

Source: FIU Office of Global Learning Initiatives

Multinational pharmaceutical firms commonly explore, extract, develop, and distribute drugs made from traditional medicinal plants used by indigenous people. Please read "The Problem with Hoodia," a fictional account of a real-life healthcare issue that involves multiple stakeholders.

After completing the reading, answer questions 1 and 2.

**\*\*ANSWERS MUST BE AT MINIMUM 150 WORDS IN LENGTH.\*\***

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### **"The Problem with Hoodia"**

"Hello, I'm Roger. So, what takes you to Africa? Work or pleasure?"

Angela Bingham turned to her seatmate and tried to muster a genuine smile. Although she was proud of her work, Angela thought it odd that a stranger would try to start a conversation by asking such a personal question. Nevertheless, she was stuck sitting next to this man for the remainder of the 11-hour flight to Cape Town, so she decided to open up and try to be friendly. A little small talk might even make the time pass more quickly...

"I'm Angela," she replied, shaking Roger's hand. "I'm going to Africa for work. My company, Pharmedics, is involved in pharmaceutical drug development. The medicines we work on are used to treat asthma, Parkinson's disease, Alzheimer's disease, AIDS...you name it."

"Sounds interesting. So, are you going to Africa to find a cure for a disease?" Roger asked.

"Well, sort of...my latest project involves an extract from a plant called *Hoodia gordonii*. It grows in the wild all over southern Africa and has been used by the San, or the Bushmen of the Kalahari, for thousands of years. The San are the first human inhabitants of Africa. They take Hoodia to diminish hunger and thirst on long hunting and gathering expeditions and during times of drought. Hoodia's extract, called P57, may turn out to be an anti-obesity wonder drug."

"That sounds like very good work. Obesity is a terrible health problem, an epidemic, especially in the States. Are you a scientist?"

"No, I'm a manager. Actually, Pharmedics is a virtual company—there are very few of us who are employed directly by the company itself. I work with outsourced field researchers, clinicians, and lab scientists all over the world. It's a British company, but I'm based in New York. I develop a communications strategy between the stakeholders and I coordinate feasibility studies for research and production. Pharmedics only works on initial isolation of extracts, though. We leave the actual drug development and commercialization up to the big boys."

"The 'big boys'?"

"Yeah, Pfizer, Unilever—big multinational pharmaceutical firms. They've got the money and the power to create the drugs and push them through the American Food and Drug Administration and such. But tell me, what do you do, um...I can't believe I forgot your name already..."

Angela's seatmate smiled graciously. "Roger. Don't worry about it—I'm an artist, a sculptor. I'm bringing a commissioned work to Cape Town to be placed in front of the headquarters of a shipbuilding company. I work with metal. The pieces of the sculpture are all down in the baggage compartment. I'm going to South Africa to put them together."

"Well, well," beamed Angela, "that's basically what I'm going to Cape Town to do. I'm no artist, though. I'm supposed to figure out how a whole bunch of puzzle pieces fit together, even though I have no idea what the end product is supposed to look like."

Temporarily saved by the impending arrival of the dinner cart from having to explain further, Angela leaned back in her seat and decided to close her eyes for a moment. She recalled the conversation she'd had the previous week with her company's president, David Campbell, when she was initially dispatched on this mission.

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"Angela, I want you to know that you've done incredible work coordinating the clinical trials of P57. It has enormous commercial potential for the development of weight loss drugs and Pfizer is very interested in taking it to the next level. But Angela, we've hit a major roadblock. We can't sell P57 to Pfizer until we work things out with the San. They are claiming that they have rights to the extract because they originally discovered its medicinal qualities. I've got their lawyer, reporters from the International Herald Tribune, a bunch of human rights organizations, and the governments of Namibia, Botswana, and South Africa breathing down my neck...it's an unbelievable mess. I didn't even know that Bushmen existed anymore. I need you to go over to South Africa, meet with the different groups, and make everybody happy."

Angela's heart pounded. She was used to bringing diverse people together from multiple countries to work as a drug development team, but this sounded much more complicated than what she usually did. "David, I'm not sure I understand what you want me to do. Why do we have a problem with the San? They don't have a license to P57, we do."

Taking off his glasses, David Campbell stood and began pacing the room. "We purchased the license to develop an extract from the initial patent holder for Hoodia gordonii plant, the Council for Scientific and Industrial Research (CSIR). Although it is a government institution sponsored by Namibia, Botswana, and South Africa, the CSIR did not consult with the San, who live in those countries, before applying for the patent. Even if they had approached the San, they may not have cooperated because they don't trust the government. The San's nomadic way of life has been seriously endangered by development in southern Africa. The San are poverty-stricken and they lack education and access to information, so they have little power to negotiate or profit from developing their knowledge of medicinal plants such as Hoodia gordonii...anyway, a South African non-governmental organization called BioWatch found out about the CSIR agreement with Pharmedics and leaked it to the San and to the press. That's how this whole problem started."

Angela was starting to catch on. "So do the San believe they are the true owners of Hoodia? Do they want some sort of monetary compensation for their knowledge of Hoodia?"

"I wish it were that simple. To tell you the truth, the San find the very idea that anyone should pay them for their knowledge morally abhorrent. The San value knowledge as a collective resource. What's more, the whole patent process makes little sense to them. They don't see how life—even plant life—can be 'owned.'"

Sitting back down at his desk, Campbell went on to explain how matters were made even more complicated by the fact that the San are not a single community, but a group of multiple far-flung nomadic communities that travel throughout South Africa, Namibia, and Botswana. Although the San decided not to pursue their 'no patents on life' beliefs in court, they did want to negotiate a benefits-sharing agreement, with Hoodia royalties being used to alleviate poverty and sustain endangered aspects of San culture. The distribution of such benefits was problematic. Even if an agreement could be reached between the CSIR, Pharmedics, and the San, how could a system be created to fairly compensate multiple nomadic San groups across three countries?

Angela was overwhelmed but determined. "David, I can't believe what a puzzle you've placed in front of me. There are so many groups involved...I'll go to Cape Town, but I can't promise I'll make everyone happy. I'll try to help everyone see how complicated this is and work out some sort of compromise." David sighed. "That's what we need, Angela, a compromise. Just remember, P57 could change a lot of lives for the better, but if we don't put the pieces together no one will benefit."

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"Well good morning, sleepyhead, just in time for breakfast! You passed out without even taking a bite of dinner. I didn't want to wake you—I hope that's o.k. We've only got a few more hours before landing."

"Oh yes, of course. I didn't intend to fall asleep...Roger, can I ask you something? You said you are going to Cape Town to put the pieces of your metal sculpture together. How exactly are you going to do that?"

"Well, you choose your method depending on the types of metals you are working with. If the metals are the same, you can weld them together. It takes a lot of heat and it's dangerous, but if you are careful the joining will last a long time. If the metals are different, it's very difficult to force them together with welding. You generally have to use some sort of fastener like bolts or rivets. You pick the process to match the parts."

Angela took a moment to consider this. "'Pick the process to match the parts.' Maybe I should think of my job in South Africa more as a sculpture than as a puzzle. Thanks, Roger. You've helped me a lot."

Angela leaned back in her seat. She was grateful Roger had asked her what she did for a living; moreover, she was glad she'd chosen to open up to him. She smiled to herself, and this time it was genuine.









**Case Response Rubric -- "The Problem with Hoodia"**  
**what are the issues**

**Q 1 : What is the problem in "The Problem with Hoodia"? Given what you know about the world, (environmental, economic, cultural, political, etc.) influencing the problem?**

Global Awareness: Knowledge of the interrelatedness of local, global, international, and intercultural issues, trends, and systems.	(Knowledge/Comprehension) 1	(Application) 2	(Analysis) 3	(Synthesis/Evaluation) 4
<p>• Does not demonstrate knowledge of prevailing world conditions associated with the problem</p> <p>Student accomplishes the following:                      ✓ fails to cite prevailing world conditions associated with the problem                      ✓ fails to depict interrelatedness of local, global, international, or intercultural issues, trends, or systems associated with the problem</p> <p><b>Example:</b>                      The problem in "The Problem with Hoodia" is that Pharmedics, the pharmaceutical company that Angela works for, is trying to use a drug called P57, which is extracted from the Hoodia gordonii plant in Africa for multinational use. Angela's company had purchased the license to extract and manufacture this drug from the patent holder of the Hoodia gordonii plant, but supposedly this patent holder did not have the consent of the San, the African tribes native to the area, for use of the plant. Angela is sent by her boss, David Campbell, to Cape Town, South Africa to resolve the situation over the use of the plant with the native tribes so that no one is left upset. Angela believes this will be a difficult assignment, since the tribes native to the area are primitive and lack good communication with outsiders.</p> <p><b>Comment:</b> This student summarizes the text of the case and fails to cite prevailing world conditions in their interpretation of the problem.</p>	<p>• Demonstrates incorrect knowledge of prevailing world conditions associated with the problem</p> <p>Student accomplishes the following:                      ✓ presents incorrect depiction of prevailing world conditions associated with the problem                      ✓ presents incorrect depiction of the interrelatedness of local, global, international, or intercultural issues, trends, or systems associated with the problem</p> <p><b>Example:</b>                      The problem is simply that it's a person who works for a company who wants to do something that may not be right and Angela is placed in a position of choosing morality over her job. ... Since the world is basically in a depression because there are wars going on and the U.S. is in a recession, people who haven't lost their job would like to keep it and anyone will do whatever it takes to do so even if it means going against their beliefs and morality. The company mentioned in story is trying to take advantage of the lack of knowledge a group of people have so that they can profit from it and solve a problem of obesity in their country versus trying to support a cause to help communities around the world like the Sansas who suffer from complete poverty. Angela's company is not taking the Sansas into consideration and they are not acknowledging the problems they are facing are much worse and they are trying to profit of the discovery that the Sansas made and not giving them any credit or compensation what so ever. So how low are corrupt is the pharmaceutical company trying to go? they are trying to go as low as they need to in order to reach the settlement where they benefit and profit from it one hundred percent and they don't care who they have to go through to do it. They are being completely selfish.</p> <p><b>Comment:</b> This student presents an incorrect depiction of world conditions associated with the problem. Student fails to cite interrelatedness of issues, trends, or systems associated with the problem.</p>	<p>• Demonstrates, with generalizations, knowledge of prevailing world conditions associated with the problem</p> <p>Student accomplishes the following:                      ✓ generally describes limited number of prevailing world conditions associated with the problem                      ✓ generally describes the interrelatedness of local, global, international, or intercultural issues, trends, or systems associated with the problem</p> <p><b>Example:</b>                      The problem presented in "The Problem with Hoodia" is that modern society's policies conflict with traditional indigenous beliefs. In this case, it is between the pharmaceutical company Pharmedics and the San of Africa. Pharmedics recently bought the patent to P57, extracted from the Hoodia plant. The San thought were the first to discover the properties of Hoodia. However, even though they believe they have the right to it, they do not want monetary gain for their knowledge. For them, life cannot be bought and knowledge belongs to the community. The entire patenting process does not fit within their way of life. Instead, the San want the profits to be evenly shared among the San tribes to help alleviate the poverty the San face. This is further complicated by the fact that the San is composed of several scattered groups across three countries. Even if an outside group agreed to send aid in return for Hoodia, who will be responsible for finding all the San tribes and distributing it? The San know their people live in poverty and simply want to help them. Pharmedics on the other hand, realizes the potential Hoodia has, both in changing lives and bringing in income. P57 may help end obesity. Obesity itself is a widespread problem in America, and affects a larger percentage of Americans than any other nationality. In addition so many other people in America struggle with their weight, whether obese or not. Weight loss is a multi-billion dollar industry. A "miracle drug" could sell thousands, and even more if proven effective. Pharmedics knows that eventually someone will market the drug and they want to keep their right to it.</p> <p><b>Comment:</b> This student generally describes a limited number of world conditions associated with problem and implies that the interrelatedness of these issues affect the nature of the problem and potential solutions.</p>	<p>• Assembles an analysis of the problem based on prevailing world conditions</p> <p>Student accomplishes the following:                      ✓ accurately explains prevailing world conditions with the problem                      ✓ provides specific evidence of or references to interrelated local, global, international, or intercultural issues, trends, or systems associated with the problem</p> <p><b>Example:</b>                      The problem seems to be different ways of thinking. Where Angela comes from, patents protect anything from techniques to discoveries to actual inventions. Angela's company wants to have the patent for discovering a use for Hoodia, not so much for inventing the plant, but discovering a particular use for it. The San see it differently. They believe knowledge should be free and do not understand the concept of patents because for them, knowledge, discoveries and inventions should be used for the common good, so information on should be shared. Patents are necessary to make royalties, because essentially, the discovery becomes the property of the person and patents are the documents that recognize only that person can profit financially from them and needs to give consent for anyone else to. This ties in with politics, because the San are self-governing and do not have a complicated system of laws like we do and probably do not understand why our methods of doing things have to be so complicated. As they live on nature and do not have need for money or status and are content with that, they do not understand the need for other people to. The real problem is that as they see it, the patent would be stating that a particular company owns the plant, when it is really that the company owns a particular aspect of the plant, the P57 in the aid of weight loss. The plant is still free to everyone, but the one thing extracted from it and advertised for the same effect cannot be done without their consent.</p> <p><b>Comment:</b> This student's analysis is based on a single interpretation of the problem as a patents issue. Student accurately explains the interrelated world conditions associated with this interpretation, e.g. politics and cultural practice</p>	<p>• Synthesizes and/or evaluates differing interpretations of the problem, based on prevailing world conditions</p> <p>Student accomplishes previous and one or more of the following:                      ✓ presents more than one prevailing world conditions                      ✓ bases evaluation of the problem on the interrelatedness of local, global, international, or intercultural issues, trends, or systems</p> <p><b>Example:</b>                      There isn't just one problem with regards to the plant Hoodia. As we know, the ethnic groups from the place where it is grown are declaring that they are the first ones to have developed medicine with it. Today's society is very concerned with regards to copyright and patent issues. However, the bushmen from this area of the world have absolutely no idea what these are, but they want credit for having developed the medicine out of this plant. With regards to the environmental issues that this would cause, and given how human beings and their unlimited wants are, a laboratory development could lead to the loss of fertility of the land along with many other environmental problems like imbalance of the nature of the place, augment global warming, and many many others. With regards to economic problems, people might not even be able to pay for the medicine because in order to produce it, the plant has to be harvested all the way in South Africa. Along with this, tariffs may add to the price of it, making it a really expensive (yet helpful) medicine. Cultural problems were already stated with the fact that the tribes wanted the credit for having created the medicine and having used it for many years. Of course, the worst problem is the political situation. Do governments of the countries were the tribes live in support them or do they support the labs in order to pursue a profit given the high rate of poverty in those countries?</p> <p><b>Comment:</b> This student synthesizes multiple interpretations of the problem based on understanding of prevailing world conditions. Student evaluates the problem based on the interrelatedness of the issues presented</p>



Case Response Rubric -- "The Problem with Hoodia"

Q 2: What perspectives need to be taken into account in order to find a solution to the problem?

Global Perspective: Ability to develop a multi-perspective analysis of local, global, international, and intercultural problems.				
0	1	2	3	4
(Knowledge/Comprehension)	(Application)	(Analysis)	(Synthesis/Evaluation)	
<p>• Does not recognize or does not acknowledge the legitimacy of differences in perspectives pertaining to the problem</p> <p>Student accomplishes the following:                      ✓ identifies one perspective and does not recognize other perspectives pertaining to the problem</p> <p><b>Example:</b>                      Only one perspective needs to be taken into account, and that is of the people and of the native Sansas. If one does value the reasons of the Sansas and their culture, achieving a compromise may be easier done than said. After all, if Hoodia does turn out to be a successful medical plant, then what choice would the Sansas have against their government, the people, and multi-billion dollar corporations.</p> <p><b>Comment:</b> This student identifies only one perspective pertaining to the problem.</p>	<p>• Identifies a limited number of perspectives pertaining to the problem</p> <p>Student accomplishes the following:                      ✓ identifies a limited number of perspectives pertaining to the problem                      ✓ identifies only those perspectives explicitly stated in article</p> <p><b>Example:</b>                      Both perspectives, African and American's, are valid. Pharmacies are just willing to improve their industry, and the San is just defending their beliefs. As the lecture says, it is very hard to find all the tribes member of the San since they are nomads and they are dispersed on around three countries. Because of this, it's almost impossible to set down negotiation tables between both parties, even though it would be the ideal resolution. Pharmacies is already involved into a complex problem, so they should sit down and discuss how can they benefit their interests, without harming others. The lack of education, the poverty, and the ancient traditions, are making even worse every issue already existent in that continent. That's why organisms such as the UN should work even harder that they are already doing it to help these people, who seem to be stocked in their own disgrace. Think it this way, if an illiterate try to governs another one, it will surely be a hopeless case and there would be anything to do. Teach the people, and then show them how to be greater everyday.</p> <p><b>Comment:</b> This student identifies only two perspectives pertaining to the problem. Student also incorrectly labels these perspectives as "American" and "African."</p>	<p>• Identifies multiple perspectives pertaining to the problem however, does not analyze the influences on differing perspectives</p> <p>Student accomplishes previous and one or more of the following:                      ✓ explains the influences on differing perspectives                      ✓ compares and/or contrasts differing perspectives</p> <p><b>Example:</b>                      Perspectives that need to be taken into consideration are the San, Pharmacies, the government of the countries involved, and the potential buyers of the product. The San have lived the same lifestyle for generations. Their beliefs are engrained in every part of their daily lives. The fact that they continue to live the same way shows how they have rejected the customs and values of modern society. The patent of Hoodia is a foreign concept to them so naturally they are wary and do not want to be used by others. Second, Pharmacies does not want to lose this opportunity. With so many brands and ingredients available, having the patent to an important one can bring in a large revenue and let them keep the company alive and maybe expand it. On another note, Africa was notoriously colonized. Throughout history their resources have been used and abused. Each time another country comes in and tries to claim African resources for their own, the people living in Africa have felt the effect of it. Thus, the government may not want the right to local resources, like the Hoodia plant, sold to other countries unless they get something in return. Finally, potential buyers will eventually hear about the situation surrounding the retrieval of P57. Depending on how heavily the news cover it and how the situation was resolved, could change whether they will continue to use this product. Diet pills are plentiful and if one loses favor with the market, a better cheaper one will come to take it's place.</p> <p><b>Comment:</b> This student identifies multiple perspectives pertaining to the problem, including one not explicitly stated in the case. Student explains the influences on the differing perspectives.</p>	<p>• Assembles an analysis of multiple perspectives pertaining to the problem</p> <p>Student accomplishes previous and one or more of the following:                      ✓ explains the influences on differing perspectives                      ✓ compares and/or contrasts differing perspectives</p> <p><b>Example:</b>                      Perspectives that need to be taken into consideration are the San, Pharmacies, the government of the countries involved, and the potential buyers of the product. The San have lived the same lifestyle for generations. Their beliefs are engrained in every part of their daily lives. The fact that they continue to live the same way shows how they have rejected the customs and values of modern society. The patent of Hoodia is a foreign concept to them so naturally they are wary and do not want to be used by others. Second, Pharmacies does not want to lose this opportunity. With so many brands and ingredients available, having the patent to an important one can bring in a large revenue and let them keep the company alive and maybe expand it. On another note, Africa was notoriously colonized. Throughout history their resources have been used and abused. Each time another country comes in and tries to claim African resources for their own, the people living in Africa have felt the effect of it. Thus, the government may not want the right to local resources, like the Hoodia plant, sold to other countries unless they get something in return. Finally, potential buyers will eventually hear about the situation surrounding the retrieval of P57. Depending on how heavily the news cover it and how the situation was resolved, could change whether they will continue to use this product. Diet pills are plentiful and if one loses favor with the market, a better cheaper one will come to take it's place.</p> <p><b>Comment:</b> This student identifies multiple perspectives pertaining to the problem, including one not explicitly stated in the case. Student explains the influences on the differing perspectives.</p>	<p>• Integrates multiple perspectives into a multifaceted interpretation of the problem</p> <p>Student accomplishes previous and one or more of the following:                      ✓ presents a synthesized discussion of multiple perspectives                      ✓ offers possible solution/s for the problem                      ✓ evaluates the problem and/or solution/s</p> <p><b>Example:</b>                      The answer to the problem lies within the questions asked. Angela must first find out what are the main objectives of all who are involved. The Bushmen, the African government, the CSIR, the multinational pharmaceutical firms and most importantly her company. Pharmacies, must be considered when determining how to unravel the knot. With so many interests to take into account the significance of each group must be assessed and a compromise obviously formed. However, the problem is not how many perspectives there are to consider, it is deciding which ones weigh more on the scale of importance and how to exclude the impertinent influences. Therefore, for each group there are questions that must be asked such as what does this group want and why? What influences this group or drives their decisions? What are the positive outcomes if their desired goal is not achieved? And the negatives? What are the long-term and short-term effects of the goals? Once all the questions to consider are mapped out then a plan of attack is in place. Based on all these answers for each group, it can be thoroughly cogitated and responsibly determined which perspectives should be prioritized to create a solution. Despite how remnant it might be of the American attitude toward Native Americans in the 19<sup>th</sup> century, I believe that the most prominent group in this situation is the pharmaceutical companies who are trying to help the modern population rather than preserving an ancient culture. To me, contemporary times are a whole different universe than that of the nomadic African natives, one that dominates the majority of the earth's surface and that will continue to grow. Therefore, all efforts should be made with the intentions of contributing to the bettering of our future society, so it will continue to positively thrive rather than slowly regress backwards into savage times. However, my perspective is not one to consider when finding a solution to this problem.</p> <p><b>Comment:</b> This student synthesizes the discussion of multiple perspectives by presenting an analytical framework, i.e. essential questions concerning stakeholder objectives. Student offers a potential solution to the problem, as well as a possible evaluation of the solution in terms of her own perspective and the perspectives of others.</p>