. We never kept score but read about golf incessantly, took an occasional lesson, bought the latest clubs, took golf trips and behaved as little boys. It was at least one year before we began to delve into our personal stories, and when we did our friendship deepened.

When Jeff died, I watched him transform into pure spirit, and that set me to thinking—always a dangerous thing for me. I pictured three equal circles arranged in a triangle and overlapping—body, mind and spirit. The essence of us at any given time is the area where the circles overlap.

The births of my grandsons, Niko and Charlie, were matters of pure spirit—the divine coming down to earth, as it does when every child is born. We humans all recognize this divine event and revel in these new arrivals. As I picture things, their spirit circle is huge, and the circles representing their mind and body are tiny. As they grow, their speech and mannerisms and intoxication with the little things in life bring us boundless, endless joy, and we continue to experience the divine when we're in their presence.

Eventually, the child's body grows, much to their delight, and the ego takes its rightful place at the head of the class. In my scenario, as mind and body grow, spirit diminishes. It seems to be an inevitable law of physics. Nothing is ever lost or gained in this universe. So we develop our bodies as best we can, unintentionally lessening mind and spirit. As we age, our mind and body circles shrink.

Modern-day wellness literature suggests that if we eat properly (pure, organic and fresh), take the perfect vitamin combination, run marathons and follow the ever-changing whims of our current gurus—Dr. Oz or Andrew Weil or Adelle Davis in my grandmother's day—we can avoid physical decline. But no matter how much Fosamax, vitamin D or calcium we take or how much exercise we engage in, the body does shrink and weaken. Skeletal

2014 **Writing Contest**
HONORABLE MENTION

Charles Bransford practices general internal medicine and hospice and palliative medicine at the Stillwater Medical Group in Stillwater.

On writing:

I started writing in earnest in 2001 after developing acute leukemia and trying to find ways to come to grips with my illness. Writing turned out to be my way. It helps connect me to my soul, which tends to be a shy little creature intimidated by my overbearing ego. I believe we have to bring medical humanities back to the center of patient care.

This piece was inspired by my connection to several remarkable people either at death or close to death—particularly my best friend Jeff. I hope to inspire more physicians to stick with their patients when they are dying and not feel overwhelmed by the dying process. Stay close to your dying patient—their death does not mean that you were a failure.

muscles, lungs, heart and brain shrink and lose function. As a 62-year-old who has removed the docks at our lakeside cabin for 25 years, I can attest to that.

What about the mind? For modern folk, the mind remains the biggest circle for the longest period of time. The ego dominates with limitless expectations, so we're always working to better our families and ourselves. Spirit and body shrink as the mind grows. The mind certainly has been my master. I've tried to grow it with the arts, reading, writing, reason, mindfulness, yoga, you name it; but now it too is waning, no matter what I try.

This all seems quite depressing until I remember that the spirit grows as the mind and body shrink. It seems true for me. During times of meditation, prayer and sleep, I have more spiritual feeling, and that gives me great hope.

This brings me back full circle to death, which I see as a portal to the spirit. At death, everyone returns to full spirit. Being around a person actively dying from a chronic illness brings us directly into contact with pure energy. When Jeff was dying, I could feel his energy leaving, gradually emanating from him over several days. Being in the presence of this energy can be quite comforting.

Recently, I had a vivid dream. I saw three golden circles floating like bubbles in a blue sky; wherever the three circles came together, an emerald light appeared. Then the circles turned into spheres, gliding randomly across the blue landscape. Again, when they came together, there was a healing emerald light. When all three spheres merged, the single dark sphere they formed was surrounded by an intense flame, like the moment of a full solar eclipse. When I woke from the dream, I thought of my patient Ludfi.

Ludfi is a perpetual solar eclipse of a man. His body, mind and spirit are equally strong. He has a smile and laugh like the Dali Llama's, and he can't wait to hear about what's going on in my life. When I'm with him, I feel like I'm the most important person in the world.

Ludfi grew up in South Africa with schoolteacher parents who held education above all other values. He attended an English school, developing a wonderful accent that convinces Midwesterners he speaks the truth. His mother was a non-practicing Muslim but encouraged him to attend the local Mosque. His dad was a Jew who loved Jewish history but not the rules of orthodoxy. Ludfi visited the Jewish temple down the street as well as a lively Hindu one. The remarkable thing about Ludfi was that everyone welcomed him. Later, he was exposed to the Bahai religion, which became his favorite.

Looking at Ludfi, who is a vegetarian, you would never guess his heart has only 20 percent function or that he and his wife care for twin sons, now in their 20s, who suffer from a severe form of autism called Williams syndrome. They require 24/7 care. Ludfi shouldn't be happy, but he's the happiest man I know. There's a certain contentment with life that emanates from him. I guess some people merge all three spheres—mind, body and spirit—and become the Ludfis of the world.

I know that Jeff's spirit lives on in me and that our spiritual energy is never lost. But I have many questions about this trilogy—we get glimpses of the sandy bottom of eternity but never a full picture, and that's what keeps us going. And my life hasn't been the way de Chardin describes his. I haven't felt lighter with every passing minute. Rather, I've ridden a saw-toothed rhythm not unlike Torsades de pointes, the tachycardia whose name means the twisting of the spikes or the turning of the points, after its pattern on the ECG. I have gone back and forth, up and down. At one point led by body, at another point led by mind, always with a gentle prodding from that unknown spirit emanating through the crack between the worlds.

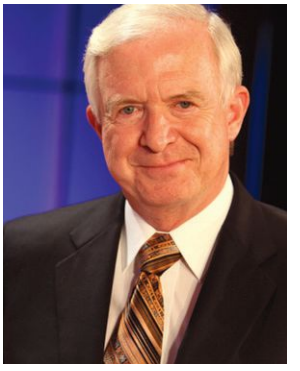
So it appears we humans have a life cycle of spirit, mind/body and spirit, and that the energy given off by a dying person has a healing effect that can help families and friends find meaning and hope. This can be their final gift. **MM**

Thriving IN Change

Meeting the challenges of modern medicine

Dike Drummond, M.D.

National speakers



John Nance, J.D.

Quint Studer

2014 ANNUAL CONFERENCE PREVIEW

Big changes for MMA's annual gathering

What's new about the MMA's annual get-together? First off, there's the name: the Annual Conference. But that's just the beginning of the changes planned for what was once the Annual Meeting.

"This year's Annual Conference is nothing like the MMA has ever seen before," says Cindy Firkins Smith, M.D., who will hand off the presidency to Donald Jacobs, M.D., at the event. "We need to change with the times, and that's what we're going to do," she says.

During the past year, the MMA convened a group, which included Smith, to create an event that would attract a more diverse audience. In order to appeal to and attract a good cross-section of the membership, this year's Annual Conference, which takes place September 19 and 20 at Madden's on Gull Lake near Brainerd, will include the following:

National and local speakers

For the first time, the Annual Conference will feature nationally known speakers who will address timely and relevant topics. Best-selling author Quint Studer will discuss creating a culture of excellence and sustainability on Friday morning. He will be followed by John Nance, J.D., an attorney, pilot and ABC News analyst, who will discuss patient-centric care. During the Saturday morning breakfast, Dike Drummond, M.D., will talk about burnout-proofing your career.

Gubernatorial debate

Following Studer and Nance, the conference will host a debate between the gubernatorial candidates. The event, which will be taped for broadcast later, will likely address several health care-related topics.

Three policy forums

Friday afternoon will be devoted to three stimulating forums. Attendees can choose between two-hour forums on telehealth expansion or the future of the health care workforce in the early afternoon. The second part of the afternoon will be a 90-minute open issues forum, where various submitted proposals will be discussed. The MMA solicited input from members and specialty and component medical societies over the summer.

President's inaugural

On Friday night, the conference will continue with the tradition of holding the president's inaugural dinner, at which Donald Ja-

cobs, M.D., will be welcomed as the new MMA president. The dinner will also include presentation of MMA Foundation awards for distinguished service, community service and the president's award, along with music by The New Prescriptions, a five-piece group of Hennepin Health Care professionals.

Educational programs

Over the two days, attendees will be able to earn 8.5 CME credits. In addition to the sessions featuring Studer and Nance, participants can attend Saturday sessions on physician leadership, digital innovations and physician wellness.

Poster session

The Annual Conference will also include a poster session featuring the work of Minnesota medical students, residents and fellows. Attendees will have several opportunities to view the exhibits, talk with the poster creators and vote for a "people's choice" award winner.

Family fun

Madden's is a family-friendly venue, offering activities for kids of all ages, including golf, tennis, fishing, croquet, lawn bowling, trapshooting, biking and boating. The resort also has an indoor swimming pool and a complete spa. In-room babysitting is available. Madden's offers Adventure Cove with programs designed for children ages 4 to 12.

News briefs


Kathleen Brooks, M.D.

Members to advise governor on U's Medical School

Five MMA members have been named to a Blue Ribbon Committee tasked with advising Gov. Mark Dayton and the 2015 Legislature on strategies to ensure the University of Minnesota medical school is a national leader in medical training, research and innovation.

The individuals are **Kathleen Brooks**, M.D., director of the Rural Physician Associate Program at the University of Minnesota medical school; **Jay Brooks Jackson**, M.D., dean of the medical school and vice president for health sciences; **Cindy Firkins Smith**, M.D., MMA president, dermatologist and University of Minnesota faculty member; **Richard Migliori**, M.D., chief medical officer at UnitedHealth Group; and **Jon Pryor**, M.D., CEO, Hennepin County Medical Center.

Dayton has charged the committee with providing specific policy and budget recommendations to be considered during the 2015 legislative session. Those recommendations will be focused on the following goals:

- Ensuring the medical school's national preeminence by retaining and attracting world-class faculty, staff, students and residents
- Sustaining the university's national leadership in medical research, health care innovation and delivery, and capitalizing on the state's investments in biomedical research
- Expanding the university's clinical services to strengthen its ability to serve as a statewide health care resource for providers and patients, as a training site for health professions students and residents, as a site for cutting-edge clinical research, and as a source of critical funding for the medical school and health sciences programs
- Addressing the state's health care workforce needs, including the need for more primary care physicians to care for a growing aging population and for people with chronic health problems.

TCMS leader asked to chair task force on immigrants


Edwin Bogonko, M.D.

Edwin Bogonko, M.D., immediate past president of the Twin Cities Medical Society, was named chair of the state's new Task Force on Immigrant International Medical Graduates.

The group is charged with developing strategies to integrate refugee, aslyee and other immigrant physicians into Minnesota's health care delivery system.

According the Minnesota Department of Health website, the group will:

- Analyze demographic information on current medical providers and compare it with data on the state's overall population
- Identify, to the extent possible, foreign-trained physicians living in Minnesota who are refugees or asylees and interested in meeting the requirements to enter medical practice or other health careers
- Identify costs and barriers associated with integrating foreign-trained physicians into the state workforce
- Explore alternative roles and professions for foreign-trained physicians who are unable to practice in Minnesota
- Identify possible funding sources to integrate foreign-trained physicians into the state workforce as physicians or other health professionals.

The task force is expected to issue recommendations to the Commissioner of Health and the Legislature in January 2015.

Upcoming MMA Events

Event	Date	Location
Annual Conference	September 19-20	Madden's on Gull Lake, Brainerd
Medical Malpractice Discussion	October 2	University of Minnesota's Continuing Education and Conference Center, St. Paul
Pre-Diabetes Conference	October 7	Ramada Plaza Minneapolis
Choosing Wisely Guthrie Workshop	October 11 *OR* October 30	Guthrie Theater
Quality Measurement Summit	October 25	Double Tree by Hilton, Bloomington

Check the MMA's website (www.mnmed.org/events) for more information and to register.

The MMA, Guthrie, Choosing Wisely and you

The MMA is teaming up with the world-renowned Guthrie Theater in Minneapolis to offer two free half-day workshops at the theater on October 11 from 8:30 a.m. to noon and October 30 from 2:30 to 6 p.m.

The workshops are designed to help physicians better communicate with patients and engage in shared decision-making, in support of the Choosing Wisely approach. Participants will build skills they can use when communicating with patients about the best tests, treatments and procedures for them.

Participants at a workshop last April called the event "the best thing for patient satisfaction ever" and a "great use of my time."

For more information and to sign up, visit www.mnmed.org/Advocacy/Choosing-Wisely/Guthrie.

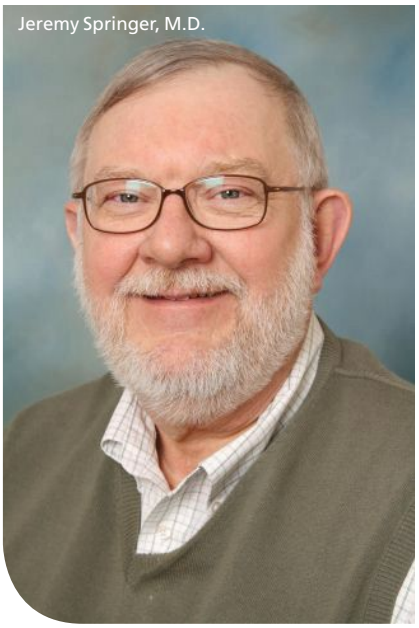
Conference on patient safety set for October

The Minnesota Alliance for Patient Safety (MAPS) will hold the region's leading patient safety conference on October 23 and 24 at the Minneapolis Marriott Northwest in Brooklyn Park.

The conference, "Safe care. Everywhere," is designed to provide practical strategies for accelerating and sustaining advances in patient safety. It will include a series of breakout sessions on patient safety issues and educational poster displays.

Founded in 2000, MAPS is a statewide coalition working to make health care safer for patients. The MMA is a founding member. For more information and to register, go to mnpatientsafety.org.

MMA meets with state health care workforce commission


Jeremy Springer, M.D.

The MMA took part in the first meeting of the Legislative Health Care Workforce Commission in July. The group is exploring ways to address the looming primary care physician workforce shortage.

Jeremy Springer, M.D., chair of the MMA's Primary Care Physician Workforce Expansion Advisory Task Force, presented an overview of the state's primary care physician workforce shortage. He also included background on the MMA task force's work and discussed its recommendations for expanding the primary care workforce.

The commission is specifically charged with:

- Identifying current and anticipated health care workforce shortages by both provider type and geography
- Evaluating current and potential incentives to develop, attract and retain a highly skilled and diverse health care workforce
- Identifying current causes of the primary care workforce shortage including, but not limited to, training and residency shortages, disparities in income between primary care and other providers, and negative perceptions of primary care among students.

Malpractice discussion set for October

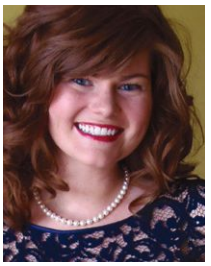
The MMA will host a discussion on malpractice on Thursday, October 2, from 6:30 to 8:30 p.m. at the University of Minnesota's Continuing Education and Conference Center in St. Paul.

"Defending Your Practice against Malpractice" will feature Shelly Davis, B.S.N., J.D., senior claims manager at MMIC.

Cost is $25 for members, $40 for nonmembers, and $15 for students and residents. The event will be live-streamed. To view it online is $15 for an individual, $50 for a group.

To register for either the in-person or live-stream event, visit www.mnmed.org/malpractice.


Cindy Firkins Smith, M.D.


Evelyn Clark, J.D.

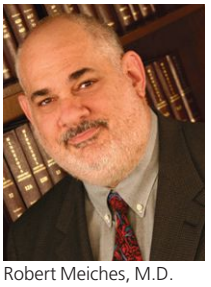

Brian Strub


Eric Dick


Terry Ruane


Barbara Daiker


Dave Renner


Robert Meiches, M.D.

MMA in action

Cindy Firkins Smith, M.D., MMA president, and **Brian Strub**, MMA manager of physician outreach, met with Essentia Health leaders in Duluth in late July. Smith also spoke at the Twin Cities Miles for Melanoma 10K in early August.

Terry Ruane, MMA director of membership, marketing and communications, **Dave Renner**, MMA director of state and federal legislation, and **Evelyn Clark**, MMA manager of grassroots and political engagement, attended the AAMSE annual meeting in Louisville, Kentucky, in late July.

Clark also led a resident round table on advocacy featuring member **Will Nicholson**, M.D.

Renner, Clark and **Eric Dick**, MMA manager of state legislative affairs, attended the AMA's State Legislative Strategies Roundtable in Chicago in August. Renner also participated on a panel related to scope-of-practice issues, where he discussed Minnesota's experiences with the APRN legislation. In addition, Renner also chaired a meeting of the AMA's Advocacy Resource Center (ARC) Executive Committee. The committee includes representatives from 18 state medical societies and provides direction for the AMA's ARC staff.

Barbara Daiker, MMA manager of quality, co-led a webinar on violence prevention in health care workplaces with the Minnesota Hospital Association, Minnesota Nurses Association and long-term care providers in late July. She also served as the MMA representative on a review panel for HIE (health information exchange) service provider certification in early August. And she presented on quality and measurement to Sanford in Windom in mid-August.

Dennis Kelly, chief executive officer of the MMA Foundation, provided welcoming remarks at the University of Minnesota Medical School White Coat Ceremony in early August.

In mid-July MMA board member **Mac Baird**, M.D., TCMS board member **Matthew Hunt**, M.D., and MMA CEO **Robert Meiches**, M.D., talked about recent achievements and activities of the MMA and TCMS with clinic leaders at University of Minnesota Physicians. They were joined by **Sue Schettle**, TCMS CEO, and Strub.

Clark and Strub met with **Matthew Kruse**, M.D., and **Linda Vukelich**, executive director of the Minnesota Psychiatric Society, to discuss ways to increase engagement among psychiatry residents, as well as all residents.

In late July, Smith and **Audrey Park-Skinner**, M.D., Lake Superior Medical Society president, met with **Dan Nikcevich**, M.D., Ph.D., president and chief medical officer of Essentia Health East Region, to discuss how Essentia Health physicians can be more visible and influential in the physician-led work taking place with the Lake Superior Medical Society and the MMA.

Is medical malpractice keeping you up at night?

It's not *if* malpractice affects you, it's *when*.

Join the MMA at the University of Minnesota Continuing Education and Conference Center in St. Paul as we discuss how your day-to-day habits end up being your best defense when malpractice rears its head.

Shelly Davis, BSN, JD, senior claims manager at MMIC, will help us sort out the issue and provide strategies for developing your own best defense.

For details, go online to www.mnmed.org/malpractice.

Thursday, October 2
6:30 - 8:30 pm

University of Minnesota's Continuing Education and Conference Center

St. Paul Campus
1890 Buford Avenue

Minnesota Medical Association

VIEWPOINT

Sticking together

Cindy Firkins Smith, M.D.

Twenty-four years ago, I left the safety of the University of Minnesota to join a multispecialty clinic in west central Minnesota. It was scary. I had always considered myself a bit of an academic and liked the mentally stimulating environment of the U. I was suspicious of any physician who didn't practice at the U, Mayo Clinic or at least in the Twin Cities because I assumed that the further you traveled from the academic meccas the dumber you became. I quickly realized I was the stupid one.

The physicians in my Willmar clinic are brilliant, hard-working and most important, fervently dedicated to the health and well-being of the people for whom they care. I have had the opportunity to work with physicians from multiple specialties and consult with colleagues from a variety of practice settings—from one-doctor family medicine practices in tiny (and very grateful) rural communities to those academic centers I still revere. Perhaps it's that experience that has made me realize how much we all need each other.

Medicine is a field characterized by constant change. We are trained to handle the change in content. We are taught the importance of changing our care of patients as dogma changes. We are taught that we must protect our patients from medical care that is not in their best interest. What we are *not* taught is how to navigate the changes in the *business* of medicine, especially when those changes often seem illogical, capricious and evanescent. How can we possibly protect our patients from something we cannot understand ourselves? That is why organized medicine is so important to all of us.

As a dermatologist, my priorities are not always the same as those of a neurosurgeon. My challenges are unlike those faced by my colleagues in psychiatry or those who work as hospitalists. But no matter our specialty, we are alike. We all are dedicated to practicing the highest-quality, most cost-effective medicine. We all want to do our best for our patients, and we want for our patients to be healthy and happy with our efforts.

No matter our practice setting, we are all alike. Whether we are academics or solo-practice family medicine docs. Whether we practice in Minneapolis or Moose Lake. Whether we are independent or hospital-employed. Whether our primary business challenge is opaque, cost-quality rankings; narrow insurance networks; selective patient satisfaction surveys; onerous insurance pre-authorization demands; or inadequate reimbursement. We all must contend with threats to our ability to care for our patients.

We cannot face these challenges alone. If we stand as a group, we are stronger. If we speak with one voice, we will be heard. If we work together, we will have the power to do what is right. We all chose medicine so we could take care of people. Together, we will do just that.

No matter our specialty, we are alike. We all are dedicated to practicing the highest-quality, most cost-efficient medicine. We all want to do our best for our patients.

A shift in focus

One practice's attempt to improve our health care system

BY DAVID J. WALCHER, M.D.

We often read that there is a problem with health care in this country, even a crisis. For one thing, the United States spends more on health care than any other country. As Steven Brill pointed out in his March 4, 2013, article "The Bitter Pill" in *Time,* "According to one of a series of exhaustive studies done by the McKinsey and Co. consulting firm, we spend more on health care than the next 10 biggest spenders combined: Japan, Germany, France, China, the U.K., Italy, Canada, Brazil, Spain and Australia."

And although we are the biggest spender, as a country we don't enjoy the top ranking in health care quality. Some of our citizens do not get enough health care (childhood and adult immunizations, cancer screenings and preventive care, for example) and others get too much. (The American Board of Internal Medicine Foundation's Choosing Wisely program was created to educate physicians and patients about low-value, no-value and even harmful care.) Add to that poverty, lack of education, drug abuse (both nonprescription and prescription) and other social problems, and it is quickly apparent why we ranked last in a 2014 Commonwealth Foundation comparison of health care performance in 11 industrialized countries.

An equally large problem is how we pay for health care in the United States: We pay third parties large sums of money and then they pay our health care bills. As a result, the average consumer doesn't know what the care they are seeking costs. Sadly, neither does the average doctor. We do know what we pay collectively. The annual tab for health care is about $2.8 trillion, according to federal government reports. The Institute of Medicine says we spend $361 billion each year on health care administration. And we spend more than money. A study by Casalino et al. published in *Health Affairs* in 2009 found the average physician spends 43 minutes a day dealing with insurance companies.

I remember a radio commercial from my youth in which one health insurance company advertised that they spent 97 cents of every premium dollar on their subscribers. I think we would be shocked if we knew the amount spent today.

In its August 2013 issue, *Minnesota Physician* included a small article titled "Report Says HMOs Amassing Reserves." It was about the latest research by analyst Allan Baumgarten, who found premium revenues had continued to outpace medical spending. Baumgarten reports twice yearly on the Minnesota health care marketplace. The latest data on Minnesota's nonprofit HMOs indicate they have added $769 million to their reserves since 2008 and have $1.3 billion more than is required by law. According to Baumgarten, health plans in Minnesota now have more than $1.9 billion in reserves. That would allow them to pay 3.2 months of claims with no additional income, up from 2.4 months in 2009.

We read about huge salaries for the CEOs of insurance companies, hospitals, HMOs and other corporate entities that have attached themselves to health care. In his *Time* article, Brill noted that it is common for the CEOs of university hospitals to make salaries that are many times larger than those of the presidents of their universities. In its most recent annual report on CEO salaries in Minnesota, the *Star Tribune* listed the CEO of United HealthCare as among the highest paid. What I found particularly bothersome in that report is that two vice presidents at United HealthCare made in excess of $20 million that year. Assuming a 50-week work year and an 80-hour work week, that is about $5,000 per hour. I cannot understand what they could be doing to be worth that amount of money.

When I consider how that organization makes its money, I am morally outraged. I view the money spent on these salaries as lost opportunities to provide needed health care. As a small business owner who provides health insurance to his employees, I see these companies as unconcerned about costs, as they simply pass them on. I think the term for the cost of health insurance, "premium," is aptly chosen, as it refers to the amount in excess of what something is worth. If you look at your W-2 forms, you'll see what your employer spent on health insurance premiums for you. If you have not looked at this number, please do so. Then know that if your employer did not have to pay so much on your behalf, at least some of that money could have gone to you in the form of extra salary. I know my employees would rather have more money in their paycheck than subsidize an executive's $5,000-an-hour salary.

There are many opinions on how to correct our health care problems. After all, no one wants to have less and pay more. One suggestion is for patients to have more skin in the game. That means paying higher co-pays and deductibles and other

forms of self-financed health care. This is consumer-driven health care. But if you don't know what something will cost, how can you be a good health care consumer? One author likened it to being blindfolded and set loose in the grocery store to buy groceries for the household while having to stay within a budget.

A price transparency experiment

My four partners and I at Southdale Internal Medicine decided we weren't changing the health care system by simply complaining, paying dues to our professional societies to lobby for us, or by voting and contacting our elected officials. So in April of 2013, we changed the way we practice. We decided to no longer accept commercial health insurance. We set what we think are reasonable prices for our professional services, and we offer discounts on lab tests and shop around to try to find low-cost imaging for our patients. We have posted the prices for our most common services on our website, and we will supply patients with price estimates for other services. In effect, we try to remove the blindfold as much as we can.

We still admit, attend to and discharge our own hospital patients. That largely eliminates the handoff problems so common today. We do our own care coordination. I know my patients better than anyone else, so who better to coordinate their care?

Our approach is a throwback to how doctors worked and were paid in the past. But I feel this path is a way to correct the problems with the U.S. health care system. In my opinion, if we are to do well as a society, the amount (billions of dollars) diverted by insurance companies, hospitals and other corporate entities that have attached themselves to health care needs to shrink dramatically.

I hope to see a day when insurance companies again advertise they spend 97 cents of every premium dollar on care for their subscribers and where insurance will again be used only for large-ticket items such as hospital care or surgery and that bills for medications, doctor visits, and tests and imaging will be paid by patients out of pocket. If that happens, the marketplace will be able to rectify the cost problems in those areas. The days of the $4 omeprazole pill will be gone. Yes, there will be folks who can't afford their out-of-pocket costs, but doctors and society will have to bear the expense.

Until that happens, my partners and I will provide the best care we can to patients willing to pay for our services. We'll keep our prices low and help our patients find the best rates on imaging and lab testing. We'll be our patients' care coordinators and visit them in the hospital.

Where we stand

We're more than one year into our experiment, and our patients and physician colleagues often ask how we are doing. They want to know if our new practice model is working. Many of the physicians say they hope it is, as they would like to do the same.

Frankly, we are struggling. But we still open our door, pay our bills and our staff. We will continue to struggle until more people vote with their pocketbooks and feet and support practices like ours.

We have lost patients whose insurance companies have told them they can't come here. In truth, they can and sometimes at a lower cost to them than if they used their health insurance. I marvel at how the same people who won't follow their physician's advice to eat properly, exercise and get their recommended immunizations and health screenings or take their medicine will listen to an insurance clerk.

We are not a corporate practice, and we have no financial backing. We have no revenue other than what we generate by seeing patients. We are five board-certified internists trying to make our health care system better one patient at a time with hard work, perseverance and maybe a lot of luck. My wildest dream is that we will be able to affect the direction of health care. But we can't do it alone. **MM**

David Walcher is a general internist at Southdale Internal Medicine in Edina.

This is Your Brain on Sports

Measuring Concussions in High School Athletes in the Twin Cities Metropolitan Area

BY SARAH DUGAN, LESLIE SEYMOUR, M.D. M.P.H., JON ROESLER, M.S., LORI GLOVER, M.H.A., M.S., A.T.C., AND MARK KINDE, M.P.H.

Concussions can have a negative impact on students' ability to perform in the classroom as well as on their health and well-being. Therefore, timely treatment is especially important. To better understand the scope of the problem in MInnesota, the Minnesota Department of Health piloted an online sports-related concussion reporting system in 36 public high schools in the Twin Cities metropolitan area. In the 2013-2014 academic year, 730 concussions were reported to our system from certified athletic trainers working with those schools, with one out of every 100 athletes sustaining concussions. From this, we estimated that 2,974 sports-related concussions occurred among high school athletes statewide. This information is useful for evaluating and guiding prevention efforts and for informing clinicians on how to treat concussions.

Traumatic brain injuries (TBI), including concussions, can have short- and long-term effects on memory and reasoning, communication, expression and understanding. They also can cause personality changes, social inappropriateness, depression and anxiety.[1] One study done in the United Kingdom found that concussions placed children at risk for developing behavioral problems that may affect their school performance.[2] Several other studies found correlations between pediatric concussions and poor visual memory and reduced reaction time and processing speed.[3-5]

In 2011, Minnesota passed a law requiring the Minnesota State High School League to provide information to coaches, officials, athletes and parents/guardians about the nature and risks of concussions, including the effects of continued play following a suspected concussion. The law also requires coaches and officials to receive online training about concussions,[6] including how to recognize the signs (headache, temporary loss of consciousness, confusion, amnesia surrounding the event, dizziness, ringing in the ears, nausea, vomiting, slurred speech, delayed response to questions, fatigue).[7]

The 2011 Minnesota Special Emphasis Report on TBI estimated that a total of 10,800 concussions occur each year in the state; more than 2,200 (21%) of those occur in youths between 15 and 18 years of age.[8] Of those concussions that are treated in Minnesota hospitals, 43% are caused by participation in sports and recreational activities.[9] Coded hospital discharge data has been the best available source of information on sports-related concussions in Minnesota. However, that information tells only part of the story because of limitations of the ICD-9-CM coding system and because most high school athletes who experience concussions are not treated in a hospital.[10,11]

Reporting Information Online (RIO), an Internet-based surveillance system developed at Nationwide Children's Hospital in Columbus, Ohio, provides a more complete picture. RIO collects from certified athletic trainers national injury and exposure data for all injuries occurring among high school athletes involved in 20 sports including football, boys' ice hockey, lacrosse, soccer, basketball and boys' wrestling.[12] In order to better understand the scope of the sports-related concussion problem among Minnesota high school athletes, the Minnesota Department of Health piloted an online reporting system modeled after RIO.

Methods

We initially piloted our online sports-related concussion reporting system in public high schools in the Twin Cities

metropolitan area during the 2012-2013 academic year. We then refined the system (primarily by reducing the number of data elements collected) and conducted a second-stage pilot during the 2013-2014 school year. Between August 1, 2013, and May 27, 2014, certified athletic trainers from 36 schools entered sports-related concussion incident data into the online reporting system; trainers received a $100 incentive for participating. Data collected included the athlete's gender, grade and sport. In cases where there were persistent symptoms (lasting more than two weeks), the athletes' addresses and telephone numbers were collected so they and their families could receive information about postconcussion resources. Although all Minnesota State High School League sports were included in the study, concussion reports were only submitted for ice hockey, football, gymnastics, wrestling, soccer, lacrosse, basketball, baseball, dance team, cross country and volleyball.

The Minnesota Department of Education provided athlete participant data. An average concussion rate for the 36 schools included in the pilot study was calculated using the number of participants in a particular sport as the denominator and the number of concussion incident reports for that sport as the numerator. We estimated the number of concussions at each of the remaining schools in the state by multiplying the concussion rate for each sport by the number of participants in that sport at a particular school. Finally, an estimate of the total number of sports-related concussions in the state was calculated by applying the rates found in our study to participant numbers from schools statewide.

TABLE

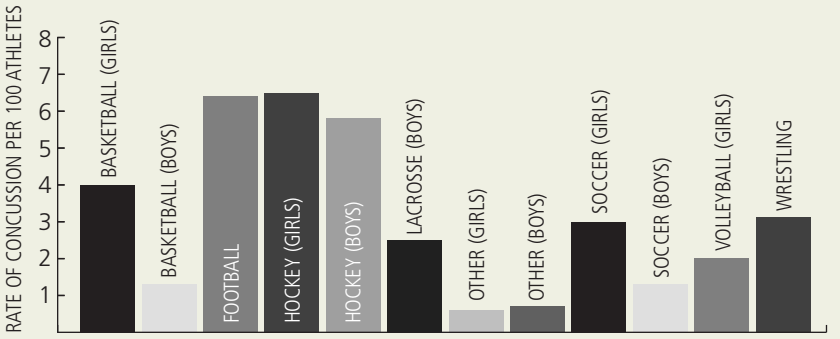
Percent of Total Concussion Reports from 36 Twin Cities-Area Public High Schools by Sport

AUGUST 2013 TO MAY 2014 (N=730)

Basketball (girls)	6%
Basketball (boys)	3%
Cheerleading	3%
Football	42%
Hockey (girls)	7%
Hockey (boys)	8%
Other (girls)	5%
Other (boys)	4%
Soccer (girls)	9%
Soccer (boys)	4%
Volleyball	5%
Wrestling	5%

FIGURE 1

Concussion Rates from 36 Twin Cities-Area Public High Schools by Sport AUGUST 2013 TO MAY 2014



Results

A total of 730 sports-related concussion reports were collected from 67,212 athletes in the 36 metro-area schools between August 1, 2013, and May 27, 2014, resulting in a rate of one concussion per 100 athletes in the sports studied. An additional 34 concussions were reported; however, they were not included in the analysis because they occurred outside of the Minnesota High School Sports League season. Overall, 304 (42%) of the reports involved football players, making it the sport with the most concussions. The sports with the next-highest number of reported concussion were girls' soccer (67 or 9% of total reports), boys' hockey (56 or 8%), girls' hockey (50 or 7%), and girls' basketball (47 or 6%) (Table).

Football and boys' and girls' ice hockey had the highest rates of concussion (about six per 100 athletes) (Figure 1). The next-highest rates occurred in girls' basketball (four per 100 athletes), girls' soccer (three per 100), wrestling (three per 100), and girls' volleyball (two per 100).

Among all sports studied, 174 reports were made for athletes in grade 9; 219 for those in grade 10; 181 for those in grade 11; and 139 for those in grade 12 (Figure 2). Of the reports for athletes who played football, 90 involved students in grade 9; 88 involved those in grade 10; 76 involved athletes in grade 11; and 50 involved students in grade 12. The Minnesota Department of Education does not gather information about the grade level of high school athletes, so rates could not be calculated by grade level.

Overall, in 5% (42) of the reported cases, the students had persistent symptoms.

A synthetic estimate, or an approximation of the total number of sports-related concussions in the state of Minnesota, was calculated by applying the metro-area rates statewide. Based on our pilot data, we estimated that 2,974 sports-related concussions occurred among Minnesota high school athletes during the 2013-2014 academic year (Figure 3).

Discussion

A 2012 national study using data from the RIO system estimated national rates of concussion by sport using "athlete-exposures" (AEs), or the number of times

an athlete participated in a game or practice, as the denominator in its calculations.[12] We tried to collect data on AEs in the initial pilot (the 2012-2013 academic year) but found asking for this information significantly complicated the athletic trainers' work. For the second stage of the pilot (the 2013-2014 academic year), we excluded the question about AEs in order to simplify reporting and increase the number of completed reports; the rates in our study were calculated using the number of participants instead of the number of AEs, making it inappropriate to compare our rates with the national rates.

The number of concussions reported may be an undercount because athletic trainers 1) provide varied levels of support to the different sports, 2) are not at all sporting events and 3) may not have been informed of all concussions among high school athletes. Yet, we included the participants from all sanctioned sports in our rate calculations; hence, the overall rate of one concussion per 100 athletes is very likely conservative.

We were able to compare the number of concussions per school in Minnesota with the number reported in the national study: RIO found approximately 19 concussions per school nationally, and we found approximately 22 concussions per school in Minnesota. The percentage of total concussion reports on football players in our pilot study (42%) was similar to that found in a 2007 national study (41%).[12] These findings tend to validate the level of reporting in our pilot study.

It appears that the greatest opportunity for reducing the overall number of sports-related concussion is in football, since football-related concussions account for almost half of all sports-related concussions reported.

In sports played by both boys and girls in Minnesota, the rate of concussion among girls is higher than that among boys (Figure 1), which mirrors national data showing that girls typically experience higher rates of concussion than boys.[12] There is also evidence that suggests girls experience worse outcomes from concussions than boys.[13]

We noted that, in general, as athletes aged, the number of concussion reports went down. We do not know the reason for this, but we speculate it may be because older athletes tend to be larger and more skilled than younger athletes or because older athletes may have learned not to report concussions because they know they will be taken out of play if they do. Also, there may be fewer athletes in the higher grades than in the lower ones. Being able to obtain participant numbers by grade level would allow us to calculate grade-specific rates and test those hypotheses.

Timely and appropriate access to both medical care and nonmedical services are critical to facilitating recovery from a concussion, improving outcomes and promoting the overall health of youths.[14] One of our concerns is the extent to which physicians and other health care providers know how to screen for and treat concussions. A 2012 study of pediatric primary care and emergency medicine providers who regularly care for concussed patients found those providers may not have adequate training or the necessary support to systematically diagnose and manage these patients.[15]

The CDC's Heads Up toolkit offers education for physicians and other health care providers about concussions and includes recommendations for when to make a referral to a mild traumatic brain injury specialist (if symptoms do not improve within three to five days post injury and if the severity of symptoms is of concern).[16] A 2011 study found mailing the Heads Up toolkit to physicians appeared to positively influence their recommendations regarding returning athletes to play after a concussion.[17]

We provided information about TBI resources to the athletes in our study who experienced persistent symptoms. One of those is a program called Resource Facilitation, which is offered through the Minnesota Brian Injury Alliance. Although the program is geared toward hospitalized TBI patients, youths with persistent symptoms of concussion and their families could benefit from it as well.

FIGURE 2

Concussion Reports from 36 Twin Cities-Area Public High Schools by Grade Level

AUGUST 2013 TO MAY 2014

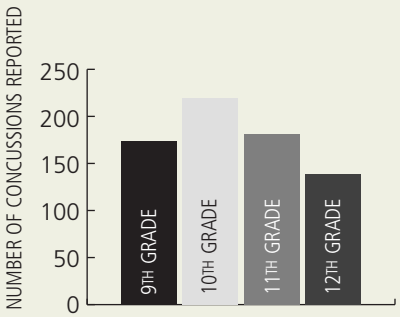


FIGURE 3

Synthetic Estimate for Total Annual Concussion Reports in Minnesota High School Athletes AUGUST 2013 TO MAY 2014

SPORT	MALES	FEMALES	TOTAL
Basketball	150	350	500
Football	1,355	0	1,355
Hockey	212	168	379
Lacrosse	41	0	41
Soccer	87	194	281
Volleyball	0	245	245
Wrestling	174	0	174
Total	**2,018**	**957**	**2,974**

Conclusion

Sports-related concussions are a threat to the health and well-being of Minnesota's youths. Being able to measure the number and rate of concussions in high school athletes is an important step in assessing the potential overall impact of concussion and evaluating our progress toward preventing them. The Minnesota Department of Health's sports-related concussion reporting system is a valuable tool for collecting data that could be used to shape concussion-prevention efforts such as educational programming, use of improved protective equipment, increased conditioning for athletes, enhanced enforce-

ment of sporting rules, and policy changes at the high school level. Those data also can be useful to primary care physicians and other clinicians who need to know how to treat patients with suspected concussion. MM

Sarah Dugan is a research analyst, Leslie Seymour is an epidemiologist and Jon Roesler is an epidemiologist supervisor with the Minnesota Department of Health; and Mark Kinde is the director of the Department of Health's Injury and Violence Prevention Unit. Lori Glover is the director of rehab at Fairview Health Services.

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REFERENCES

1. CDC. What Are the Potential Effects of TBI? September 25, 2013. Available at: www.cdc.gov/TraumaticBrainInjury/outcomes.html. Accessed August 7, 2014.

2. Hawley CA. Behaviour and school performance after brain injury. Brain Inj. 2004;18(7):645-59.

3. Fazio VC, Lovell MR, Pardini JE, Collins MW. The relation between post-concussion symptoms and neurocognitive performance in concussed athletes. NeuroRehabilitation. 2007;22(3):207-16.

4. Sim A, Terryberry-Spohr L, Wilson KR. Prolonged recovery of memory functioning after mild traumatic brain injury in adolescent athletes. J Neurosurg. 2008;108(3):511-6.

5. Killam C, Cautin C, Santucci AC. Assessing the enduring residual neuropsychological effects of head trauma in college athletes who participate in contact sports. Arch Clin Neuropsychol. 2005;20(5):599-611.

6. Minnesota Statutes 2011. Concussion Procedures.121A.38.

7. Mayo Clinic. Concussion Symptoms. April 2, 2014. Available at: www.mayoclinic.org/diseases-conditions/concussion/basics/symptoms/con-20019272. Accessed August 7, 2014.

8.Seymour L, Gaichas A, Roesler J, Kinde M. Minnesota Department of Health. Special Emphasis Report: Traumatic Brain Injury 2011. CDC Special Emphasis Report. 2013.

9. Roesler J, Gaichas A Seymour L, Dugan S. Brains: Balls, Bumps and Babies. Brain Injury Association of Minnesota's 29th Annual Conference, Brooklyn Center, Minnesota. April 10, 2014.

10. Powell JW, Barber-Foss KD. Traumatic brain injury in high school athletes. JAMA. 1999;282(10):958-63.

11. Seymour L, Roesler J, Gaichas A, Kinde M. Sports Related Concussion in Youth. Brain Injury Association of Minnesota's 25th Annual Conference, April 30, 2010.

12. Marar M, McILvain NM, Fields SK, Comstock RD. Epidemiology of concussions among United States high school athletes in 20 sports. Am J Sports Med. 2012;40(4):747-55.

13. Broshek DK, Kaushik T, Freeman JR, Erlanger D, Webbe F, Barth JT. Sex differences in outcome following sports-related concussion. J Neurosurg. 2005;102(5):856-63.

14. National Academy of Sciences IoMaCo T. Epidemiology and consequences of traumatic brain injury—an invisible disability. Eden J, Stevens R , eds. Evaluating the HRSA Traumatic Brain Injury Program. Washington, DC: Dept of Health and Human Services, Office of the Surgeon Genera; 2005.

15. Zonfrillo MR, Master CL, Grady MF, Winston FK, Callahan JM, Arbogast KB. Pediatric providers' self-reported knowledge, practices, and attitudes about concussion. Pediatrics. 2012;130(6):1120-5.

16. CDC Heads Up Facts for Physicians About Mild Traumatic Brain Injury (MTBI). 2010. Available at: www.cdc.gov/concussion/headsup/physicians_tool_kit.html. Accessed August 7, 2014.

17. Chrisman SP, Schiff MA, Rivara FP. Physician concussion knowledge and the effect of mailing CDC's "Heads Up" toolkit. Clin Pediatr (Phila). 2011;50(11):1031-9.

Inspiring Innovation in Medical Education

BY MAJKA WOODS, PH.D., LESLIE ANDERSON, M.P.A., AND MARK E. ROSENBERG, M.D.

Traditionally, changes to medical education come from the top down, an approach that potentially misses important contributions from medical students, residents, faculty and staff. In order to provide an avenue for them to bring forward their ideas for educational improvements, the University of Minnesota Medical School sponsored the "What's the Bright Idea?" contest. Through the contest, we sought to foster a culture of innovation and collaboration among faculty, staff and students. The contest included five phases: launch, idea submission, online voting, follow-up and implementation. Seventy-six ideas were submitted, and 902 people participated in the online voting. When asked in a follow-up survey whether the submitter would have developed their idea without the contest, 27% of respondents answered "no" and 18% answered "maybe." Three-fourths stated the contest stimulated networking and collaboration. Four of the recommendations are now being implemented.

Transformation in health care is outpacing educational reform, leading to a growing divide between medical education and clinical practice. For example, practicing in today's health care environment requires an understanding of the social determinants of health—a topic that often is not incorporated into formal curriculum. As a result, we are graduating physicians who are not well-equipped to adapt the care they deliver to the context in which the patient lives. As well, there has been a need for increasing innovation and collaboration across the medical education continuum in order to align medical school, residency and ongoing professional development.

Traditionally, changes to educational content and processes have been directed by medical school leaders. Although medical students, residents, faculty and staff may see opportunities for improvement, they have not had a mechanism for bringing their recommendations forward. In this article, we describe a strategy developed at the University of Minnesota for involving students, residents, faculty and staff in improving medical education. The goal of this effort was to ensure that innovative ideas from a broad range of sources have a venue for consideration.

The Bright Idea Contest

In the spring of 2013, the University of Minnesota Medical School launched the "What's the Bright Idea?" contest to promote innovation in medical education. The goals for the contest were to 1) improve the content, structure and delivery of medical education, 2) foster a culture of innovation and 3) engage stakeholders from all levels. We had a modest budget of $15,000 for funding projects in the contest's inaugural year.

Anyone with a University of Minnesota Internet account and an interest in medical education could submit ideas and/or vote for the recommendations they felt had the most merit. Potential participants included medical students, residents, fellows, faculty, community preceptors and medical school staff (those who submitted ideas were asked to identify their affiliation in order to measure the impact with each group). The Office of Medical Education created a website where, for eight weeks, participants could submit and discuss ideas. All entries were required to reflect one or more of the following themes: the educational continuum, curricular integration, the learning environment, interprofessional and team-based education, or administrative improvement. The implementation budget for each entry could not exceed $5,000, and each idea had to be original. Ideas of varying complexity and scope were encouraged. The website provided space for feedback, and viewers were encouraged to offer suggestions to help submitters refine their ideas. One week of voting followed the eight weeks of idea generation and brainstorming.

Voters could cast up to three votes (multiple votes could be cast for one idea). The teams that submitted ideas were encouraged to campaign for votes to increase their chances of winning. Vote tallies were automatically updated and posted online every five minutes. Each day, the 10 entries with the most votes were flagged on a "leaders' board." At the end of the week of voting, the four teams whose entries received the most votes were declared the winners and awarded either an iPad Mini or a $350 university bookstore gift certificate. Following the announcement of the winning ideas, a brief survey was distributed to all who submitted an entry. They were asked about their use of the online tools, reasons for submitting their ideas and recommendations for future contests.

Assessing Our Approach

Participation rates and survey results indicate the effectiveness of the contest:

- Seventy-six ideas were submitted by individuals and teams. Many of these entries generated online dialogue.
- 902 people voted for up to three of their favorite ideas. A total of 2,706 votes were cast.
- 45 of the 76 individuals who submitted ideas completed the follow-up survey. When asked whether they would have developed the idea without the contest, 27% answered "no" and 18% said "maybe," providing evidence that the contest was successful in encouraging submissions. Of those who said they would have brought forth their idea anyway, many acknowledged that the contest helped legitimize their recommendations.
- Nearly 75% of the respondents indicated that the contest stimulated networking and collaboration.
- Approximately half of the respondents reported that because of the contest, they were now collaborating with people with whom they had not previously worked.

The Winning Ideas

"Public Health in the Medical Curriculum: A Student-Driven Approach"
"Health Policy in an Era of Health Reform"
Two groups of medical students and residents submitted similar ideas. They called for integrating public health and health policy topics into the Essentials of Clinical Medicine course; including discussions about access to care in the Family Medicine Process of Care selectives; and adding a public health dimension to the Foundations of Critical Thinking cases. These efforts involve collaboration between the medical school and the School of Public Health, between medical students and residents, and between learners and faculty. They also contributed to the designation of public health/health policy as one of five areas of focus at a February 2014 State of Medical Education retreat, resulting in the creation of a faculty/student/community preceptor task force charged with identifying strategies for further enhancing and assessing public health/health policy competencies among medical students.

"Specialty-Specific Residency Match Support Program"
Students envisioned an interactive, web-based tool where those who will be participating in the National Resident Matching Program can exchange resources regarding a specific specialty, post questions about the match process, and share advice and experiences regarding different specialty programs. This idea is currently in development, and the plan is to establish an online presence for each specialty that can serve as a resource.

"MEDules: Low-cost, Mechanical Devices for Training Procedural Surgical Skills"
A medical student completing a master's degree in biomedical engineering was awarded funding to produce a device for practicing basic surgical knot tying and laparoscopic skills. Students will be able to check out the portable devices, which will provide them with feedback so they can track their progress.

Medical school leaders are working with the winning teams to implement the projects. Three of the winning ideas are in development; the fourth is expected to begin this fall (see the Table to read about other top vote-getters).

TABLE

Top 10 Vote-Getting Ideas

RANK (VOTE COUNT)	PROJECT
1 (333)	Public Health in the Medical Curriculum: A Student-Driven Approach
2 (254)	Specialty-Specific Residency Match Support Program
3 (196)	MEDules: Low-cost, Mechanical Devices for Training Procedural Surgical Skills
4 (162)	Health Policy in an Era of Health Reform
5 (113)	Maximizing and Optimizing Medical Education and Clinical Performance by Webcasting and Podcasting Educational Activities
6 (112)	Simulation Teaching
7 (97)	Beyond Cultural Competency
8 (79)	Continuity Clinic for Medical Students
9 (56)	Interdisciplinary Collaboration Portal to Fuel Innovation
10 (51)	The Game Show Network and The Slumdog Concept – Don't Memorize, Make Memories

Discussion

As medical education continues to evolve, funding continues to decrease, and the national voice continues to demand an ever-more advanced and ready workforce, medical educators will need to look for new ways to foster innovation and collaboration within their institutions. The Bright Idea contest was successful in motivating an impressive number of students, house staff, faculty and administrative staff at multiple teaching sites to work together, submit ideas and vote. The format opened the door to nontraditional contributors. It also added an element of fun and gamesmanship to the process. Our strategy of rewarding the top teams with tangible prizes and implementing their ideas sent a clear message that every idea and vote was important. In the end, the contest generated thoughtful recommendations that we are now putting into practice. **MM**

Majka Woods is assistant dean for assessment, curriculum and evaluation in the Office of Medical Education at the University of Minnesota Medical School in Minneapolis. Leslie Anderson is chief of staff for the office of Medical Education and Mark Rosenberg is vice dean for education and a professor of medicine at the university.

Cost Savings Using Minimal Draping for Routine Hand Procedures

BY DAVID SIEBER, M.D., ALEXANDRA LACEY, M.D., JAMES FLETCHER, M.D., AND LOREE KALLIAINEN M.D.,
UNIVERSITY OF MINNESOTA PLASTIC AND RECONSTRUCTIVE SURGERY RESIDENCY PROGRAM

In November 2011, HealthPartners, a Minnesota-based health system, switched from using a large drape to a limited drape pack and sterile towels for three common hand surgeries (carpal tunnel release, ganglion cyst excision and trigger-finger release). This was initiated as a cost-saving measure. We sought to calculate the savings from this change and to assess whether the change led to an increase in the number of surgical site infections.

To assess the impact of the change on cost, we ascertained drape supply costs for procedures done at HealthPartners' same-day surgery center in St. Paul before and after November 2011. To determine if the change had an impact on surgical site infections, data from HealthPartners' database on surgical site infections were evaluated for any differences in infection rate before and after November 2011.

Before November 2011, at the same-day surgery center, a same-day surgery pack ($13.18/pack), an extremity drape ($4.95/drape), a mayo stand cover ($0.72/cover) and a three-fourths sheet ($1.95/sheet) were used during the hand procedures for a total cost of $20.80. After the switch, the total cost for draping was $13.90, for the same-day surgery pack ($13.18/pack), a mayo stand cover ($0.72/cover) and sterile towels (no additional cost). The change provided a cost savings of $6.90 per case. Approximately 600 such hand procedures are performed at the surgery center annually. Thus, we calculated a total savings of $4,140 per year.

We found that before switching to minimal draping, the infection rate for 1,893 hand cases that were completed within the HealthPartners system was 0.68%. After switching to minimal draping, 533 cases were completed systemwide with a surgical site infection rate of 0.71%. The difference is statistically insignificant.

Although the change in draping for these hand procedures resulted in minimal cost saving per case, the savings is not insignificant to the health system, as HealthPartners performs a large number of these procedures. (HealthPartners performed 2,246 of them between 2009 and 2012.) Most important, we found that this cost-cutting measure did not increase the incidence of postoperative surgical site infections. **MM**

This year, Minnesota Medicine *invited the state's medical trainees to submit abstracts or clinical vignettes. The submissions were reviewed by Peter Kernahan, M.D., Ph.D.; Barb Elliott, Ph.D.; Barbara Yawn, M.D.; and Angie Buffington, Ph.D., and the first set accepted for publication appeared in our May issue. The latest to be accepted are included here. Special thanks to Angie Buffington, who encouraged us to launch this effort.*

CMV Esophagitis as a Cause of Failure to Thrive

BY BENJAMIN R. HANISCH, M.D., AND KIRAN BELANI, M.D., UNIVERSITY OF MINNESOTA MEDICAL SCHOOL AND CHILDREN'S HOSPITALS AND CLINICS MINNESOTA

Cytomegalovirus (CMV) is one of the most common congenital viral infections in the developed world.[1] Although many children who are infected with it are asymptomatic, CMV is associated with a wide range of complications including sensorineural hearing loss, microcephaly, developmental delay and in rare instances, esophagitis.[1-3] This case illustrates CMV esophagitis presenting as failure to thrive in an infant.

Case Report

A 7-week-old male presented to the emergency department for failure to thrive and persistent vomiting. Four weeks prior, he had developed projectile vomiting and underwent an evaluation including an abdominal ultrasound, upper GI series, blood cultures and blood work remarkable for a mild increase in transaminases. He was diagnosed with reflux and discharged on lanzoprazole. The family subsequently returned concerned that he was 4 ounces below his birth weight at 7 weeks of age.

They reported that the infant would vomit immediately after eating yet was eager to feed shortly after vomiting. He was initially breast fed and had tried soy and elemental formulas without improvement. His medical history was remarkable for repeat caesarean section (he was his mother's third child) at 39 weeks and a birth weight of 3 kg (10th percentile). The remainder of the complete review of systems was negative.

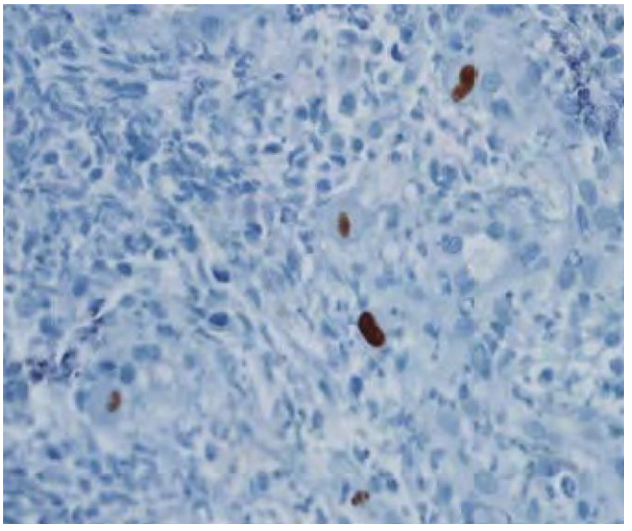
Physical examination revealed a thin well-appearing child with a heart rate of 150 beats per minute, respiratory rate of 24 breaths per minute, no oral ulcerations, a strong suck, no heart murmur, soft abdomen without organomegaly, normal tone, and no rashes or edema.

His laboratory evaluation was remarkable for an elevated AST 143 and an ALT 201, WBC of 15.5 $X10^9$ cells/L with 85% lymphocytes, platelets 256 $X10^9$ cells/L and a normal chest and abdominal X-ray. His esophagogastroduodenoscopy was remarkable for patchy esophageal ulcerations and mild gastritis; biopsies were positive for CMV on immunohistochemical staining (Figure). CMV serology was positive for IGM and IGG, and CMV PCR of the blood was detectable but not quantifiable. There were no signs of intracranial calcifications or hearing loss on subsequent evaluation.

The patient was treated with IV ganciclovir 12 mg/kg divided twice daily and was soon able to feed by mouth and gain weight. He was then transitioned to oral valganciclovir 32 mg/kg divided twice daily for four weeks.

FIGURE

CMV Immunohistochemical Stain, 400X, Positive Nuclear Staining



Conclusion

CMV is a common congenital viral infection, and its presentations can be quite variable. This case illustrates that CMV esophagitis should be considered in infants with persistent vomiting, particularly if there are other supportive findings such as increased transaminases, being small for gestational age, thrombocytopenia or hearing loss. **MM**

REFERENCES

1. Dollard S. New estimates of the prevalence of neurological and sensory sequelae and mortality associated with congenital cytomegalovirus infection. Rev Med Viral. 2007;17(5):355-63.

2. Swanson EC, Schleiss MR. Congenital cytomegalovirus infection: new prospects for prevention and therapy. Pediatr Clin North Am. 2013; 60(2):335-49.

3. Azimi P, Petru A. Severe esophagitis in a newborn infant. Pediatr Infect Dis J. 1996;15(4):385.

Incidence of Burning Mouth Syndrome

A Population-Based Study of Olmsted County, Minnesota

BY JOHN KOHORST, CHRISTIAN L. BAUM, M.D., LOUIS SCHENCK, ROCHELLE R. TORGERSON, M.D., PH.D., ALISON J. BRUCE, M.B., CH.B., AND MARK D. DAVIS, M.D., MAYO MEDICAL SCHOOL

Burning mouth syndrome (BMS) is characterized by a persistent, burning sensation of the mouth in the absence of objective signs explaining these symptoms. Clinical diagnosis requires the exclusion of other etiologies including certain medications, nutrition, infection and local irritation. BMS has been shown to often affect postmenopausal women.[1] Although the etiology is unknown, several mechanisms have been proposed involving hormonal, psychiatric and neuropathic factors.[2]

Physicians must understand the prevalence of BMS to intelligently assess the complaint of oral burning. Published prevalence data are sparse and highly variable, ranging from 1% to 40%.[3,4] There are no population-based studies on incidence of BMS. The aim of this study was to calculate the incidence of BMS in Olmsted County, Minnesota, between 2000 and 2010.

Methods

Using the medical record linkage system of the Rochester Epidemiology Project (REP), we identified new cases of BMS.[5] The REP system was screened using the following criteria: 1) diagnosed or potentially diagnosed with BMS before December 31, 2010, 2) being alive between January 1, 2000, and December 31, 2009 and 3) having a final follow-up after January 1, 2000. The International Classification of Diseases (ICD) code for "mouth burning" and the ICD-9 code 528.9 "other and unspecified diseases of the oral soft tissues" were the diagnosis codes used for screening. Inclusion criteria were subjective oral discomfort, a normal oral examination, and a documented BMS diagnosis by a physician. Incidence was estimated using the decennial census data for the county.

Results

One hundred seventy incident cases were identified representing an annual age- and sex-adjusted incidence of 12.6 per 100,000. Age-adjusted incidence was significantly higher in women (19.8 [95% confidence interval, 16.5-23.1]) compared with men (4.3 [95% CI, 2.7-6.0]). Postmenopausal women between 50 and 89 years of age had the highest incidence of disease, with the maximal rate in women ages 70 to 79 years (70.3 per 100,000).

Conclusion

To our knowledge, this is the first reported population-based incidence data for BMS. These data show that BMS is a rare disease found most commonly in postmenopausal women. Previous studies have reported much higher prevalence rates for BMS, but these studies have often used subjective oral burning as the only inclusion criteria or have retained patients with abnormal findings on oral exam. The stringent inclusion criteria used in this study differentiate it from the earlier literature. These data demonstrate that when evaluated by diagnostic criteria, BMS is less common than previously suspected. This knowledge will help physicians in the clinical assessment of patients who present with oral burning. **MM**

REFERENCES

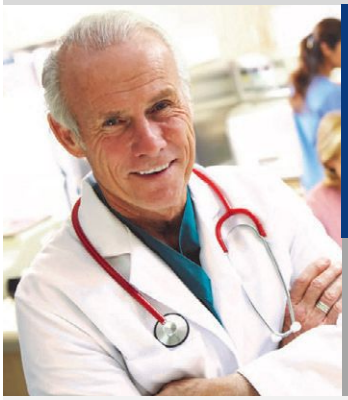
1. Lipton JA, Ship JA, Larach-Robinson D. Estimated prevalence and distribution of reported orofacial pain in the United States. J Am Dent Assoc. 1993;124:115-21.

2. Lauria G, Majorana A, Borgna M, et al. Trigeminal small-fiber sensory neuropathy causes burning mouth syndrome. Pain. 2005;115:332-7.

3. Netto FO, Diniz IM, Grossmann SM, de Abreu MH, do Carmo MA, Aguiar MC. Risk factors in burning mouth syndrome: a case-control study based on patient records. Clin Oral Investig. 2011;15:571-5.

4. Ben Aryeh H, Gottlieb I, Ish-Shalom S, David A, Szargel H, Laufer D. Oral complaints related to menopause. Maturitas. 1996;24:185-9.

5. St Sauver JL, Grossardt BR, Leibson CL, Yawn BP, Melton LJ, 3rd, Rocca WA. Generalizability of epidemiological findings and public health decisions: an illustration from the Rochester Epidemiology Project. Mayo Clin Proc. 2012;87:151-60.



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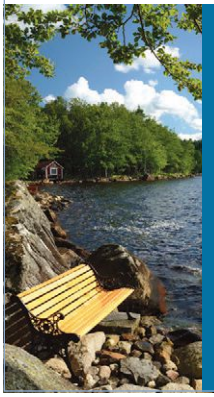

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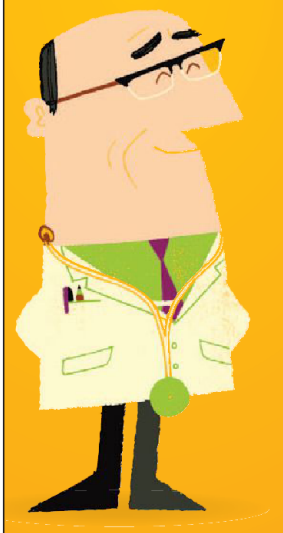

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A follow-up

BY TASADUQ HUSSAIN MIR, M.D.

It's eight o'clock in the morning
I see my first patient of the day
Mr. Z, a 62-year-old African-American male

"Good morning!"
Good morning, doc!
"How can I help you today?"
I'm here for a follow-up
"Follow-up? Follow-up for what?" I ask
I don't know, doc. I got this letter …

"Do you have any medical problems?"
Diabetes. And high blood pressure.
"Are you taking any medications?"
No, doc. No medications.
"Why not?" I turn to the man
I don't have any money.
"Oh, I see. I am sorry to hear that.

When was the last time you had a job?"
Before Katrina.
"What happened? Can you tell me more?"
I lost my job, my family and my house.
Now I live in a shelter, here in Dallas.
"Again, I'm sorry you had to go through all this."

I am falling short of words
I do not know what to ask anymore
About diabetes or high blood pressure

"Will it be okay to listen to your heart and lungs?"
I guess that will be okay

"Your heart and lungs sound good"
I finish my exam.

"Will you be able to get the medications
If I prescribe them today?"
No doc, I can't.
"Do you know how to take care
Of your diabetes and high blood pressure?"
I guess I need to eat a healthy diet
But I eat whatever I get.

"Is there anything else I can do for you?"
Oh no doc! Thank you for your time.
I feel better. May God bless you!

"Goodbye Mr. Z. It was a pleasure to see you."
Goodbye doc! I will follow up with you
When I have some money.

Tasaduq Hussain Mir is an assistant professor in UT Southwestern Medical Center's Department of Family and Community Medicine. He completed his residency at the University of Minnesota - Smiley's Family Medicine Residency Program in 2012.

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