

Outlier, *noun*.

out·li·er

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1 : something that is situated away from or classed differently from a main or related body

2 : a statistical observation that is markedly different in value from the others of the sample

1.

Roseto Valfortore lies one hundred miles southeast of Rome, in the Apennine foothills of the Italian province of Foggia. In the style of medieval villages, the town is organized around a large central square. Facing the square is the Palazzo Marchesale, the palace of the Saggese family, once the great landowner of those parts. An archway to one side leads to a church, the *Madonna del Carmine*—Our Lady of Mount Carmine. Narrow stone steps run up the hillside, flanked by closely-clustered two-story stone houses with red tile roofs.

For centuries, the *paesani* of Roseto worked in the marble quarries in the surrounding hills, or cultivated the fields in the terraced valley below, walking four and five miles down the mountain in the morning and then making the long journey back up the hill at night. It was a hard life. The townsfolk were barely literate and desperately poor and without much hope for economic betterment—until word reached Roseto at the end of the nineteenth century of the land of opportunity across the ocean.

In January of 1882, a group of eleven Rosetans—ten men and one boy—set sail for New York. They spent their first night in America sleeping on the floor of a tavern on Mulberry Street, in Manhattan's Little Italy. Then they ventured west,

ending up finding jobs in a slate quarry ninety miles west of the city in Bangor, Pennsylvania. The following year, fifteen Rosetans left Italy for America, and several members of that group ended up in Bangor as well, joining their compatriots in the slate quarry. Those immigrants, in turn, sent word back to Roseto about the promise of the New World, and soon one group of Rosetans after another packed up their bags and headed for Pennsylvania, until the initial stream of immigrants became a flood. In 1894 alone, some twelve hundred Rosetans applied for passports to America, leaving entire streets of their old village abandoned.

The Rosetans began buying land on a rocky hillside, connected to Bangor only by a steep, rutted wagon path. They built closely clustered two story stone houses, with slate roofs, on narrow streets running up and down the hillside. They built a church and called it Our Lady of Mount Carmel, and named the main street on which it stood Garibaldi Avenue, after the great hero of Italian unification. In the beginning, they called their town New Italy. But they soon changed it to something that seemed more appropriate, given that in the previous decade almost all of them had come from the same village in Italy. They called it Roseto.

In 1896, a dynamic young priest—Father Pasquale de Nisco—took over at Our Lady of Mount Carmel. De Nisco set up spiritual societies and organized festivals. He encouraged the townsfolk to clear the land, and plant onions, beans, potatoes, melons and fruit trees in the long backyards behind their houses. He gave out seeds and bulbs. The town came to life. The Rosetans began raising pigs in their backyard, and growing grapes for homemade wine. Schools, a park, a convent and a cemetery were built. Small shops and bakeries and restaurants and bars opened along Garibaldi Avenue. More than a dozen factories sprang up, making blouses for the garment trade. Neighboring Bangor was largely Welsh and English, and the next town over was overwhelmingly German, which meant—given the fractious relationships between the English and Germans and

Italians, in those years—that Roseto stayed strictly for Rosetans: if you wandered up and down the streets of Roseto in Pennsylvania, in the first few decades after 1900, you would have heard only Italian spoken, and not just any Italian but the precise southern, Foggian dialect spoken back in the Italian Roseto. Roseto Pennsylvania was its own tiny, self-sufficient world—all but unknown by the society around it—and may well have remained so but for a man named Stewart Wolf.

Wolf was a physician. He studied digestion and the stomach, and taught in the medical school at the University of Oklahoma. He spent summers at a farm he'd bought in Pennsylvania. His house was not far from Roseto—but that, of course, didn't mean much since Roseto was so much in its own world that you could live one town over and never know much about it. "One of the times when we were up there for the summer—this would have been in the late 1950's, I was invited to give a talk at the local medical society," Wolf said, years later, in an interview. "After the talk was over, one of the local doctors invited me to have a beer. And while we were having a drink he said, 'You know, I've been practicing for seventeen years. I get patients from all over, and I rarely find anyone from Roseto under the age of sixty-five with heart disease.'"

Wolf was skeptical. This was the 1950's, years before the advent of cholesterol lowering drugs, and aggressive prevention of heart disease. Heart attacks were an epidemic in the United States. They were the leading cause of death in men under the age of sixty-five. It was impossible to be a doctor, common sense said, and not see heart disease. But Wolf was also a man of deep curiosity. If somebody said that there were no heart attacks in Roseto, he wanted to find out whether that was true.

Wolf approached the mayor of Roseto and told him that his town represented a medical mystery. He enlisted the support of some of his students and colleagues from Oklahoma. They pored over the death certificates from residents of the

town, going back as many years as they could. They analyzed physicians' records. They took medical histories, and constructed family genealogies. "We got busy," Wolf said. "We decided to do a preliminary study. We started in 1961. The mayor said—all my sisters are going to help you. He had four sisters. He said, 'You can have the town council room.' I said, 'Where are you going to have council meetings?' He said, 'Well, we'll postpone them for a while.' The ladies would bring us lunch. We had little booths, where we could take blood, do EKGs. We were there for four weeks. Then I talked with the authorities. They gave us the school for the summer. We invited the entire population of Roseto to be tested."

The results were astonishing. In Roseto, virtually no one under 55 died of a heart attack, or showed any signs of heart disease. For men over 65, the death rate from heart disease in Roseto was roughly half that of the United States as a whole. The death rate from all causes in Roseto, in fact, was something like thirty or thirty-five percent lower than it should have been.

Wolf brought in a friend of his, a sociologist from Oklahoma named John Bruhn, to help him. "I hired medical students and sociology grad students as interviewers, and in Roseto we went house to house and talked to every person aged twenty one and over," Bruhn remembers. This had happened more than fifty years ago but Bruhn still had a sense of amazement in his voice as he remembered what they found. "There was no suicide, no alcoholism, no drug addiction, and very little crime. They didn't have anyone on welfare. Then we looked at peptic ulcers. They didn't have any of those either. These people were dying of old age. That's it."

Wolf's profession had a name for a place like Roseto—a place that lay outside everyday experience, where the normal rules did not apply. Roseto was an outlier.

2.

Wolf's first thought was that the Rosetans must have held on to some dietary practices from the old world that left them healthier than other Americans. But he quickly realized that wasn't true. The Rosetans were cooking with lard, instead of the much healthier olive oil they used back in Italy. Pizza in Italy was a thin crust with salt, oil, and perhaps some tomatoes, anchovies or onions. Pizza in Pennsylvania was bread dough plus sausage, pepperoni, salami, ham and sometimes eggs. Sweets like biscotti and taralli used to be reserved for Christmas and Easter; now they were eaten all year round. When Wolf had dieticians analyze the typical Rosetan's eating habits, he found that a whopping 41 percent of their calories came from fat. Nor was this a town where people got up at dawn to do yoga and run a brisk six miles. The Pennsylvanian Rosetans smoked heavily, and many were struggling with obesity.

If it wasn't diet and exercise, then, what about genetics? The Rosetans were a close knit group, from the same region of Italy, and Wolf next thought was whether they were of a particularly hardy stock that protected them from disease. So he tracked down relatives of the Rosetans who were living in other parts of the United States, to see if they shared the same remarkable good health as their cousins in Pennsylvania. They didn't.

He then looked at the region where the Rosetans lived. Was it possible that there was something about living in the foothills of Eastern Pennsylvania that was good for your health? The two closest towns to Roseto were Bangor, which was just down the hill, and Nazareth, a few miles away. These were both about the same size as Roseto, and populated with the same kind of hard-working European immigrants. Wolf combed through both towns' medical records. For men over 65, the death rates from heart disease in Nazareth and Bangor were something like three times that of Roseto. Another dead end.

What Wolf slowly realized was that the secret of Roseto wasn't diet or exercise or genes or the region where Roseto was situated. *It had to be the Roseto itself.* As Bruhn and Wolf walked around the town, they began to realize why. They looked at how the Rosetans visited each other, stopping to chat with each other in Italian on the street, or cooking for each other in their backyards. They learned about the extended family clans that underlay the town's social structure. They saw how many homes had three generations living under one roof, and how much respect grandparents commanded. They went to Mass at Our Lady of Mt. Carmel Church and saw the unifying and calming effect of the church. They counted twenty-two separate civic organizations in a town of just under 2000 people. They picked up on the particular egalitarian ethos of the town, that discouraged the wealthy from flaunting their success and helped the unsuccessful obscure their failures.

In transplanting the *paesani* culture of southern Italy to the hills of eastern Pennsylvania the Rosetans had created a powerful, protective social structure capable of insulating them from the pressures of the modern world. The Rosetans were healthy because of where they were *from*, because of the world they had created for themselves in their tiny little town in the hills.

"I remember going to Roseto for the first time, and you'd see three generational family meals, all the bakeries, the people walking up and down the street, sitting on their porches talking to each other, the blouse mills where the women worked during the day, while the men worked in the slate quarries," Bruhn said. "It was magical."

When Bruhn and Wolf first presented their findings to the medical community, you can imagine the kind of skepticism they faced. They went to conferences, where their peers were presenting long rows of data, arrayed in complex charts, and referring to this kind of gene or that kind of physiological process, and they talked instead about the mysterious and magical benefits of people stopping to

talk to each other on the street and having three generations living under one roof. Living a long life, the conventional wisdom said at the time, depended to a great extent on who we were—that is, our genes. It depended on the decisions people made—on what they chose to eat, and how much they chose to exercise, and how effectively they were treated by the medical system. No one was used to thinking about health in terms of a *place*.

Wolf and Bruhn had to convince the medical establishment to think about health and heart attacks in an entirely new way: they had to get them to realize that you couldn't understand why someone was healthy if all you did was think about their individual choices or actions in isolation. You had to look *beyond* the individual. You had to understand what culture they were a part of, and who their friends and families were, and what town in Italy their family came from. You had to appreciate the idea that community—the values of the world we inhabit and the people we surround ourselves with—has a profound effect on who we are. The value of an outlier was that it forced you to look a little harder and dig little deeper than you normally would to make sense of the world. And if you did, you could learn something from the outlier than could use to help everyone else.

In *Outliers*, I want to do for our understanding of success what Stewart Wolf did for our understanding of health.

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