Providing high-quality dental care to underserved communities can be extremely challenging. In Bessemer, Alabama, the needs of patients are great and the resources of community clinics are often strained. Many patients in these communities need complex treatment but lack the financial stability to handle the major medical expenses often associated with these procedures. But at The Foundry Dental Center, the recent addition of a SprintRay 3D printer is synergizing with existing digital technologies to empower Dr. Ben Kellum and his ten residents to redefine affordable dental care. “Most community clinics are pain removal – they’re trying to get people out of pain and that’s great, but we want to take it a step further and give people ideal treatment,” Dr. Kellum says.

By leveraging digital technologies to decrease costs and increase clinical flexibility, The Foundry has become a community pillar. “We’re treating 12,000 people per year. So if we weren’t here, the reality is that people would be in pain for a long period of time. And even if they did get their teeth out [for pain removal], they’d then be in a situation where they’re missing teeth – they can’t eat, can’t chew,” Dr. Kellum says. But the cases that walk through the doors of The Foundry are often complex, meaning he and his team must find creative ways to cut costs without sacrificing quality of care. “We have medically diverse cases ranging from the elderly to patients with extremely
complex disease to special needs patients. Because we’re really the safety net clinic, we pretty much see everything you could imagine.”

The Foundry’s position as a low-cost community clinic limits their ability to recoup costs through treatment fees. This means that the facility runs on a tight budget, so digital technologies are crucial in delivering a high standard of care while maintaining fees that are within reach for their patients. “The digital part of our practice really changed both the educational and financial components of our clinic. One of the unique things about this residency program is the scope of services we can provide because of our in-house digital technologies.”

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*Dr. Ben Kellum DDS*

Alongside multiple digital scanners and several milling machines, The Foundry recently added a SprintRay 3D printer to its digital mix. And the results have been wide reaching. “When we got the MoonRay, we really didn’t expect it to change our practice all that much. But we’ve almost completely changed most of our workflows to accommodate 3D printing because of its cost-effectiveness, its speed, and its accuracy,” Dr. Kellum says. “We used to have situations where we may not offer certain treatments because of the costs that would come with it. But now we have the ability to offer those treatments: dentures at a lower cost, guided surgery without the lab fees, just a really wide range of things that fold into our workflow and are really efficient in terms of cost and time.”

Dr. Kellum was initially concerned about the learning curve that can accompany new technologies. “I had already planned in my head how I was going to dedicate hours and hours of trying to learn this complex machinery but it ended up being a straightforward thing,” Dr. Kellum says. The Foundry’s ten residents, each of whom is at the clinic for a year, also needed to be able to use the printer. That meant that in order for 3D printing to be successful, it needed to be easy to learn and quite forgiving to those who are less tech-savvy.
Dr. Ben Kellum is the Program Director at The Foundry Dental Center in Bessemer, Alabama. Along with a huge effort from dozens of volunteers, he and his ten dental residents treat over twelve-thousand patients per year. The Foundry began when two dentists offered 'Fix-it Fridays' as a community-outreach effort. If you came to their clinic on Friday, they would fix whatever they could in one hour for $50.

The overwhelming needs of patients in their area eventually led to the formalization of this practice. Though they no longer adhere to the 1-hour, $50 rule, The Foundry partners with drug recoveries and other charitable organizations to offer world-class treatment for a highly-reduced cost. Where many other community clinics just offer pain mitigation, The Foundry takes total care seriously, seeing it as a crucial part of their patients’ recovery journey.

"I thought we were going to have to put it in a special place and just have one person who would use it. But I realized that really any of them can use it and get great results with very little training," Dr. Kellum says. Though the printer is still relatively new, The Foundry is using it to print try-in and immediate dentures, surgical guides, wax-up models, and more. Now that they have a system in place for printing, the sky’s the limit for 3D printing. "We’re finding that having just one printer can be a limiting factor. We have so much that we’re trying to print. Now that we’re used to the printer, it’s about seeing if we can treat 12,000 patients using 3D printers. If we can do that, then we’ll be able to deliver even higher-quality care at a more affordable price."

Thanks to Dr. Kellum and The Foundry. SprintRay is honored to support and work with The Foundry, whose community support has uplifted the lives of tens of thousands of those in need of affordable dental care.

Dr. Ben Kellum DDS

About Dr. Ben Kellum

Dr. Ben Kellum is the Program Director at The Foundry Dental Center in Bessemer, Alabama. Along with a huge effort from dozens of volunteers, he and his ten dental residents treat over twelve-thousand patients per year. The Foundry began when two dentists offered 'Fix-it Fridays' as a community-outreach effort. If you came to their clinic on Friday, they would fix whatever they could in one hour for $50.