



# Skin Cancer Screening

## A creative business model to offer an important community service

**S**kin cancer is the most common cancer in the U.S., accounting for more than half of all cancers in this country.<sup>1,2</sup> More than 3.5 million cases of basal and squamous cell skin cancer are diagnosed in the U.S. each year; melanoma, the most serious type of skin cancer, will account for more than 76,000 cases of skin cancer in 2014.<sup>2</sup> Once diagnosed with skin cancer, a person's likelihood of developing a non-skin primary cancer at some point in his or her lifetime significantly increases. Many patients with skin cancer are treated by a dermatologist or primary care physician; patients with more advanced cancer are usually treated by an oncologist.

The Richmond, Virginia metropolitan service area has a long history of excessive demand and inadequate supply of available dermatology appointments—with some patients having to wait six months for an available appointment. To help better meet the needs of these patients and its community, one Virginia hospital developed a skin cancer clinic model that:

- Addressed long wait times for a basic skin examination
- Expanded the hospital's scope of services, differentiating the hospital from other providers
- Increased community awareness about the risk of skin cancer
- Expanded the hospital's brand in the marketplace.

The first challenge: identifying skilled personnel with the core competencies necessary to develop and implement a Skin Cancer Screening Clinic and doing so in a financially viable and compliant manner.

In this article, the authors share information about their initial feasibility study, a clinic description, a case study, implementation tips, and possible next steps with the hope that this information will help other programs looking to implement a skin cancer screening program.

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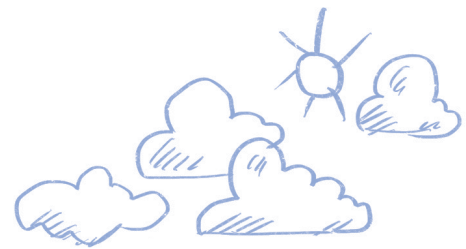
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### Getting Started

In 2010 the cancer program's medical director and oncology service line administrator spearheaded a Strengths, Weakness, Opportunities, and Threats (SWOT) analysis (Table 1, page 28). Initially, the hospital approached private practice dermatology groups about the possibility of developing a partnership clinic. While these groups were unable to or not interested in participating, they were supportive of the hospital's efforts to launch its own Skin Cancer Screening Clinic and agreed to expedite appointments of screened patients needing higher-level care.

Next, the hospital established a new department cost center (Cancer Clinics—720) to support the Skin Cancer Screening Clinic and its associated services. Fortunately, costs were minimal as the hospital had access to an available skilled physician and office space. (The physical space used by the clinic also supports the hospital's Cancer Survivorship Clinic and outpatient palliative care.) The ultimate goal of the new Skin Cancer Screening Clinic: to generate volume, community awareness, and new revenue for the hospital.

The hospital found a physician leader for its Skin Cancer Screening Clinic in John Turner, MD, a physician accredited by



**Table 1. SWOT Analysis**

STRENGTHS	OPPORTUNITY
<ul style="list-style-type: none"> <li>• A visible and respected oncology program with the skilled personnel to offer skin cancer screening</li> <li>• Great unmet demand for this service</li> <li>• Dermatology providers and surgical groups supportive of the hospital entering the market</li> <li>• Primary Care Physician support that is in line with hospital recruitment strategy</li> <li>• The ability to market service direct to consumer</li> <li>• Pathology services in place</li> <li>• Newly-built clinic space available</li> <li>• Minimal start-up costs</li> <li>• The ability to use existing 1-800 “Consult-a-Nurse” system for scheduling</li> </ul>	<ul style="list-style-type: none"> <li>• The potential for high patient volume</li> <li>• Underserved market as patients currently have 6–7 month wait for available dermatology appointments, leading to public demand for early access</li> <li>• The potential to increase traffic and awareness of the hospital’s cancer program</li> <li>• Service differentiator</li> <li>• The opportunity to establish patient relationships within the healthcare system</li> <li>• The ability to generate patient volume for support services, such as pathology</li> <li>• The resources to take this service “on the road” and do off-site skin cancer screening</li> <li>• A replicable service model that could be extended to other network facilities</li> <li>• The ability to refer to a Mohs surgeon (once recruited) able to perform microscopically controlled surgery to treat skin cancer</li> </ul>
WEAKNESSES	THREATS
<ul style="list-style-type: none"> <li>• Limited physician capacity (addressed through training a nurse practitioner)</li> <li>• Allocation of the necessary marketing funds to grow awareness in the community</li> <li>• A process for gaining support from dermatology groups to ensure timely consultations for suspicious lesions</li> </ul>	<ul style="list-style-type: none"> <li>• Potential backlash from dermatologists</li> <li>• Managing expectations and relationships within the pathology practice</li> </ul>

the American Board of Pathology (ABP) and the American Board of Dermatology (ABD), who joined the pathology practice affiliated with the hospital in 2009. The hospital contracted with Dr. Turner to serve as the medical director of Skin Cancer Services, reimbursing him fair market value for his time. Soon after, Commonwealth Laboratory Consultants, Inc., renewed its contract with the healthcare system, adding a provision to offer skin cancer screening services.

To test market demand, the hospital piloted four American Dermatology Association (ADA)-sponsored Skin Cancer Screening Days. Although marketing was limited, the hospital saw 46 patients—more than the allotted number of appointments. Of these 46 patients, 41 percent received recommendations for biopsy. A secondary review of this high biopsy rate conducted

by Dr. Turner proved it was appropriate.

The next challenges the hospital faced were financial. Payers had different policies for skin cancer screening. For instance, some payers said that screening could only be conducted with primary care physician (PCP) orders and authorizations; other payers refused to pay for the screening service at all. To address this challenge, the hospital elected to charge patients a flat \$30 out-of-pocket fee. This dollar amount was determined to be about equal to a patient co-payment and was within the hospital’s *pro forma* (pages 30-31), ensuring that the Skin Cancer Screening Clinic would be financially viable.

To meet high patient demand, Dr. Turner trained (and now supervises) a hospital-employed advanced nurse practitioner (ANP) to serve in a physician extender capacity. Today, the ANP is able

to work independently, thus minimizing the demand on Dr. Turner’s time. This staffing model strengthened the financial outlook of the Skin Cancer Screening Clinic as Dr. Turner was then able to allocate fewer clinic hours. Also, as both providers were on staff, the hospital was able to “float” hours to the Skin Cancer Screening Clinic when there was demand; thus, minimizing sunk costs. The Skin Cancer Screening Clinic is “bloodless and non-treating,” so patients are referred to specialists for additional care when warranted. The

hospital developed patient materials that identify qualified physicians who have requested to be listed. The list includes general surgeons, plastics surgeons, and dermatologists.

**Clinic Model**

The Skin Cancer Screening Clinic operates on a regular schedule within the hospital’s cancer program—every Tuesday afternoon  
*(continued on page 32)*

Figure 1. Flowchart of Skin Cancer Screening Clinic Process

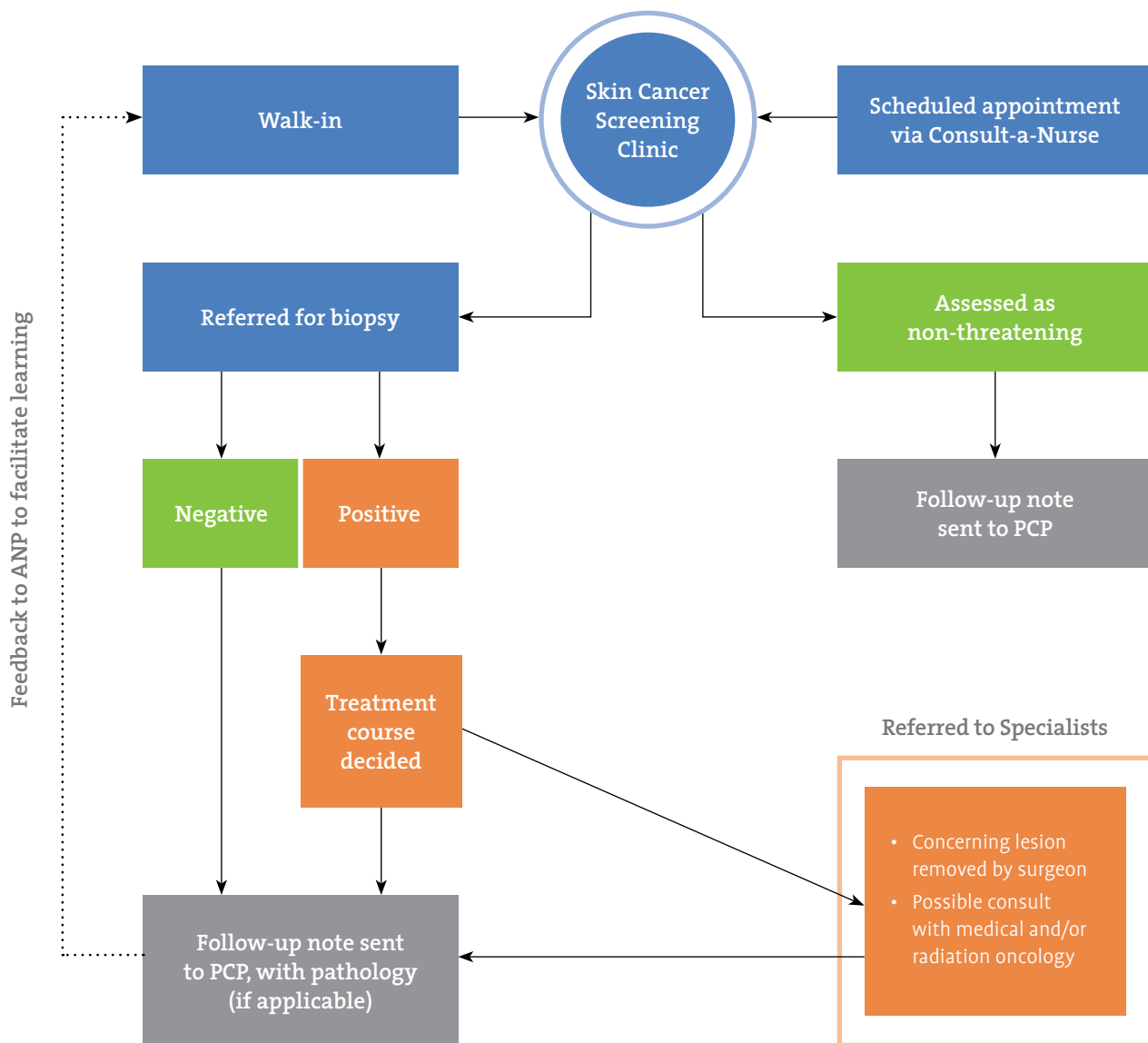


Figure 2. Pro forma for Skin Cancer Screening Clinic

SCENARIO	DESCRIPTION	%	PROCEDURE CODE	CODE DESCRIPTION	PAYMENT
1	Screening only	100%	Out-of-pocket	Clinic	\$ 30.00
2	Screening with biopsy	41%	99201	Clinic	\$ 53.43
			11301	Same as above 0.6 to 1.0 cm	\$ 76.45
			88305		\$ 32.75
3	Screening with biopsy and removal	20%	99201	Clinic	\$ 53.43
			11301	Same as above 0.6 to 1.0 cm	\$ 76.45
			88305	Biopsy	\$ 32.75
			8505	Surgery	\$ 32.75
			88305	Pathology	\$ 247.00
4	Screening, biopsy, and surgery	1%		Basal, back	\$ 13,815.00
				Basal, face, neck, scalp	\$ 13,920.00
				Basal, lower extremity	\$ 13,859.80
				Basal, upper extremity	\$ 11,607.60
				Anesthesia, other OR fees	Unknown
5	Screening, biopsy, and radiation	0.25%		ICD-9 Code 171.0, 32 treatments	\$ 48,761.00
				ICD-9 Code 174.9, 30 treatments	\$ 38,687.00
				ICD-9 Code 173.3, 20 treatments	\$ 28,784.00
				<b>DESCRIPTION</b>	<b>RATE/HOUR</b>
				Medical Directorship Fee	\$ 150.00
				ANP Salary	\$ 50.00
				Materials	
				Marketing	

Usually the Skin Cancer Screening Clinic is able to see a new patient consultation within three weeks, significantly improving the six-month wait patients experienced in the past.

CASE/100	CHARGES/ CASE	CHARGES/ 100 CASES	CHARGES/ 200 CASES	CHARGES/ 300 CASES	CHARGES/ 500 CASES	CHARGES/ 800 CASES
100	\$ 30.00	\$ 3,000.00	\$ 6,000.00	\$ 9,000.00	\$ 15,000.00	\$ 24,000.00
41	\$ 162.63	\$ 6,667.83	\$ 13,335.66	\$ 26,671.32	\$ 40,006.98	\$ 66,678.30
20	\$ 442.38	\$ 8,847.60	\$ 17,695.20	\$ 26,542.80	\$ 44,238.00	\$ 70,780.80
1	\$ 13,300.60	\$ 13,300.60	\$ 26,601.20	\$ 39,901.80	\$ 79,803.60	\$ 119,705.40
0.25	\$ 38,744.00	\$ 9,686.00	\$ 19,372.00	\$ 29,058.00	\$ 48,430.00	\$ 77,488.00
	<b>TOTAL</b>	\$ 41,502.03	\$ 83,004.06	\$ 131,173.92	\$ 227,478.58	\$ 358,652.50
	<b>20% DISCOUNT</b>	\$ 8,300.41	\$ 16,600.81	\$ 26,234.78	\$ 45,495.72	\$ 71,730.50
	<b>HOURS</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>10</b>	<b>16</b>
		\$ 300.00	\$ 600.00	\$ 900.00	\$ 1,500.00	\$ 2,400.00
		\$ 1,250.00	\$ 2,500.00	\$ 3,750.00	\$ 6,250.00	\$ 10,000.00
		\$ 100.00	\$ 200.00	\$ 300.00	\$ 500.00	\$ 800.00
		\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00
		\$ 2,150.00	\$ 3,800.00	\$ 5,450.00	\$ 8,750.00	\$ 13,700.00
	<b>RETURN</b>	\$ 6,150.41	\$ 12,800.81	\$ 20,874.78	\$ 36,745.72	\$ 58,030.50

(continued from page 29)

in the busy spring, summer, and fall months and alternating Tuesdays in winter months when demand is lower. The clinic is able to quickly add days if there is increased demand. In addition, skin cancer screening is also held off-site at sister hospitals, employer-sponsored events, and community events and/or health fairs.

The hospital uses a third-party service center, Consult-a-Nurse, to schedule appointments via a 1-800 number. Tuesday afternoon clinics are scheduled for 4 hours, with 10 minutes per appointment, yielding a capacity of 912 available appointment slots in a 38-week year. Walk-in appointments are welcome, based on capacity. (During program launch, the hospital initially marketed the program internally and allocated 20 minutes per patient.) As stated previously, patients are charged \$30 for the clinic visit; the Skin Cancer Screening Clinic does not accept (or require) insurance.

Clinic staff triages and performs whole body screening. If additional care is recommended, staff provides patients with a “Patient Choice Letter,” a comprehensive listing of qualified providers to ensure fairness and compliancy. (At their request, qualified physicians can be added.)

Skin lesions requiring medical management are generally referred to dermatology. Usually, the Skin Cancer Screening Clinic is able to see a new patient consultation within three weeks; thus, significantly improving the six-month wait patients experienced in the past. Patients with a clinically suspicious lesion are triaged as follows:

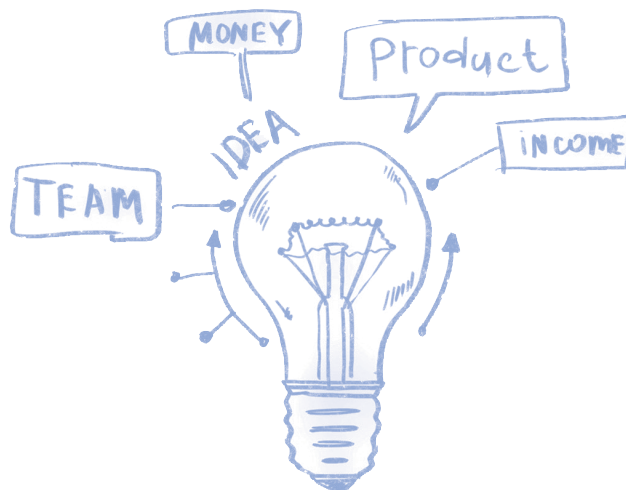
- Lesions on the hands or face are generally referred to a plastic surgeon (if the patient desires); this sometimes occurs the same day.
- Large or especially deep-seated lesions are generally referred to a surgical oncologist for biopsy and excision; patients are generally seen within a week.

Clinic staff generates and sends letters to the patient’s PCP. Figure 1, page 29 illustrates the clinical process.

By implementing a weekly Skin Cancer Screening Clinic, the hospital created an avenue to provide quick and easy access to an important service for a large patient population. This increase in patient traffic improved market awareness of the hospital’s cancer program. Another programmatic benefit was the ability to enroll melanoma patients into the hospital’s award-winning Cancer Survivorship Program, which helps to ensure adherence to evidence-based surveillance follow-up.

### Dollars & Sense

The Skin Cancer Screening Clinic had the support of the Oncology Executive Committee and was part of the hospital’s strategic business plan. As the pilot clinic demonstrated, skin cancer screening carried high demand with little associated risk. No capital was required to implement this service. Instead, to support the new Skin Cancer Screening Clinic, the hospital “floated” existing staff from other areas of the cancer program. Thus, the service required minimal cost and supply is derived only by demand, leaving no fixed costs.



Under this “demand-induced supply model,” the financial goal was to cover expenses on the screening portion, and make any return downstream. The \$30 cash payment slightly exceeded the clinic expenses once the clinic went to a 10-minute-per-patient schedule, and the hospital eventually realized a positive financial return generated by downstream revenue. Figure 2, pages 30-31, illustrates a prospective sample *pro forma*, outlining initial expenditure based on variable volumes with expected return.

### P&L Realized

After one year of service, the hospital conducted a retrospective review of cases seen in the Skin Cancer Screening Clinic to assess the projected financial return versus actual return. This review included data on the 383 patients screened onsite. (Due to registration and tracking challenges, these data do not include the nearly 400 patients screened offsite at health fairs, employee-sponsored events, community events, or quarterly clinics offered at a sister hospital.) Data showed that 47 patients received services at the hospital following the initial screening, resulting in a net revenue gain.

The hospital also experienced an unforeseen benefit: the Skin Cancer Screening Clinic helped to build and solidify relationships with PCPs in the community. Specifically, the visit notes mailed to each PCP after the screening established a clinical connection between the hospital and the practices of the primary care providers. After seeing an increase in lab volume, hospital data showed this uptick was patients from primary care practices who had not previously used the facility. The only identifiable factor: these patients had been seen at the Skin Cancer Screening Clinic.

On the qualitative side, the hospital believed that the new Skin Cancer Screening Clinic increased community awareness of its facilities and services. When surveyed, clinic participants expressed overwhelmingly positive feedback and appreciation. Therefore, it is reasonable to assume that these positive experiences may influence patients to choose to receive additional services at the hospital.

## Next Steps: A Possible Melanoma Clinic?


The hospital is considering adding a Melanoma Screening and Surveillance Clinic. With 172 total melanoma cases seen at the hospital during one year, the hospital has the resources to manage its existing patient volumes and grow the clinic with new referrals. Currently, there is no competition for melanoma screening and surveillance in the hospital's marketplace. With support from the Cancer Survivorship Clinic, the hospital can incorporate melanoma-specific services into the existing Skin Cancer Screening Clinic; thus, leveraging the services together.

As patients with melanoma are at a high risk of recurrence, NCCN guidelines currently recommend following these patients every 3 to 12 months, depending on the stage of disease at the initial diagnosis. The hospital can use its Varian ARIA®-Equicare Cancer Survivorship (ECS) tool to manage cases using evidence-based guidelines. ARIA-ECS can generate reminders, provide education, and offer a patient portal. The hospital would also send letters to PCPs to engage the referral base and market the Melanoma Screening and Surveillance Clinic. Patients would then be seen in clinic as a follow-up surveillance visit. Patients with no suspicious lesions would be scheduled for their next follow-up appointment. For patients found to have a suspicious lesion, a multidisciplinary virtual "fast track" system would result in an expedited review by a team of multidisciplinary physicians. The initial goal of the Melanoma Screening and Surveillance Clinic would be to deliver definitive treatment within one week of a suspicious finding.

## Last Words

In the first two years of operation, the Skin Cancer Screening Clinic saw more than 2,000 patients. Melanoma cases have increased from 63 (prior to clinic launch) to 130 cases the first year of operation to 172 cases the second year of operation. An increase of 109 cases in any single disease site is noteworthy. For the hospital's cancer program, melanoma case mix increased from 4.2 percent to 7.8 percent of its total case mix.

As healthcare becomes more and more competitive, finding opportunities to gain a competitive advantage is growing more challenging for cancer programs. And while the new Skin Cancer Screening Clinic may not necessarily be a "home run" for the hospital's cancer program, as the book and movie "Money Ball" proved, baseball teams win games by getting on base, and adding this service line certainly achieved that outcome.

Cancer programs looking to develop and implement a similar Skin Cancer Screening Clinic should remember that this article reflects the experience of a single hospital. Variables, such as facility volumes and patient mix, will affect clinic performance. Other markets may not have a similar demand for services or may not have the access to the providers necessary to establish a Skin Cancer Screening Clinic. Further, before cancer programs invest too much time and resources in this type of endeavor they should first engage their legal department and Ethics Compliance Officer. That said, cancer program leaders may find this model applicable to other service lines beyond skin cancer screening. 

*Steven Castle has 24 years of oncology experience in clinic, research, academics, and service line. John Turner, MD, is medical director of Skin Cancer Services, and Tricia Cox, ANP, is advanced nurse practitioner, Skin Cancer Services for a community-based cancer program.*

## References

1. Centers for Disease Control and Prevention. Skin Cancer. Available online at: [www.cdc.gov/cancer/skin](http://www.cdc.gov/cancer/skin). Last accessed July 8, 2014.
2. American Cancer Society. Skin Cancer Facts. Available online at: [www.cancer.org/cancer/cancercauses/sunanduvexposure/skin-cancer-facts](http://www.cancer.org/cancer/cancercauses/sunanduvexposure/skin-cancer-facts). Last accessed July 8, 2014.

## A Patient Story

A nurse at a nearby hospital visited a friend who had recently been diagnosed with melanoma. After this visit, she noted a flyer for the Skin Cancer Screening Clinic. She made an appointment and was seen the very next week.

During her examination, the woman reported that she was healthy and had no specific skin complaints. She enjoyed the outdoors, and ran regularly. During the full-body scan, a 5-mm, ink-dark, slightly raised lesion was noted. Otherwise, the woman had only moderate sun damage. Clinic staff considered the lesion "serious," and the patient agreed to meet with a surgical oncologist listed in the patient choice letter.

On biopsy, the lesion was diagnosed as melanoma *in situ*, and the surgeon conducted a complete excision. The patient had her sutures removed weeks later, and has had no recurrences and/or additional malignancies. Impressed by the Skin Cancer Screening Clinic, this nurse soon scheduled her daughter and a family friend for a screening.

## More Online!

Visit [www.accc-cancer.org/oncology\\_issues/SO2014](http://www.accc-cancer.org/oncology_issues/SO2014). asp for additional tools including:

- A template letter for PCPs recommending additional care after skin cancer screening
- A template letter for PCPs saying additional care after skin cancer screening is not needed
- A skin cancer clinic screening form
- A melanoma screening and surveillance clinic "fast track" form.